
Lori Meggs Reporting, MSFC

1
00:00:07,040 --> 00:00:12,789
this week at nasa

2
00:00:18,470 --> 00:00:15,829
escorted by a nasa t-38 jet space

3
00:00:21,109 --> 00:00:18,480
shuttle discovery atop the nasa 905

4
00:00:23,670 --> 00:00:21,119
shuttle carrier aircraft made its much

5
00:00:25,750 --> 00:00:23,680
anticipated arrival in the washington dc

6
00:00:29,029 --> 00:00:25,760
metro area

7
00:00:31,109 --> 00:00:29,039
it was the 38th and final time discovery

8
00:00:34,389 --> 00:00:31,119
has traveled piggyback on the modified

9
00:00:35,910 --> 00:00:34,399
boeing 747 and undoubtedly the most

10
00:00:39,110 --> 00:00:35,920
anticipated

11
00:00:41,350 --> 00:00:39,120
onlookers gathered on rooftops

12
00:00:43,270 --> 00:00:41,360
along the national mall

13
00:00:45,990 --> 00:00:43,280

wherever they could

14
00:00:48,229 --> 00:00:46,000
to catch a glimpse of the iconic shuttle

15
00:00:50,790 --> 00:00:48,239
as it was flown overhead i got goose

16
00:00:52,389 --> 00:00:50,800
bumps uh i was watching it through my uh

17
00:00:55,189 --> 00:00:52,399
my telephoto lens as it went over the

18
00:00:55,990 --> 00:00:55,199
wall lincoln monument down here and

19
00:00:58,549 --> 00:00:56,000
really

20
00:01:00,150 --> 00:00:58,559
impressed me emotionally what a defining

21
00:01:01,670 --> 00:01:00,160
moment this is for us because it's the

22
00:01:03,510 --> 00:01:01,680
end of a

23
00:01:05,429 --> 00:01:03,520
an incredible space program there's so

24
00:01:06,710 --> 00:01:05,439
much the shuttle program has done and i

25
00:01:09,030 --> 00:01:06,720
wanted to make sure that my kids had

26
00:01:12,310 --> 00:01:09,040
that personal appreciation of it after a

27
00:01:14,870 --> 00:01:12,320
series of flyovers the sca and the most

28
00:01:17,190 --> 00:01:14,880
prolific space shuttle in history made a

29
00:01:19,670 --> 00:01:17,200
picture-perfect landing at dulles

30
00:01:21,910 --> 00:01:19,680
international airport in advance of its

31
00:01:24,390 --> 00:01:21,920
induction into the smithsonian and

32
00:01:26,550 --> 00:01:24,400
display at the udvar hazy center in

33
00:01:28,550 --> 00:01:26,560
northern virginia to those who say our

34
00:01:32,710 --> 00:01:28,560
best days of space exploration are

35
00:01:35,030 --> 00:01:32,720
behind us i simply must disagree

36
00:01:37,590 --> 00:01:35,040
while it is absolutely wonderful to

37
00:01:39,350 --> 00:01:37,600
reminisce about the past and that is of

38
00:01:41,109 --> 00:01:39,360

course what we come to the smithsonian

39
00:01:44,069 --> 00:01:41,119
museums to do

40
00:01:45,510 --> 00:01:44,079
nasa must continue and does focus on the

41
00:01:48,230 --> 00:01:45,520
future

42
00:01:50,310 --> 00:01:48,240
you need only admire this unbelievable

43
00:01:52,550 --> 00:01:50,320
space shuttle and their accomplishments

44
00:01:55,510 --> 00:01:52,560
to realize that the people

45
00:01:59,590 --> 00:01:55,520
the organizations and the nation

46
00:02:01,510 --> 00:01:59,600
that created them have only just begun

47
00:02:03,910 --> 00:02:01,520
we'll have more coverage of discovery's

48
00:02:06,830 --> 00:02:03,920
trip to the smithsonian on the next

49
00:02:09,430 --> 00:02:06,840
episode of this week at

50
00:02:12,070 --> 00:02:09,440
nasa thank you good morning this is uh

51
00:02:13,910 --> 00:02:12,080
mark caro for aviation week and three of

52
00:02:16,070 --> 00:02:13,920
the six crew members living aboard the

53
00:02:18,070 --> 00:02:16,080
international space station fielded

54
00:02:20,470 --> 00:02:18,080
questions from reporters during a news

55
00:02:23,030 --> 00:02:20,480
conference shown live on nasa television

56
00:02:25,670 --> 00:02:23,040
and streamed on the agency's website

57
00:02:27,910 --> 00:02:25,680
expedition 30 commander dan burbank and

58
00:02:30,630 --> 00:02:27,920
flight engineers don pettit and european

59
00:02:32,630 --> 00:02:30,640
space agency astronaut andre kuipers

60
00:02:34,830 --> 00:02:32,640
discussed the multitude of activity

61
00:02:36,790 --> 00:02:34,840
taking place on board the orbiting

62
00:02:39,430 --> 00:02:36,800
laboratory dr pettit you'll be the one

63
00:02:41,190 --> 00:02:39,440

reeling in the dragon capsule

64
