



1
00:00:06,230 --> 00:00:14,330
this week at NASA

2
00:00:19,550 --> 00:00:16,070
taking off from the Dryden Flight

3
00:00:22,040 --> 00:00:19,560
Research Center NASA 905 the shuttle

4
00:00:24,230 --> 00:00:22,050
carrier aircraft began the process of

5
00:00:27,260 --> 00:00:24,240
delivering each of three space shuttle

6
00:00:29,420 --> 00:00:27,270
orbiters to its final resting place its

7
00:00:31,850 --> 00:00:29,430
first stop was the kennedy space center

8
00:00:34,220 --> 00:00:31,860
where the SCA flight crew would work

9
00:00:36,470 --> 00:00:34,230
with que se crews to prepare discovery

10
00:00:39,799 --> 00:00:36,480
for its ferry flight atop the modified

11
00:00:41,270 --> 00:00:39,809
747 to the shuttles new home at the

12
00:00:44,150 --> 00:00:41,280
smithsonian national air and space

13
00:00:46,220 --> 00:00:44,160

museum's udvar-hazy center outside

14

00:00:50,120 --> 00:00:46,230

Washington DC this is sort of an

15

00:00:52,520 --> 00:00:50,130

important event for NASA and for the

16

00:00:53,930 --> 00:00:52,530

Smithsonian for the country and so we're

17

00:00:57,139 --> 00:00:53,940

trying to do the best job that we can

18

00:00:59,060 --> 00:00:57,149

for the delivery for me to actually fly

19

00:01:00,229 --> 00:00:59,070

this with the rest of the crew the

20

00:01:03,410 --> 00:01:00,239

maintenance guys the other flight

21

00:01:06,859 --> 00:01:03,420

engineers I think it's special while a

22

00:01:09,080 --> 00:01:06,869

mate d mate device or MDD is used at

23

00:01:12,080 --> 00:01:09,090

kennedy to lift the orbiter for mounting

24

00:01:14,060 --> 00:01:12,090

to the SCA no such device exists at

25

00:01:16,880 --> 00:01:14,070

Dulles International Airport the ferry

26

00:01:19,180 --> 00:01:16,890

flights destination there the process of

27

00:01:22,400 --> 00:01:19,190

safely lifting discovery off the SCA

28

00:01:25,370 --> 00:01:22,410

requires two large cranes especially

29

00:01:28,040 --> 00:01:25,380

built sling and a team of about 45

30

00:01:30,919 --> 00:01:28,050

people because that process has not been

31

00:01:34,460 --> 00:01:30,929

used in more than 20 years que se crews

32

00:01:36,440 --> 00:01:34,470

rehearsed the left for weeks NASA 905

33

00:01:39,290 --> 00:01:36,450

has piggybacked space shuttles

34

00:01:41,270 --> 00:01:39,300

enterprise endeavour and discovery more

35

00:01:43,249 --> 00:01:41,280

than a hundred times since it was

36

00:01:46,639 --> 00:01:43,259

acquired by the agency from american

37

00:01:49,910 --> 00:01:46,649

airlines in 1974 following delivery of

38

00:01:52,010 --> 00:01:49,920

discovery NASA 905 will ferry enterprise

39

00:01:54,710 --> 00:01:52,020

from would bar has e to the intrepid

40

00:01:56,990 --> 00:01:54,720

museum in new york city endeavour is

41

00:01:59,270 --> 00:01:57,000

scheduled to be similarly moved to the

42

00:02:02,150 --> 00:01:59,280

california science center in los angeles

43

00:02:05,210 --> 00:02:02,160

later this year the second of NASA's

44

00:02:07,309 --> 00:02:05,220

shuttle carrier aircraft NASA 911 was

45

00:02:09,370 --> 00:02:07,319

recently retired at the Dryden Flight

46

00:02:11,630 --> 00:02:09,380

Research Center

47

00:02:14,390 --> 00:02:11,640

but thank you good morning this is a

48

00:02:16,190 --> 00:02:14,400

marker Oh for aviation week and Sperry

49

00:02:18,440 --> 00:02:16,200

of the six crew members living aboard

50

00:02:20,450 --> 00:02:18,450

the International Space Station fielded

51
00:02:22,520 --> 00:02:20,460
questions from reporters during a news

52
00:02:25,120 --> 00:02:22,530
conference shown live on as a television

53
00:02:27,830 --> 00:02:25,130
and streamed on the agency's website

