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Daily News Feed

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Archers Rishabh and Surekha rewrite compound mixed team world record

Sports Bureau

Rishabh Yadav and V. Jyothi Surekha rewrote the compound mixed team world record in the Archery World Cup Stage-4 in Madrid.

In the qualifying round, Rishabh and Surekha, who clinched the mixed team gold in Stage-1, secured 716 and 715 points to finish atop the men's and women's individual rankings respectively.

Their combined score of 1431 was better than the previous world record of 1429 set by the Danish pair of Tanja Gellenthien and Mathias Fullerton in 2023.

Rishabh, who scored full points in his first 30 arrows, produced 68 shots of 10s and Xs. He was two short of Braden Gellenthien's individual world record. Jyothi did not drop a point in 67 arrows, including her last 24.

Great show: Rishabh and Surekha logged 716 and 715 points to finish atop men's and women's individual rankings. WORLD ARCHERY

In elimination, the Indian women's team of Surekha, Parneet Kaur and Prithika Pradeep performed solidly to set up a title clash with Chinese Taipei.

The men's team, comprising Rishabh, Prathamesh Fuge and Aman Saini, lost to France in the quarterfinals.

Following a prior decision, India fielded its World championships-bound archers (excluding second best Indian Priyansh) in order to give them some match practice.

The results:

Compound: Qualifying round: Individual: Men: Rishabh Yadav (first, 716 points), Priyansh (10th, 710), Aman Saini (11th, 709), Prathamesh Fuge (19th, 707); **Women:** V. Jyothi Surekha (first, 715), Parneet Kaur (seventh, 702), Prithika Pradeep (10th, 699), Chikitha Taniparthi (31st, 688); **Team:** India (Men: first, 2135; Women: first, 2116; Mixed: first, 1431).

Elimination rounds: Team: Men: India (Rishabh, Fuge, Saini) got a bye (1st round), bt Poland 235-232 (2nd round), lost to France 233-234 (quarterfinal); **Women:** India (Jyothi, Parneet, Prithika) got a bye (1st round), bt El Salvador 235-226 (quarterfinal), bt Indonesia 230-226 (semifinal).

America's largest power grid is struggling to meet demand from AI

Electricity bills projected to surge over 20% in PJM territory this summer; PJM criticised for delaying auctions and pausing new plant applications; Pennsylvania Governor threatens to leave PJM if it can't reduce costs and connect power plants faster to meet surging demand from data centres

NEWS ANALYSIS

Reuters
HARRISBURG, PENNSYLVANIA

America's largest power grid is under strain as data centres and AI chatbots consume power faster than new plants can be built. Electricity bills are projected to surge by more than 20% this summer in some parts of PJM Interconnection's territory, which covers 13 States - from Illinois to Tennessee, Virginia to New Jersey - serving 67 million customers in a region with the most data centres in the world. The Governor of Pennsylvania is threatening to abandon the grid, the CEO announced his departure and the chair of PJM's board of managers and another board member were voted out.

The upheaval at PJM started a year ago with a more than 800% jump in prices at its annual capacity auction. Rising prices out of the auction trickle down to everyday people's power bills.

Now PJM is barrelling towards its next capacity auction when prices may rise even further.

The auction aims to avoid blackouts by establishing a rate at which generators agree to pump out electricity during the most extreme periods of stress on the grid, usually the hottest and coldest days of the year.

Power-less: In 2022, PJM stopped processing new applications for power plant connections. REUTERS

High prices out of the auction should spur new power plant construction, but that hasn't happened quickly enough in PJM's region as ageing power plants continue to retire and data centre demand explodes.

Pausing applications

PJM has made the situation worse by delaying auctions and pausing the application process for new plants, according to more than a dozen power developers, regulators, energy attorneys and other experts interviewed by Reuters.

"We need speed from PJM, we need transparency from PJM and we need to keep consumer costs down with PJM," Pennsylvania Governor Josh Shapiro told *Reuters* in an interview. "I think they've taken some steps in that direction which is really encouraging to me and we're going to continue to work at it."

> PJM says the supply and demand crunch has been caused largely by factors outside of its control, including state energy policies and data-centre growth

PJM says the supply and demand crunch has been caused largely by factors outside of its control, including state energy policies that closed fossil-fuel fired power plants prematurely and data center growth in "Data Center Alley" in Northern Virginia and other burgeoning hubs in the Mid-Atlantic.

"Prices will remain high as long as demand growth is outstripping supply - this is a basic economic policy," said PJM spokesman Jeffrey Shields.

"Right now, we need every megawatt we can get."

New projects totalling about 46 gigawatts - enough capacity to power 40 million homes - have been cleared in recent years, "but are not getting built because of local opposition, supply chain backups or financing issues that have nothing to do with PJM," Shields said.

PJM has lost more than 5.6 net gigawatts in the last decade as power plants shut faster than new ones enter service, according to a PJM presentation filed with regulators this year. PJM added about 5 gigawatts of power-generating capacity in 2024, fewer than smaller grids in California and Texas.

Meanwhile, data centre demand is surging. By 2030, PJM expects 32 gigawatts of increased demand on its system, with all but two of those gigawatts coming from data centers.

Power hungry chatbots

Over the past few years, a confluence of events have resulted in skyrocketing power capacity rates at PJM. Among those, auctions were repeatedly delayed as regulators mulled multiple rule changes at PJM, giving developers less time to plan for power plant construction.

In 2022, PJM stopped processing new applications for power plant connections after it was overloaded with more than 2,000 requests from renewable power projects, each of which required engineering studies before they could connect to the grid. PJM says its interconnection queue has not led to the supply shortfall.