00:02:44,390 --> 00:02:41,200
talk about the importance of this

65
00:02:47,190 --> 00:02:44,400
inaugural commercial cargo run andre and

66
00:02:49,670 --> 00:02:47,200
i will be doing this task and will be

67
00:02:51,190 --> 00:02:49,680
sharing the robotics duties for flying

68
00:02:54,150 --> 00:02:51,200
the arm

69
00:02:55,430 --> 00:02:54,160
from capture to ultimately birthing it

70
00:02:58,790 --> 00:02:55,440
on to

71
00:03:01,270 --> 00:02:58,800
the node nader port burbank along with

72
00:03:03,509 --> 00:03:01,280
cosmonauts anton shkaplerov and anatoly

73
00:03:04,390 --> 00:03:03,519
ivanishin wrap up their mission later

74
00:03:06,550 --> 00:03:04,400
this month

75
00:03:13,509 --> 00:03:06,560
when the soyuz spacecraft are scheduled

76
00:03:17,670 --> 00:03:15,750
in houston the national space biomedical

77
00:03:20,070 --> 00:03:17,680
research institute and baylor college of

78
00:03:21,750 --> 00:03:20,080
medicine's center for space medicine

79
00:03:23,350 --> 00:03:21,760
held the official opening of a new

80
00:03:25,990 --> 00:03:23,360
laboratory that examines the health

81
00:03:27,990 --> 00:03:26,000
risks associated with space flight

82
00:03:30,309 --> 00:03:28,000
the new facility open with support from

83
00:03:32,470 --> 00:03:30,319
nasa brings together scientists from the

84
00:03:34,789 --> 00:03:32,480
government private companies and

85
00:03:36,309 --> 00:03:34,799
universities and it allows them to work

86
00:03:39,350 --> 00:03:36,319
together to solve the mysteries of the

87
00:03:42,070 --> 00:03:39,360
human body and how it reacts to space

88
00:03:43,750 --> 00:03:42,080

this partnership is a shining example of

89
00:03:45,110 --> 00:03:43,760
the possibilities of dedicated

90
00:03:47,589 --> 00:03:45,120
researchers

91
00:03:49,990 --> 00:03:47,599
and scientists working with industry

92
00:03:52,149 --> 00:03:50,000
government and academia to achieve

93
00:03:54,550 --> 00:03:52,159
significantly more than the sum of their

94
00:03:56,229 --> 00:03:54,560
parts these scientists are not only

95
00:03:58,149 --> 00:03:56,239
creating experiments that will fly to

96
00:04:00,149 --> 00:03:58,159
the international space station but they

97
00:04:02,229 --> 00:04:00,159
are also figuring out ways to bring

98
00:04:03,830 --> 00:04:02,239
their findings down to earth and into

99
00:04:05,750 --> 00:04:03,840
hospitals and homes

100
00:04:07,429 --> 00:04:05,760
some of the research that was on display

101
00:04:09,030 --> 00:04:07,439
included experiments that look at how

102
00:04:11,589 --> 00:04:09,040
the bones and the human body can be

103
00:04:12,869 --> 00:04:11,599
strengthened through exercise diet and

104
00:04:14,630 --> 00:04:12,879
medication

105
00:04:16,469 --> 00:04:14,640
how kidney stones can be detected and

106
00:04:17,590 --> 00:04:16,479
moved using an ultrasound rather than

107
00:04:19,590 --> 00:04:17,600
surgery

108
00:04:21,590 --> 00:04:19,600
and how an mri machine which normally

109
00:04:23,590 --> 00:04:21,600
takes up an entire hospital room can be

110
00:04:25,270 --> 00:04:23,600
put in the palm of your hand

111
00:04:27,030 --> 00:04:25,280
it's very exciting to work on it to be

112
00:04:28,230 --> 00:04:27,040
honest you know a lot of a lot of groups

113
00:04:29,990 --> 00:04:28,240

that i've worked with in the past and

114
00:04:31,670 --> 00:04:30,000
it's most fun working with nasa just

115
00:04:33,670 --> 00:04:31,680
thinking about this contributing to the

116
00:04:36,629 --> 00:04:33,680
space program in any sort of way

117
00:04:38,310 --> 00:04:36,639
the goal is to develop it for nasa but

118
00:04:40,310 --> 00:04:38,320
we see you know a number of clear

119
00:04:43,670 --> 00:04:40,320
spin-offs on earth here that we're eager

120
00:04:45,749 --> 00:04:43,680
to pursue as well we choose to go to the

121
00:04:47,510 --> 00:04:45,759
moon in this decade and do the other

122
00:04:49,110 --> 00:04:47,520
thing the new research center is located

123
00:04:50,550 --> 00:04:49,120
directly across the street from rye

124
00:04:52,590 --> 00:04:50,560
stadium where president kennedy

125
00:04:54,150 --> 00:04:52,600
delivered his famous moon speech in

126
00:04:55,749 --> 00:04:54,160
1962.

