



1
00:00:06,799 --> 00:00:12,870
this week at nasa

2
00:00:17,029 --> 00:00:15,509
all three engines up and burning

3
00:00:20,230 --> 00:00:17,039
two one

4
00:00:22,550 --> 00:00:20,240
zero and lift off the final liftoff of

5
00:00:25,509 --> 00:00:22,560
atlantis on the shoulders of the space

6
00:00:27,589 --> 00:00:25,519
shuttle america will continue the dream

7
00:00:30,230 --> 00:00:27,599
spain shuttle atlantis lifted off from

8
00:00:33,310 --> 00:00:30,240
launch pad 39a at the kennedy space

9
00:00:36,229 --> 00:00:33,320
center on july 8th to begin

10
00:00:39,270 --> 00:00:36,239
sts-135 the final mission of nasa's

11
00:00:41,350 --> 00:00:39,280
space shuttle program we got to witness

12
00:00:43,510 --> 00:00:41,360
something really really special and

13
00:00:45,830 --> 00:00:43,520

something really amazing the shuttle

14

00:00:47,430 --> 00:00:45,840

program has been truly phenomenal and i

15

00:00:49,110 --> 00:00:47,440

take great pride in this team and and

16

00:00:51,350 --> 00:00:49,120

thank them for all they've done

17

00:00:53,189 --> 00:00:51,360

we still got a a lot to do before it's

18

00:00:54,310 --> 00:00:53,199

over and they're going to be doing some

19

00:00:55,510 --> 00:00:54,320

a lot of work on orbit and then we're

20

00:00:56,630 --> 00:00:55,520

going to we're going to bring them home

21

00:00:58,150 --> 00:00:56,640

safe and i'm looking forward to that

22

00:00:59,990 --> 00:00:58,160

landing back here at the cape the

23

00:01:02,310 --> 00:01:00,000

atlantis crew of commander chris

24

00:01:05,270 --> 00:01:02,320

ferguson pilot doug hurley and mission

25

00:01:07,590 --> 00:01:05,280

specialists sandy magnus and rex walheim

26
00:01:09,510 --> 00:01:07,600
is delivering cargo and supplies to the

27
00:01:11,830 --> 00:01:09,520
international space station that are

28
00:01:13,429 --> 00:01:11,840
crucial for its post shuttle operation

29
00:01:15,429 --> 00:01:13,439
the mplm will have about fifteen

30
00:01:16,870 --> 00:01:15,439
thousand pounds of cargo inside it and

31
00:01:18,390 --> 00:01:16,880
we have the mid deck and the mid deck

32
00:01:21,350 --> 00:01:18,400
will hold about another eight thousand

33
00:01:23,749 --> 00:01:21,360
pounds of cargo we have a lot of

34
00:01:26,630 --> 00:01:23,759
clothing a lot of food

35
00:01:28,789 --> 00:01:26,640
to the tune of about 4 000 pounds and of

36
00:01:31,429 --> 00:01:28,799
course we want to put the space station

37
00:01:33,990 --> 00:01:31,439
in a good position to

38
00:01:36,630 --> 00:01:34,000

to be self-sustaining for up to a year

39

00:01:39,590 --> 00:01:36,640

officially designated ov or orbital

40

00:01:42,990 --> 00:01:39,600

vehicle 104 atlantis began its maiden

41

00:01:45,990 --> 00:01:43,000

voyage on october 3rd 1985.