Then, in 2023, ChatGPT became a household name and demand exploded. Tech giants started scouring the U.S. power grid for capacity, contributing to the spike in auction prices in 2024. Consumer advocates from Maryland, New Jersey and other states filed complaints with federal regulators, asking for a redo of the auction.

Shapiro has made repeated threats to remove Pennsylvania, the biggest electricity exporting state and the "P" in PJM, from the grid if it didn't bring costs down. Asked in June if leaving PJM is still on the table, the governor told Reuters: "It is."

During the fallout, PJM's CEO Manu Asthana announced in April that he would leave his post at the end of the year, citing a family move to Texas.

Mr. Asthana did not respond to requests for comment.

Citing fears of blackouts, the Trump administration in May ordered two oil and natural gas power plants in Pennsylvania, both scheduled to retire in May, to continue operating through the summer.

In response to the backlash, PJM has made multiple reforms, including capping prices at $325 per megawatt-day and holding auctions every six months instead of annually, Mr. Shields said. PJM also moved to fast-track connections of 51 power projects to its system, but many of those are still expected to take until 2030 or 2031 to come online.

How did Himachal achieve a high rank on the NAS?

How was Himachal Pradesh able to reach the top five States of the National Achievement Survey?

Tikender Singh Panwar

The story so far:

When the National Achievement Survey (NAS) 2025 results were released on July 2, few expected Himachal Pradesh – which ranked at a modest 21st place in 2021 – to leap into the top five. While Punjab and Kerala retained their leading positions, it was Himachal's 16-rank jump that garnered headlines.

What is the NAS?

The NAS is a nationwide assessment conducted every three years by the Ministry of Education, measuring the learning outcomes of students in government and government-aided schools in Classes 3, 5, 8, and 10. It tests core subjects such as language, mathematics, and science, providing States with data to inform policy.

While it serves as an important diagnostic tool, the NAS has its limitations. It measures what is easily testable– not necessarily what is most meaningful. The broader aims of education such as critical thinking, emotional growth, civic awareness, and equity, are not captured. So, while Himachal's success in NAS is laudable, it should not become the sole benchmark for educational excellence.

Why is Himachal's rise significant?

Himachal's rise on the list is still significant because it signals a reversal of decline. For years, Himachal's public education system – once a model for all hill States – has struggled. Despite the foundational work done under Y.S. Parmar, the State's first Chief Minister, who spearheaded a massive expansion of schools in the post-Independence period, where serving society meant going back to the villages and teaching the young ones, the post-liberalisation era saw the erosion of public schooling.

Contractual hiring of teachers, inadequate recruitment, and compromised academic standards led to an exodus of students to private schools. Even in remote villages, private institutions mushroomed as public confidence in government schools waned.

What changed in recent years?

Since taking office, the Sukhvinder Singh Sukhu-led government has pursued a mix of rational restructuring and renewed commitment to public education. Faced with demographic shifts – most notably, the declining fertility rate highlighted in the NFHS-5 – the administration acted to consolidate resources. More than a 1,000 under-enrolled schools were merged, allowing for the better deployment of teachers and infrastructure. The school education system was unified under a single directorate from pre-primary to Class 12, enhancing focus and accountability.

School-level decision-making was encouraged, boosting students' sense of ownership and identity. Teachers and meritorious students were given opportunities for exposure visits, both national and international, to learn from innovative practices. A cluster-based model of school management was adopted to encourage peer learning, share resources, and community participation.

Does the NAS reflect these efforts?

Not entirely. The NAS gives us an important signal – that Himachal is back on track. But it tells us little about the socio-emotional well-being of students, the quality of teaching-learning relationships, or community engagement. The danger lies in mistaking performance in standardised tests for education itself. Himachal's achievement lies in rekindling faith in the idea of public education.

What lies ahead?

As Himachal rides this wave of reform, it must now deepen its commitment by regularising teacher appointments, expanding holistic assessments, and ensuring that rural and marginalised students are not left behind.

Tikender Singh Panwar is former deputy mayor of Shimla, and member of the Kerala Urban Commission.

THE GIST

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The end of humanity

Jean Drèze

Development economist based in Ranchi

A recent poll conducted in 24 countries by the Pew Research Center reveals that Israel is very unpopular in most of these countries. The main exception is India, where just 29% of the respondents had an "unfavourable" view of Israel. A slightly higher proportion (34%) had a favourable view, and the rest had no view.

Perhaps this was a biased sample, where privileged sections of the population are over-represented. But the popular sentiment may or may not be more critical of Israel among the underprivileged, because they are not necessarily well informed on this issue. Clearly, there is some passivity in the response of the Indian public to the horrific war crimes that are taking place in Gaza.

India's support of Israel

For nearly two years now, the people of Gaza have been mercilessly displaced, bombed, starved, and deprived of medical care. More than 50,000 people – mainly civilians – have been killed, and many more grievously wounded. Countless children have been shot, dismembered, burnt alive or buried under the rubble. Some of them had to be amputated without anaesthetics. More than 200 journalists and a thousand health workers have been killed. Schools, hospitals, mosques, and universities have been razed to the ground. Today, the entire population of Gaza is on the verge of famine. All this was deliberate, planned, announced, and livestreamed.

Against this background, one would expect Israel to be very unpopular in India, as elsewhere. One reason why it is not (judging from the Pew Survey) may be that the Indian government has firmly sided with Israel in this conflict. The main reason is not far to seek: India depends heavily on Israel for military and surveillance technology. The two countries have deep commercial ties especially but not only in the defence sector. The Indian government has actively supported Israel's assault on Gaza in many ways: for instance, by subsidising joint ventures in the defence sector, sending Indian workers to Israel in replacement of Palestinian workers, casting an abstention vote in several United Nations resolutions critical of Israel, and – last but not least – suppressing public protests against Israel.

