



1
00:00:07,680 --> 00:00:11,430
this week at nasa

2
00:00:15,829 --> 00:00:13,589
it was a week full of activity for the

3
00:00:17,750 --> 00:00:15,839
crews of the international space station

4
00:00:21,750 --> 00:00:17,760
it is time for expedition 30 to step

5
00:00:24,070 --> 00:00:21,760
aside and make way for expedition 31.

6
00:00:25,509 --> 00:00:24,080
i'll egg with that i hereby hand over

7
00:00:27,509 --> 00:00:25,519
command of the international space

8
00:00:29,509 --> 00:00:27,519
station to you

9
00:00:31,830 --> 00:00:29,519
nasa astronaut and expedition 30

10
00:00:33,670 --> 00:00:31,840
commander dan burbank officially

11
00:00:36,229 --> 00:00:33,680
transferred the helm of the orbiting

12
00:00:38,950 --> 00:00:36,239
outpost to russian cosmonaut oleg

13
00:00:41,430 --> 00:00:38,960

kononenko who along with nasa astronaut

14

00:00:44,150 --> 00:00:41,440

don pettit and andre kuipers of the

15

00:00:45,990 --> 00:00:44,160

european space agency has now begun

16

00:00:48,150 --> 00:00:46,000

expedition 31.

