1
00:00:13,060 --> 00:00:10,920
this week at NASA the much-anticipated

2
00:00:15,549 --> 00:00:13,070
landing of the Mars Science Laboratory

3
00:00:18,820 --> 00:00:15,559
with curiosity the Red Planet's next

4
00:00:21,100 --> 00:00:18,830
resident Rover is this monday at 131 am

5
00:00:23,590 --> 00:00:21,110
e string having been configured by the

6
00:00:26,110 --> 00:00:23,600
MSL flight team for entry descent and

7
00:00:27,910 --> 00:00:26,120
landing the spacecraft is on final

8
00:00:31,810 --> 00:00:27,920
approach for its targeted touchdown in

9
00:00:33,700 --> 00:00:31,820
Gale Crater MSL has a huge reach reaches

10
00:00:35,229 --> 00:00:33,710
back into the past it reaches out in the

11
00:00:37,900 --> 00:00:35,239
future and frankly it reaches around the

12
00:00:39,610 --> 00:00:37,910
world there's nearly ten countries that

13
00:00:43,030 --> 00:00:39,620

are involved in this and five of them

14
00:00:45,510 --> 00:00:43,040
are major partners so I hate to but I

15
00:00:49,750 --> 00:00:45,520
will compare it slightly to

16
00:00:51,910 --> 00:00:49,760
international gymnastics in that it is

17
00:00:55,209 --> 00:00:51,920
going to be a tough series of challenges

18
00:00:56,709 --> 00:00:55,219
here for the for the team to get this to

19
00:00:58,380 --> 00:00:56,719
the surface but at the end we're all

20
00:01:00,940 --> 00:00:58,390
going to stick the landing right guys

21
00:01:03,160 --> 00:01:00,950
covers of curiosity's landing begin

22
00:01:07,199 --> 00:01:03,170
Sunday at eleven-thirty p.m. eastern on

23
00:01:13,730 --> 00:01:07,209
all three NASA TV channels nasa gov and

24
00:01:17,390 --> 00:01:15,660
engineers at the Johnson Space Center

25
00:01:19,440 --> 00:01:17,400
have conducted a successful

26
00:01:22,710 --> 00:01:19,450
seventy-second test firing of the

27
00:01:25,470 --> 00:01:22,720
project Morpheus Lander Morpheus is a

28
00:01:27,690 --> 00:01:25,480
vertical testbed vehicle demonstrating

29
00:01:30,600 --> 00:01:27,700
new dream propellant propulsion systems

30
00:01:33,300 --> 00:01:30,610
and all hat autonomous landing and

31
00:01:36,120 --> 00:01:33,310
hazard avoidance technology this final

32
00:01:38,520 --> 00:01:36,130
test at JSC had the vehicle tethered to

33
00:01:41,130 --> 00:01:38,530
a crane and included a 60-second hover

34
00:01:43,830 --> 00:01:41,140
test with a four-second passent and a

35
00:01:45,930 --> 00:01:43,840
6-second decent the lander was later

36
00:01:47,940 --> 00:01:45,940
shipped to the Kennedy Space Center for

37
00:01:55,350 --> 00:01:47,950
its to undergo its first free flight

38
00:01:57,450 --> 00:01:55,360

testing 17 meters an unpiloted Russian

39
00:02:00,660 --> 00:01:57,460
resupply ship loaded with almost three

40
00:02:02,460 --> 00:02:00,670
tons of food fuel and supplies linked up

41
00:02:04,530 --> 00:02:02,470
to the International Space Station just

42
00:02:06,710 --> 00:02:04,540
six hours after its launch from the

43
00:02:09,300 --> 00:02:06,720
Baikonur cosmodrome in Kazakhstan

44
00:02:11,760 --> 00:02:09,310
additional engine firings early in its

45
00:02:13,380 --> 00:02:11,770
mission were a test to expedite the

46
00:02:15,510 --> 00:02:13,390
progress its journey to the orbiting

47
00:02:18,150 --> 00:02:15,520
laboratory which normally takes about

48
