

1661

The Treaty of The Hague is signed whereby the Dutch Republic sells New Holland (Brazil) for 63 tonnes of gold to Portugal

1945

Atomic bomb dropped on Hiroshima by the US B-29 Superfortress "Enola Gay"

1965

US President Lyndon B. Johnson signs the Voting Rights Act prohibiting voting discrimination against minorities



1991

Tim Berners-Lee releases files describing his idea for the World Wide Web. www debuts as a publicly available service on the Internet

# Levels historic California residents flee blaze

Home dating back to mid-1800s Gold Rush era engulfed by flames



Inmate firefighters prep a home by moving combustible items as the Dixie Fire burns in Chester, California

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The Dixie Fire has been raging in the forests of northern California since mid-July, part of a climate crisis that has brought sweltering heat and an alarming drought

Matlow told reporters. "Sometimes it's just not enough." Images taken by an AFP photographer showed the fire's heat had bent street lights to the ground, with only a few structures still standing. A gas station, a hotel and a bar were destroyed, as well as many buildings that were more than a century old. The fire entered the town at roughly 4:00 pm Wednesday (2300 GMT) according to Jake Cagle, incident management team operations section chief. He said firefighters were struggling with those not obeying evacuation orders, leading to them having to divert time and resources to rescue people in the path of the flames. "It's just intense fire behavior, and it's not what we're used to," he said. "Firefighters are fighting for

the town of Greenville," US Forest Service spokeswoman Pandora Valle told the San Francisco Chronicle late Wednesday, but was unable to give further details. The Plumas County Sheriff's Department issued an evacuation order late Tuesday for the 2,000 or so residents of Chester to flee the area. "If you remained you should evacuate to the EAST, IMMEDIATELY!" the sheriff's department posted on their official Facebook page Wednesday. "If you cannot evacuate and you are threatened by fire and can safely get there, take refuge at the Chester High School baseball field!" In a second warning on social media, the department added: "If you are still in the Greenville area, you are in imminent danger and you MUST leave now!!" "If you remain, emergency re-

sponders may not be able to assist you." By late July, the number of acres burned in California was up more than 250 percent from 2020 — itself the worst year of wildfires in the state's modern history. The Dixie Fire has evoked painful memories of the Paradise Fire, the deadliest blaze in California's recent history. Faulty power lines sparked the inferno, which swept through the northern town of Paradise in 2018, killing 86 people. Pacific Gas and Electric, California's largest energy utility firm, was deemed responsible. PG&E equipment is again being blamed for the Dixie Fire, after a tree fell on a power conductor the day the blaze began. The utility announced in late July it will bury 10,000 miles (16,000 kilometers) of power lines in a massive bid to prevent its equipment from igniting more deadly wildfires.

# Israeli aircraft strike Lebanon launch sites



A view shows the damage in the aftermath of Israeli air strikes as seen from Marjayoun, near the border with Israel, Lebanon

● Israel's air strikes were the first targeting Lebanese villages since 2006

Reuters | Jerusalem

Israeli jets struck what its military said were rocket launch sites in Lebanon early yesterday in response to two rockets fired towards Israel from Lebanese territory, in an escalation of cross-border hostilities amid heightened friction with Iran. The rockets launched from Lebanon on Wednesday struck open areas in northern Israel, causing brush fires along the hilly frontier. Israel responded with several rounds of artillery fire on Wednesday before launching air strikes early yesterday, the military said. "(Military) fighter jets struck the launch sites and infrastructure used for terror in Lebanon from which the rockets were launched," the mili-

” This was an attack meant to send a message ... Clearly we could do much more, and we hope we won't arrive at that

ISRAEL'S DEFENCE MINISTER BENNY GANTZ

tary said in a statement, adding that it also struck an area that had seen rocket launches in the past. While Hezbollah's al-Manar TV has reported on the Israeli action, the group itself was yet to issue any statement. Shortly after the strikes, al-Manar TV said that Israeli warplanes had carried out two raids on the outskirts of the Lebanese town of Mahmudiya, about 12 km (7.5 miles) from the Israeli border. There were no reports of casualties. Lebanese President Michel Aoun said Israel's air strikes were the first targeting Lebanese villages since 2006 and showed an escalation in its "aggressive intent".