17

00:00:50,069 --> 00:00:48,160

two days later burbank and his

18

00:00:52,950 --> 00:00:50,079

expedition 30 crewmates russian

19

00:00:54,069 --> 00:00:52,960

cosmonaut anton shkaplerov and anatoly

20

00:00:56,229 --> 00:00:54,079

ivanishin

21

00:00:59,590 --> 00:00:56,239

said their farewells climbed into their

22

00:01:08,070 --> 00:00:59,600

soyuz tma-22 spacecraft and departed the

23

00:01:11,429 --> 00:01:09,830

after a five and a half month stay on

24

00:01:14,310 --> 00:01:11,439

board the iss

25

00:01:17,590 --> 00:01:14,320

burbank chicago and ivanishin landed

26

00:01:19,590 --> 00:01:17,600

safely in kazakhstan

27

00:01:21,429 --> 00:01:19,600

what's been really nice is that you know

28

00:01:23,350 --> 00:01:21,439

coming from the united states of course

29

00:01:25,590 --> 00:01:23,360

the cultures are different the language

30

00:01:27,990 --> 00:01:25,600

is difficult and everyone here has been

31

00:01:29,109 --> 00:01:28,000

very very patient with us

32

00:01:31,429 --> 00:01:29,119

and making sure that we're going to be

33

00:01:33,429 --> 00:01:31,439

ready for our flight meanwhile the other

34

00:01:35,030 --> 00:01:33,439

three members of expedition 31

35

00:01:36,230 --> 00:01:35,040

participated in their pre-launch

36

00:01:38,469 --> 00:01:36,240

activities

37

00:01:41,190 --> 00:01:38,479

at the gagarin cosmonaut training center

38

00:01:43,510 --> 00:01:41,200

in star city russia nasa flight engineer

39

00:01:45,990 --> 00:01:43,520

joe acaba and his russian crewmates

40

00:01:48,149 --> 00:01:46,000

soyuz commander gennady padalka and

41

00:01:50,310 --> 00:01:48,159

flight engineer sergey revin fielded

42

00:01:51,910 --> 00:01:50,320

questions from reporters

43

00:01:53,910 --> 00:01:51,920

the trio is undergoing final

44

00:01:55,749 --> 00:01:53,920

qualification training for the soyuz

45

00:01:58,789 --> 00:01:55,759

vehicle that's scheduled to launch them

46

00:02:00,870 --> 00:01:58,799

to the iss on may 15 and their

47

00:02:05,190 --> 00:02:00,880

subsequent rendezvous on orbit with

48

00:02:09,910 --> 00:02:07,270

the week after it was made it to nasa's

49

00:02:12,550 --> 00:02:09,920

shuttle carrier aircraft enterprise

50

00:02:14,470 --> 00:02:12,560

nasa's first orbiter was lifted skyward

51
00:02:16,229 --> 00:02:14,480
on the shuttle's final ferry flight from

52
00:02:24,470 --> 00:02:16,239
washington's dulles international

53
00:02:27,589 --> 00:02:25,990
several hours later in a site

54
00:02:30,790 --> 00:02:27,599
reminiscent of its flyer round of the

55
00:02:33,350 --> 00:02:30,800
washington dc metro area a week earlier

56
00:02:35,670 --> 00:02:33,360
the sca brought enterprise over several

57
00:02:37,270 --> 00:02:35,680
big apple landmarks before finally

58
00:02:39,030 --> 00:02:37,280
touching down at john f kennedy

59
00:02:42,070 --> 00:02:39,040
international airport

60
00:02:44,229 --> 00:02:42,080
enterprise will remain at jfk until july

61
00:02:46,390 --> 00:02:44,239
when it's scheduled to barge its way up

62
00:02:48,869 --> 00:02:46,400
the hudson river to its new permanent

63
00:02:51,589 --> 00:02:48,879

home the intrepid sea air and space

64

00:02:53,190 --> 00:02:51,599

museum the space program is alive and

65

00:02:55,750 --> 00:02:53,200

well because of the space shuttle

66

00:02:58,309 --> 00:02:55,760

enterprise and what she has brought to

67

00:03:01,910 --> 00:02:58,319

this nation and we are so

68

00:03:04,149 --> 00:03:01,920

pleased that you will at the intrepid

69

00:03:07,430 --> 00:03:04,159

continue to tell not only the story of

70

00:03:11,270 --> 00:03:07,440

the past but this rich and full

71

00:03:14,949 --> 00:03:13,110

scientists working with images from

72

00:03:17,270 --> 00:03:14,959

nasa's cassini spacecraft have

73

00:03:20,390 --> 00:03:17,280

discovered strange half-mile sized

74

00:03:22,390 --> 00:03:20,400

objects punching through saturn's f or

75

00:03:24,390 --> 00:03:22,400

outermost main ring

76
00:03:26,710 --> 00:03:24,400
these objects appear to collide with the

77
00:03:29,430 --> 00:03:26,720
f ring at about four miles per hour

78
00:03:31,830 --> 00:03:29,440
leaving behind so-called mini jets

79
00:03:34,470 --> 00:03:31,840
glittering trails of ice particles from

80
00:03:36,470 --> 00:03:34,480
