



1  
00:00:07,120 --> 00:00:10,790  
this week at nasa

2  
00:00:17,109 --> 00:00:14,950  
we set friday april 29th that 3 47 pm is

3  
00:00:18,870 --> 00:00:17,119  
a launch time for the mission that

4  
00:00:21,109 --> 00:00:18,880  
announcement came at the conclusion of

5  
00:00:22,710 --> 00:00:21,119  
the mission's flight readiness review

6  
00:00:25,109 --> 00:00:22,720  
where shuttle managers expressed

7  
00:00:27,429 --> 00:00:25,119  
satisfaction with the preparations for

8  
00:00:28,830 --> 00:00:27,439  
the program's next to last flight this

9  
00:00:31,269 --> 00:00:28,840  
is going to be a very complex

10  
00:00:33,110 --> 00:00:31,279  
choreography a lot of

11  
00:00:34,470 --> 00:00:33,120  
small tasks that all have to go when

12  
00:00:36,150 --> 00:00:34,480  
they're supposed to or they have to

13  
00:00:37,510 --> 00:00:36,160

ripple down and find new homes which

14

00:00:39,270 --> 00:00:37,520

makes it a big challenge for the mission

15

00:00:41,270 --> 00:00:39,280

operations team and they have a pretty

16

00:00:43,510 --> 00:00:41,280

good plan with a lot of backups in it to

17

00:00:45,990 --> 00:00:43,520

be able to handle that during the 14-day

18

00:00:48,229 --> 00:00:46,000

mission the alpha magnetic spectrometer

19

00:00:50,310 --> 00:00:48,239

and spare parts will be delivered to the

20

00:00:52,790 --> 00:00:50,320

international space station by endeavour

21

00:00:55,750 --> 00:00:52,800

and its crew of commander mark kelly

22

00:00:58,389 --> 00:00:55,760

pilot greg johnson european space agency

23

00:01:00,630 --> 00:00:58,399

astronaut roberto vittori and nasa

24

00:01:03,029 --> 00:01:00,640

mission specialists mike fink drew

25

00:01:05,670 --> 00:01:03,039

feustel and greg chamitov

26

00:01:08,230 --> 00:01:05,680

chamitov says his tv viewing habits as a

27

00:01:10,710 --> 00:01:08,240

youngster fueled his desire for space

28

00:01:12,950 --> 00:01:10,720

travel i have to admit i grew up

29

00:01:16,070 --> 00:01:12,960

watching a lot of star trek um with my

30

00:01:17,590 --> 00:01:16,080

dad and he was a he was a space fanatic

31

00:01:18,789 --> 00:01:17,600

this was in montreal

32

00:01:20,870 --> 00:01:18,799

and uh

33

00:01:21,749 --> 00:01:20,880

you know and you know space program was

34

00:01:23,109 --> 00:01:21,759

was

35

00:01:25,590 --> 00:01:23,119

budding and

36

00:01:27,030 --> 00:01:25,600

and uh you know he would also you know

37

00:01:28,630 --> 00:01:27,040

see the you know pictures of mission

38

00:01:29,749 --> 00:01:28,640

control and say who are those guys how

39

00:01:31,910 --> 00:01:29,759

do they get to work there that's got to

40

00:01:34,390 --> 00:01:31,920

be the most amazing job in the world and

41

00:01:36,950 --> 00:01:34,400

the funny thing was you know for me

42

00:01:39,030 --> 00:01:36,960

my dad said that he knew captain kirk

43

00:01:41,270 --> 00:01:39,040

because he knew him from high school in

44

00:01:43,590 --> 00:01:41,280

montreal and so at that age i was

45

00:01:46,870 --> 00:01:43,600

probably five or six you know and i and

46

00:01:48,630 --> 00:01:46,880

uh and so it was a strange mixture of

47

00:01:50,310 --> 00:01:48,640

fiction and reality like i knew this was

48

00:01:52,149 --> 00:01:50,320

fiction but on the other hand that my

49

00:01:53,030 --> 00:01:52,159