42

00:01:47,910 --> 00:01:46,000

sts-51j was a four-day mission that took

43

00:01:50,069 --> 00:01:47,920

into space a classified department of

44

00:01:51,990 --> 00:01:50,079

defense payload when this flight is in

45

00:01:54,510 --> 00:01:52,000

the history books atlantis will have

46

00:01:58,069 --> 00:01:54,520

flown 33 of the space shuttle program's

47

00:02:00,469 --> 00:01:58,079

135 missions

48

00:02:03,030 --> 00:02:00,479

scientists analyzing data from nasa's

49

00:02:06,069 --> 00:02:03,040

cassini spacecraft now have the first

50

00:02:08,150 --> 00:02:06,079

ever up-close details of a saturn storm

51
00:02:10,469 --> 00:02:08,160
that's eight times the surface area of

52
00:02:12,470 --> 00:02:10,479
earth the storm that's been raging since

53
00:02:16,150 --> 00:02:12,480
cassini's first detected it on december

54
00:02:18,790 --> 00:02:16,160
5th 2010 wraps around the entire planet

55
00:02:21,670 --> 00:02:18,800
covering approximately 1.5 billion

56
00:02:24,070 --> 00:02:21,680
square miles the storm is about 500

57
00:02:26,470 --> 00:02:24,080
times larger than the biggest storm

58
00:02:29,030 --> 00:02:26,480
previously seen by cassini and its rate

59
00:02:31,589 --> 00:02:29,040
of lightning flashes is 10 times more

60
00:02:34,070 --> 00:02:31,599
frequent than any other storm monitored

61
00:02:37,750 --> 00:02:34,080
since cassini's arrival at saturn in

62
00:02:42,790 --> 00:02:40,470
nasa's largest supercomputer pleiades

63
00:02:43,750 --> 00:02:42,800

has been ranked seventh fastest in the

64

00:02:45,910 --> 00:02:43,760

world

65

00:02:47,830 --> 00:02:45,920

named for the prominent pleiades star

66

00:02:50,229 --> 00:02:47,840

cluster in the night sky the

67

00:02:53,190 --> 00:02:50,239

supercomputer can theoretically perform

68

00:02:55,990 --> 00:02:53,200

approximately 1.32 quadrillion

69

00:02:57,910 --> 00:02:56,000

calculations per second yet has a simple

70

00:03:00,229 --> 00:02:57,920

interface compatible with standard

71

00:03:02,710 --> 00:03:00,239

desktop engineering workstations and

72

00:03:04,949 --> 00:03:02,720

nasa desktop computers

73

00:03:07,350 --> 00:03:04,959

located at the ames research center more

74

00:03:10,070 --> 00:03:07,360

than a thousand active users around the

75

00:03:12,229 --> 00:03:10,080

country rely on pleiades to help advance

76
00:03:14,309 --> 00:03:12,239
our knowledge of the earth solar system

77
00:03:16,550 --> 00:03:14,319
and the universe the ranking was

78
00:03:18,790 --> 00:03:16,560
announced at the 26th international

79
00:03:21,589 --> 00:03:18,800
supercomputing conference in hamburg

80
00:03:21,599 --> 00:03:25,509
and now centerpieces

81
00:03:31,990 --> 00:03:26,710
three

82
00:03:35,270 --> 00:03:33,830
launched a u.s air force minotaur 1

83
00:03:37,670 --> 00:03:35,280
rocket carrying the department of

84
00:03:40,470 --> 00:03:37,680
defense's operationally responsive space

85
00:03:42,229 --> 00:03:40,480
office's ors-1 satellite june 29th from

86
00:03:44,149 --> 00:03:42,239
the range at wallops flight facility in

87
00:03:46,149 --> 00:03:44,159
the mid-atlantic regional spaceport in

88
00:03:48,149 --> 00:03:46,159

virginia the ors-1 satellite is

89

00:03:50,390 --> 00:03:48,159

significant because it's the first

90

00:03:52,470 --> 00:03:50,400

completely dod department of defense

91

00:03:54,949 --> 00:03:52,480

owned and operated satellite rapidly

92

00:03:56,470 --> 00:03:54,959