Solidarity with the people of Gaza is being defused even as their agony intensifies

With the government and the corporate sector on Israel's side, the mainstream media know better than to take the other side. The public is kept in the dark. Social media could help, but Gaza gets lost in a torrent of attention-seeking trivia. Some social media algorithms, notably X's, are also likely to be biased against posts critical of Israel or supportive of Palestine. Many X accounts, for instance, have been suspended after exposing uncomfortable truths about Gaza.

Solidarity and selfishness

Meanwhile, the people of Gaza have been immensely inspiring examples of courage and solidarity. Hundreds of Palestinian journalists have risked their life, and often lost it, to report the events. Doctors and nurses continue to treat the wounded even as bombs rain down on them. Relief workers work around the clock to provide people with a semblance of shelter and food. Ordinary civilians are helping each other to pull people or bodies from under the rubble. Recently, a mother who had lost all her children risked her life to fetch food for other children.

It is another matter that the people of Gaza may start turning on each other soon, as famine intensifies. In the last stages of a famine, people stop being able to see beyond their own hunger. The same mother who risked her life to feed hungry children may start snatching food from them. For all we know, the real purpose of Israel's blockade may be to incite Palestinians against each other.

There is a sharp contrast between the spirit of solidarity in Gaza and the selfish behaviour of the billionaires who recently took control of the United States, the world's richest and most powerful country. As soon as they came to power, these billionaires started redesigning public policies and institutions in their own interest, or rather in the interest of their class - the super-rich. This involved, first and foremost, eroding if not dismantling barriers to accumulate wealth: regulatory bodies, environmental safeguards, affirmative action, redistributive taxation, social security, political opposition, you name it. It also involved more imaginative projects such as taking over Greenland, raiding Ukraine's mineral resources, and converting the Gaza strip into a luxury resort.

It is not an accident that values of compassion and solidarity are found in Gaza, while the opposite values prevail at the other extreme of the spectrum of power. The race for power is not particularly kind to those who are distracted by the demands of empathy or morality. Nor is it surprising that greed and selfishness are celebrated in high places. Morality is like oxygen - the higher you get, the less there is of it in the atmosphere. It is this morality-free atmosphere that has made it possible for the governments of the U.S. and other countries to support the Gaza genocide.

Our own ability to feel, speak, or act for Gaza is being defused even as the Government of Israel scales ever-rising heights of brutality and cruelty. Most of the local journalists and other vocal witnesses in Gaza have been killed. The rest are too scared, hungry or exhausted to report what is happening there. In any case, communication facilities are minimal, and Gaza's agony is losing its "newsworthiness". Darkness and silence prevail as Gaza descends into hell. If we do not come to our senses, this will be the end of humanity.

End custodial brutality, begin criminal justice reform

Apsara Reddy

is official spokesperson, All India Anna Dravida Munnetra Kazhagam (AIADMK)

In the dark corners of police stations in Tamil Nadu, justice often dies before it is delivered. The recent custodial death of Ajith Kumar, a 27-year-old temple guard in Sivaganga, should shake the conscience of every citizen. But, tragically, his case is not an exception. It is part of a grim pattern.

Between 2021 and 2025, there have been a series of custodial deaths. Vignesh, a 25-year-old, who was detained in Chennai in 2022, died within hours, with his autopsy revealing multiple injuries. In 2024, Raja, a Dalit cook from Villupuram died in police custody after a petty theft allegation; his three children and wife still await compensation. A 30-year-old autorickshaw driver in Tiruchi died of injuries in 2023 under suspicious circumstances. And now, Ajith, whose autopsy revealed 44 wounds, cigarette burns, and forced exposure to narcotics. His last words to his mother were haunting: "I didn't steal."

A normalisation of the use of force

These are not aberrations. They are the outcomes of a system that has normalised force over fairness. But beyond the moral horror lies another fundamental concern – we are failing citizens and the police force by investing in enforcement without investing in reform.

Each year, the Tamil Nadu government allocates thousands of crores towards policing. Yet how much of this goes into welfare, training and psychological care? A disproportionate amount is funnelled into hardware such as vehicles, surveillance systems, and crowd-control gear while the human element is left neglected. We equip officers with lathis and law books, but deny them the emotional tools to deal with stress, trauma and moral ambiguity. Policing cannot merely be about control. It must be about conscience.

India is failing its citizens and its police force by investing in enforcement without investing in reform

Reforms to undertake

A sensible reallocation of the policing budget is long overdue. Even 5% of the current annual spend, redirected toward setting up district-level mental health units, mandatory quarterly counselling, and refresher sensitisation courses, would result in exponentially better outcomes – for detainees, for officers, and for public trust. We pour money into deterrence, but ignore the cost of dysfunction.

It is time to institutionalise mental wellness within law enforcement, not as a luxury, but as a necessity. Officers are human. They deal with domestic abuse cases in the morning, gang violence by afternoon, and politically fraught complaints by night. Without psychological support, that pressure metastasises; burnout becomes brutality. The baton does not punish alone, it often expresses accumulated trauma.

Parallelly, police training needs transformation. A curriculum designed in the pre-liberalisation era cannot address the needs of modern India. Ethics, human rights jurisprudence, trauma-informed investigation methods and community policing models should be at the core, and not cosmetic.

Moreover, our criminal justice architecture must include enforceable accountability. It is not enough to suspend a few constables after every tragedy.

