1
00:00:07,040 --> 00:00:10,390
this week at nasa

2
00:00:12,470 --> 00:00:11,350
four

3
00:00:13,350 --> 00:00:12,480
three

4
00:00:14,390 --> 00:00:13,360
two

5
00:00:15,430 --> 00:00:14,400
one

6
00:00:16,950 --> 00:00:15,440
zero

7
00:00:19,670 --> 00:00:16,960
and liftoff

8
00:00:22,550 --> 00:00:19,680
expedition 3637 flight engineer karen

9
00:00:24,230 --> 00:00:22,560
nyberg of nasa soyuz commander fiorder

10
00:00:26,470 --> 00:00:24,240
yurchikhin of the russian federal space

11
00:00:29,189 --> 00:00:26,480
agency and flight engineer luca

12
00:00:31,029 --> 00:00:29,199
parmitano of the european space agency

13
00:00:33,670 --> 00:00:31,039

launched from the baikonur cosmodrome in

14
00:00:37,190 --> 00:00:33,680
kazakhstan in a russian soyuz spacecraft

15
00:00:38,709 --> 00:00:37,200
on may 29 kazakhstan time for a six-hour

16
00:00:39,750 --> 00:00:38,719
journey to the international space

17
00:00:41,910 --> 00:00:39,760
station

18
00:00:43,750 --> 00:00:41,920
the arrival of the trio marks the start

19
00:00:45,350 --> 00:00:43,760
of its five and a half month mission

20
00:00:46,950 --> 00:00:45,360
aboard the iss

21
00:00:49,510 --> 00:00:46,960
they joined flight engineer chris

22
00:00:51,670 --> 00:00:49,520
cassidy of nasa and russians pavel

23
00:00:54,229 --> 00:00:51,680
vinogradov commander of the station and

24
00:00:56,630 --> 00:00:54,239
flight engineer alexander misurkin

25
00:01:01,189 --> 00:00:56,640
cassidy vinogradov and misurkin have

26
00:01:05,590 --> 00:01:03,110
views from above are the storm system

27
00:01:08,390 --> 00:01:05,600
associated with the destructive may 20th

28
00:01:10,789 --> 00:01:08,400
ef-5 tornado in oklahoma

29
00:01:13,350 --> 00:01:10,799
an image from nasa's moderate resolution

30
00:01:16,070 --> 00:01:13,360
imaging spectroradiometer or modis

31
00:01:18,149 --> 00:01:16,080
instrument aboard the aqua satellite

32
00:01:20,390 --> 00:01:18,159
shows the supercell thunderstorm that

33
00:01:22,469 --> 00:01:20,400
spawned the deadly tornado

34
00:01:24,789 --> 00:01:22,479
the red line depicts the track of the

35
00:01:27,270 --> 00:01:24,799
mile wide twister that passed just south

36
00:01:30,230 --> 00:01:27,280
of oklahoma city and this animation of

37
00:01:32,149 --> 00:01:30,240
images from noaa's goes 13 satellite

38
00:01:34,469 --> 00:01:32,159

shows the movement of the storm system

39
00:01:37,270 --> 00:01:34,479
across the south central us

40
00:01:41,590 --> 00:01:37,280
an ef-5 tornado generates winds of at

41
00:01:43,670 --> 00:01:41,600
least 200 miles per hour

42
00:01:45,749 --> 00:01:43,680
nasa administrator charlie bolden was

43
00:01:47,590 --> 00:01:45,759
updated on the important work being done

44
00:01:50,069 --> 00:01:47,600
at the agency's california centers

45
00:01:52,230 --> 00:01:50,079
recently at the dryden flight research

46
00:01:54,310 --> 00:01:52,240
center in edwards the administrator

47
00:01:57,030 --> 00:01:54,320
toured sierra nevada corporation space

48
00:01:58,709 --> 00:01:57,040
systems dream chaser spacecraft the

49
00:02:00,709 --> 00:01:58,719
dream chaser test article will be

50
00:02:02,950 --> 00:02:00,719
evaluated later this year as part of

51
00:02:05,510 --> 00:02:02,960
nasa's commercial crew program to

52
00:02:07,350 --> 00:02:05,520
develop safe reliable and cost-effective

53
00:02:09,749 --> 00:02:07,360
access to and from the international

54
00:02:12,949 --> 00:02:09,759
space station and low earth orbit i'm

55
00:02:15,110 --> 00:02:12,959
personally excited about having dream

56
00:02:17,190 --> 00:02:15,120
chaser here at dryden i can't think of a

57
00:02:18,869 --> 00:02:17,200
better place to be testing a vehicle

58
00:02:21,510 --> 00:02:18,879
like this than bringing it right out

59
00:02:23,589 --> 00:02:21,520
here to the edwards dry lake bed

60
00:02:25,350 --> 00:02:23,599
which is very historic in its own right

61
00:02:27,830 --> 00:02:25,360
during a stop at pasadena's jet

62
00:02:29,830 --> 00:02:27,840
propulsion laboratory bolden was briefed

63
00:02:31,750 --> 00:02:29,840

on new technology being developed for