00:02:20,490 --> 00:02:18,160
two days after analysis by Russian

49
00:02:22,890 --> 00:02:20,500
engineers and managers the technique

50
00:02:24,720 --> 00:02:22,900
could be used to similarly shorten a

51
00:02:27,690 --> 00:02:24,730
Soyuz vehicles route to the station

52
00:02:29,460 --> 00:02:27,700
thereby improving crew comfort as well

53
00:02:34,320 --> 00:02:29,470
as extending the life of the return

54
00:02:35,880 --> 00:02:34,330
vehicle while docked to the ISS you are

55
00:02:39,630 --> 00:02:35,890
our Olympians you are the best of the

56
00:02:41,310 --> 00:02:39,640
best you are the ones who help us reach

57
00:02:44,280 --> 00:02:41,320
for new heights deputy administrator

58
00:02:46,710 --> 00:02:44,290
lori garver led the 2012 nasa honor

59
00:02:49,110 --> 00:02:46,720
awards recognizing those in the agency

60
00:02:51,479 --> 00:02:49,120
whose outstanding efforts in the past

61
00:02:53,520 --> 00:02:51,489
year have helped NASA reach new

62
00:02:58,860 --> 00:02:53,530
milestones

63
00:03:00,900 --> 00:02:58,870

a new video spotlighting NASA's

64
00:03:02,280 --> 00:03:00,910
Curiosity rover was featured during a

65
00:03:05,280 --> 00:03:02,290
performance of the National Symphony

66
00:03:07,410 --> 00:03:05,290
Orchestra at wolftrap national park for

67
00:03:10,410 --> 00:03:07,420
the Performing Arts outside Washington

68
00:03:12,900 --> 00:03:10,420
DC the video from director Duncan Copp

69
00:03:15,390 --> 00:03:12,910
was accompanied by a musical selection

70
00:03:17,940 --> 00:03:15,400
from late french composer george busy

71
00:03:20,610 --> 00:03:17,950
the NSO was under the direction of

72
00:03:22,979 --> 00:03:20,620
conductor Emil tuku NASA Administrator

73
00:03:25,320 --> 00:03:22,989
Charlie Bolden was on hand for the

74
00:03:27,990 --> 00:03:25,330
performance this mission will not only

75
00:03:30,570 --> 00:03:28,000
help unlock the mysteries of Mars it's a

76
00:03:32,220 --> 00:03:30,580
precursor to achieving President Obama's

77
00:03:38,729 --> 00:03:32,230
goal of sending humans to the red planet

78
00:03:40,890 --> 00:03:38,739
by the 2030s the curiosity visuals were

79
00:03:43,160 --> 00:03:40,900
a portion of the NASA imagery featured

80
00:03:49,910 --> 00:03:43,170
as part of Gustav Holst's the planets

81
00:03:55,319 --> 00:03:53,039
the 2012 NASA headquarters take your

82
00:03:57,780 --> 00:03:55,329
children to work day gave younger NASA

83
00:04:00,330 --> 00:03:57,790
family members a peek inside the agency

84
00:04:03,390 --> 00:04:00,340
and its diversity of people and

85
00:04:05,970 --> 00:04:03,400
professions hands-on activities also

86
00:04:11,569 --> 00:04:05,980
represented tasks performed and some of

87
00:04:15,599 --> 00:04:13,800
this summer has also been a learning

88
00:04:17,670 --> 00:04:15,609

experience at headquarters for a group

89
00:04:19,620 --> 00:04:17,680
of high school students administrator

90
00:04:22,260 --> 00:04:19,630
charlie bolden spoke to participants of

91
00:04:24,749 --> 00:04:22,270
the 2012 NASA engineering apprenticeship

92
00:04:26,540 --> 00:04:24,759
program me app targets high school

93
00:04:28,770 --> 00:04:26,550
sophomores juniors and seniors

94
00:04:31,219 --> 00:04:28,780
interested in science technology

95
00:04:33,990 --> 00:04:31,229
