



1
00:00:07,000 --> 00:00:08,790
This Week at NASA...

2
00:00:08,790 --> 00:00:15,070
"4-3-2-1, Go Antares ... engine start.

3
00:00:15,070 --> 00:00:23,860
Liftoff of the Antares A-One test mission
..."

4
00:00:23,860 --> 00:00:29,550
Now that the Antares rocket and its simulated
Cygnus spacecraft have successfully test-launched

5
00:00:29,550 --> 00:00:34,100
from the Mid-Atlantic Regional Spaceport at
Wallops Flight Facility, program managers

6
00:00:34,100 --> 00:00:39,300
at NASA and Orbital Sciences Corporation are
looking ahead to the cargo delivery system's

7
00:00:39,300 --> 00:00:40,300
next milestone.

8
00:00:40,300 --> 00:00:42,469
"This is what we've said we wanted.

9
00:00:42,469 --> 00:00:49,040
You know, we wanted to have what we consider
to be a viable commercial option to get cargo

10
00:00:49,040 --> 00:00:50,590
to the International Space Station."

11
00:00:50,590 --> 00:00:54,070
"The Cygnus spacecraft that will fly to
the space station has actually been fueled,

12
00:00:54,070 --> 00:00:58,649
it's ready to be transferred into the Horizontal
Integration Facility and as soon as that rocket

13
00:00:58,649 --> 00:01:02,399
is ready to receive it, we'll integrate
the two together and it will be ready to roll

14
00:01:02,399 --> 00:01:04,140
out to the pad something this summer.”

15
00:01:04,140 --> 00:01:09,100
Cygnus is designed to deliver supplies and
science experiments to the International Space

16
00:01:09,100 --> 00:01:14,170
Station under NASA's Commercial Orbital
Transportation Services, or COTS program.

17
00:01:14,170 --> 00:01:20,200
On this test flight, Antares also delivered
to orbit a trio of PhoneSat nanosatellites

18
00:01:20,200 --> 00:01:25,640
designed and built at Ames Research Center
to showcase the ability to launch and deliver

19
00:01:25,640 --> 00:01:31,420
to space low-cost, easy-to-build satellites.

20
00:01:31,420 --> 00:01:36,320
Progress on final assembly and integration
of the Orion spacecraft was showcased for

21
00:01:36,320 --> 00:01:40,560
news media at the Kennedy Space Center's
Operations and Checkout Building.

22
00:01:40,560 --> 00:01:46,810

KSC Director Bob Cabana and others detailed the status of NASA's next space capsule

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00:01:46,810 --> 00:01:51,860

and its un-crewed Exploration Flight Test-1 scheduled for next year.

24

00:01:51,860 --> 00:01:57,520

EFT-1, which will send Orion some 36-hundred miles into space and will test the capsule's

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00:01:57,520 --> 00:02:03,000

heat shield as it re-enters Earth's atmosphere at high speeds similar to those experienced

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00:02:03,000 --> 00:02:07,670

by spacecraft returning from deep space.

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00:02:07,670 --> 00:02:12,190

The occasion also marked the announcement three years ago by President Obama of his

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00:02:12,190 --> 00:02:18,450

goals for NASA and space exploration, including sending humans to an asteroid, something Orion

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00:02:18,450 --> 00:02:23,230

could do as early as 2021.

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00:02:23,230 --> 00:02:28,840

Deputy Administrator Lori Garver addressed attendees of "Gathering for Impact!",

31

00:02:28,840 --> 00:02:34,430

the 3rd International Academy of Astronautics Planetary Defense Conference, in Flagstaff,

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00:02:34,430 --> 00:02:35,430

Arizona.

33
00:02:35,430 --> 00:02:41,730
The 5-day event addressed strategies for deflecting an asteroid and civil defense response should

34
00:02:41,730 --> 00:02:42,879
impact threaten.

35
00:02:42,879 --> 00:02:46,140
“Well, NASA’s all about leaving the world a better place.

36
00:02:46,140 --> 00:02:50,680
So leaving it intact is a benefit that we can help with.”

37
00:02:50,680 --> 00:02:55,819
Also included was an outing to nearby Meteor Crater – one of the best preserved meteorite

38
00:02:55,819 --> 00:02:59,540
impact sites in the world.

