
NASA
NuSTAR Delivers X-Ray Goods

1
00:00:11,030 --> 00:00:06,950
[Music]

2
00:00:14,390 --> 00:00:12,629
final preparations are being made to

3
00:00:16,630 --> 00:00:14,400
launch the lunar atmosphere and dust

4
00:00:18,790 --> 00:00:16,640
environment explorer or lady probe to

5
00:00:20,390 --> 00:00:18,800
study the structure and composition of

6
00:00:22,230 --> 00:00:20,400
the moon's atmosphere and determine

7
00:00:24,310 --> 00:00:22,240
whether dust is being lofted into the

8
00:00:25,509 --> 00:00:24,320
lunar sky lady will help us better

9
00:00:27,189 --> 00:00:25,519
understand

10
00:00:29,269 --> 00:00:27,199
other bodies in our solar system that

11
00:00:31,349 --> 00:00:29,279
are similar such as mercury some of the

12
00:00:33,910 --> 00:00:31,359
larger asteroids and even some of the

13
00:00:35,590 --> 00:00:33,920

moons of the outer planets nasa tv will

14
00:00:37,510 --> 00:00:35,600
carry the ladi launch from wallops

15
00:00:40,229 --> 00:00:37,520
flight facility friday night september

16
00:00:42,229 --> 00:00:40,239
6th an orbital sciences corporation has

17
00:00:44,069 --> 00:00:42,239
tips on their website for seeing the

18
00:00:47,190 --> 00:00:44,079
launch from spots around the washington

19
00:00:51,510 --> 00:00:49,430
the atlas v rocket that will send nasa's

20
00:00:53,590 --> 00:00:51,520
mars atmosphere and volatile evolution

21
00:00:56,389 --> 00:00:53,600
or maven spacecraft to the red planet

22
00:00:58,069 --> 00:00:56,399
arrived at port canaveral florida maven

23
00:00:59,990 --> 00:00:58,079
will be the first mission dedicated to

24
00:01:02,549 --> 00:01:00,000
searching for clues about what existed

25
00:01:06,870 --> 00:01:02,559
in the upper atmosphere of ancient mars

26
00:01:10,390 --> 00:01:08,550
i'm really looking forward to

27
00:01:13,270 --> 00:01:10,400
actually spending a long period of time

28
00:01:15,190 --> 00:01:13,280
up there helping to do some research get

29
00:01:16,630 --> 00:01:15,200
involved in the science during a press

30
00:01:19,670 --> 00:01:16,640
conference at johnson space center

31
00:01:20,950 --> 00:01:19,680
members of expedition 3839 the next crew

32
00:01:22,630 --> 00:01:20,960
headed to the international space

33
00:01:26,710 --> 00:01:22,640
station met the media

34
00:01:28,789 --> 00:01:26,720
astronauts rick mastracchio of nasa

35
00:01:30,710 --> 00:01:28,799
and russian cosmonaut mikhail turin will

36
00:01:33,109 --> 00:01:30,720
launch in their soyuz spacecraft from

37
00:01:36,469 --> 00:01:33,119
the baikonur cosmodrome in kazakhstan on

38
00:01:40,630 --> 00:01:38,550

in its first 10 years nasa's spitzer

39
00:01:42,550 --> 00:01:40,640
space telescope used its infrared vision

40
00:01:44,789 --> 00:01:42,560
to discover carbon spheres in space

41
00:01:46,630 --> 00:01:44,799
called bucky balls and the first light

42
00:01:48,710 --> 00:01:46,640
ever from a planet outside our solar

43
00:01:50,630 --> 00:01:48,720
system spitzer will start its second

44
00:01:52,710 --> 00:01:50,640
decade of observations helping scope out

45
00:01:54,230 --> 00:01:52,720
potential asteroid candidates for the

46
00:01:56,389 --> 00:01:54,240
agency's asteroid capture and

47
00:01:58,550 --> 00:01:56,399
redirection mission starting in october

48
00:02:00,789 --> 00:01:58,560
with a small near-earth asteroid named

49
00:02:02,870 --> 00:02:00,799
2009 db

50
00:02:04,789 --> 00:02:02,880
and in september nasa plans to wake up

51
00:02:06,630 --> 00:02:04,799
and use the wide-field infrared survey

52
00:02:08,949 --> 00:02:06,640
explorer or wise telescope for its

53
00:02:10,869 --> 00:02:08,959
asteroid hunting ability wise will look

54
00:02:12,630 --> 00:02:10,879
for asteroids suitable for exploration

55
00:02:14,630 --> 00:02:12,640
as well as those potentially hazardous

56
00:02:16,550 --> 00:02:14,640
to earth part of the successful

57
00:02:19,030 --> 00:02:16,560
near-earth object survey mission called

58
00:02:22,550 --> 00:02:19,040
neowise the telescope was put to sleep

59
00:02:27,270 --> 00:02:24,710
the largest 3d printed rocket injector

60
00:02:29,430 --> 00:02:27,280
nasa has ever tested blazed to life

61
00:02:31,910 --> 00:02:29,440
during a hot fire test that generated a

62
00:02:34,470 --> 00:02:31,920
record 20 000 pounds of thrust the

63
00:02:36,390 --> 00:02:34,480

successful test of the subscale injector

64
00:02:38,390 --> 00:02:36,400
made using additive manufacturing

65
00:02:40,390 --> 00:02:38,400
technology is a milestone in the

66
00:02:42,229 --> 00:02:40,400