TOP 4 TWEETS

01



The infrastructure deal makes the largest federal investment in public transit ever. The largest federal investment in passenger rail since the creation of Amtrak. The single largest dedicated bridge investment since the Interstate Highway System was built. It's historic. @POTUS

02



British farmers go above and beyond around the clock to keep the nation fed. This #Farm24 I want to thank them and recognise the extraordinary contribution they make every day to this country. They will always have my support. @BorisJohnson

03



The right to vote is fundamental, and we must do everything we can to protect it. We must pass the For the People Act and the John Lewis Voting Rights Advancement Act. @VP

04



The Cuban government "cut the internet to stop the Cuban people from accessing social media, a tool they were bravely using to open the eyes of the world. Who does that? Only a country that fears its people shuts down the internet." @KenRoth

# Geological analysis explains durability of Stonehenge megaliths

Reuters | London

The first comprehensive scientific analysis of Stonehenge's imposing megaliths has revealed some of the traits that made them an exemplary building material for the famed monument in southern England including their stout resistance to weathering.

Researchers on Wednesday described a battery of examinations that provided a glimpse inside one of Stonehenge's 52 sandstone megaliths, known as sarsens, gaining insight into its geology and chemistry.

They studied a core sample extracted from one of the sarsens, called Stone 58, during 1950s conservation work. It was kept in the United States for decades before being returned to Britain for research in 2018. The sarsens are made of stone called silcrete that formed gradually within a few yards (meters) of the ground surface as a result of groundwater washing through buried sediment.

The examination clarified Stone 58's internal structure. It showed that the silcrete is comprised of mainly sand-sized



General view of the Stonehenge stone circle during the sunset

quartz grains cemented tightly together by an interlocking mosaic of quartz crystals. Quartz is extremely durable and does not easily crumble or erode even when exposed to eons of wind and weather.

"This explains the stone's resistance to weathering and why it made an ideal material for monument-building," said University of Brighton geomorphologist David Nash, who led the study published in the journal PLoS ONE.

In a remarkable engineering achievement by late Neolithic people, the sarsens were erected at the site in Wiltshire, England around 2500 BC. Stone 58,

one of the giant upright sarsens at Stonehenge's center, stands about 7 meters (23 feet) tall, with another 2 meters (7 feet) underground, and an estimated above-ground weight of 24 tons.

The core sample is a rod of stone, about an inch (2.5 cm) in diameter and roughly a yard (meter) long. Its cream colour is brighter than the pale-gray exterior of the megaliths, which have been exposed to the elements for millennia.

It was given as a souvenir to a man named Robert Phillips who worked for a company involved in the conservation work and was on-site during drilling. Phillips took it with him with

” Getting access to the core drilled from Stone 58 was very much the Holy Grail for our research. All the previous work on sarsens at Stonehenge involved samples either excavated from the site or knocked off from random stones

UNIVERSITY OF BRIGHTON GEOMORPHOLOGIST DAVID NASH

permission when he emigrated to the United States in 1977. Phillips decided to return it to Britain for research in 2018. He died in 2020.

"Getting access to the core drilled from Stone 58 was very much the Holy Grail for our research," Nash said. "All the previous work on sarsens at Stonehenge involved samples either excavated from the site or knocked off from random stones."

The researchers used CT-scanning, X-rays, microscopic analyses and various geochemical

techniques to study fragments and wafer-thin slices of the core sample - such testing being off limits for megaliths at the site.

"This small sample is now probably the most analyzed piece of stone other than moon rock," Nash said.

It remains unclear precisely when the rock formed, though the researchers found that some embedded sand grains dated to as long ago as the Mesoproterozoic Era, 1 billion to 1.6 billion years ago.

Nash led research published last year involving the same core sample that showed that 50 of the 52 sarsens share a common origin about 15 miles (25 km) from Stonehenge at a site called West Woods. Stonehenge's builders may have either dragged or moved the huge stones on rollers.

"I think Stonehenge has fascinated archaeologists and other scientists for centuries now, partly because we don't know what it was used for exactly, and there are a number of theories as to why the site was built," Nash said. "It's a site that is still rich with possibilities for doing more research."

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