dad knows this guy

50

00:01:54,950 --> 00:01:53,040

you know

51  
00:01:58,149 --> 00:01:54,960  
and i somehow that maybe made things

52  
00:02:03,749 --> 00:02:01,429  
nasa has awarded more than 269 million

53  
00:02:06,069 --> 00:02:03,759  
dollars for the continued development of

54  
00:02:08,710 --> 00:02:06,079  
commercial transportation systems to

55  
00:02:09,749 --> 00:02:08,720  
carry astronauts to and from low earth

56  
00:02:12,470 --> 00:02:09,759  
orbit

57  
00:02:15,110 --> 00:02:12,480  
four u.s companies blue origin of kent

58  
00:02:17,990 --> 00:02:15,120  
washington the sierra nevada corporation

59  
00:02:20,070 --> 00:02:18,000  
louisville colorado spacex of hawthorne

60  
00:02:22,229 --> 00:02:20,080  
california and the boeing company in

61  
00:02:24,309 --> 00:02:22,239  
houston received the awards in the

62  
00:02:27,589 --> 00:02:24,319  
second round of nasa's commercial crew

63  
00:02:30,150 --> 00:02:27,599

development or ccdev effort the money

64

00:02:31,670 --> 00:02:30,160

will accelerate the availability of u.s

65

00:02:34,710 --> 00:02:31,680

commercial crew transportation

66

00:02:36,949 --> 00:02:34,720

capabilities and reduce the gap in u.s

67

00:02:39,990 --> 00:02:36,959

human space flight capability nasa

68

00:02:42,390 --> 00:02:40,000

should be out breaking the barriers

69

00:02:44,070 --> 00:02:42,400

pushing the state-of-the-art and by

70

00:02:46,309 --> 00:02:44,080

transferring this function over to the

71

00:02:48,390 --> 00:02:46,319

private sector it will allow us to focus

72

00:02:50,309 --> 00:02:48,400

on the really hard stuff but beyond

73

00:02:54,390 --> 00:02:50,319

low-earth orbit exploration mission that

74

00:02:58,550 --> 00:02:56,390

engineers at the marshall space flight

75

00:03:01,110 --> 00:02:58,560

center have begun final round-the-clock

76

00:03:03,270 --> 00:03:01,120

cryogenic testing of the first six

77

00:03:06,470 --> 00:03:03,280

segments that will form the james webb

78

00:03:08,229 --> 00:03:06,480

space telescope's primary mirror

79

00:03:10,070 --> 00:03:08,239

these tests in the space-like

80

00:03:12,470 --> 00:03:10,080

environment of marshall's x-ray and

81

00:03:14,710 --> 00:03:12,480

cryogenic facility will confirm the

82

00:03:16,949 --> 00:03:14,720

mirror's expected response to the

83

00:03:19,110 --> 00:03:16,959

extreme temperatures of space prior to

84

00:03:20,630 --> 00:03:19,120

integration into the telescope's

85

00:03:23,589 --> 00:03:20,640

permanent housing

86

00:03:26,869 --> 00:03:23,599

each mirror segment is about 4.3 feet in

87

00:03:28,949 --> 00:03:26,879

diameter and weighs some 88 pounds

88

00:03:31,430 --> 00:03:28,959

they're made of a lightweight but strong

89

00:03:33,990 --> 00:03:31,440  
metal called beryllium and coated with a

90

00:03:35,750 --> 00:03:34,000  
microscopically thin layer of gold

91

00:03:37,190 --> 00:03:35,760  
enabling the mirror to efficiently

92

00:03:39,430 --> 00:03:37,200  
collect light

93

00:03:42,149 --> 00:03:39,440  
during cryogenic testing the mirrors are

94

00:03:44,470 --> 00:03:42,159  
placed in a helium cooled vacuum chamber

95

00:03:47,910 --> 00:03:44,480  
and subjected to temperatures as low as

96

00:03:50,710 --> 00:03:47,920  
-415 degrees the easy way to think about

97

00:03:52,869 --> 00:03:50,720  