54
00:02:30,380 --> 00:02:27,840
expedition 30 commander dan burbank and

55
00:02:32,500 --> 00:02:30,390
flight engineers Don Pettit and European

56
00:02:35,330 --> 00:02:32,510
Space Agency astronaut Andre Kuiper's

57
00:02:37,190 --> 00:02:35,340
discuss the multitude of activity taking

58
00:02:39,890 --> 00:02:37,200
place onboard the orbiting laboratory

59
00:02:42,710 --> 00:02:39,900
dr. petty you'll be the one reeling in

60
00:02:44,900 --> 00:02:42,720
the Dragon capsule talk about the

61
00:02:47,930 --> 00:02:44,910
importance of this inaugural commercial

62
00:02:50,720 --> 00:02:47,940
cargo run andre and i will be doing this

63
00:02:54,710 --> 00:02:50,730

task and we'll be sharing the robotics

64

00:02:58,640 --> 00:02:54,720

duties for flying the arm from capture

65

00:03:01,730 --> 00:02:58,650

to ultimately birthing it on to the node

66

00:03:03,860 --> 00:03:01,740

nadir port Burbank along with cosmonauts

67

00:03:06,380 --> 00:03:03,870

anton shkaplerov and anatoly ivanishin

68

00:03:08,540 --> 00:03:06,390

wrap up their mission later this month

69

00:03:10,880 --> 00:03:08,550

when the soyuz spacecraft they're

70

00:03:15,470 --> 00:03:10,890

scheduled to return to Earth in lands in

71

00:03:20,089 --> 00:03:17,780

in Houston the National Space Biomedical

72

00:03:21,759 --> 00:03:20,099

Research Institute and Baylor College of

73

00:03:24,080 --> 00:03:21,769

Medicine's Center for space medicine

74

00:03:25,729 --> 00:03:24,090

held the official opening of a new

75

00:03:28,640 --> 00:03:25,739

laboratory that examines the health

76

00:03:30,380 --> 00:03:28,650

risks associated with spaceflight the

77

00:03:32,780 --> 00:03:30,390

new facility opened with support from

78

00:03:34,580 --> 00:03:32,790

NASA brings together scientists from the

79

00:03:37,250 --> 00:03:34,590

government private companies and

80

00:03:38,809 --> 00:03:37,260

universities and it allows them to work

81

00:03:41,089 --> 00:03:38,819

together to solve the mysteries of the

82

00:03:44,300 --> 00:03:41,099

human body and how it reacts to space

83

00:03:46,160 --> 00:03:44,310

this partnership is a shining example of

84

00:03:49,160 --> 00:03:46,170

the possibilities of dedicated

85

00:03:52,039 --> 00:03:49,170

researchers and scientists working with

86

00:03:54,020 --> 00:03:52,049

industry government and academia to

87

00:03:56,780 --> 00:03:54,030

achieve significantly more than the sum

88

00:03:58,520 --> 00:03:56,790

of their parts these scientists are not

89

00:04:00,470 --> 00:03:58,530

only creating experiments that will fly

90

00:04:02,630 --> 00:04:00,480

to the International Space Station but

91

00:04:04,670 --> 00:04:02,640

they are also figuring out ways to bring

92

00:04:07,039 --> 00:04:04,680

their findings down to earth and in the

93

00:04:09,289 --> 00:04:07,049

hospitals and homes some of the research

94

00:04:10,759 --> 00:04:09,299

that was on display included experiments

95

00:04:12,080 --> 00:04:10,769

that look at how the bones in the human

96

00:04:15,890 --> 00:04:12,090

body can be strengthened through

97

00:04:17,659 --> 00:04:15,900

exercise diet and medication how kidney

98

00:04:19,550 --> 00:04:17,669

stones can be detected and moved using

99

00:04:22,069 --> 00:04:19,560

an ultrasound rather than surgery and

100

00:04:24,500 --> 00:04:22,079

how an MRI machine which normally takes

101
00:04:26,930 --> 00:04:24,510
up an entire hospital room can be put in

102
00:04:28,520 --> 00:04:26,940
the palm of your hand it's very exciting

103
00:04:29,990 --> 00:04:28,530
to work on it to be honest you know a

104
00:04:31,700 --> 00:04:30,000
lot of lot of groups that I have worked

105
