1
00:00:00,740 --> 00:00:05,160
“Here’s some of the stories trending This
Week at NASA!”

2
00:00:05,160 --> 00:00:10,590
On May 3, NASA’s Wallops Flight Facility
hosted Senator Barbara Mikulski of Maryland,

3
00:00:10,590 --> 00:00:15,749
NASA Administrator Charlie Bolden and others
for an employee town hall and a tour of the

4
00:00:15,749 --> 00:00:21,539
Virginia facility – including Pad 0A at
the Mid-Atlantic Regional Spaceport.

5
00:00:21,539 --> 00:00:26,109
Preparations are underway there to conduct
an engine test of Orbital ATK’s Antares

6
00:00:26,109 --> 00:00:31,619
rocket in anticipation of returning Antares
to flight operations this summer following

7
00:00:31,619 --> 00:00:34,280
a launch mishap in 2014.

8
00:00:34,280 --> 00:00:39,590
The medium-class launch facility provides
NASA the capability to launch Orbital ATK’s

9
00:00:39,590 --> 00:00:46,970
Antares and Cygnus spacecraft on resupply
missions to the International Space Station.

10
00:00:46,970 --> 00:00:50,770
NASA and its International Space Station partners
have announced the crews for missions to the

11

00:00:50,770 --> 00:00:52,480
station in 2017.

12
00:00:52,480 --> 00:00:55,510
They include two NASA astronauts.

13
00:00:55,510 --> 00:01:00,620
Scott Tingle will launch in September 2017
on his first spaceflight as part of the station's

14
00:01:00,620 --> 00:01:02,850
Expedition 53 crew.

15
00:01:02,850 --> 00:01:08,170
Two months later, the launch of Expedition
54 will mark the start of the second spaceflight

16
00:01:08,170 --> 00:01:10,799
for veteran astronaut Randy Bresnik.

17
00:01:10,799 --> 00:01:18,329
His first was November 2009 aboard space shuttle
Atlantis on STS-129.

18
00:01:18,329 --> 00:01:23,689
During a ceremony on May 5, the new computational
research facility at NASA's Langley Research

19
00:01:23,689 --> 00:01:30,549
Center was named for mathematician and Presidential
Medal of Freedom recipient, Katherine Johnson.

20
00:01:30,549 --> 00:01:35,329
NASA dedicated the building to Johnson in
recognition of her many contributions to America's

21
00:01:35,329 --> 00:01:36,859
space program.

22

00:01:36,859 --> 00:01:43,229
Johnson worked at Langley from 1953 until
her retirement in 1986, beginning as a research

23
00:01:43,229 --> 00:01:48,560
mathematician as part of a group of women
hired to perform mathematical calculations

24
00:01:48,560 --> 00:01:50,979
by hand for engineers.

25
00:01:50,979 --> 00:01:56,289
Her work was so outstanding she was eventually
assigned to the branch that later would calculate

26
00:01:56,289 --> 00:02:00,899
the launch windows for NASA’s first Project
Mercury flights.

27
00:02:00,899 --> 00:02:06,090
Her notable accomplishments include computation,
by hand, of the launch window and trajectory

28
00:02:06,090 --> 00:02:13,030
for Alan Shepard’s maiden space voyage aboard
Freedom 7 in 1961, and verification, also

29
00:02:13,030 --> 00:02:18,360
by hand, of calculations made by the first
computers for John Glenn's history-making

30
00:02:18,360 --> 00:02:21,640
orbit around the Earth in 1962.

31
00:02:21,640 --> 00:02:26,360
She also calculated the trajectory for the
historic Apollo 11 first moon landing flight

32
00:02:26,360 --> 00:02:27,900
in 1969.

33
00:02:27,900 --> 00:02:33,690
Fittingly, the building dedication took place
on the 55th anniversary of Shepard’s momentous

34
00:02:33,690 --> 00:02:36,400
spaceflight.

35
00:02:36,400 --> 00:02:41,420
The planet Mercury’s May 9 transit of the
sun is a relatively rare celestial event – with

36
00:02:41,420 --> 00:02:47,520
Mercury passing between Earth and the sun
only about 13 times a century – most recently

37
00:02:47,520 --> 00:02:49,370
in 2006.

38
00:02:49,370 --> 00:02:55,210
Those without the specialized and costly equipment
needed to safely view the event can see imagery

39
00:02:55,210 --> 00:03:01,120
online at nasa.gov, on NASA social media and
on NASA TV.

40
00:03:01,120 --> 00:03:06,320
Mercury will appear as a small black dot as
it crosses the edge of the sun and into view

41
00:03:06,320 --> 00:03:09,320
at about 7:12 a.m. EDT.

42
00:03:09,320 --> 00:03:15,350
Then for about the next 7.5 hours, the planet
will make a leisurely journey across the face

43
00:03:15,350 --> 00:03:16,990

of the sun.

44
00:03:16,990 --> 00:03:22,030
An international team of astronomers – including
one from NASA's Johnson Space Center – have

45
00:03:22,030 --> 00:03:28,150
discovered three potentially habitable planets
around an ultra-cool dim dwarf star just 40

46
00:03:28,150 --> 00:03:29,780
light-years from us.

47
00:03:29,780 --> 00:03:35,150
The trio of planets, located using European
Southern Observatory telescopes in Chile,

48
00:03:35,150 --> 00:03:39,010
have sizes and temperatures similar to those
of Venus and the Earth.

49
00:03:39,010 --> 00:03:44,430
NASA's Hubble Space Telescope and Kepler
spacecraft will be observing the dwarf star,

50
00:03:44,430 --> 00:03:48,260
known as TRAPPIST-1, and its planets later
this year.

51
00:03:48,260 --> 00:03:53,220
It also could be good observational target
for NASA's James Webb Space Telescope following

52
00:03:53,220 --> 00:03:56,780
its launch in 2018.

53
00:03:56,780 --> 00:04:00,880
As part of the integration and testing of
the Webb telescope, engineers at NASA's

54
00:04:00,880 --> 00:04:05,760
Goddard Space Flight Center, in Greenbelt,
Maryland recently removed the protective covers

55
00:04:05,760 --> 00:04:11,620
from the telescope’s primary gold-coated
mirror, for the first time since it was installed.

56
00:04:11,620 --> 00:04:16,350
The James Webb Space Telescope will be the
most powerful space telescope ever built and

57
00:04:16,350 --> 00:04:21,430
will study many phases in the history of our
universe, including the formation of solar

58
00:04:21,430 --> 00:04:26,629
systems capable of supporting life on planets
similar to Earth, as well as the evolution

59
00:04:26,629 --> 00:04:28,139
of our own solar system.

60
00:04:28,139 --> 00:04:31,750
And that’s what’s up this week @NASA …