why we do these tests for web is it's an

98

00:03:55,509 --> 00:03:52,879  
infrared telescope that's designed to

99

00:03:58,070 --> 00:03:55,519  
look for faint heat signals from the

100

00:04:00,550 --> 00:03:58,080  
universe the telescope needs to be cold

101  
00:04:03,429 --> 00:04:00,560  
to detect these signals we have to

102  
00:04:05,750 --> 00:04:03,439  
understand how the telescope mirrors

103  
00:04:08,309 --> 00:04:05,760  
behave as they change in temperature and

104  
00:04:10,309 --> 00:04:08,319  
get very cold themselves because we know

105  
00:04:12,070 --> 00:04:10,319  
that things change their shape as they

106  
00:04:14,550 --> 00:04:12,080  
change their temperature testing will

107  
00:04:16,550 --> 00:04:14,560  
continue for eight weeks eighteen

108  
00:04:18,469 --> 00:04:16,560  
segments will make up the primary mirror

109  
00:04:21,110 --> 00:04:18,479  
webb will use for its state-of-the-art

110  
00:04:24,629 --> 00:04:21,120  
infrared observations picking up where

111  
00:04:27,350 --> 00:04:24,639  
hubble leaves off jwst will be the first

112  
00:04:31,270 --> 00:04:27,360  
of the next generation of nasa's great

113  
00:04:35,830 --> 00:04:33,830

as for the hubble space telescope it

114

00:04:38,070 --> 00:04:35,840

presented this rosy picture to

115

00:04:40,710 --> 00:04:38,080

astronomers on the celebration of the

116

00:04:41,749 --> 00:04:40,720

21st anniversary of its deployment into

117

00:04:43,990 --> 00:04:41,759

space

118

00:04:46,670 --> 00:04:44,000

hubble captured an especially photogenic

119

00:04:48,310 --> 00:04:46,680

group of interacting galaxies called

120

00:04:50,550 --> 00:04:48,320

arp273

121

00:04:54,469 --> 00:04:50,560

the larger of the spiral galaxies known

122

00:04:56,150 --> 00:04:54,479

as ugc 1810 has a disc that is distorted

123

00:04:58,230 --> 00:04:56,160

into a rose-like shape by the

124

00:05:02,150 --> 00:04:58,240

gravitational pull of the companion

125

00:05:04,950 --> 00:05:02,160

galaxy below it known as ugc 1813

126  
00:05:06,950 --> 00:05:04,960  
a swath of blue jewels across the top is

127  
00:05:09,110 --> 00:05:06,960  
the combined light from clusters of

128  
00:05:10,469 --> 00:05:09,120  
intensely bright and hot young blue

129  
00:05:14,390 --> 00:05:10,479  
stars

130  
00:05:17,189 --> 00:05:14,400  
ultraviolet light

131  
00:05:19,830 --> 00:05:17,199  
arp 273 lies in the constellation

132  
00:05:21,990 --> 00:05:19,840  
andromeda and is roughly 300 million

133  
00:05:24,550 --> 00:05:22,000  
light years away from earth the

134  
00:05:27,749 --> 00:05:24,560  
interaction was imaged on december 17

135  
00:05:30,070 --> 00:05:27,759  
2010 with hubble's wide field camera 3.

136  
00:05:32,070 --> 00:05:30,080  
growing up in farm looking up at the

137  
00:05:35,110 --> 00:05:32,080  
stars thinking what's what's beyond

138  
00:05:37,270 --> 00:05:35,120

there hubble has enabled me to

139

00:05:39,029 --> 00:05:37,280

start penetrating and looking beyond

140

00:05:41,590 --> 00:05:39,039

what i dreamed of as a kid could even be

141

00:05:43,670 --> 00:05:41,600

there so it hubble for me personally has

142

00:05:46,550 --> 00:05:43,680

just has touched my inner being hubble

143

00:05:50,469 --> 00:05:46,560

was deployed by the sts-31 crew of space

144

00:05:52,550 --> 00:05:50,479

shuttle discovery on april 25 1990.

