“Here’s some of the stories trending This Week at NASA!”

The planet Mercury’s transit of the sun on May 9 provided an opportunity for sky-watchers throughout the U.S. to witness a rare celestial event that happens only about 13 times a century.

Mercury’s transit, as it passed between Earth and the sun, made it appear as a small dark dot against the face of the sun.

NASA’s coverage of the event included a televised roundtable of NASA science experts discussing the exceptional opportunity presented to learn more about the atmospheric makeup of our solar system’s smallest planet.

“We know there’s sodium there, we know there’s potassium.

There’s all types of what we call ‘trace gases’ – argon and other things that are being emitted by Mercury.”

Mercury’s next transit of the sun occurs in 2019.
But, those of us in the U.S. have a big celestial event to look forward to even before that – a total solar eclipse, on August 21 of 2017.

NASA's Kepler mission has verified 1,284 new planets outside our solar system – the single largest finding of planets to date.

The new confirmed planets come from a collection of potential planets identified by the Kepler space telescope’s July 2015 planet catalog.

Scientists say nine of the newly-validated planets could be rocky, like Earth, and orbit in their sun's habitable zone, which is the distance from a star where orbiting planets can have surface temperatures that allow liquid water to pool.

Of the almost 5,000 total planet candidates found to date, more than 3,200 now have been verified, and 2,325 of those were discovered by Kepler.

A month after delivering almost 7,000 pounds of science and cargo, including the Bigelow
Expandable Activity Module (BEAM), to the International Space Station, the SpaceX Dragon cargo spacecraft returned to Earth on May 11.

Dragon brought back about 3,600 pounds of cargo, experiments and biomedical samples from the recently completed year-long mission of former NASA astronaut Scott Kelly and Mikhail Kornienko of Roscosmos.

Several satellites operated, or jointly operated by NASA continue to capture images from space of the massive Fort McMurray wildfire burning in Canada's Alberta province.

Images from May 8 taken by Earth observing spacecraft, including the Terra, Suomi NPP and Aqua satellites, showed smoke from the catastrophic event wafting east – all the way to the Atlantic Ocean.

For all of us on Earth it has been almost four years since the August 5, 2012 Pacific Time landing on Mars of NASA’s Curiosity.
rover.

But, based on “local time” at Mars on May 11, Curiosity completed only its second Martian year on the Red Planet.

Since Mars is farther from the sun, it takes about 687 Earth days to circle our solar system’s star and complete a Martian year.

In its time on Mars, the rover has recorded environmental patterns through two full cycles of Martian seasons.

The data compiled by Curiosity can help scientists distinguish seasonal patterns on Mars from otherwise sporadic environmental events.

NASA’s Ground Systems Development and Operations Program continues its work to retrofit NASA’s Kennedy Space Center’s Vehicle Assembly Building (VAB) with new platforms for processing of the Space Launch System rocket and Orion spacecraft, prior to their first test flight in 2018.
Several platforms have been installed in the facility, powered on and tested.

Once the work is completed, there will be 10 levels of platforms in the cavernous VAB to provide workers with access to the rocket and spacecraft.

And that’s what’s up this week @NASA …

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