



1
00:00:00,919 --> 00:00:03,790

Here's some of the stories trending This Week at NASA!"

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00:00:03,790 --> 00:00:10,320

On Dec. 1, NASA Administrator Charlie Bolden helped kick off a yearlong centennial celebration

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00:00:10,320 --> 00:00:15,380

for the agency's Langley Research Center in Hampton, Virginia with several events highlighting

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00:00:15,380 --> 00:00:20,390

the work of the African American women of Langley's West Computing Unit.

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00:00:20,390 --> 00:00:25,779

These mathematicians performed critical calculations for several historic NASA space missions in

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00:00:25,779 --> 00:00:31,189

the early days of America's space program, and their story is told in the book, "Hidden

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00:00:31,189 --> 00:00:36,199

Figures," by author Margot Lee Shetterly and the upcoming 20th Century Fox movie of

8
00:00:36,199 --> 00:00:37,649

the same name.

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00:00:37,649 --> 00:00:42,829

It was also discussed during a NASA education event at Langley featuring Bolden, the film's

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00:00:42,829 --> 00:00:48,399

director Ted Melfi, NASA's Chief Historian Bill Barry, and Langley electro-optics engineer

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00:00:48,399 --> 00:00:53,749

Julie Williams-Byrd – a modern-day NASA figure using science, technology, engineering

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00:00:53,749 --> 00:00:57,940

and mathematics, or STEM -- skills to make an impact.

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00:00:57,940 --> 00:01:02,559

Later that evening, a VIP social and screenings of the film took place at nearby Virginia

14

00:01:02,559 --> 00:01:04,170

Air & Space Center.

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00:01:04,170 --> 00:01:09,479

The women featured in Hidden Figures – Katherine Johnson, Mary Jackson and Dorothy Vaughan

16

00:01:09,479 --> 00:01:14,780

– known as “human computers,” helped put John Glenn in orbit, and helped Neil Armstrong

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00:01:14,780 --> 00:01:18,820

and other astronauts land on the moon.

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00:01:18,820 --> 00:01:24,420

On Nov. 30, NASA’s Cassini spacecraft began its so-called “ring-grazing orbits” around

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00:01:24,420 --> 00:01:25,420

Saturn.

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00:01:25,420 --> 00:01:30,159

The orbital path will take Cassini high over and under the poles of Saturn and through

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00:01:30,159 --> 00:01:34,469

the unexplored region at the outer edge of the planet’s main rings.

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00:01:34,469 --> 00:01:39,200
On many of these passes, Cassini's instruments will attempt to directly sample particles

23
00:01:39,200 --> 00:01:45,040
and molecules of faint gases found close to the rings and collect unprecedented views

24
00:01:45,040 --> 00:01:49,720
of some of the small moons that orbit in or near the edges of the rings.

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00:01:49,720 --> 00:01:55,049
In April 2017, Cassini will begin the grand finale phase of its mission -- passing as

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00:01:55,049 --> 00:02:01,200
close as 1,012 miles above the clouds as it dives repeatedly through the narrow gap between

27
00:02:01,200 --> 00:02:07,950
Saturn and its rings before making its mission-ending plunge into the planet's atmosphere on Sept.

28
00:02:07,950 --> 00:02:09,459
15.

29
00:02:09,459 --> 00:02:14,069
During a Nov. 30 news conference at NASA's Johnson Space Center in Houston, Expedition

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00:02:14,069 --> 00:02:19,700
51 – the next crew headed to the International Space Station – previewed its upcoming mission.

31
00:02:19,700 --> 00:02:24,299
NASA astronaut Jack Fischer and cosmonaut Fyodor Yurchikhin of the Russian space agency

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00:02:24,299 --> 00:02:30,209
Roscosmos – are targeted to launch to the station in late March from the Baikonur Cosmodrome

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00:02:30,209 --> 00:02:37,000
in Kazakhstan to join other members of Expedition 51 already onboard the orbiting laboratory.

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00:02:37,000 --> 00:02:42,930
Fischer and Yurchikhin will take part in approximately 250 research investigations during their planned

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00:02:42,930 --> 00:02:46,370
five-month stay onboard the space station.

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00:02:46,370 --> 00:02:52,540
A Russian Progress cargo spacecraft launched on time Dec. 1 from the Baikonur Cosmodrome

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00:02:52,540 --> 00:02:57,410
in Kazakhstan, but experienced an anomaly about six and a half minutes into its flight

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00:02:57,410 --> 00:03:00,470
to the International Space Station, and was lost.

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00:03:00,470 --> 00:03:04,970
The Progress was not carrying any supplies critical for the United States Operating Segment

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00:03:04,970 --> 00:03:06,200
(USOS) of the station.

41
00:03:06,200 --> 00:03:10,520
The crew aboard the space station, including NASA's Shane Kimbrough and Peggy Whitson,

42
00:03:10,520 --> 00:03:15,959

are safe, and both the Russian and U.S. segments of the station continue to operate normally

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00:03:15,959 --> 00:03:19,930

with onboard supplies at good levels.

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00:03:19,930 --> 00:03:21,930

And that's what's up this week @NASA ...

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