145

00:05:54,629 --> 00:05:52,560

piloting that mission was current nasa

146

00:05:57,110 --> 00:05:54,639

administrator charlie bolden

147

00:05:59,670 --> 00:05:57,120

since then hubble imagery has delighted

148

00:06:02,150 --> 00:05:59,680

and amazed people around the world

149

00:06:05,430 --> 00:06:02,160

rewriting astronomy textbooks with its

150

00:06:09,590 --> 00:06:07,350

well we have a pretty comprehensive

151  
00:06:11,749 --> 00:06:09,600  
database and some very talented people

152  
00:06:14,790 --> 00:06:11,759  
that nasa chief scientist waleed

153  
00:06:17,430 --> 00:06:14,800  
abdullahi helped nasa celebrate the 41st

154  
00:06:19,670 --> 00:06:17,440  
annual earth day with a series of live

155  
00:06:21,189 --> 00:06:19,680  
satellite interviews with tv stations

156  
00:06:23,110 --> 00:06:21,199  
around the country

157  
00:06:25,350 --> 00:06:23,120  
highlighted were nasa's top five

158  
00:06:27,350 --> 00:06:25,360  
satellite images of planet earth that

159  
00:06:29,749 --> 00:06:27,360  
had proven most popular with social

160  
00:06:31,749 --> 00:06:29,759  
media users around the world the

161  
00:06:34,390 --> 00:06:31,759  
pictures ranging from post-tsunami

162  
00:06:36,629 --> 00:06:34,400  
sendai japan to the enormous hurricane

163  
00:06:39,029 --> 00:06:36,639

earl are examples of the earth

164

00:06:41,510 --> 00:06:39,039

monitoring data routinely captured by

165

00:06:43,749 --> 00:06:41,520

nasa science mission satellites we make

166

00:06:45,830 --> 00:06:43,759

these images available to people all

167

00:06:48,469 --> 00:06:45,840

over the world we work closely with our

168

00:06:50,870 --> 00:06:48,479

agency partners and people take these

169

00:06:53,350 --> 00:06:50,880

and either just look at them for

170

00:06:55,749 --> 00:06:53,360

their own interests or turn them into

171

00:06:58,309 --> 00:06:55,759

information turn them into science other

172

00:07:00,469 --> 00:06:58,319

earth day programs included a live web

173

00:07:03,110 --> 00:07:00,479

chat from greenland with researcher

174

00:07:05,510 --> 00:07:03,120

laura koenig about nasa's operation ice

175

00:07:07,909 --> 00:07:05,520

bridge a video about a climate and

176

00:07:09,589 --> 00:07:07,919

weather tracking satellite nasa plans to

177

00:07:11,189 --> 00:07:09,599

launch later this year

178

00:07:13,510 --> 00:07:11,199

and the announcement by the goddard

179

00:07:16,629 --> 00:07:13,520

space flight center of a contest for you

180

00:07:19,430 --> 00:07:16,639

to create your own youtube videos using

181

00:07:21,510 --> 00:07:19,440

nasa earth science visuals and themes

182

00:07:27,990 --> 00:07:21,520

here's an excerpt from a sample goddard

183

00:07:33,510 --> 00:07:30,070

for more on the contest and other nasa

184

00:07:39,029 --> 00:07:33,520

earth day news visit [nasa.gov](http://nasa.gov)