00:04:33,170 --> 00:04:31,710
with in the past mets most fun working

106
00:04:34,760 --> 00:04:33,180
with NASA was thinking about this

107
00:04:35,460 --> 00:04:34,770
contributing to the space program and

108
00:04:39,530 --> 00:04:35,470
any sort

109
00:04:42,030 --> 00:04:39,540
the goal is to develop it for NASA but a

110
00:04:44,790 --> 00:04:42,040
number of spin-offs on earth here though

111
00:04:46,890 --> 00:04:44,800
that were eager to pursue it well we

112
00:04:49,140 --> 00:04:46,900
choose to go to the moon in this decade

113
00:04:50,730 --> 00:04:49,150

and do the other thing the new research

114

00:04:52,680 --> 00:04:50,740

center is located directly across the

115

00:04:54,390 --> 00:04:52,690

street from rice stadium where President

116

00:04:57,810 --> 00:04:54,400

Kennedy delivered his famous moon speech

117

00:04:59,970 --> 00:04:57,820

in 1962 on hand for the opening were

118

00:05:02,190 --> 00:04:59,980

leadership from Rice University Baylor

119

00:05:07,010 --> 00:05:02,200

College of Medicine the city of Houston

120

00:05:11,010 --> 00:05:09,090

representatives from the Ames Research

121

00:05:13,950 --> 00:05:11,020

Center and the National Park Service

122

00:05:16,110 --> 00:05:13,960

gave the public an up-close look at how

123

00:05:19,110 --> 00:05:16,120

the extreme conditions of California's

124

00:05:22,020 --> 00:05:19,120

Death Valley are helping assaf prepare

125

00:05:24,660 --> 00:05:22,030

for surface exploration of Mars the

126
00:05:26,640 --> 00:05:24,670
first ever Mars and the Mojave festival

127
00:05:29,280 --> 00:05:26,650
featured geology and mini rover

128
00:05:31,820 --> 00:05:29,290
demonstrations a scale model of the Mars

129
00:05:34,800 --> 00:05:31,830
Science Laboratory Curiosity rover and

130
00:05:36,810 --> 00:05:34,810
guided tours of areas whose topography

131
00:05:39,330 --> 00:05:36,820
and characteristics make them ideal

132
00:05:41,820 --> 00:05:39,340
research sites for equipment testing and

133
00:05:45,060 --> 00:05:41,830
evaluation in a Mars like environment

134
00:05:47,220 --> 00:05:45,070
among these sites is Badwater Basin the

135
00:05:49,890 --> 00:05:47,230
lowest point in the continental United

136
00:05:52,469 --> 00:05:49,900
States where specially adapted microbial

137
00:05:55,350 --> 00:05:52,479
life can be found under salt and mineral

138
00:05:57,390 --> 00:05:55,360

deposits Mars Hill which mimics the

139

00:05:59,610 --> 00:05:57,400

boulder-strewn Martian surface first

140

00:06:03,270 --> 00:05:59,620

seen up close by nasa's viking landers

141

00:06:07,670 --> 00:06:03,280

and UVB crater where scientists can plan

142

00:06:10,920 --> 00:06:07,680

crater exploration for missions like MSL

143

00:06:12,659 --> 00:06:10,930

he traveled more than 65 million miles

144

00:06:15,030 --> 00:06:12,669

around the planet while living aboard

145

00:06:17,790 --> 00:06:15,040

the International Space Station for 161

146

00:06:19,500 --> 00:06:17,800

days but a new journey has led astronaut

147

00:06:22,800 --> 00:06:19,510

TJ creamer to the Marshall Space Flight

148

00:06:25,409 --> 00:06:22,810

Center the former expedition 22 23

149

00:06:27,000 --> 00:06:25,419

flight engineer and NASA science officer

150

00:06:30,090 --> 00:06:27,010

is now learning what things are like

151
00:06:32,070 --> 00:06:30,100
from the ground up literally creamer has

152
00:06:33,960 --> 00:06:32,080
been training since last September to

153
00:06:35,850 --> 00:06:33,970
become a payload operations director in

154
00:06:37,980 --> 00:06:35,860
NASA's payload Operations Center at

155
00:06:39,450 --> 00:06:37,990
Marshall he's the first astronaut

156
00:06:41,130 --> 00:06:39,460
certified to lead the team that