127
00:04:57,909 --> 00:04:55,759
on hand for the opening were leadership

128
00:05:00,550 --> 00:04:57,919
from rice university baylor college of

129
00:05:04,790 --> 00:05:00,560
medicine the city of houston and u.s

130
00:05:09,110 --> 00:05:07,029
representatives from the ames research

131
00:05:11,510 --> 00:05:09,120
center and the national park service

132
00:05:13,749 --> 00:05:11,520
gave the public an up-close look at how

133
00:05:16,710 --> 00:05:13,759
the extreme conditions of california's

134
00:05:19,590 --> 00:05:16,720
death valley are helping nasa prepare

135
00:05:22,469 --> 00:05:19,600
for surface exploration of mars the

136
00:05:24,230 --> 00:05:22,479
first ever mars and the mojave festival

137
00:05:26,870 --> 00:05:24,240
feature geology and mini rover

138
00:05:29,990 --> 00:05:26,880

demonstrations a scale model of the mars

139
00:05:32,390 --> 00:05:30,000
science laboratory's curiosity rover and

140
00:05:34,870 --> 00:05:32,400
guided tours of areas whose topography

141
00:05:36,870 --> 00:05:34,880
and characteristics make them ideal

142
00:05:39,830 --> 00:05:36,880
research sites for equipment testing and

143
00:05:42,629 --> 00:05:39,840
evaluation in a mars-like environment

144
00:05:44,790 --> 00:05:42,639
among these sites is bad water basin the

145
00:05:47,430 --> 00:05:44,800
lowest point in the continental united

146
00:05:49,990 --> 00:05:47,440
states where specially adapted microbial

147
00:05:52,870 --> 00:05:50,000
life can be found under salt and mineral

148
00:05:54,950 --> 00:05:52,880
deposits mars hill which mimics the

149
00:05:57,749 --> 00:05:54,960
boulder strewn martian surface first

150
00:06:00,550 --> 00:05:57,759
seen up close by nasa's viking landers

151
00:06:02,790 --> 00:06:00,560
and yubihebi crater where scientists can

152
00:06:05,990 --> 00:06:02,800
plan crater exploration for missions

153
00:06:08,629 --> 00:06:06,000
like msl

154
00:06:10,230 --> 00:06:08,639
he traveled more than 65 million miles

155
00:06:12,710 --> 00:06:10,240
around the planet while living aboard

156
00:06:15,350 --> 00:06:12,720
the international space station for 161

157
00:06:17,350 --> 00:06:15,360
days but a new journey has led astronaut

158
00:06:20,790 --> 00:06:17,360
tj creamer to the marshall space flight

159
00:06:23,670 --> 00:06:20,800
center the former expedition 2223 flight

160
00:06:25,110 --> 00:06:23,680
engineer and nasa science officer is now

161
00:06:27,830 --> 00:06:25,120
learning what things are like from the

162
00:06:29,830 --> 00:06:27,840
ground up literally creamer has been

163
00:06:31,990 --> 00:06:29,840

training since last september to become

164
00:06:34,230 --> 00:06:32,000
a payload operations director in nasa's

165
00:06:36,230 --> 00:06:34,240
payload operations center at marshall

166
00:06:38,150 --> 00:06:36,240
he's the first astronaut certified to

167
00:06:40,390 --> 00:06:38,160
lead the team that coordinates real-time

168
00:06:42,710 --> 00:06:40,400
science operations between the crews on

169
00:06:44,790 --> 00:06:42,720
orbit the johnson space center and

170
00:06:47,189 --> 00:06:44,800
international partners around the world

171
00:06:48,629 --> 00:06:47,199
i thought perhaps with my interests and

172
00:06:50,469 --> 00:06:48,639
and marshall's focus that it might be a

173
00:06:53,270 --> 00:06:50,479
nice marriage to bring that operational

174
00:06:55,189 --> 00:06:53,280
experience here share my living on board

175
00:06:57,510 --> 00:06:55,199