64
00:02:34,630 --> 00:02:31,760
nasa's initiative to capture and

65
00:02:37,030 --> 00:02:34,640
relocate an asteroid to earth moon space

66
00:02:38,309 --> 00:02:37,040
for study sample collection and return

67
00:02:41,350 --> 00:02:38,319
by humans

68
00:02:43,430 --> 00:02:41,360
jpl continues to play a critical role in

69
00:02:45,190 --> 00:02:43,440
our plans to develop a mission to

70
00:02:47,589 --> 00:02:45,200
identify capture and redirect an

71
00:02:49,910 --> 00:02:47,599
asteroid this mission represents an

72
00:02:52,309 --> 00:02:49,920
unprecedented technological challenge

73
00:02:54,550 --> 00:02:52,319
raising the bar for human and scientific

74
00:02:56,949 --> 00:02:54,560
exploration and discovery and at ames

75
00:02:58,790 --> 00:02:56,959
research center in moffett field bolden

76
00:03:02,149 --> 00:02:58,800
saw work being done with additive

77
00:03:04,149 --> 00:03:02,159
manufacturing also known as 3d printing

78
00:03:06,550 --> 00:03:04,159
a critical part of president obama's

79
00:03:09,430 --> 00:03:06,560
push for a strong american manufacturing

80
00:03:12,149 --> 00:03:09,440
sector and the phone sat nano satellite

81
00:03:14,309 --> 00:03:12,159
technology program which builds small

82
00:03:16,630 --> 00:03:14,319
satellites with off-the-shelf cellular

83
00:03:19,110 --> 00:03:16,640
phone technology as nasa ventures

84
00:03:21,589 --> 00:03:19,120
further into space whether redirecting

85
00:03:23,589 --> 00:03:21,599
an asteroid or sending humans to mars

86
00:03:26,149 --> 00:03:23,599
we'll need transformative technology to

87
00:03:28,470 --> 00:03:26,159
reduce cargo weight and volume in the

88
00:03:31,030 --> 00:03:28,480

future perhaps astronauts will be able

89
00:03:34,470 --> 00:03:31,040
to print the tools or components they

90
00:03:42,229 --> 00:03:37,350
on may 31st an asteroid believed to be

91
00:03:45,430 --> 00:03:42,239
about 1.7 miles long named 1998 qe2 will

92
00:03:46,869 --> 00:03:45,440
sail safely past earth about 3.6 million

93
00:03:49,110 --> 00:03:46,879
miles away

94
00:03:52,789 --> 00:03:49,120
according to astronomers this encounter

95
00:03:55,110 --> 00:03:52,799
with qe2 at 4 59 pm eastern time will be

96
00:03:57,509 --> 00:03:55,120
the asteroid's closest approach to earth

97
00:03:59,270 --> 00:03:57,519
for at least the next two centuries

98
00:04:01,429 --> 00:03:59,280
there is no threat to the earth from

99
00:04:03,429 --> 00:04:01,439
this close approach but it provides us a

100
00:04:06,149 --> 00:04:03,439
very good opportunity to learn more

101
00:04:08,949 --> 00:04:06,159
about this object the size shape and

102
00:04:11,030 --> 00:04:08,959
rotation dynamics of this object nasa's

103
00:04:13,270 --> 00:04:11,040
near-earth object program manages and

104
00:04:15,830 --> 00:04:13,280
funds the search study and monitoring of

105
00:04:17,990 --> 00:04:15,840
asteroids and comets to facilitate a

106
00:04:21,909 --> 00:04:18,000
chief nasa priority of protecting the

107
00:04:25,990 --> 00:04:23,749
jack fisher was one of four nasa

108
00:04:27,990 --> 00:04:26,000
astronauts to fly simulated landings of

109
00:04:32,790 --> 00:04:28,000
the dream chaser spacecraft at the

110
00:04:37,430 --> 00:04:34,710
the three-day simulations in a mock-up

111
00:04:39,510 --> 00:04:37,440
cockpit gave astronauts a feel for how

112
00:04:41,350 --> 00:04:39,520
the sierra nevada corporation's winged

113
00:04:43,350 --> 00:04:41,360

vehicle will handle from the moment it

114
00:04:46,070 --> 00:04:43,360
enters earth's atmosphere through a

115
00:04:48,469 --> 00:04:46,080
runway landing sierra nevada corporation

116
00:04:50,310 --> 00:04:48,479
is working with nasa's commercial crew

117
00:04:52,950 --> 00:04:50,320
program to refine the design of the

118
00:04:56,150 --> 00:04:52,960
dream chaser for future missions to low

119
00:04:58,469 --> 00:04:56,160
earth orbit

120
00:05:00,870 --> 00:04:58,479
nasa's curiosity rover has drilled into

121
00:05:03,990 --> 00:05:00,880
its second rock on the red planet

122
00:05:06,629 --> 00:05:04,000