developing and fielding ors-1 is an

93

00:03:58,229 --> 00:03:56,480

important step to demonstrate the

94

00:04:00,070 --> 00:03:58,239

capability to meet emerging and

95

00:04:02,229 --> 00:04:00,080

persistent warfighter needs on

96

00:04:04,949 --> 00:04:02,239

operationally relevant timelines you can

97

00:04:08,390 --> 00:04:04,959

imagine that if you were deployed out in

98

00:04:10,149 --> 00:04:08,400

some very remote part of the world

99

00:04:13,030 --> 00:04:10,159

not knowing what was over the next

100

00:04:14,949 --> 00:04:13,040

ridgeline would be a big concern

101
00:04:16,789 --> 00:04:14,959
a satellite like or s1 will actually

102
00:04:18,069 --> 00:04:16,799
allow them to understand what is over

103
00:04:20,870 --> 00:04:18,079
that ridge line

104
00:04:22,550 --> 00:04:20,880
and both good and bad the minotaur 1

105
00:04:24,950 --> 00:04:22,560
rocket is a four-stage vehicle that

106
00:04:26,950 --> 00:04:24,960
stands about 70 feet tall and 5 feet

107
00:04:28,950 --> 00:04:26,960
wide the launch vehicle tonight is

108
00:04:30,870 --> 00:04:28,960
provided by orbital sciences corporation

109
00:04:32,870 --> 00:04:30,880
this is a minotaur one launch vehicle

110
00:04:35,990 --> 00:04:32,880
the first and second stages are left

111
00:04:38,070 --> 00:04:36,000
over and retrofitted icbm motors the

112
00:04:40,070 --> 00:04:38,080
upper two stages are commercial motors

113
00:04:41,670 --> 00:04:40,080

the operationally responsive space

114

00:04:43,590 --> 00:04:41,680

office and department of defense

115

00:04:45,270 --> 00:04:43,600

dedicated this launch to the medal of

116

00:04:51,430 --> 00:04:45,280

honor winners from the u.s central

117

00:04:55,590 --> 00:04:53,749

nearly 90 students from minority serving

118

00:04:57,990 --> 00:04:55,600

institutions and community colleges

119

00:04:59,830 --> 00:04:58,000

around the country visited johnson space

120

00:05:02,390 --> 00:04:59,840

center to participate in the reduced

121

00:05:04,870 --> 00:05:02,400

gravity education flight program

122

00:05:07,430 --> 00:05:04,880

participants were selected to design

123

00:05:10,070 --> 00:05:07,440

build and fly experiments on board an

124

00:05:12,310 --> 00:05:10,080

aircraft that flies parabolic arcs to

125

00:05:14,629 --> 00:05:12,320

simulate microgravity

126

00:05:16,790 --> 00:05:14,639

this program ties right into nasa's goal

127

00:05:18,550 --> 00:05:16,800

of preparing students for jobs and stem

128

00:05:20,950 --> 00:05:18,560

careers by allowing them to take their

129

00:05:23,749 --> 00:05:20,960

own research all the way from the

130

00:05:25,830 --> 00:05:23,759

proposal design construction and testing

131

00:05:28,629 --> 00:05:25,840

phase of parabolic flight we treat them

132

00:05:30,150 --> 00:05:28,639

just like nasa researchers

133

00:05:32,150 --> 00:05:30,160

the flight week for minority and

134

00:05:33,749 --> 00:05:32,160

community college students was designed

135

00:05:35,430 --> 00:05:33,759

to inspire students from

136

00:05:38,629 --> 00:05:35,440

underrepresented and underserved

137

00:05:41,110 --> 00:05:38,639

populations to pursue careers in science

138

00:05:42,550 --> 00:05:41,120

technology engineering and math

139

00:05:44,230 --> 00:05:42,560

the flight really provides him an

140

00:05:45,590 --> 00:05:44,240

opportunity to realize that yeah i can

141

00:05:47,590 --> 00:05:45,600

do this

142

00:05:50,230 --> 00:05:47,600

