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

NASA this month is scheduled to launch the first of six next-generation, Earth-observing small satellites.

They’ll demonstrate innovative new approaches for measuring hurricanes, Earth’s energy budget – which is essential to understanding greenhouse gas effects on climate, aerosols, and other atmospheric factors affecting our changing planet.

These small satellites range in size from a loaf of bread to a small washing machine, and weigh as little as a few pounds to about 400 pounds.

Their size helps keep development and launch costs down -- because they often hitchhike to space as a “secondary payload” on another mission’s rocket.

Small spacecraft and satellites are helping NASA advance scientific and human exploration,
test technologies, reduce the cost of new space missions, and expand access to space.

On Nov. 10, NASA previewed one of those six new small satellite missions – the Cyclone, Global Navigation Satellite System, or (CYGNSS) – during a news briefing at the agency’s headquarters in Washington.

CYGNSS is a constellation of eight identical microsatellites that will gather never-before-seen details on the formation and intensity of tropical cyclones and hurricanes.

The mission’s unique approach of using reflections from GPS signals off the ocean surface will enable it to monitor surface winds and other air-sea interactions in rapidly evolving tropical storm systems.

CYGNSS is targeted to launch Dec. 12 from Cape Canaveral Air Force Station in Florida.

NASA astronaut Peggy Whitson and her Expedition 50-51 crewmates, Oleg Novitskiy of the Russian space agency Roscosmos, and Thomas Pesquet of the European Space Agency, participated
in a variety of pre-launch training activities Nov. 1-10 at the Baikonur Cosmodrome in Kazakhstan.

The trio, and members of the back-up crew, are preparing for the launch of Whitson, Novitskiy and Pesquet, Nov. 17 Eastern time, for a five-month mission to the International Space Station.

A team of NASA, military and contractor personnel recently completed a successful Underway Recovery Test 5 (URT-5) with a test version of NASA’s Orion crew module.

The test, conducted from the USS San Diego, off the coast of California, demonstrated and evaluated the processes, procedures, hardware and personnel needed to safely recover the real spacecraft from the ocean when it returns from deep space missions and move it to a secure location inside the well deck of a Navy ship.

New ground support equipment testing, included attaching tow lines to five attach points, rather than three, on the crew module, and modifications that make it easier to connect tow lines in rough water conditions.
Orion is being developed to carry astronauts to deep space destinations, including an asteroid and on NASA's Journey to Mars.

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

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