20 to 110 miles long

81
00:03:39,030 --> 00:03:36,480
scientists have known relatively large

82
00:03:41,750 --> 00:03:39,040
objects can create channels ripples and

83
00:03:43,030 --> 00:03:41,760
snowballs or clumps of icy materials in

84
00:03:45,270 --> 00:03:43,040
the f ring

85
00:03:46,949 --> 00:03:45,280
however they didn't know what happened

86
00:03:48,149 --> 00:03:46,959
to these snowballs after they were

87
00:03:49,990 --> 00:03:48,159
created

88
00:03:51,910 --> 00:03:50,000

some were broken up by collisions or

89

00:03:52,949 --> 00:03:51,920

tidal forces in their orbit around

90

00:03:54,630 --> 00:03:52,959

saturn

91

00:03:57,190 --> 00:03:54,640

now it appears that some of these

92

00:03:59,110 --> 00:03:57,200

smaller snowballs survived with their

93

00:04:03,350 --> 00:03:59,120

differing orbits directing them through

94

00:04:07,670 --> 00:04:05,190

on a sunny spring morning the crew of

95

00:04:09,270 --> 00:04:07,680

the freedom star gets ready to head out

96

00:04:10,229 --> 00:04:09,280

from the cape canaveral air force

97

00:04:12,550 --> 00:04:10,239

station

98

00:04:13,910 --> 00:04:12,560

all lines are in ready to park dock

99

00:04:15,670 --> 00:04:13,920

get underway

100

00:04:17,509 --> 00:04:15,680

it's nasa mission

101
00:04:18,949 --> 00:04:17,519
training for the dawn of a new day in

102
00:04:20,629 --> 00:04:18,959
space travel

103
00:04:22,950 --> 00:04:20,639
capturing the launch of the first

104
00:04:24,950 --> 00:04:22,960
commercial spacecraft going to the

105
00:04:26,870 --> 00:04:24,960
international space station

106
00:04:29,110 --> 00:04:26,880
very similar to what you see in front of

107
00:04:30,870 --> 00:04:29,120
your high definition television set at

108
00:04:32,629 --> 00:04:30,880
home we're looking at getting very high

109
00:04:35,110 --> 00:04:32,639
spatial resolution high definition

110
00:04:36,310 --> 00:04:35,120
quality of visual imaging during the

111
00:04:37,510 --> 00:04:36,320
launch

112
00:04:39,749 --> 00:04:37,520
as well as

113
00:04:42,550 --> 00:04:39,759

high spatial resolution thermal imaging

114

00:04:44,310 --> 00:04:42,560

from an infrared camera the freedom star

115

00:04:46,950 --> 00:04:44,320

once used to recover shuttle rocket

116

00:04:49,670 --> 00:04:46,960

boosters is now outfitted as a floating

117

00:04:52,469 --> 00:04:49,680

high-tech radar and camera platform

118

00:04:55,430 --> 00:04:52,479

inside a huge metal clam shell is a

119

00:04:57,189 --> 00:04:55,440

mobile optical system on a gyroscope

120

00:04:59,350 --> 00:04:57,199

like tracking mount

121

00:05:01,990 --> 00:04:59,360

during launch the system will be focused

122

00:05:05,270 --> 00:05:02,000

skyward to take images of the spacex

123

00:05:07,830 --> 00:05:05,280

falcon rocket and its dragon capsule as

124

00:05:09,670 --> 00:05:07,840

far as 200 miles away

125

00:05:11,350 --> 00:05:09,680

we have several key events that will

126
00:05:14,469 --> 00:05:11,360
occur during ascent

127
00:05:16,469 --> 00:05:14,479
so we have one ground station

128
00:05:19,590 --> 00:05:16,479
at daytona beach florida that will

129
00:05:22,310 --> 00:05:19,600
capture early events and ascent and then

130
00:05:24,390 --> 00:05:22,320
we have a second

131
00:05:26,310 --> 00:05:24,400
tracker that will be located on a ship

132
00:05:28,310 --> 00:05:26,320
in the north atlantic that will be the

133
00:05:30,550 --> 00:05:28,320
freedom star that will capture later

134
00:05:33,510 --> 00:05:30,560
parts of the trip including deployments

135
00:05:35,830 --> 00:05:33,520
of the capsule and solar panels

136
00:05:36,950 --> 00:05:35,840
even with high-powered radar telescopes

137
00:05:38,550 --> 00:05:36,960
and cameras

138
00:05:40,469 --> 00:05:38,560

and a team that has had success in

139

00:05:43,029 --> 00:05:40,479

taking thermal snapshots of the space

140

00:05:46,310 --> 00:05:43,039

shuttle at mach 18

141

00:05:47,990 --> 00:05:46,320

imaging the launch will be no easy task

142

00:05:49,270 --> 00:05:48,000

it's like standing and looking through a

143

00:05:51,510 --> 00:05:49,280

soda straw and

144

00:05:53,590 --> 00:05:51,520

trying to capture and see a bird flying

145

00:05:56,309 --> 00:05:53,600

through that soda straw then imagine

146

00:05:58,710 --> 00:05:56,319

