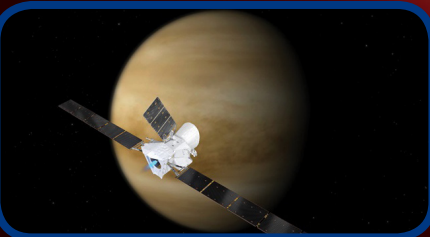


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BepiColombo Will Seek the Signs of Life on Venus

Just a month ago, researchers announced the presence of phosphine in the clouds of Venus — an indicator that microbial life might be present on our sister planet. And, in a happy coincidence, there’s a spacecraft scheduled to fly by this hellish world he European Space Agency (ESA) and the Japan Aerospace Exploration Agency (JAXA) launched their joint BepiColombo spacecraft in October 2018 to become the third spacecraft to explore Mercury. On the way to our solar system’s innermost planet, BepiColombo will fly by Venus twice.

Astronomy.com



Astronomers See a Star ‘Spaghettified’ by a Black Hole

That’s happened a lot in recent decades, but nowhere so interestingly as on Monday, October 12, 2020, when astronomers announced they’ve witnessed a star undergoing spaghettification. That is, the star is being ripped apart as it falls into a supermassive black hole, in a galaxy only 215 million light-years away. They didn’t see the star up close as it was being shredded; our earthly technologies don’t extend that far. But they did capture the star’s last moments, just before it was ripped apart by the black hole, in what astronomers call a tidal disruption event. The event created a flare of light, which they said is the closest such flare recorded to date.

EarthSky.org

New Crew Reaches ISS in Record Time



A three-person crew successfully reached the International Space Station on Wednesday aboard a Russian rocket after the fastest ever journey from Earth of just over three hours. The mission of the Soyuz space craft carrying two Russian cosmonauts and one NASA astronaut was of immense importance to Russia's space agency Roscosmos, coming as the SpaceX programme relaunched manned spaceflight from the United States and ignites fresh talk of a space race between the two countries.

Phys.org

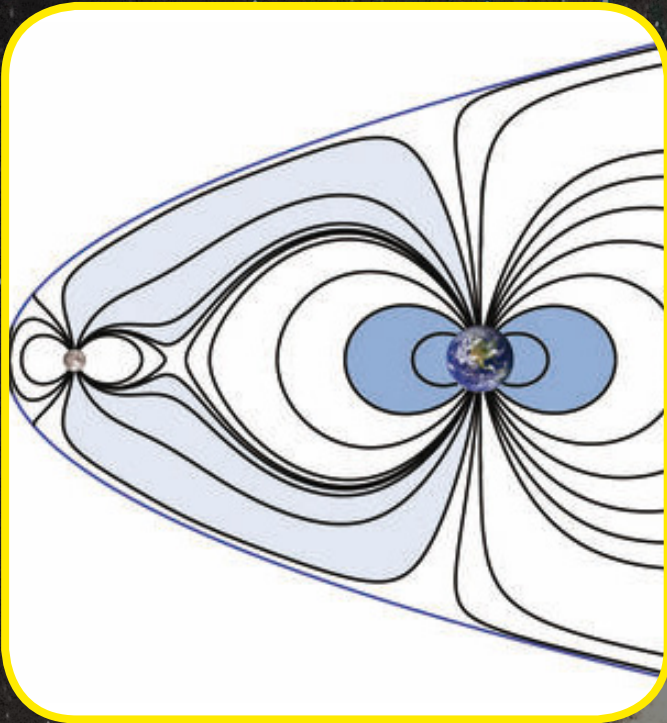
Airbus to Bring First Mars Samples to Earth

Airbus has been selected by the European Space Agency (ESA) as prime contractor for the Mars Sample Return's Earth Return Orbiter (ERO) - the first ever spacecraft to bring samples back to Earth from Mars. Mars Sample Return (MSR) is a joint ESA-NASA campaign and the next step in the exploration of Mars. ERO and the Sample Fetch Rover (SFR) are the two main European elements of MSR, both are set to be designed and built by Airbus. The value of the ERO contract is 491 million euro.



MarsDaily.com

Earth and Moon Once Shared a Magnetic Shield, Protecting Their Atmospheres



Four-and-a-half billion years ago, Earth's surface was a menacing, hot mess. Long before the emergence of life, temperatures were scorching, and the air was toxic. But a neighboring shield may have helped our planet retain its atmosphere and eventually go on to develop life and habitable conditions. That shield was the Moon, says a NASA-led study in the journal *Science Advances*.

Technology.org

Russia Planning to Go Reusable in 2026 With New Amur Rocket

Russia is getting into the reusable rocket game. The nation's space agency, Roscosmos, announced last week that it aims to develop a two-stage rocket called the Amur, whose first stage will return to Earth for vertical, powered landings like those performed by SpaceX's Falcon 9 boosters. Indeed, the Amur bears a remarkable resemblance to the Falcon 9, down to the stabilizing grid fins on the rocket's first stage and the desire to launch each booster up to 100 times eventually.

Ракета на метановых двигателях "Амур". Концептуальная модель

Новая разработка придет на смену ракетам семейства "Союз-2".

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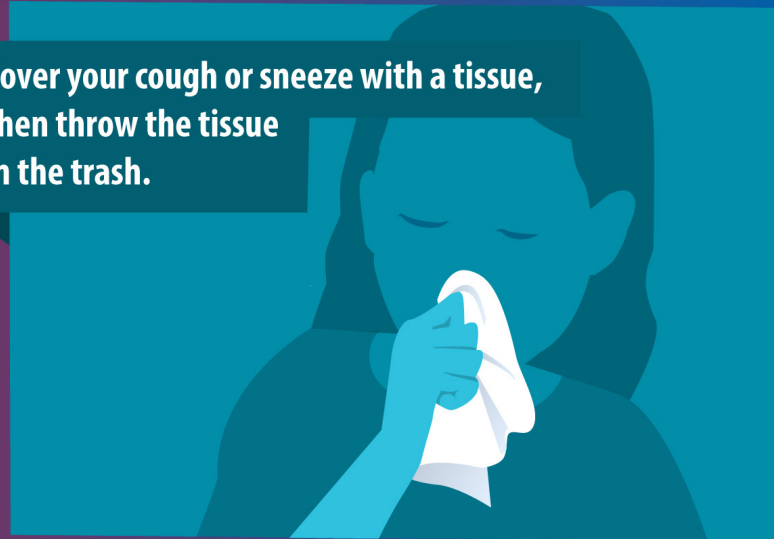
Space.com

How to Protect Ourselves?

Avoid close contact with people who are sick.



Cover your cough or sneeze with a tissue, then throw the tissue in the trash.



Avoid touching your eyes, nose, and mouth.

Clean and disinfect frequently touched objects and surfaces.



Stay home when you are sick, except to get medical care.



Wash your hands often with soap and water for at least 20 seconds.





Astronomy Picture of the Day

Galaxies in Pegasus

Image Credit & Copyright: Robert Eder

This sharp telescopic view reveals galaxies scattered beyond the stars of the Milky Way, at the northern boundary of the high-flying constellation Pegasus. Prominent at the upper right is NGC 7331. A mere 50 million light-years away, the large spiral is one of the brighter galaxies not included in Charles Messier's famous 18th century catalog. The disturbed looking group of galaxies at the lower left is well-known as Stephan's Quintet. About 300 million light-years distant, the quintet dramatically illustrates a multiple galaxy collision, its powerful, ongoing interactions posed for a brief cosmic snapshot. On the sky, the quintet and NGC 7331 are separated by about half a degree.

apod.nasa.gov



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