What Tamil Nadu, and India at large, needs is legislative clarity; a comprehensive anti-custodial violence law with time-bound investigation mechanisms, mandatory video documentation of interrogations, and civil society involvement in oversight.

Technology must serve as a safeguard, and not be a silent spectator. CCTV cameras in areas where people are in custody should be operational, tamper-proof, and subject to real-time audits. Digital systems can help, but only if we are willing to confront the uncomfortable truths that they reveal.

A new path for law enforcement

Finally, we must reimagine the police uniform – not as a symbol of unyielding authority, but of service, restraint, and human responsibility. Ajith Kumar's death, like those of Vignesh, Raja, and so many others, tells us that power without empathy is violence by another name.

To break this cycle, we must invest not just in policing but also in the emotional, ethical, and structural reform of law enforcement. Until then, every custodial death will not just mark the end of one life but also the failure of the state's moral contract with its people.

Let us not wait for the next young man to cry out "I didn't steal" before dying in silence. The time for justice is not post-mortem; it is policy, and it is now.

Building resilience

The Rio declaration underlined the cohesion within BRICS

The 17th Summit of BRICS emerging economies, which ended on Monday, came at a time when the organisation was in the global spotlight. This was the first such meeting that included all the newly inducted members (Egypt, Ethiopia, the UAE, Iran and Indonesia; Saudi Arabia has not joined so far). It also followed the U.S.-Israel attacks on Iran's nuclear programme, and the escalation in Israel's bombardment of Gaza. This was the first summit since the four-day India-Pakistan conflict in May. and also after the G-7 summit in Canada. The BRICS grouping, seen as the next challenger to the global financial order, is in U.S. President Donald Trump's cross-hairs, as he sees it mounting an alternative to the dollar in international trade. In addition, the group has several internal rivalries that have brought its sustainability into question. In April, the BRICS Foreign Ministers' meeting ended without a joint statement, as the African members held up the wording on the expansion of the UN Security Council. Meanwhile, despite India's clarification in March that it is not considering de-dollarisation of trade in any form, and that there is no "unified BRICS position" on the issue, Brazil's President Lula da Silva doubled down on rhetoric against the U.S., saying that BRICS proves the world "doesn't need an emperor". Mr. Trump has since repeated threats that BRICS countries would face an extra 10% tariffs due to the grouping's "anti-American stance" – an awkward moment for New Delhi as it attempts to conclude a trade agreement with Washington.

Despite all the challenges, the Rio declaration underlined the basic cohesion and consensus within BRICS members on a range of issues. In the joint statement, there was strong language against the attacks on Gaza and condemnation of the strikes on Iran, given the risks to nuclear safety. India was able to ensure a paragraph with tough language condemning the Pahalgam terror attack and references to terror financing and "cross-border movement of terrorists". India and Brazil won endorsements of the whole grouping on playing a larger role at the UN, "including the Security Council". The absence of the Chinese and Russian Presidents allowed more space for the non-P5 countries to promote a common vision for the Global South, adding several important resolutions on energy security, climate change and re-ordering the WTO. The Rio declaration also took a stern view of the U.S.'s moves on tariffs. As India prepares for its leadership of the BRICS grouping next year, that now represents about half the global population, around 40% of the global GDP and a quarter of global trade, it can move forward with this consensus, fulfilling the vision for the grouping's acronym that Mr. Modi recast as "Building Resilience and Innovation for Cooperation and Sustainability".

Israel has failed to solve the Persian puzzle

Stanly Johny

The wedding of Edmure Tully and Roslin Frey at The Twins in the northern riverlands is one of the most consequential events in Game of Thrones. Known as the Red Wedding, it is the setting for the massacre of Robb Stark, King in the North and Lord of Winterfell, along with his pregnant wife, his mother, and most of his banner-men. This brutal betrayal shattered the Starks' military power and ended their bid for independence from the Iron Throne, reshaping the political landscape of Westeros, the fictional continent in the series. When Israeli fighter jets began bombing Iran, in the early hours of June 13, 2025, Israeli generals reportedly dubbed a part of the operation as the 'Red Wedding' – a pointed reference to what they wanted to achieve in the strike.

Israel's primary target was Iran's nuclear facilities. But Israel knew that if it started a war, Iran – a country many times its size and armed with thousands of ballistic missiles – would strike back. So there were three targets – Iran's nuclear facilities, nuclear scientists and the leadership of Iran's armed forces. Much like House Frey slaughtered the banner-men and the leaders of House Stark, Israel had the aim of wiping out Iran's military command, believing that it would cripple Tehran's military response. Israel had pulled off a similar strategy in the past. On June 5, 1967, it launched a massive air strike against Egypt's air force, causing much damage to it on the ground. Egypt never recovered from the initial blow, and Israel claimed a sweeping victory over Egypt, Jordan and Syria in just six days. But in June 2025, the outcome was different.

Operational success

From an operational standpoint, Israel's attack can be seen as a success. Israel had been preparing for a strike on Iran's nuclear programmes for years, a plan that gained momentum after the October 7, 2023 attack by Hamas. Israel, which immediately launched a war against Hamas in Gaza, eventually expanded it to a mini-regional war that was aimed squarely at Iran. It dealt a blow to Hezbollah. It bombed the Iranian embassy in Damascus in April 2024, and killed several Iranian commanders in Syria. Its relentless bombings in Syria expedited the collapse of Bashar al-Assad's regime. The return of Donald Trump to the White House further hardened Israel's resolve to test the military option.