that soda straw bobbing on a boat off

147

00:06:01,189 --> 00:05:58,720

the northeastern coast of the u.s and

148

00:06:02,870 --> 00:06:01,199

seas that could swell up to 20 feet

149

00:06:05,029 --> 00:06:02,880

the crew can only hope that the weather

150

00:06:11,110 --> 00:06:05,039

at launch and ascent is more like a day

151
00:06:15,270 --> 00:06:13,270
nasa administrator charles bolden and

152
00:06:17,749 --> 00:06:15,280
small business programs associate

153
00:06:20,309 --> 00:06:17,759
administrator glenn delgado seen here on

154
00:06:22,469 --> 00:06:20,319
the far right presented the annual small

155
00:06:25,189 --> 00:06:22,479
business administrators cup award to

156
00:06:27,670 --> 00:06:25,199
stennis space center in recognition of

157
00:06:30,150 --> 00:06:27,680
its stellar small business program

158
00:06:32,309 --> 00:06:30,160
the award recognizes successful and

159
00:06:34,469 --> 00:06:32,319
innovative practices promoting small

160
00:06:37,430 --> 00:06:34,479
business participation in nasa

161
00:06:41,270 --> 00:06:39,749
nasa astronaut katie coleman a member of

162
00:06:44,309 --> 00:06:41,280
the international space station's

163
00:06:46,790 --> 00:06:44,319

expedition 27 crew participated in the

164

00:06:48,390 --> 00:06:46,800

white house council on women and girls

165

00:06:50,309 --> 00:06:48,400

in stem event

166

00:06:52,870 --> 00:06:50,319

the panel discussion focused on

167

00:06:55,430 --> 00:06:52,880

inspiring and encouraging young women to

168

00:06:57,189 --> 00:06:55,440

pursue careers in science technology

169

00:06:59,189 --> 00:06:57,199

engineering and math

170

00:07:01,110 --> 00:06:59,199

coleman and the other guests shared

171

00:07:03,029 --> 00:07:01,120

stories about some of the cool things

172

00:07:05,110 --> 00:07:03,039

they've experienced in their stem

173

00:07:07,350 --> 00:07:05,120

related jobs i love this picture because

174

00:07:09,589 --> 00:07:07,360

it is a picture of a human being

175

00:07:10,710 --> 00:07:09,599

in space looking back at the planet we

176
00:07:12,230 --> 00:07:10,720
come from

177
00:07:14,309 --> 00:07:12,240
and there's no way

178
00:07:15,510 --> 00:07:14,319
that only guys should be in a picture

179
00:07:17,110 --> 00:07:15,520
like this

180
00:07:18,950 --> 00:07:17,120
it's all and i'm not saying that to be

181
00:07:21,990 --> 00:07:18,960
funny i know i mean it kind of is but

182
00:07:23,909 --> 00:07:22,000
it's because we are part of the planet

183
00:07:25,909 --> 00:07:23,919
and we bring a lot to the planet and if

184
00:07:28,550 --> 00:07:25,919
you start doing things without the

185
00:07:30,390 --> 00:07:28,560
talents that we women bring you are just

186
00:07:32,070 --> 00:07:30,400
not doing them good enough so did you

187
00:07:33,830 --> 00:07:32,080
play the game or you designed the game i

188
00:07:35,830 --> 00:07:33,840

designed it you designed the game the

189

00:07:38,230 --> 00:07:35,840

event also included the first public

190

00:07:40,150 --> 00:07:38,240

screening of girls in stem

191

00:07:42,150 --> 00:07:40,160

a video showcasing young women

192

00:07:44,390 --> 00:07:42,160

demonstrating their experiments for

193

00:07:47,990 --> 00:07:44,400

president obama at this year's white

194

00:07:52,309 --> 00:07:49,909

nasa's newest green building was

195

00:07:54,790 --> 00:07:52,319

formally dedicated in a vip ceremony

196

00:07:56,710 --> 00:07:54,800

held at ames research center on hand for

197

00:07:58,629 --> 00:07:56,720

the dedication was nasa associate

198

00:08:00,790 --> 00:07:58,639

administrator woodrow whitlow

199

00:08:02,950 --> 00:08:00,800

congressional representatives anna schuh

200

00:08:05,670 --> 00:08:02,960

and zoe lofgren as well as the

201
00:08:07,670 --> 00:08:05,680
building's architect william mcdonough

202
00:08:09,990 --> 00:08:07,680
the event also included a message from

203
00:08:11,110 --> 00:08:10,000
president obama's science advisor john

204
00:08:12,390 --> 00:08:11,120
holdren

205
00:08:13,670 --> 00:08:12,400
one of the highlights was the

206
00:08:15,749 --> 00:08:13,680
announcement that the building had

207
00:08:18,230 --> 00:08:15,759
officially been granted the u.s grain

208
00:08:20,710 --> 00:08:18,240
building council's leadership in energy

209
00:08:23,270 --> 00:08:20,720