185

00:07:39,039 --> 00:07:44,390

and now centerpieces

186

00:07:47,749 --> 00:07:46,230

college and high school rocket teams

187

00:07:49,270 --> 00:07:47,759

from across the country gathered at the

188

00:07:51,589 --> 00:07:49,280

marshall space flight center for the

189

00:07:53,430 --> 00:07:51,599

10th annual student launch project

190

00:07:55,270 --> 00:07:53,440

activities included tours of the nasa

191

00:07:57,589 --> 00:07:55,280

field center and the u.s space and

192

00:07:59,110 --> 00:07:57,599

rocket center and the rocket fair where

193

00:08:01,110 --> 00:07:59,120

students displayed the rockets and

194

00:08:02,950 --> 00:08:01,120

payloads they spent the previous school

195

00:08:05,189 --> 00:08:02,960

year designing and building with

196

00:08:06,869 --> 00:08:05,199

mentoring help from nasa engineers

197

00:08:09,110 --> 00:08:06,879

student teams mingled to discuss the

198

00:08:10,869 --> 00:08:09,120

various aspects of their projects and

199

00:08:13,270 --> 00:08:10,879

marshall employees offered guidance

200

00:08:17,430 --> 00:08:13,280

about the designs and careers in science

201  
00:08:20,950 --> 00:08:19,110  
the event culminated in the launching of

202  
00:08:23,270 --> 00:08:20,960  
the rockets from bragg farms just

203  
00:08:26,230 --> 00:08:23,280  
outside of huntsville streamed online by

204  
00:08:28,150 --> 00:08:26,240  
nasa tv the agency's academic affairs

205  
00:08:39,269 --> 00:08:28,160  
office challenges each team to build a

206  
00:08:43,670 --> 00:08:41,430  
then launch it as close as possible to

207  
00:08:45,269 --> 00:08:43,680  
an altitude of one mile while they

208  
00:08:47,190 --> 00:08:45,279  
worked on their projects the teams

209  
00:08:49,430 --> 00:08:47,200  
follow the same steps as a professional

210  
00:08:51,670 --> 00:08:49,440  
nasa engineer taking stringent safety

211  
00:08:54,310 --> 00:08:51,680  
precautions and filing regular progress

212  
00:08:57,030 --> 00:08:54,320  
reports with their nasa mentor these are

213  
00:08:59,269 --> 00:08:57,040

new fantastic kinds of opportunities

214

00:09:01,509 --> 00:08:59,279

that colleges and high schools are

215

00:09:03,350 --> 00:09:01,519

really starting to focus on that is just

216

00:09:04,630 --> 00:09:03,360

not learning from books but also giving

217

00:09:08,230 --> 00:09:04,640

students the opportunity to get their

218

00:09:09,910 --> 00:09:08,240

hands dirty to live and learn real life

219

00:09:11,750 --> 00:09:09,920

engineering lessons both from the

220

00:09:13,829 --> 00:09:11,760

failures and from the successes and

221

00:09:15,509 --> 00:09:13,839

we've seen both today

222

00:09:17,670 --> 00:09:15,519

team knight rider from the university of

223

00:09:19,750 --> 00:09:17,680

central florida came closest to one mile

224

00:09:22,550 --> 00:09:19,760

in altitude missing the mark by a mere

225

00:09:24,310 --> 00:09:22,560

70 feet corporate sponsor atk aerospace

226

00:09:26,230 --> 00:09:24,320

systems builder of the space shuttle's

227

00:09:28,230 --> 00:09:26,240

solid rocket boosters provides a cash

228

00:09:30,230 --> 00:09:28,240

award to the university team scoring

229

00:09:32,070 --> 00:09:30,240

highest on the many different aspects of

230

00:09:33,590 --> 00:09:32,080

the student launch projects including

231

00:09:35,750 --> 00:09:33,600

post-launch analysis of rocket

232

00:09:37,670 --> 00:09:35,760

performance and payload for a complete

233

00:09:39,509 --> 00:09:37,680

list of award winners and participants

234

00:09:48,310 --> 00:09:39,519

visit the student launch project's home

235

00:09:52,550 --> 00:09:50,790

march madness continued into april but

236

00:09:56,710 --> 00:09:52,560

it wasn't basketball that had everyone

237

00:10:00,389 --> 00:09:58,710

instead it was hundreds of engineering

238

00:10:03,430 --> 00:10:00,399

savvy high school students with a

239

00:10:06,069 --> 00:10:03,440

passion for robotics

240

00:10:07,910 --> 00:10:06,079

63 teams competed april 8th through 9th

241

00:10:09,670 --> 00:10:07,920

in the first robotics virginia regional

242

00:10:11,910 --> 00:10:09,680

tournament called logo motion at

243

00:10:14,230 --> 00:10:11,920

virginia commonwealth university's segal

244

00:10:16,150 --> 00:10:14,240

center students spent six weeks of

245

00:10:17,990 --> 00:10:16,160

intense work building and programming

246

00:10:19,670 --> 00:10:18,000

their robots so they could be ready for

247

00:10:21,910 --> 00:10:19,680

the competition and have a chance to

248

00:10:23,910 --> 00:10:21,920

compete on the national level the kids

249

00:10:25,509 --> 00:10:23,920

work really hard the kids work

250

00:10:28,150 --> 00:10:25,519

incredibly hard

251  
00:10:30,550 --> 00:10:28,160  
everybody here does the mentors everyone

252  
00:10:31,829 --> 00:10:30,560  
pitches in everyone's you know we've got

253  
00:10:34,389 --> 00:10:31,839  
there's more people here than just

254  
00:10:37,430 --> 00:10:34,399  
fabricators or animators or people doing

255  