39
00:02:59,540 --> 00:03:06,300
NASA’s Kelper space telescope has discovered three super Earth-size planets in their stars’

40
00:03:06,300 --> 00:03:11,830
habitable zones, a region where liquid water might exist on the planets’ surface.

41
00:03:11,830 --> 00:03:16,599
The smallest of the three is only forty percent larger than Earth and most likely rocky in

42
00:03:16,599 --> 00:03:17,599
composition.

43
00:03:17,599 --> 00:03:24,349
Two of the planets orbit a star known as Kepler-62,

located 360 light years from Earth.

44

00:03:24,349 --> 00:03:32,650

The other revolves around Kepler-69, which is approximately 27-hundred light years away.

45

00:03:32,650 --> 00:03:37,099

Aboard the International Space Station: a spacewalk by Russian Flight Engineers Pavel

46

00:03:37,099 --> 00:03:43,379

Vinogradov and Roman Romanenko to deploy and retrieve several science experiments and install

47

00:03:43,379 --> 00:03:47,190

a new navigational aid on the Zvezda service module.

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00:03:47,190 --> 00:03:51,599

The retro-reflector device will provide docking assistance for the arrival of the European

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00:03:51,599 --> 00:03:57,989

Space Agency's Albert Einstein Automated Transfer Vehicle 4 cargo ship in June.

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00:03:57,989 --> 00:04:03,769

The spacewalk -- the 167th in support of space station assembly and maintenance, is the seventh

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00:04:03,769 --> 00:04:09,230

for Vinogradov and the first for Romanenko.

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00:04:09,230 --> 00:04:14,110

Teams of high school and college students are geared up for the 20th annual Great Moonbuggy

53

00:04:14,110 --> 00:04:20,310

Race April 25-27 at the US Space & Rocket Center in Huntsville.

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00:04:20,310 --> 00:04:24,710
Hosted by the Marshall Space Flight Center,
the event encourages young people to develop

55
00:04:24,710 --> 00:04:31,630
and use skills in science, technology, engineering
and math to build and race lightweight, human-powered

56
00:04:31,630 --> 00:04:32,970
buggies.

57
00:04:32,970 --> 00:04:38,350
NASA hopes these students will pursue careers
in STEM fields to benefit the agency, the

58
00:04:38,350 --> 00:04:42,530
nation and humankind.

59
00:04:42,530 --> 00:04:47,960
NASA's Hubble Space Telescope celebrated its
23rd anniversary by, once again, focusing

60
00:04:47,960 --> 00:04:53,180
on the iconic Horsehead Nebula – but this
time with the infrared eyes of its Wide Field

61
00:04:53,180 --> 00:04:54,960
Camera 3.

62
00:04:54,960 --> 00:05:00,820
Imaging the nebula in infrared revealed features
previously hidden by gas and dust.

63
00:05:00,820 --> 00:05:05,870
About 15-hundred light-years away, the Horsehead
lies in one of the closest and most commonly

64
00:05:05,870 --> 00:05:09,870

photographed regions of space, where stars are actively forming.

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00:05:09,870 --> 00:05:14,840
The image is a preview of the infrared output expected from Hubble's successor, the James

66
00:05:14,840 --> 00:05:22,410
Webb Space Telescope, set to launch in 2018.

67
00:05:22,410 --> 00:05:28,120
Twelve years ago, on April 19, 2001, space shuttle Endeavour launched from Kennedy Space

68
00:05:28,120 --> 00:05:34,860
Center on STS-100 to deliver Canadarm2 to the International Space Station.

69
00:05:34,860 --> 00:05:40,620
Used to lift and move hardware and spacewalking astronauts, the Canadian-built robotic arm,

70
00:05:40,620 --> 00:05:45,900
a longer, more capable version of the shuttle's robot arm, played a critical role in completing

71
00:05:45,900 --> 00:05:47,990
assembly of the space station.

72
00:05:47,990 --> 00:05:53,289
The mission also delivered supplies to the station with the Italian-built Raffaello Multi-Purpose

73
00:05:53,289 --> 00:05:55,710
Logistics module.

74
00:05:55,710 --> 00:05:57,449
And that's This Week @NASA.