157
00:06:43,980 --> 00:06:41,140
coordinates real-time science operations

158
00:06:46,230 --> 00:06:43,990
between the crews on orbit the Johnson

159
00:06:47,510 --> 00:06:46,240
Space Center and international partners

160
00:06:50,270 --> 00:06:47,520
around the world

161
00:06:51,650 --> 00:06:50,280
perhaps with my interests and marshalls

162
00:06:53,150 --> 00:06:51,660
focus that it might be a nice marriage

163
00:06:56,270 --> 00:06:53,160

to bring that operational experience

164

00:06:58,070 --> 00:06:56,280

here share my living on board as well as

165

00:07:00,170 --> 00:06:58,080

to be able to be the liaison and help

166

00:07:02,089 --> 00:07:00,180

both in the payload management as well

167

00:07:06,469 --> 00:07:02,099

as the liaison communications between

168

00:07:09,020 --> 00:07:06,479

Houston and Huntsville the NASA dime

169

00:07:10,490 --> 00:07:09,030

competition in microgravity is underway

170

00:07:13,550 --> 00:07:10,500

at the Glenn Research Center in

171

00:07:15,110 --> 00:07:13,560

Cleveland Ohio this year for student

172

00:07:17,510 --> 00:07:15,120

teams were selected to develop an

173

00:07:19,909 --> 00:07:17,520

experiment for a NASA drop in the

174

00:07:24,649 --> 00:07:19,919

control room of the 2.2 second drop

175

00:07:26,719 --> 00:07:24,659

tower the 79 foot tower gets its name

176
00:07:32,270 --> 00:07:26,729
because when an experiment is dropped

177
00:07:35,659 --> 00:07:32,280
into it one package experiences

178
00:07:38,059 --> 00:07:35,669
weightlessness or microgravity for 2.2

179
00:07:41,089 --> 00:07:38,069
seconds researchers from around the

180
00:07:44,029 --> 00:07:41,099
world uses tower to study the effects of

181
00:07:47,869 --> 00:07:44,039
microgravity on physical phenomena such

182
00:07:49,850 --> 00:07:47,879
as combustion and fluid dynamics and to

183
00:07:52,219 --> 00:07:49,860
develop new technology for future space

184
00:07:55,159 --> 00:07:52,229
missions dropping in a microgravity

185
00:07:57,110 --> 00:07:55,169
environment or dime is a national

186
00:08:00,170 --> 00:07:57,120
competition for high school students in

187
00:08:03,769 --> 00:08:00,180
the 9th through 12th grades and open to

188
00:08:05,719 --> 00:08:03,779

student teams from all 50 states working

189

00:08:07,700 --> 00:08:05,729

with NASA's engineers and scientists is

190

00:08:09,050 --> 00:08:07,710

amazing I mean it is a bit of tip

191

00:08:11,149 --> 00:08:09,060

intimidating because these are our

192

00:08:13,459 --> 00:08:11,159

heroes like this is what we want to do

193

00:08:16,909 --> 00:08:13,469

these are who we want to be when we're

194

00:08:19,370 --> 00:08:16,919

older dine is part of NASA's education

195

00:08:21,920 --> 00:08:19,380

program the program allows the agency to

196

00:08:25,010 --> 00:08:21,930

continuous work around the country to

197

00:08:29,770 --> 00:08:25,020

inspire engage and educate the next

198

00:08:35,000 --> 00:08:32,600

why employees at the Michoud assembly

199

00:08:36,920 --> 00:08:35,010

facility held a ribbon-cutting ceremony

200

00:08:40,130 --> 00:08:36,930

for its robot repair unit known

201

00:08:41,870 --> 00:08:40,140

affectionately as our to the mobile

202

00:08:44,029 --> 00:08:41,880

machine shop is dedicated to helping

203

00:08:47,180 --> 00:08:44,039

teams competing in FIRST Robotics events

204

00:08:49,820 --> 00:08:47,190

make repairs to their robots the r2 unit

205

00:08:55,400 --> 00:08:49,830

was rolled out at the recent first Bayou

206

00:08:57,949 --> 00:08:55,410

regionals in Kenner Louisiana assisted

207

00:09:00,050 --> 00:08:57,959

by adult mentors first robotics teams of

208

00:09:01,760 --> 00:09:00,060