and environmental design or leed

210
00:08:24,390 --> 00:08:23,280
platinum status which is its highest

211
00:08:25,990 --> 00:08:24,400
rating

212
00:08:28,629 --> 00:08:26,000
the building is referred to as

213
00:08:31,670 --> 00:08:28,639

sustainability base in honor of apollo

214

00:08:34,149 --> 00:08:31,680

11's landing site tranquility base the

215

00:08:36,790 --> 00:08:34,159

first human outpost on the moon

216

00:08:39,110 --> 00:08:36,800

like a spacecraft it uses nasa-derived

217

00:08:41,909 --> 00:08:39,120

technologies to make it as self-reliant

218

00:08:43,110 --> 00:08:41,919

as possible for utilities such as water

219

00:08:45,110 --> 00:08:43,120

and power

220

00:08:46,790 --> 00:08:45,120

construction materials and interior

221

00:08:48,630 --> 00:08:46,800

furnishings were selected for their

222

00:08:50,310 --> 00:08:48,640

recyclable qualities

223

00:08:51,829 --> 00:08:50,320

among the dignitaries who toured the

224

00:08:53,750 --> 00:08:51,839

building to get a closer look was

225

00:08:56,790 --> 00:08:53,760

california lieutenant governor gavin

226

00:09:01,110 --> 00:08:57,750

three

227

00:09:03,350 --> 00:09:01,120

two one last stop

228

00:09:05,110 --> 00:09:03,360

a ceremonial ribbon cutting at stennis

229

00:09:07,110 --> 00:09:05,120

space center signaled the opening of

230

00:09:08,630 --> 00:09:07,120

nasa's newest visitor and science

231

00:09:10,310 --> 00:09:08,640

attraction

232

00:09:12,310 --> 00:09:10,320

the infiniti science center is a

233

00:09:14,790 --> 00:09:12,320

state-of-the-art facility featuring

234

00:09:17,030 --> 00:09:14,800

exhibits representing the wide range of

235

00:09:19,430 --> 00:09:17,040

research conducted at stennis from the

236

00:09:20,790 --> 00:09:19,440

depths of the ocean to the far reaches

237

00:09:22,870 --> 00:09:20,800

of the universe

238

00:09:24,949 --> 00:09:22,880

center director patrick shireman was

239

00:09:27,190 --> 00:09:24,959

joined by several dignitaries to mark

240

00:09:29,910 --> 00:09:27,200

the occasion including mississippi

241

00:09:33,030 --> 00:09:29,920

governor phil bryant u.s senators thad

242

00:09:34,870 --> 00:09:33,040

cochran and roger wicker and apollo 13

243

00:09:36,790 --> 00:09:34,880

astronaut fred hayes

244

00:09:39,990 --> 00:09:36,800

vice chairman of the infiniti science

245

00:09:46,550 --> 00:09:42,630

the u.s air force has retired its first

246

00:09:48,389 --> 00:09:46,560

c-17 globemaster iii transport after 21

247

00:09:51,430 --> 00:09:48,399

years of flight testing for nasa

248

00:09:53,430 --> 00:09:51,440

propulsion research frank batis

249

00:09:55,670 --> 00:09:53,440

associate director for flight operations

250

00:09:57,829 --> 00:09:55,680

at the dryden flight research center

251
00:10:00,470 --> 00:09:57,839
joined an air force and boeing flight

252
00:10:02,230 --> 00:10:00,480
crew on the c-17s ferry flight from

253
00:10:05,110 --> 00:10:02,240
edwards air force base in southern

254
00:10:07,269 --> 00:10:05,120
california to its new permanent home at

255
00:10:08,790 --> 00:10:07,279
the national museum of the air force in

256
00:10:11,750 --> 00:10:08,800
dayton ohio

257
00:10:14,389 --> 00:10:11,760
batis was an air force c-17 test pilot

258
00:10:19,590 --> 00:10:14,399
before coming to nasa and flew chase on

259
00:10:24,710 --> 00:10:21,910
joint nasa air force flight research

260
00:10:28,790 --> 00:10:24,720
efforts included noise mitigation and

261
00:10:32,870 --> 00:10:30,870
nasa's aeronautics research mission

262
00:10:35,110 --> 00:10:32,880
directorate held its second annual

263
00:10:37,430 --> 00:10:35,120

associate administrator awards ceremony

264

00:10:39,110 --> 00:10:37,440

to honor individuals and groups whose

265

00:10:40,550 --> 00:10:39,120

work has distinguished him through the

266

00:10:42,550 --> 00:10:40,560

past year

267

00:10:45,190 --> 00:10:42,560

acting associate administrator robert

268

00:10:48,069 --> 00:10:45,200

lightfoot provided remarks and jaewon

269

00:10:50,630 --> 00:10:48,079

shin associate administrator for armd

270

00:10:53,430 --> 00:10:50,640

helped hand out the awards

271

00:10:55,509 --> 00:10:53,440

and that's this week at nasa for more on

272

00:10:57,509 --> 00:10:55,519

these and other stories or to follow us