

1479

Treaty of Alcaçovas: Portugal gives the Canary Islands to Castile in exchange for claims in West Africa

1857

Dred Scott Decision: US Supreme Court rules Africans cannot be US citizens

1869

Dmitri Mendeleev presents the first periodic table of the elements to the Russian Chemical Society



1899

"Aspirin" (acetylsalicylic acid) patented by Felix Hoffmann at German company Bayer

'Arms!' Pope urges end on historic Iraq trip

er papal visit to comfort the dwindling Christian communities of amia decimated by years of conflict



by the Iraqi prime minister Mustafa al-Kadhimi upon disembarking from his



Pope Francis receives flowers from children as he is welcomed by Iraqi President Barham Salih, at Baghdad's Presidential Palace



People stand by the road as they wait for Pope Francis

Just like Iraq's Christian population, the esoteric Yazidi community was ravaged in 2014 by the Islamic State group's sweep over much of northern Iraq.

'Victory' over death

The trip is the pontiff's first travel abroad since the coronavirus pandemic, which had left him feeling "caged" in Vatican City -- and it has been hailed as a bold choice.

Iraq endured decades of war, is still hunting for IS cells and is now facing a second spike of Covid-19 infections, with more than 5,000 new cases and dozens of deaths daily.

Authorities have imposed a full lockdown through the papal trip, which means Francis will not be greeted by massive crowds of believers like on other foreign trips.

The Pope has been vaccinated and was seen taking off his mask yesterday to speak with officials and religious figures

in Baghdad, just days after Iraq launched its modest inoculation campaign.

"I'll try to follow directions and not shake hands with everyone, but I don't want to stay too far," Francis said ahead of his arrival.

He was also seen walking with a slight limp, likely a result of a painful bout of sciatica that he has suffered this year.

Inside the country, he will travel more than 1,400 kilometres (870 miles) by plane and helicopter, flying over areas where security forces are still battling IS.

For shorter trips, Francis will take an armoured car on freshly paved roads lined with flowers and posters welcoming him warmly as "Baba al-Vatican".

Saudi-led coalition says it downed six Houthi drones fired at Khamis Mushait

Reuters | Dubai

The Saudi-led coalition fighting the Houthi group in Yemen said it had intercepted six explosive drones fired towards the kingdom yesterday, with the Houthis claiming to have launched attacks into southern Saudi Arabia since dawn.

The Iran-aligned Houthis have recently stepped up cross-border drone and missile attacks on Saudi cities, mostly targeting the southern part of the country. The coalition says it intercepts most attacks.

The Houthis fired the six intercepted drones towards Khamis Mushait near the Yemen border in attacks since dawn, the coalition said in statements carried by Saudi state news agency SPA and Ekhhariya TV.

Bahrain condemned the attack targeting safe civilians and civilian installations.

In a statement, the Ministry of Foreign Affairs expressed the solidarity of Bahrain with



Drone aircraft on display in Yemen

Saudi Arabia in the measures it takes to confront these terrorist attacks, calling on the international community to pressure the Houthi militia to stop these attacks that breach international laws and conventions

Houthi military spokesman Yahya Sarea said in Twitter posts yesterday that three drones had been fired at dawn, and five in the afternoon.

The United States and United Nations have renewed peace efforts as fighting has also intensified in Yemen's gas-rich Marib region.

On Tuesday, the US Treasury Department imposed new sanctions on two Houthi military leaders.

Reading aloud of 628-page Covid bill delays debate in US Senate

AFP | Washington

The US Senate finally took up the \$1.9 trillion Covid relief package but a brazen ploy by opponents -- reading the entire 628-page bill aloud on the chamber floor -- promptly gummed up the action.

President Joe Biden has pushed hard to get his top legislative priority through Congress, and it narrowly cleared the House of Representatives last week.

But instead of the upper chamber launching directly

into debating the measure aimed at helping millions of families and boosting a crippled economy, Republicans halted the process for hours by demanding that clerks recite every word of the ambitious plan.

Republicans already appeared united in opposing the proposal over its high cost, and lawmakers braced for marathon days that will include up to 20 hours of debate and a lengthy list of amendments that will force contentious votes before the bill's final passage.

Alien 'super-Earth' may offer clues about atmospheres on distant worlds

Reuters | Washington

Scientists have spotted a planet orbiting a star relatively near our solar system that may offer a prime opportunity to study the atmosphere of a rocky Earth-like alien world - the type of research that could aid the hunt for extraterrestrial life.