as well as to be able to be the liaison

176
00:06:59,430 --> 00:06:57,520
and help both in the payload management

177
00:07:03,189 --> 00:06:59,440
as well as the liaison communications

178
00:07:04,870 --> 00:07:03,199
between houston and huntsville

179
00:07:07,110 --> 00:07:04,880
the nasa dime competition in

180
00:07:09,749 --> 00:07:07,120
microgravity is underway at the glenn

181
00:07:12,150 --> 00:07:09,759
research center in cleveland ohio this

182
00:07:14,790 --> 00:07:12,160
year four student teams were selected to

183
00:07:17,189 --> 00:07:14,800
develop an experiment for a nasa drop

184
00:07:19,589 --> 00:07:17,199
in the control room of the 2.2 second

185
00:07:21,589 --> 00:07:19,599
drop tower

186
00:07:23,749 --> 00:07:21,599
the 79-foot tower

187
00:07:25,670 --> 00:07:23,759
gets its name because when an experiment

188
00:07:26,469 --> 00:07:25,680

is dropped into it

189
00:07:28,469 --> 00:07:26,479
one

190
00:07:30,870 --> 00:07:28,479
drop

191
00:07:34,230 --> 00:07:30,880
the package experiences weightlessness

192
00:07:36,710 --> 00:07:34,240
or microgravity for 2.2 seconds

193
00:07:38,710 --> 00:07:36,720
researchers from around the world use

194
00:07:41,670 --> 00:07:38,720
this tower to study the effects of

195
00:07:45,430 --> 00:07:41,680
microgravity on physical phenomena such

196
00:07:47,749 --> 00:07:45,440
as combustion and fluid dynamics and to

197
00:07:48,790 --> 00:07:47,759
develop new technology for future space

198
00:07:50,869 --> 00:07:48,800
missions

199
00:07:53,430 --> 00:07:50,879
dropping in a microgravity environment

200
00:07:55,909 --> 00:07:53,440
or dime is a national competition for

201
00:07:58,390 --> 00:07:55,919
high school students in the 9th through

202
00:08:01,029 --> 00:07:58,400
12th grades and open to student teams

203
00:08:02,629 --> 00:08:01,039
from all 50 states

204
00:08:05,350 --> 00:08:02,639
working with nasa's engineers and

205
00:08:06,629 --> 00:08:05,360
scientists is amazing i mean it is a bit

206
00:08:09,110 --> 00:08:06,639
intimidating because these are our

207
00:08:11,029 --> 00:08:09,120
heroes like this is what we want to do

208
00:08:14,550 --> 00:08:11,039
these are who we want to be when we're

209
00:08:17,110 --> 00:08:14,560
older dime is part of nasa's education

210
00:08:19,510 --> 00:08:17,120
program the program allows the agency to

211
00:08:22,790 --> 00:08:19,520
continue its work around the country to

212
00:08:28,950 --> 00:08:22,800
inspire engage and educate the next

213
00:08:32,630 --> 00:08:30,550

employees at the michoud assembly

214
00:08:34,469 --> 00:08:32,640
facility held a ribbon cutting ceremony

215
00:08:37,269 --> 00:08:34,479
for its robot repair unit known

216
00:08:39,190 --> 00:08:37,279
affectionately as r2

217
00:08:40,709 --> 00:08:39,200
the mobile machine shop is dedicated to

218
00:08:43,190 --> 00:08:40,719
helping teams competing in first

219
00:08:46,310 --> 00:08:43,200
robotics events make repairs to their

220
00:08:48,710 --> 00:08:46,320
robots the r2 unit was rolled out at the

221
00:08:52,470 --> 00:08:48,720
recent first bayou regionals in canada

222
00:08:57,269 --> 00:08:55,030
assisted by adult mentors first robotics

223
00:08:59,269 --> 00:08:57,279
teams of high school students design and

224
00:09:01,829 --> 00:08:59,279
build a robot to compete in a specific

225
00:09:03,750 --> 00:09:01,839
challenge nasa partners with first to

226
00:09:05,910 --> 00:09:03,760
promote stem-based careers with the

227
00:09:08,230 --> 00:09:05,920