engineering and math the STEM careers

96
00:04:36,060 --> 00:04:34,000
under the eight-week program students

97
00:04:38,820 --> 00:04:36,070
work on a project under the guidance of

98
00:04:40,950 --> 00:04:38,830
a volunteer mentor nASA has hosted more

99
00:04:44,159 --> 00:04:40,960
than 200 students since the program

100
00:04:45,839 --> 00:04:44,169
began in 1995 many knee appt students

101
00:04:48,749 --> 00:04:45,849
have gone on to top colleges and

102
00:04:53,219 --> 00:04:48,759
positions within NASA and other industry

103
00:04:55,560 --> 00:04:53,229
organizations discovery endeavour and

104
00:04:58,439 --> 00:04:55,570
atlantis came home from space for the

105
00:05:00,360 --> 00:04:58,449
last time in 2011 touching down at the

106
00:05:12,060 --> 00:05:00,370
shuttle landing facility at kennedy

107
00:05:14,189 --> 00:05:12,070
space center in florida and after each

108
00:05:16,830 --> 00:05:14,199
final landing kennedy's landing

109
00:05:19,610 --> 00:05:16,840
operations team used a temporary spray

110
00:05:22,620 --> 00:05:19,620
paint to note where the wheel stopped

111
00:05:25,170 --> 00:05:22,630
local artist chad stout of sea spray

112
00:05:28,230 --> 00:05:25,180
glass blasting designed manufactured and

113
00:05:30,600 --> 00:05:28,240

installed the markers wearing safety

114
00:05:33,089 --> 00:05:30,610
gear he etched the final design in

115
00:05:36,480 --> 00:05:33,099
absolute black granite an extremely

116
00:05:38,339 --> 00:05:36,490
durable stone pavers are extra thick and

117
00:05:41,399 --> 00:05:38,349
weigh at least a hundred pounds each but

118
00:05:43,350 --> 00:05:41,409
he installed them by hand all three

119
00:05:45,810 --> 00:05:43,360
papers are aligned with the etchings on

120
00:05:48,390 --> 00:05:45,820
the runway centerline and like their

121
00:05:53,159 --> 00:05:48,400
shuttles legacy will stand the test of

122
00:05:57,790 --> 00:05:55,719
nASA has donated a piece of space

123
00:05:59,710 --> 00:05:57,800
shuttle history to the coca-cola Space

124
00:06:04,689 --> 00:05:59,720
Science Center at Columbus State

125
00:06:07,180 --> 00:06:04,699
University in Georgia the Science Center

126
00:06:09,640 --> 00:06:07,190
has taken possession of main engine

127
00:06:11,890 --> 00:06:09,650
nozzle number five thousand two from the

128
00:06:14,260 --> 00:06:11,900
Marshall Space Flight centers propulsion

129
00:06:16,180 --> 00:06:14,270
research development plan this

130
00:06:18,279 --> 00:06:16,190
particular nozzle has flown to space

131
00:06:21,580 --> 00:06:18,289
numerous times on four different

132
00:06:24,610 --> 00:06:21,590
shuttles including the STS 60 mission in

133
00:06:26,589 --> 00:06:24,620
February 1994 we have a go for engine

134
00:06:29,379 --> 00:06:26,599
start commanding space shuttle Discovery

135
00:06:31,450 --> 00:06:29,389
for that flight then astronaut Charlie

136
00:06:34,360 --> 00:06:31,460
Bolden who is now of course NASA

137
00:06:35,950 --> 00:06:34,370
Administrator the NASA artifact will be

138
00:06:38,379 --> 00:06:35,960

displayed at the coca-cola Science

139
00:06:43,689 --> 00:06:38,389
Center to inspire the next generation of

140
00:06:46,300 --> 00:06:43,699
scientists and engineers 15 years ago on

141
00:06:47,920 --> 00:06:46,310
August seventh 1997 space shuttle

142