The researchers said on Thursday the planet, called Gliese 486 b and classified as a 'super-Earth,' is not itself a promising candidate as a refuge for life. It is thought to be inhospitable - hot and dry like Venus, with possible rivers of lava flowing on its surface.

But its proximity to Earth and its physical traits make it well suited for a study of its atmosphere with the next generation of space-borne and ground-based telescopes, starting with the James Webb Space Telescope that NASA has slated for an October launch. These could give scientists data to be able to decipher the atmospheres of other exoplanets - planets beyond our solar system - including ones that may host life.

"We say that Gliese 486 b will instantaneously become the Rosetta Stone of exoplanet-



The surface of the newly discovered exoplanet called Gliese 486b, a type of planet known as a "hot super-Earth" is seen in an undated artist's impression

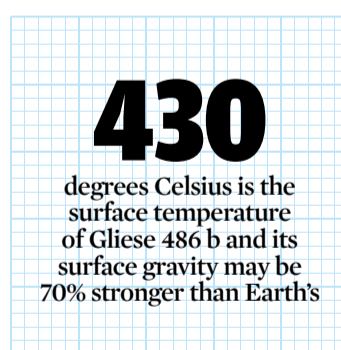
ology - at least for Earth-like planets," said astrophysicist and study co-author José Caballero of Centro de Astrobiología in Spain, referring to the ancient stone slab that helped experts decipher Egyptian hieroglyphs.

Scientists have discovered more than 4,300 exoplanets. Some have been large gas planets akin to Jupiter. Others have been smaller, rocky Earth-like worlds, the kind considered candidates for harbouring life, but currently available scientific instruments tell us little about their atmospheres.

"The exoplanet must have the right physical and orbital configuration to be suitable for atmospheric investigation," said planetary scientist Trifon Trifonov of the Max Planck Institute for Astronomy in Germany, lead author of the research published in the journal Science.

A 'super-Earth' is an exoplanet with a mass greater than our planet but considerably less than our solar system's ice giants Uranus and Neptune. Gliese 486 b's mass is 2.8 times Earth's.

It is located in our celestial neighbourhood about 26.3 light



years - the distance light travels in a year, 5.9 trillion miles (9.5 trillion km) - from Earth, making it among the closest exoplanets. It orbits a 'red dwarf' star that is smaller, cooler and less luminous than our sun, with about a third the mass.

The planet orbits very close to its home star, leaving it heavily irradiated. Like Earth, it is a rocky planet and is thought to have a metallic core. Its surface temperature is about 800 degrees Fahrenheit (430 degrees Celsius) and its surface gravity may be 70% stronger than Earth's.

"Gliese 486 b cannot be habitable, at least not the way we know it here on Earth," Trifonov said. "The planet possibly only has a tenuous atmosphere, if any.

Our models are consistent with both scenarios because stellar irradiation tends to evaporate atmospheres, whereas, at the same time, the planetary gravity is strong enough to retain it."

Still, Gliese 486 b could prove ideal for studying the atmosphere of an Earth-like planet using instruments on the James Webb Space Telescope and the future Extremely Large Telescope, an astronomical observatory now under construction in Chile.

The chemical composition of an atmosphere can tell a lot about a planet and its habitability. Scientists are interested in looking at the combination of gases in the atmospheres of Earth-like exoplanets, with a mix of oxygen, carbon dioxide and methane like that of our own planet a potential indication of life.

"All that we learn with the atmosphere of Gliese 486 b and other Earth-like planets will be applied, within a few decades, to the detection of biomarkers or biosignatures: spectral features on the atmospheres of exoplanets that can only be ascribed to extraterrestrial life," Caballero added.



TOP
4
TWEETS

01



Moving to a green economy is the biggest challenge the world has ever faced. I'm optimistic we can do it, but need to make sure it benefits everyone—including those workers and communities who depend on the fossil fuels that we need to get rid of.

@BillGates

02



"We must never cease to proclaim in fearless tones the great principles of freedom and the rights of man." Churchill's words in his famous Iron Curtain speech 75 years ago resonate as true today as they did in the post-war era. The UK stands by these values.

@BorisJohnson

03



We are working with our #COVAX partners to find ways to increase #COVID19 vaccine production, including technology transfer, voluntary licensing and other mechanisms to address production bottlenecks. #VaccinEquity

@DrTedros

04



931 million tons of food went to waste in 2019 - enough to circle the Earth 7 times. Food waste is environmentally, economically & morally outrageous. We must rethink the way we produce and consume.

@antoniogutierrez

Disclaimer: (Views expressed by columnists are personal and need not necessarily reflect our editorial stances)