
IMAX
A BEAUTIFUL
PLANET

1
00:00:00,669 --> 00:00:05,140
“Here’s some of the stories trending This
Week at NASA!”

2
00:00:05,140 --> 00:00:10,820
An April 19 event at NASA’s Ames Research
Center at Moffett Field, California, showcased

3
00:00:10,820 --> 00:00:16,350
the Unmanned Aircraft Systems Traffic Management
(UTM) prototype the agency is developing for

4
00:00:16,350 --> 00:00:19,100
the Federal Aviation Administration (FAA).

5
00:00:19,100 --> 00:00:24,970
With coordination from Ames, operators of
non-NASA unmanned aircraft or drones used

6
00:00:24,970 --> 00:00:31,630
the system to conduct simultaneous test flights,
with some 20 drones at six FAA-approved locations

7
00:00:31,630 --> 00:00:33,610
around the country.

8
00:00:33,610 --> 00:00:38,149
During the test, Ames engineers used the traffic
management prototype to monitor the flights

9
00:00:38,149 --> 00:00:45,039
remotely and gather qualitative feedback that
will help further develop and refine the system.

10
00:00:45,039 --> 00:00:49,870
With this research, NASA and the FAA hope
to address the need for a system to safely

11
00:00:49,870 --> 00:00:55,359

integrate unmanned aircraft into the nation's airspace.

12
00:00:55,359 --> 00:01:00,570
NASA helped kick off this year's celebration of Earth Day with public events and online

13
00:01:00,570 --> 00:01:01,639
activities.

14
00:01:01,639 --> 00:01:06,460
Exhibits at the April 22 Earth Day in the nation's capital event, at Washington's

15
00:01:06,460 --> 00:01:11,829
Union Station, featured hands-on activities and presentations that included stunning images

16
00:01:11,829 --> 00:01:15,530
of Earth, on NASA's mega-sized Hyperwall.

17
00:01:15,530 --> 00:01:21,020
Chief Scientist Ellen Stofan was among those who talked about NASA's Earth science research,

18
00:01:21,020 --> 00:01:25,650
and how observing our planet from the vantage point of space helps us better understand

19
00:01:25,650 --> 00:01:27,460
how it's changing.

20
00:01:27,460 --> 00:01:33,770
NASA also invited people around the world to use #24Seven to share on social media what

21
00:01:33,770 --> 00:01:39,090
they're doing to celebrate and improve our home planet.

22
00:01:39,090 --> 00:01:44,000
Observing Earth from space is great for science
– but also for just gawking at the awesomeness

23
00:01:44,000 --> 00:01:46,119
and beauty of our home world.

24
00:01:46,119 --> 00:01:48,869
Only a select few get to do that first hand.

25
00:01:48,869 --> 00:01:54,680
But, the new documentary, “A Beautiful Planet”
– made in cooperation with NASA – is bringing

26
00:01:54,680 --> 00:01:58,700
the experience to IMAX screens around the
world.

27
00:01:58,700 --> 00:02:03,930
NASA was on the red carpet for the film’s
April 16 world premiere at New York’s Lincoln

28
00:02:03,930 --> 00:02:05,490
Square Theater.

29
00:02:05,490 --> 00:02:11,069
The production, narrated by actress Jennifer
Lawrence, uses IMAX and IMAX 3-D views of

30
00:02:11,069 --> 00:02:16,010
Earth, shot by astronauts from onboard the
International Space Station.

31
00:02:16,010 --> 00:02:21,470
Several of them attended the event, including
NASA’s Kjell Lindgren, Terry Virts and Butch

32
00:02:21,470 --> 00:02:27,090
Wilmore, as well as former NASA astronaut

Scott Kelly.

33
00:02:27,090 --> 00:02:32,040
At NASA’s Michoud Assembly Facility in New Orleans, final welding was completed on the

34
00:02:32,040 --> 00:02:37,060
first major piece of flight hardware for the core stage of the agency’s Space Launch

35
00:02:37,060 --> 00:02:38,690
System rocket.

36
00:02:38,690 --> 00:02:44,170
The component, part of the rocket’s engine section, will house the four RS-25 engines

37
00:02:44,170 --> 00:02:48,519
for the first flight of the SLS with NASA's Orion spacecraft in 2018.

38
00:02:48,519 --> 00:02:56,160
The SLS core stage will be more than 200 feet tall and store cryogenic liquid hydrogen and

39
00:02:56,160 --> 00:03:02,440
liquid oxygen to feed the rocket’s RS-25 engines.

40
00:03:02,440 --> 00:03:06,670
Engineers at Marshall Space Flight Center in Huntsville, Alabama placed the top-most

41
00:03:06,670 --> 00:03:10,970
beam into place on test stand 4693.

42
00:03:10,970 --> 00:03:16,250
When construction is completed, the structure will be used to evaluate how the SLS’s giant

43
00:03:16,250 --> 00:03:21,160
liquid hydrogen tank holds up to the same
stresses and loads it will experience during

44
00:03:21,160 --> 00:03:22,250
liftoff and flight.

45
00:03:22,250 --> 00:03:27,879
SLS will be the world's most powerful rocket
for human space exploration, able to take

46
00:03:27,879 --> 00:03:35,450
astronauts in the Orion spacecraft on deep-space
missions, including NASA’s journey to Mars.

47
00:03:35,450 --> 00:03:41,650
NASA announced April 19 it selected Aerojet
Rocketdyne to design and develop an advanced

48
00:03:41,650 --> 00:03:48,090
electric propulsion system that will significantly
advance the nation's commercial space capabilities,

49
00:03:48,090 --> 00:03:53,420
and enable deep space exploration missions,
including the robotic portion of NASA’s

50
00:03:53,420 --> 00:03:56,780
Asteroid Redirect Mission (ARM) and the Journey
to Mars.

51
00:03:56,780 --> 00:04:02,569
Work performed under the contract could potentially
increase spaceflight transportation fuel efficiency

52
00:04:02,569 --> 00:04:08,969
by 10 times over current chemical propulsion
technology and more than double thrust capability

53

00:04:08,969 --> 00:04:13,549
compared to current electric propulsion systems.

54
00:04:13,549 --> 00:04:18,780
Astronomers have used the Hubble Space Telescope
to photograph an enormous bubble being blown

55
00:04:18,780 --> 00:04:22,650
into space by a super-hot, massive star.

56
00:04:22,650 --> 00:04:29,940
The Hubble image of the Bubble Nebula, or
NGC 7635, was taken to mark the 26th anniversary

57
00:04:29,940 --> 00:04:36,920
of the launch of the famed observatory on
space shuttle mission STS-31 on April 24,

58
00:04:36,920 --> 00:04:37,920
1990.

59
00:04:37,920 --> 00:04:43,780
The Bubble Nebula is 7 light-years across,
and resides 7,100 light-years from Earth in

60
00:04:43,780 --> 00:04:47,400
the constellation Cassiopeia.

61
00:04:47,400 --> 00:04:49,440
And that’s what’s up this week @NASA …