On June 13, while Tehran was still engaged in talks with the Trump administration, Israel struck Iran's Natanz and Isfahan nuclear facilities, killed at least 10 nuclear scientists, and assassinated many top commanders. Executing such a complex operation in a vast country about 2,000 kilometres away was no small feat. Yet, the problem for Israel was that this operational success failed to deliver the desired strategic outcome. For Israel, which has established credible deterrence against the surrounding conventional Arab armies, Iran has always remained a puzzle. Despite its sanctions-hit economy and enduring hostility from the West, Iran managed to build a wide network of influence in the region through non-state actors, while developing an advanced ballistic missile programme and pursuing its nuclear ambitions.

Israel had long nurtured the idea of regime change in Iran – if the Islamic Republic falls, Israel's last remaining conventional threat in West Asia would vanish. Israel prefers a weaker, broken-up Iran, much like today's Iraq, Libya, Syria or Lebanon, which would set the stage for a unipolar West Asia that is dominated by Israel and the U.S. The post-October 7 wars substantially weakened Iran's allies in the region. Still, Iran, with its ballistic missiles and nuclear programme, remained a rebel counterweight to Israel.

In the early days of the 12-day war, Mr. Netanyahu declared that Israel's operation "could certainly" lead to regime change, insisting that "Iran is very weak". He also urged the Iranians to "to act, to rise up" against the "evil regime". During the war, Israel killed at least 30 Iranian security chiefs, threatening to disrupt the entire chain of command. But the Iranian government and the military recovered with remarkable speed, with the Islamic Revolutionary Guard Corps taking the lead in mounting a counter-attack. Iran launched a sustained campaign of drones and ballistic missile strikes that exposed vulnerabilities in Israel's much-vaunted, multi-layered, American-assisted defence systems. Within days, Mr. Netanyahu was forced to turn to Washington for help.

That help came on June 21 when U.S. President Donald Trump ordered U.S. air strikes on three Iranian nuclear sites, including Fordow, the most heavily fortified facility. Mr. Trump, however, was not interested in a long war with Iran. After the strikes, he claimed that Iran's nuclear facilities had been "obliterated", declared victory and announced a ceasefire between Israel and Iran. Mr. Netanyahu had no choice but to accept the ceasefire, with the Iranian government still standing with much of its capabilities.

The 12-day conflict has not destroyed Iran's nuclear capabilities; this is a war that is far from over

Strategic labyrinth

Early assessments by the U.S. intelligence community claimed that Iran's nuclear programme had not been destroyed by U.S. strikes, but set back by "a few months". Even if the nuclear facilities were destroyed, there is no certainty that Iran's stockpile of highly enriched uranium and all advanced centrifuges have been destroyed. There were reports, based on European intelligence assessments, that Iran had dispersed its enriched uranium well before the Israeli-American strikes. According to Rafael Mariano Grossi, head of the International Atomic Energy Agency, Iran has the industrial and technological capacity to resume enriching uranium in a few months.

This leaves Israel in a strategic labyrinth. The Iranian state refused to flinch throughout the war despite the heavy blows it suffered. The air strikes failed to destroy Iran's nuclear programme, let alone its nuclear capabilities. Third, the war exposed Israel's over-reliance on the U.S., in both defence and offence, which was not the case in 1967 when Israel claimed its biggest victory.

Survival of the weak

Even though Mr. Trump joined the war on behalf of Israel, there is a clear distinction between the American and the Israeli approaches towards the Persian puzzle. Israel's ultimate objective is regime change but it does not have the resources or the capabilities to achieve regime change. The U.S. does not want a nuclear Iran, but it does not want to get entangled in another prolonged war in West Asia either. Mr. Trump's own MAGA (Make America Great Again) base was revolting against America's intervention in Iran.

For Iran, the Israeli-American attack was another Mosaddegh moment – a reminder of the 1953 Central Intelligence Agency-backed coup that toppled its elected Prime Minister Mohammad Mossadegh. Iran once made a deal with the U.S. and other world powers over its nuclear programme, only to see it torn up by President Trump in his first term. When Tehran returned to talks with Washington again, it ended up facing an Israeli-American war instead. Iran is now racing to rebuild its military capabilities and restore deterrence. Iran's leaders will also find a greater incentive than ever to pursue a nuclear weapon as many in Iran today argue that if Tehran had possessed a bomb, like North Korea, Israel and the U.S. would not have dared launch this war.

In Game of Thrones, the Red Wedding was not the end of House Stark. When Arya Stark, the younger sister of Robb Stark, extracts revenge for the Red Wedding by orchestrating a massacre at House Frey, she declares: "You didn't slaughter every one of the Starks. That was your mistake. You should have ripped them all out, root and stem." The 12-day war did not destroy the Iranian regime. Nor did it tear out the Iranian nuclear programme, root and stem. Beneath its rhetoric of victory, Israel, which is now asking the international community to stop Iran from getting a nuclear bomb, knows this all too well. It will only grow more paranoid, closely monitoring Iran's every move, while Tehran replenishes its arsenal, readying itself to fight another day. This war is far from over.