curiosity drilled a 2.6 inch deep hole

123
00:05:09,510 --> 00:05:06,639
into a rock called cumberland located

124
00:05:11,590 --> 00:05:09,520
about nine feet east of john klein the

125
00:05:12,550 --> 00:05:11,600
rock curiosity drilled into three months

126
00:05:14,629 --> 00:05:12,560
ago

127
00:05:16,950 --> 00:05:14,639
plans call for delivering portions of

128
00:05:18,790 --> 00:05:16,960
the cumberland sample to laboratory

129
00:05:21,350 --> 00:05:18,800
instruments inside the rover for

130
00:05:24,390 --> 00:05:21,360
analysis and comparison to samples from

131
00:05:26,950 --> 00:05:24,400
john klein which indicated that long ago

132
00:05:36,950 --> 00:05:26,960
conditions favorable for microbial life

133
00:05:41,670 --> 00:05:39,029
following its launch on the antares test

134
00:05:43,670 --> 00:05:41,680
rocket in april the ames built phonesat

135
00:05:45,909 --> 00:05:43,680
cubesats successfully deployed into

136
00:05:47,830 --> 00:05:45,919
orbit and demonstrated that low-cost

137
00:05:49,510 --> 00:05:47,840
cell phone based satellites could work

138
00:05:51,830 --> 00:05:49,520

in space

139
00:05:53,590 --> 00:05:51,840
during the flight signals carrying image

140
00:05:56,150 --> 00:05:53,600
data from the cell phone cameras were

141
00:05:58,629 --> 00:05:56,160
transmitted back to the ground

142
00:06:01,110 --> 00:05:58,639
volunteer amateur ham radio operators

143
00:06:03,110 --> 00:06:01,120
worldwide recorded and uploaded the data

144
00:06:05,270 --> 00:06:03,120
to the research team at ames to form

145
00:06:07,029 --> 00:06:05,280
pictures of the earth

146
00:06:09,270 --> 00:06:07,039
researchers are already building the

147
00:06:12,629 --> 00:06:09,280
next generation of phonesat for launch

148
00:06:16,710 --> 00:06:14,309
goddard space flight center hosted

149
00:06:19,110 --> 00:06:16,720
traditional media and nasa social media

150
00:06:21,270 --> 00:06:19,120
followers for a nasa social about the

151
00:06:23,350 --> 00:06:21,280
global precipitation measurement mission

152
00:06:25,430 --> 00:06:23,360
and other nasa programs

153
00:06:27,350 --> 00:06:25,440
gpm is an international network of

154
00:06:29,749 --> 00:06:27,360
satellites that will measure rain and

155
00:06:31,830 --> 00:06:29,759
snowfall around the world and provide

156
00:06:34,070 --> 00:06:31,840
new insights into our planet's water

157
00:06:36,230 --> 00:06:34,080
cycles participants heard from gpm

158
00:06:38,550 --> 00:06:36,240
scientists about this cutting-edge

159
00:06:40,870 --> 00:06:38,560
science and were treated to tours of the

160
00:06:43,189 --> 00:06:40,880
facilities where gpm's core satellite

161
00:06:48,870 --> 00:06:43,199
was tested the core satellite is

162
00:06:55,990 --> 00:06:52,150
i feel the liftoff the clock has started

163
00:06:58,390 --> 00:06:56,000

on may 24 1962 mercury astronaut scott

164
00:07:01,110 --> 00:06:58,400
carpenter launched from cape canaveral

165
00:07:02,950 --> 00:07:01,120
aboard the aurora 7 spacecraft the

166
00:07:05,110 --> 00:07:02,960
flight was the second manned orbital

167
00:07:07,029 --> 00:07:05,120
mission of the mercury program following

168
00:07:08,629 --> 00:07:07,039
john glenn's friendship seven flight

169
00:07:10,629 --> 00:07:08,639
three months earlier

170
00:07:12,950 --> 00:07:10,639
like glenn carpenter circled the earth

171
00:07:14,870 --> 00:07:12,960
three times the five-hour mission

172
00:07:17,510 --> 00:07:14,880
focused on science and included the

173
00:07:19,350 --> 00:07:17,520
first study of liquids in weightlessness

174
00:07:21,749 --> 00:07:19,360
and earth photography

175
00:07:24,070 --> 00:07:21,759
a targeting mishap during re-entry took

176
00:07:27,189 --> 00:07:24,080
the spacecraft about 250 miles off

177
00:07:29,430 --> 00:07:27,199
course however carpenter and aurora 7

178
00:07:31,749 --> 00:07:29,440
were safely recovered after splashdown

179
00:07:34,230 --> 00:07:31,759
in the atlantic ocean

180
00:07:36,070 --> 00:07:34,240
and that's this week at nasa for more on

181
00:07:38,710 --> 00:07:36,080
these and other stories or to follow us