00:06:51,730 --> 00:06:47,930
discovery launched from kennedy space

143
00:06:55,059 --> 00:06:51,740
center on sts 85 her crew commander

144
00:06:57,939 --> 00:06:55,069
curtis brown pilot kit rominger mission

145
00:07:00,580 --> 00:06:57,949
specialists jan davis bob Curbeam and

146
00:07:02,709 --> 00:07:00,590
steve robinson and payload specialists

147
00:07:04,959 --> 00:07:02,719
BR neat rig listen of the Canadian Space

148
00:07:07,390 --> 00:07:04,969
Agency worked for the compliment of

149
00:07:09,550 --> 00:07:07,400
payloads focused on mission to Planet

150
00:07:11,050 --> 00:07:09,560
Earth objectives as well as the

151
00:07:13,570 --> 00:07:11,060
then-upcoming Assembly of the

152
00:07:15,219 --> 00:07:13,580
International Space Station among them

153
00:07:18,070 --> 00:07:15,229
the japanese manipulator flight

154
00:07:20,890 --> 00:07:18,080
development MFD to evaluate the robotic

155
00:07:23,820 --> 00:07:20,900
small fine arm that later became part of

156
00:07:26,680 --> 00:07:23,830
the Japanese Kibo laboratory on the ISS

157
00:07:29,529 --> 00:07:26,690
discovery and crew returned to Earth 11

158
00:07:33,950 --> 00:07:29,539
days later landing safely at KSC on

159
00:07:38,059 --> 00:07:33,960
August nineteenth 32

160
00:07:40,580 --> 00:07:38,069
one zero and liftoff of space shuttle

161
00:07:43,370 --> 00:07:40,590
Endeavour five years ago on august

162
00:07:47,330 --> 00:07:43,380
eighth 2007 space shuttle Endeavour

163
00:07:48,800 --> 00:07:47,340

launched from KSC on sts-118 the 22nd

164
00:07:50,800 --> 00:07:48,810
shuttle flight to the international

165
00:07:53,600 --> 00:07:50,810
space station commander Scott Kelly

166
00:07:55,850 --> 00:07:53,610
pilot Charlie ho ball and mission

167
00:07:57,580 --> 00:07:55,860
specialists Rick Mastracchio Dave

168
00:08:00,770 --> 00:07:57,590
Williams of the Canadian Space Agency

169
00:08:03,409 --> 00:08:00,780
Barbara Morgan Tracy Caldwell and al

170
00:08:06,290 --> 00:08:03,419
drew continued construction of the ISS

171
00:08:08,600 --> 00:08:06,300
by delivering s5 the station's third

172
00:08:10,730 --> 00:08:08,610
starboard truss segment the crew also

173
00:08:13,129 --> 00:08:10,740
replaced a defective gyroscope and

174
00:08:15,290 --> 00:08:13,139
installed an external stowage platform

175
00:08:17,390 --> 00:08:15,300
they closed out the mission 12 days

176
00:08:23,749 --> 00:08:17,400
later when endeavour touched down on the

177
00:08:26,420 --> 00:08:23,759
runway at KSC and liftoff of the Atlas 5

178
00:08:28,520 --> 00:08:26,430
with Juno on a trek to Jupiter and

179
00:08:30,649 --> 00:08:28,530
August fifth marks the one-year

180
00:08:33,469 --> 00:08:30,659
anniversary of the launch of the Juno

181
00:08:35,209 --> 00:08:33,479
spacecraft atop an Atlas 5 rocket from

182
00:08:37,699 --> 00:08:35,219
cape canaveral air force station in

183
00:08:40,279 --> 00:08:37,709
florida launched marked the start of

184
00:08:42,709 --> 00:08:40,289
journals five-year journey to Jupiter to

185
00:08:45,850 --> 00:08:42,719
study the planet structure and decipher

186
00:08:48,620 --> 00:08:45,860
its history and that's this week @nasa

187
00:08:50,389 --> 00:08:48,630
for more on these and other stories or

188
00:08:52,579 --> 00:08:50,399

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