agency's quest to use the advanced

67
00:02:43,670 --> 00:02:42,239
technology to make space hardware at

68
00:02:45,910 --> 00:02:43,680
reduced cost

69
00:02:47,910 --> 00:02:45,920
the complex part was made using just two

70
00:02:50,070 --> 00:02:47,920
pieces from a 3d printing machine

71
00:02:53,910 --> 00:02:50,080
compared to the 115 pieces used in

72
00:02:58,150 --> 00:02:56,070
at stennis space center workers are busy

73
00:03:00,869 --> 00:02:58,160
preparing the a1 test stand for new

74
00:03:02,630 --> 00:03:00,879
testing of the rs-25 engine the test

75
00:03:04,949 --> 00:03:02,640
stand is being outfitted with a piping

76
00:03:06,790 --> 00:03:04,959
system for liquid hydrogen liquid oxygen

77
00:03:08,630 --> 00:03:06,800
and other elements needed to test these

78
00:03:16,550 --> 00:03:08,640
engines that will power the core stage

79
00:03:20,229 --> 00:03:18,550
at langley research center a helicopter

80
00:03:22,550 --> 00:03:20,239
was dropped from about 30 feet at the

81
00:03:25,190 --> 00:03:22,560
center's impact research facility

82
00:03:27,350 --> 00:03:25,200
nasa the army navy and faa crashed the

83
00:03:29,670 --> 00:03:27,360
copter to test its improved seats and

84
00:03:32,309 --> 00:03:29,680
seat belts and to analyze new techniques

85
00:03:35,030 --> 00:03:32,319
and crash worthiness data the 30 mile

86
00:03:37,350 --> 00:03:35,040
per hour impact is considered severe but

87
00:03:40,390 --> 00:03:37,360
survivable under civilian and military

88
00:03:44,630 --> 00:03:42,710

the first batch of x-ray image data from

89
00:03:46,869 --> 00:03:44,640
nasa's black hole hunting nuclear

90
00:03:49,350 --> 00:03:46,879
spectroscopic telescope array or new

91
00:03:51,910 --> 00:03:49,360
star is publicly available via nasa's

92
00:03:53,270 --> 00:03:51,920
high energy astrophysics science archive

93
00:03:55,430 --> 00:03:53,280
research center

94
00:03:57,670 --> 00:03:55,440
the images taken from july to august

95
00:03:59,270 --> 00:03:57,680
2012 shortly after the spacecraft

96
00:04:01,589 --> 00:03:59,280
launched included an assortment of

97
00:04:05,830 --> 00:04:01,599
extreme objects including black holes

98
00:04:09,990 --> 00:04:07,670
there's a james webb space telescope

99
00:04:11,589 --> 00:04:10,000
mini-me at goddard space flight center

100
00:04:13,910 --> 00:04:11,599
the team of engineering students that

101
00:04:15,830 --> 00:04:13,920
built a one-sixth scale model as part of

102
00:04:17,909 --> 00:04:15,840
a mentoring program gained valuable

103
00:04:20,469 --> 00:04:17,919
hands-on experience in design and

104
00:04:22,550 --> 00:04:20,479
development of complex space systems

105
00:04:24,230 --> 00:04:22,560
there are plans to also use the model to

106
00:04:28,790 --> 00:04:24,240
help the public understand the

107
00:04:31,749 --> 00:04:28,800
challenges of advancing space science

108
00:04:33,749 --> 00:04:31,759
one year ago on august 30th 2012 the van

109
00:04:35,909 --> 00:04:33,759
allen probes were launched to study the

110
00:04:37,749 --> 00:04:35,919
van allen radiation belts around earth

111
00:04:40,390 --> 00:04:37,759
and space weather which can disrupt

112
00:04:42,870 --> 00:04:40,400
satellites gps communications and cause

113
00:04:44,629 --> 00:04:42,880

power grid failures the van allen probes

114
00:04:46,790 --> 00:04:44,639
will help researchers better design

115
00:04:49,909 --> 00:04:46,800
spacecraft that can survive the rigors

116
00:04:53,990 --> 00:04:51,990
the nasa family is mourning the loss of

117
00:04:56,550 --> 00:04:54,000
astronaut gordon fullerton who logged

118
00:04:59,350 --> 00:04:56,560
over 300 hours in space including the

119
00:05:01,110 --> 00:04:59,360
space lab 2 mission and sts-3 the only

120
00:05:02,469 --> 00:05:01,120
shuttle mission to land at white sands

121
00:05:04,790 --> 00:05:02,479
new mexico

122
00:05:06,629 --> 00:05:04,800
his 22 years as a test pilot at dryden

123
00:05:08,310 --> 00:05:06,639
flight research center included work

124
00:05:12,070 --> 00:05:08,320
with the f-15

125
00:05:13,670 --> 00:05:12,080
the x-38 and the x-43a

126
00:05:15,749 --> 00:05:13,680
fullerton had been in a california

127
00:05:17,830 --> 00:05:15,759
long-term care facility since having a

128
00:05:21,990 --> 00:05:17,840
stroke in 2009.

129
00:05:23,909 --> 00:05:22,000
he died august 21st at age 76.

130
00:05:25,590 --> 00:05:23,919
and that's this week at nasa for more on

131
00:05:28,150 --> 00:05:25,600
these and other stories or to follow us