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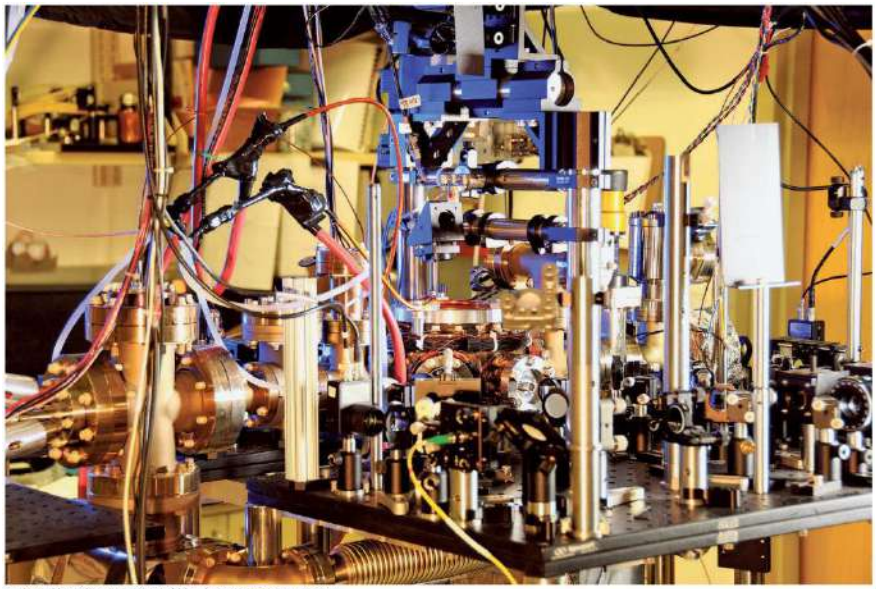

An ultra-stable ytterbium lattice atomic clock at the US NIST in 2013. PUBLIC DOMAIN

Intercontinental clock comparison sets stage to redefine the second

Because they can enumerate one second up to 18 decimal places, scientists expect optical clocks will become the world's new time standard around 2030. Until then, however, optical clocks will have to pass rigorous tests attesting to their ability to work in step from different parts of the world

Vasudevan Mukunth

Researchers from around the world have completed the world's largest, most demanding head-to-head comparison of clocks in history to build confidence for the upcoming redefinition of the second.

The duration of a single second is currently defined by caesium (Cs) atomic clocks. Lasers "count" the radiation emitted by Cs atoms in these devices to measure one second, give or take a few billionths. As the applications of atomic clocks have expanded – including GPS navigation, climate science, and radio astronomy – expectations of their performance have also increased, necessitating the more advanced optical clocks.

Scientists around the world have been studying and testing these next-generation devices. Because they can enumerate one second up to around 18 decimal places, scientists expect optical clocks will replace Cs atomic clocks as the world's new time standard around 2030. Until then, however, optical clocks will have to pass rigorous tests attesting to their ability to work in step from different parts of the world.

The new effort presents the largest, most sophisticated such test to date. It involved 10 optical atomic clocks on three continents and 65 researchers.

SI unit of time

To measure the passage of time, strike up a conversation with the person next to you. If it's riveting, time will fly. But if it advances in painstaking steps, time will slow to a crawl.

For better or for worse, this isn't good enough for scientists. To understand how much time one second denotes, they use natural phenomena. In the early 20th century, the definition of a second was one-86,400th of a mean solar day. The first quartz crystal clocks that appeared in the late 1940s could measure time more accurately than the earth's rotation. So scientists switched to the earth's revolution around the sun. In 1956, one second became equal to one-31,556,925.9747th of the time the earth took to go once around the sun from January 0, 1900.

Since then, scientists have been building better clocks that, at each step, also incentivised them to refine the time standard. The current standard is based on atomic clocks. These clocks don't directly measure time. Instead, they are complicated setups scientists put together to generate radiation of a fixed frequency. (Frequency is nothing but the inverse of time.)

In 1967, the SI unit of time was defined thus: "the duration of 9,192,631,770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the caesium-133 atom". This verbose definition really communicates a simple meaning.

Pass the last one

An atom's internal energy comes in fixed steps, like rungs on a ladder. It can jump up a rung by absorbing the right amount of energy and jump back down by giving that energy up again.

In a Cs atomic clock, the energy that makes the jump is supplied by a finely tuned microwave signal. The atoms react most strongly when the microwave frequency is 9,192,631,770 Hz. Electronics watch how many atoms make the jump. If that number slips below a peak, the equipment nudges the microwave setting until the jump rate is back to the maximum. When that happens, the microwave signal itself is guaranteed to be exactly 9,192,631,770 Hz, i.e. composed of 9,192,631,770 waves per second.

Chips called frequency dividers count these microwave waves and pass on only every 9,192,631,770th one. This wave comes along every one second — and is the SI definition of the second.

Around the world, many countries have set up their own Cs atomic clocks to define their respective national time standard. In India, the National Physical Laboratory in New Delhi maintains five Cs atomic clocks. The clocks' output is disseminated to various applications around India via the INSAT satellites, telecommunication signals, and fibre links. Scientists, however, are already at work refining the next big thing: the optical atomic clock.

Good for 15 billion years

The wall clock hanging in your house is likely powered by two AA batteries and uses a quartz crystal oscillator. After a few months, the clock will start losing a few seconds. The Cs atomic clock that defines the US national time standard loses only one second every 300 million years, however.

This is stupendous, yet in some cases it isn't good enough. As their application in defining the time standard suggests, atomic clocks are used in many technologies that we encounter every day. The American GPS network, Russia's GLONASS, Europe's Galileo, and India's NavIC constellation use atomic clocks onboard satellites to accurately measure distance and location data for both civilian and military use. Astronomers use it in radio-astronomy to piece together signals received on different parts of a large telescope. This is how they captured history's first photograph of a black hole in 2019. Climate scientists use atomic clocks for ultra-precise measurements of the earth's gravity that reveal where ice and water have been lost.

As these applications have expanded, the expectations of atomic clocks have, too. The definitive emission in Cs atomic clocks, of 9,192,631,770 Hz, is in the microwave range of the electromagnetic spectrum. In optical atomic clocks, it's in the optical (or visual) range. The radiation emitted when a strontium atom jumps between two particular energy levels is 429,228,066,418,009 Hz. When a ytterbium-ion jumps between two levels, the radiation has frequency 642,121,496,772,645 Hz. Because this radiation contains 10,000-times more waves per second, a device that can count them out can also measure one second more precisely.