i see other people who look like me and

143

00:05:53,230 --> 00:05:50,240

talk like me are doing this

144

00:05:55,189 --> 00:05:53,240

it's exhausting but it's also

145

00:05:57,350 --> 00:05:55,199

extraordinarily intellectually

146

00:05:59,189 --> 00:05:57,360

stimulating i think when you can feel

147

00:06:01,270 --> 00:05:59,199

see and touch something it makes that

148

00:06:03,430 --> 00:06:01,280

much more real rather than just reading

149

00:06:05,430 --> 00:06:03,440

about it in a book

150

00:06:07,909 --> 00:06:05,440

in addition to science engineering and

151
00:06:10,230 --> 00:06:07,919
research skills the students also honed

152
00:06:11,909 --> 00:06:10,240
other abilities the most important thing

153
00:06:13,590 --> 00:06:11,919
i've learned from this experience is

154
00:06:16,629 --> 00:06:13,600
about teamwork

155
00:06:19,670 --> 00:06:16,639
and leadership skills

156
00:06:21,590 --> 00:06:19,680
jsc's education office will host student

157
00:06:24,070 --> 00:06:21,600
and teacher groups during several other

158
00:06:26,150 --> 00:06:24,080
reduced gravity flight weeks this summer

159
00:06:27,749 --> 00:06:26,160
it was awesome it was the word of the

160
00:06:29,749 --> 00:06:27,759
day it was the best experience of my

161
00:06:34,550 --> 00:06:29,759
life and i don't think anything could

162
00:06:38,950 --> 00:06:36,870
the astronomical science and education

163
00:06:41,350 --> 00:06:38,960

programs of the stratospheric

164

00:06:44,230 --> 00:06:41,360

observatory for infrared astronomy or

165

00:06:46,950 --> 00:06:44,240

sophia were the focus of a media day at

166

00:06:51,110 --> 00:06:46,960

the dryden aircraft operations facility

167

00:06:55,270 --> 00:06:53,270

numerous speakers detail the sofia

168

00:06:57,510 --> 00:06:55,280

program its science missions and

169

00:06:59,350 --> 00:06:57,520

educational outreach activities to

170

00:07:01,589 --> 00:06:59,360

members of both the professional news

171

00:07:03,589 --> 00:07:01,599

media and followers of the twitter

172

00:07:05,430 --> 00:07:03,599

social media website

173

00:07:07,589 --> 00:07:05,440

in addition two of the first six

174

00:07:09,270 --> 00:07:07,599

teachers who flew aboard the sofia as

175

00:07:11,510 --> 00:07:09,280

part of the airborne astronomy

176
00:07:13,830 --> 00:07:11,520
ambassadors program during a recent

177
00:07:16,390 --> 00:07:13,840
mission share their experiences with

178
00:07:19,510 --> 00:07:16,400
reporters and other attendees this has

179
00:07:20,550 --> 00:07:19,520
been a huge privilege it's been a huge

180
00:07:23,110 --> 00:07:20,560
gift

181
00:07:28,629 --> 00:07:23,120
it's been way up there with one of the

182
00:07:35,350 --> 00:07:32,309
navy captain and nasa astronaut barry

183
00:07:37,830 --> 00:07:35,360
butch wilborn astronaut butch wilmore

184
00:07:40,150 --> 00:07:37,840
appeared at nasa night at the gladiators

185
00:07:42,230 --> 00:07:40,160
cleveland's arena football league team

186
00:07:44,629 --> 00:07:42,240
wilmore participated in on-field

187
00:07:47,270 --> 00:07:44,639
activities at quicken loans arena that

188
00:07:49,110 --> 00:07:47,280

included the game's official coin toss a

189

00:07:51,430 --> 00:07:49,120

half-time demonstration by the great

190

00:07:53,189 --> 00:07:51,440

lakes science center and a post-game

191

00:07:55,990 --> 00:07:53,199

autograph session

192

00:07:58,390 --> 00:07:56,000

and that's this week at nasa for more on