agency

228
00:09:10,470 --> 00:09:08,240
strategically and how to get into

229
00:09:12,949 --> 00:09:10,480
different agencies the marshall space

230
00:09:14,949 --> 00:09:12,959
flight center hosted a nasa woman-owned

231
00:09:16,790 --> 00:09:14,959
small business industry day at the

232
00:09:19,190 --> 00:09:16,800
huntsville museum of art

233
00:09:21,910 --> 00:09:19,200
more than 300 small companies learned

234
00:09:24,230 --> 00:09:21,920
the how-to's of doing business with nasa

235
00:09:26,150 --> 00:09:24,240
their representatives also got to pitch

236
00:09:28,310 --> 00:09:26,160
their capabilities to marshall prime

237
00:09:30,310 --> 00:09:28,320
contractors and small business

238
00:09:32,470 --> 00:09:30,320

specialists even though nasa was one of

239
00:09:33,990 --> 00:09:32,480
the only three net agencies federal

240
00:09:36,150 --> 00:09:34,000
government agencies that achieved our

241
00:09:38,070 --> 00:09:36,160
small business goal

242
00:09:39,750 --> 00:09:38,080
we were unable to achieve our goal in

243
00:09:41,990 --> 00:09:39,760
three areas which are the women-owned

244
00:09:43,430 --> 00:09:42,000
small business hub zone small business

245
00:09:45,590 --> 00:09:43,440
and service disabled veteran small

246
00:09:48,310 --> 00:09:45,600
businesses so administrator bolden asked

247
00:09:49,910 --> 00:09:48,320
me to put together a plan that we can do

248
00:09:51,750 --> 00:09:49,920
extensive outreach to these three

249
00:09:54,550 --> 00:09:51,760
communities it's one of three industry

250
00:09:56,070 --> 00:09:54,560
days that are planned for fy 2012. this

251
00:09:58,150 --> 00:09:56,080
will create some really good networking

252
00:09:59,750 --> 00:09:58,160
opportunities and we hope to that this

253
00:10:01,110 --> 00:09:59,760
will be payoff for many of our

254
00:10:06,790 --> 00:10:01,120
women-owned small businesses who are in

255
00:10:12,790 --> 00:10:10,550
40 years ago on april 16 1972

256
00:10:15,190 --> 00:10:12,800
apollo 16 launched from the kennedy

257
00:10:17,829 --> 00:10:15,200
space center crewed by commander john

258
00:10:20,389 --> 00:10:17,839
young lunar module pilot charlie duke

259
00:10:22,389 --> 00:10:20,399
and command module pilot ken mattingly

260
00:10:25,030 --> 00:10:22,399
it was the 10th manned mission in the

261
00:10:27,509 --> 00:10:25,040
apollo space program the next to last to

262
00:10:29,829 --> 00:10:27,519
land on the moon and the first to land

263
00:10:32,230 --> 00:10:29,839

in the lunar highlands with mattingly

264
00:10:34,870 --> 00:10:32,240
making observations from orbit young and

265
00:10:36,630 --> 00:10:34,880
duke spent about 71 hours on the lunar

266
00:10:38,470 --> 00:10:36,640
surface

267
00:10:41,190 --> 00:10:38,480
what a view isn't it john it's

268
00:10:43,670 --> 00:10:41,200
absolutely unreal the pair conducted

269
00:10:46,470 --> 00:10:43,680
three moon waves and most notably drove

270
00:10:49,350 --> 00:10:46,480
the lunar roving vehicle the lrv a total

271
00:10:51,990 --> 00:10:49,360
of about 16 miles the pair collected

272
00:10:54,150 --> 00:10:52,000
about 211 pounds of lunar samples that

273
00:10:56,790 --> 00:10:54,160
returned with them 11 days later when

274
00:10:59,430 --> 00:10:56,800
the apollo 16 capsule splashed down

275
00:11:02,150 --> 00:10:59,440
safely in the south pacific

276
00:11:04,230 --> 00:11:02,160
and that's this week at nasa for more on

277
00:11:06,630 --> 00:11:04,240
these and other stories or to follow us