In India, the National Physical Laboratory maintains five Cs atomic clocks. Their output is disseminated around India via satellites, telecommunication signals, and fibre links

The frequency of the radiation emitted is also proportional to the clock's stability. In 2004, one optical atomic clock that used strontium atoms would reportedly drift by less than one second in 15 billion years. This is why optical atomic clocks are set to become the next global time standard.

But ahead of the milestone, scientists must prove that clocks in different countries agree with one another to the 18th decimal place.

Across three continents

Enter: the new test. It involved 10 optical clocks based on five atoms: strontium-87 (^{87}Sr), ytterbium-171 (^{171}Yb), charged ytterbium-171 ions in two states (Yb^+ E2 and Yb^+ E3), charged strontium-88 (Sr^+), and indium-115 ions (In^+). The clocks were located at six national metrology institutes in Finland, France, Germany, Italy, the U.K., and Japan.

The two clocks participating from Germany were in the same building, so the scientists linked their outputs through short optical fibres. The clocks across France, Germany, and Italy were linked with telecommunication fibres that already run through these countries. To prevent any noise or distortion from corrupting the data, scientists installed bespoke repeaters and amplifiers. Finally, to link the clocks across the English Channel, the Baltic Sea, and all the way to Japan, the teams used an advanced GPS technique called integer precise point positioning (IPPP).

Because optical clocks occasionally take breaks for maintenance, the teams set up simpler backup clocks that stepped in temporarily to keep time using GPS data. When the optical atomic clocks were back in operation, the backups would handover and step back.

In this way, all the clocks ran for 45 days between February 20 and April 6, 2022. Every time two different clocks were running and connected, the researchers divided their laser frequencies to make a ratio. In total the teams reported 38 independent optical-frequency ratios, far more than any earlier project. Four of these ratios – Yb^+(E3) to Yb, In^+ to Yb, Sr^+ to Sr, and Sr^+ to Yb – had never before been measured directly. The tightest single result was the ratio between the In^+ and Yb^+(E3) clocks in Germany, measured locally with an uncertainty of just 4.4×10^{-16}.

The teams found that the fibre and satellite links told the same story for most ratios. For example, the Sr clocks in Germany and France differed by a factor of less than 2×10^{-16} via both technologies, showing that long fibres and IPPP could both support ultra-precise timing in good conditions. Similarly, same-atom ratios – Sr to Sr, Yb to Yb, and Yb^+ to Yb^+ – confirmed that many clocks were healthy. The Germany and the U.K. clocks were compared by GPS across the North Sea and matched within 3×10^{-16} even after accounting for downtime.

Combine results responsibly

The researchers were also able to reveal gaps they will have to fix before 2030. Every GPS-based ratio that involved the Italian Yb clock was off by about 4×10^{-15} compared with fibre measurements, pointing to a previously unnoticed signal distribution glitch at the Italian facility. The strontium clocks in France and Germany showed small but real offsets, up to 2×10^{-6}, when the teams checked them against other clocks and each other. These shifts were large enough to matter for a future definition of the second and will need further study.

The authors of the paper describing the test, published in *Optica* on June 12, noted that recognising such hiccups is exactly why large, redundant campaigns are valuable.

Because many ratios shared the same clocks, fibres, backups or GPS receivers, the teams noted that their errors were correlated. To address this, they developed a 38×38 matrix capturing 242 non-zero correlation coefficients. These coefficients captured the degree to which any two variables were related, e.g. it was 0.94 when two ratios shared a common clock on the same fibre. The teams said publishing these correlations will allow future analysts combine results responsibly instead of double-counting information.

In the final analysis, by showing that 10 heterogenous clocks across three continents could agree with each other to within a factor 10^{-16} to 10^{-15}, and by identifying the rare cases when they didn't, the test has cleared many obstacles *en route* to redefining the SI second with optical atomic clock standards.

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India, Africa must work side by side, says PM in Namibia

India seeks to cooperate, not compete, with Africa, says Mr. Modi; he also congratulated Namibia for adopting UPI digital payment system; Modi given the country's highest civilian honour

Kallol Bhattacherjee
NEW DELHI

Continuing his diplomacy focused on the Global South, Prime Minister Narendra Modi on Wednesday highlighted India's support to Namibia's decolonisation, "not just in words, but in action".

Addressing a special session of the Namibian Parliament, Mr. Modi congratulated the African nation for adopting India's UPI digital payment system. The Prime Minister also highlighted the country's wider Africa policy, emphasising that India does not aspire to "compete" with anyone in the African continent, but rather seeks to "build together".

"India is proud to have stood with Namibia - not just in words, but in action. Like the tough and elegant plants of Namibia, our friendship has stood the test of time. And, just like your national plant *Welwitschia mirabilis*, it only grows stronger with age and time," Mr. Modi told the joint session of the Parliament of Namibia, highlighting the historic support that India extended to Namibia's freedom from the 1940s. According to the records of the Ministry of External Affairs, India was among the first countries to raise the cause of Namibia's independence at the United Nations in 1946.

Close links: Prime Minister Narendra Modi with Namibia President Netumbo Nandi-Ndaitwah in Windhoek. SPECIAL ARRANGEMENT

Africa must lead

Africa should not just be a source of raw materials and minerals, but should "lead in value creation and sustainable growth", the Prime Minister said.

"With Africa, we seek not to compete, but to cooperate. Our goal is to build together. Not to take, but to grow together," he added.