00:10:40,230 --> 00:10:37,440  
public affairs or people doing buttons

256  
00:10:42,550 --> 00:10:40,240  
so it is a lot of stuff going on a lot

257  
00:10:45,350 --> 00:10:42,560  
to do and it's more than just building a

258  
00:10:47,509 --> 00:10:45,360  
robot when it came time to battle teams

259  
00:10:49,430 --> 00:10:47,519  
work together to fight for a win

260  
00:10:51,269 --> 00:10:49,440  
team spirit was everywhere

261  
00:10:53,750 --> 00:10:51,279  
teamwork is really important if you

262  
00:10:55,350 --> 00:10:53,760  
don't work well with a team then it's

263  
00:10:57,590 --> 00:10:55,360

you're probably not going to do very

264

00:10:59,670 --> 00:10:57,600

well in the match the nasa knights and

265

00:11:01,829 --> 00:10:59,680

triple helix both sponsored by nasa

266

00:11:04,069 --> 00:11:01,839

langley research center walked away from

267

00:11:05,990 --> 00:11:04,079

the virginia regional as winners

268

00:11:07,910 --> 00:11:06,000

i'd have to say that this year we've

269

00:11:11,030 --> 00:11:07,920

just kind of perfected how we play the

270

00:11:13,190 --> 00:11:11,040

game and everything and we just really

271

00:11:14,389 --> 00:11:13,200

know what we're doing we get there you

272

00:11:16,069 --> 00:11:14,399

know we say okay let's do a

273

00:11:18,310 --> 00:11:16,079

functionality check every time we go to

274

00:11:19,509 --> 00:11:18,320

the pit let's do a functionality check

275

00:11:21,590 --> 00:11:19,519

make sure everything's working if

276

00:11:23,269 --> 00:11:21,600

something's not working we take care of

277

00:11:24,870 --> 00:11:23,279

it then we just go back out there and

278

00:11:26,150 --> 00:11:24,880

keep playing and play the same game

279

00:11:27,910 --> 00:11:26,160

every time

280

00:11:29,829 --> 00:11:27,920

now it's off to the tournament in st

281

00:11:35,590 --> 00:11:29,839

louis where the nasa knights and triple

282

00:11:40,470 --> 00:11:38,069

they came from everywhere braving

283

00:11:43,030 --> 00:11:40,480

earthly thunderstorms and perhaps some

284

00:11:45,430 --> 00:11:43,040

intergalactic interference to attend the

285

00:11:48,389 --> 00:11:45,440

third yuri's night hampton roads

286

00:11:50,790 --> 00:11:48,399

mauser johnson from the planet nebular

287

00:11:53,269 --> 00:11:50,800

some not only dressed for the occasion

288

00:11:55,910 --> 00:11:53,279

they also changed their appearance

289

00:11:56,949 --> 00:11:55,920

it's inspired by star trek orion slave

290

00:11:59,670 --> 00:11:56,959

girls

291

00:12:01,670 --> 00:11:59,680

more than 600 aliens in earthlings

292

00:12:04,389 --> 00:12:01,680

celebrated the 50th anniversary of the

293

00:12:05,670 --> 00:12:04,399

first space flight by yuri gagarin the

294

00:12:08,069 --> 00:12:05,680

crowd at the virginia air and space

295

00:12:09,829 --> 00:12:08,079

center also paid homage to the 30th

296

00:12:11,030 --> 00:12:09,839

anniversary of the first space shuttle

297

00:12:12,870 --> 00:12:11,040

liftoff

298

00:12:14,069 --> 00:12:12,880

a team of three honored the shuttle in a

299

00:12:16,710 --> 00:12:14,079

special way

300

00:12:19,430 --> 00:12:16,720

one lego block at a time construction

301  
00:12:21,910 --> 00:12:19,440  
officially started on january 11th and

302  
00:12:23,670 --> 00:12:21,920  
it was finished about a couple weeks ago

303  
00:12:25,829 --> 00:12:23,680  
and then of course i worked on software

304  
00:12:27,269 --> 00:12:25,839  
there's about 8 000 pieces in total

305  
00:12:28,949 --> 00:12:27,279  
that's an estimate

306  
00:12:30,710 --> 00:12:28,959  
i didn't really count them as i built

307  
00:12:32,710 --> 00:12:30,720  
yuri's night is billed as the world's

308  
00:12:34,230 --> 00:12:32,720  
biggest space party with celebrations

309  
00:12:36,069 --> 00:12:34,240  
all over the globe

310  
00:12:37,670 --> 00:12:36,079  
this one sponsored in part by nasa's

311  
00:12:39,829 --> 00:12:37,680  
langley research center

312  
00:12:41,910 --> 00:12:39,839  
featured dancing

313  
00:12:47,030 --> 00:12:41,920

a spaced out drill team

314

00:12:50,389 --> 00:12:48,629

interwoven with the entertainment was

315

00:12:53,750 --> 00:12:50,399

the underlying message

316

00:12:55,430 --> 00:12:53,760

nasa and technology are cool people are

317

00:12:56,710 --> 00:12:55,440

crazy interested they're they really

318

00:12:58,470 --> 00:12:56,720

don't under they didn't know that

319

00:13:00,790 --> 00:12:58,480

robotics had gotten this easy and it's

320

00:13:02,710 --> 00:13:00,800

cheap and available basically to

321

00:13:05,110 --> 00:13:02,720

everyone i just love all the space stuff

322

00:13:06,389 --> 00:13:05,120

and love to dress up

323

00:13:07,990 --> 00:13:06,399

and see all of the

324

00:13:10,629 --> 00:13:08,000

excellent demonstrations they have down

325

00:13:13,430 --> 00:13:10,639

there demonstrations that confirmed that

326

00:13:16,870 --> 00:13:13,440

space is an exciting destination worth

327

00:13:22,470 --> 00:13:19,750

and that's this week at nasa