high school student design and build a

209

00:09:04,310 --> 00:09:01,770

robot to compete in the specific

210

00:09:06,170 --> 00:09:04,320

challenge NASA partners with first to

211

00:09:10,340 --> 00:09:06,180

promote stem based careers with the

212

00:09:12,590 --> 00:09:10,350

agency contagion play and how to get

213

00:09:14,449 --> 00:09:12,600

into different agencies the Marshall

214

00:09:17,030 --> 00:09:14,459

Space Flight Center hosted a NASA

215

00:09:19,400 --> 00:09:17,040

woman-owned small business industry day

216

00:09:22,100 --> 00:09:19,410

at the Huntsville Museum of Art more

217

00:09:24,530 --> 00:09:22,110

than 300 small companies learn the how

218

00:09:26,900 --> 00:09:24,540

to's of doing business with NASA their

219

00:09:28,519 --> 00:09:26,910

representatives also got to pitch their

220

00:09:30,680 --> 00:09:28,529

capabilities to Marshall prime

221

00:09:32,810 --> 00:09:30,690

contractors and small business

222

00:09:34,790 --> 00:09:32,820

specialists even though NASA was one of

223

00:09:36,500 --> 00:09:34,800

the only three nett agencies federal

224

00:09:39,470 --> 00:09:36,510

government agencies that achieved our

225

00:09:41,420 --> 00:09:39,480

small business goal we were unable to

226

00:09:43,550 --> 00:09:41,430

achieve our goal in three areas which

227

00:09:45,319 --> 00:09:43,560

are the women-owned small business hub

228

00:09:46,910 --> 00:09:45,329

zone small business and service disabled

229

00:09:48,500 --> 00:09:46,920

veteran small businesses so

230

00:09:51,319 --> 00:09:48,510

administrator Bolden asking you to put

231

00:09:52,880 --> 00:09:51,329

together a plan that we can do extensive

232

00:09:54,620 --> 00:09:52,890

outreach to these three communities

233

00:09:57,290 --> 00:09:54,630

there's one of three industry days that

234

00:09:58,370 --> 00:09:57,300

are planned for fy2012 this will create

235

00:10:00,680 --> 00:09:58,380

some really good networking

236

00:10:02,150 --> 00:10:00,690

opportunities and we hope to that just

237

00:10:03,620 --> 00:10:02,160

will be pay off for many of our

238

00:10:08,580 --> 00:10:03,630

women-owned small businesses you're in

239

00:10:14,890 --> 00:10:12,430

40 years ago on April sixteenth 1972

240

00:10:17,590 --> 00:10:14,900

apollo 16 launched from the kennedy

241

00:10:19,930 --> 00:10:17,600

space center crewed by Commander John

242

00:10:22,210 --> 00:10:19,940

Young lunar module pilot Charlie Duke

243

00:10:24,850 --> 00:10:22,220

and command module pilot Ken Mattingly

244

00:10:27,520 --> 00:10:24,860

it was the tenth manned mission in the

245

00:10:29,830 --> 00:10:27,530

Apollo space program the next-to-last to

246

00:10:32,350 --> 00:10:29,840

land on the moon and the first to land

247

00:10:34,750 --> 00:10:32,360

in the lunar highlands with Mattingly

248

00:10:37,150 --> 00:10:34,760

making observations from orbit young and

249

00:10:44,140 --> 00:10:37,160

Duke spent about 71 hours on the lunar

250

00:10:46,570 --> 00:10:44,150

surface the pair conducted three moon

251
00:10:49,930 --> 00:10:46,580
rocks and most notably drove the lunar

252
00:10:52,720 --> 00:10:49,940
roving bin the LRV a total of about 16

253
00:10:55,120 --> 00:10:52,730
miles the pair collected about 211

254
00:10:57,370 --> 00:10:55,130
pounds of lunar samples that return for

255
00:11:00,010 --> 00:10:57,380
them 11 days later when the Apollo 16

256
00:11:03,300 --> 00:11:00,020
capsule splashed down safely in the

257
00:11:05,920 --> 00:11:03,310
South Pacific and that's this week @nasa

258
00:11:08,080 --> 00:11:05,930
for more on these and other stories or

259
00:11:10,390 --> 00:11:08,090
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