Mr. Modi met with Namibian President Netumbo Nandi-Ndaitwah and signed several agreements, including MoUs to set up an Entrepreneurship Development Centre in Namibia and to cooperate in the field of health and medicine.

Namibia also completed the formalities to join the India-led Coalition of Disaster Resilient Infrastructure and the Global Biofuel Alliance.

The launch of a digital payments system in Namibia later this year was also announced as an outcome of the UPI technology licensing agreement signed between the National Payments Corporation of India and the Bank of Namibia in April 2024.

Mr. Nandi-Ndaitwah also conferred Mr. Modi with the Order of the Most Ancient Welwitschia Mirabilis, Namibia's highest civilian award.

Earlier, Mr. Modi paid homage to the hero of Namibia's freedom movement Sam Nujoma, describing him as "a great friend of India". He recollected Dr. Nujoma's role during the establishment of diplomatic relations between India and Namibia in 1986.

The first diplomatic mission of the South West Africa People's Organisation (SWAPO) was established in India, which provided the organisation with material support as it led the efforts for the liberation of Namibia. India's support to SWAPO is remembered fondly, the Prime Minister said.

ED conducts searches across Punjab and Haryana in 'donkey route' case

Devesh K. Pandey
NEW DELHI

The Enforcement Directorate on Wednesday conducted searches at 11 locations in Punjab and Haryana in connection with the "donkey route" case related to the illegal immigrants deported from the U.S. in February.

According to the agency, the investigation is based on 17 first information reports registered by the police in Haryana and Punjab against the travel/visa agents and middlemen.

It is alleged that the agents used to target persons aspiring to go abroad and, on the false promise of facilitating their air travel through legal channels, they charged about ₹45-50 lakh per head. "However, the agents used to dupe the innocent persons as they were sent through illegal routes [donkey route] by crossing the borders of many countries illegally under the influence of donkers [human trafficking conduits] and the mafia," they said. "The agents, in collusion with donkers and the mafia, used to create such a threatening situation for the persons and their families that they were forced to pay more.," it said.

Major milestone

The Indian Navy received its first indigenously designed and built Diving Support Vessel, *INS Nistar*, from Hindustan Shipyard Ltd. at Visakhapatnam on Tuesday. It is equipped with state-of-the-art diving equipment and can handle deep-sea rescue operations. @INDIANNAVY/X

India played key role in bringing out FATF report on terrorist financing

Devesh K. Pandey
NEW DELHI

India was one of the key contributors to the Financial Action Task Force (FATF) project for putting together the "Comprehensive Update on Terrorist Financing Risks" report that was released on Tuesday.

It is learnt that the United Nations Security Council Counter-Terrorism Committee Executive Directorate and France were the co-leads for the project. India also played a significant role in bringing out the report, which has for the first time recognised state sponsorship as a means to fund and support terrorism.

"We have long identified Pakistan as a state that sponsors terrorism. India's

The FATF has for the first time recognised state sponsorship as a means to fund terrorism.

2022 National Risk Assessment (NRA) on Money Laundering and Terror Financing flagged state-sponsored terrorism – particularly from Pakistan – as a major concern. Accordingly, all financial institutions, including banks, are required to do enhanced due diligence with respect to any transaction related to Pakistan," said a government official.

The findings highlighted in the FATF report are expected to reflect in the framing of subsequent NRAs of all the other countries. The United States, in its 2024 National Terrorist Financing Risk Assessment, has already noted that it faced terrorism threats from terror groups in Pakistan, apart from Afghanistan, Southeast Asia, and East Africa.

"Being an NRA, it is followed by all U.S. banks while adhering to their KYC guidelines. They are cautious about transactions with Pakistan, and this increases the cost of doing business for Pakistani establishment and businesses. After this FATF Risk report – which carries higher precedence over NRAs – the U.S. and other countries will have to acknowledge the sources of state-sponsored terrorism in their risk assessments," the official said.

In the FATF report, the global money laundering and terror financing watchdog has considered the inputs received from delegations and publicly available sources of information.

"Among the various suspect modus operandi adopted for state sponsoring of terror outfits is the ongoing smuggling of oil from Iran to Pakistan. There is a high risk of funds so generated being used to finance terrorist activities," said another official.

Meeting in Delhi to resolve SYL issue yields no outcome

The Hindu Bureau
CHANDIGARH

The impasse surrounding the Sutlej-Yamuna Link (SYL) canal – the focal point of a water-sharing dispute between Haryana and Punjab – continued on Wednesday as the meeting convened by the Central government with both the States on the sensitive issue remained inconclusive.

Union Minister of Jal Shakti C.R. Patil met Punjab Chief Minister Bhagwant Singh Mann and Haryana Chief Minister Nayab Singh Saini in New Delhi to address the long-standing issue. An official the statement after meeting said that it was held in a cordial atmosphere and the discussions saw both States express their commitment to an early resolution.

"It was mutually agreed that the Chief Ministers will reconvene with the Union Minister of Jal Shakti in early August to continue working towards an amicable solution," the statement added.

Mr. Saini, talking to media persons, said his Punjab counterpart also acknowledged that the SYL issue should be resolved as it has remained pending for far too long. "Punjab and Haryana are like brothers, and even today, they share a common space with mutual respect and harmony. The upcoming discussions in the next meeting are expected to lead to a better solution and yield positive results," he said.

Meanwhile, Mr. Mann said Punjab has no surplus water for any other State, even as he sought a share for his State from the Indus waters and mooted the idea of a Yamuna-Sutlej Link (YSL) canal instead of the SYL canal.

Centre is yet to decide on updating NPR along with Census 2027, say officials

Vijaita Singh
NEW DELHI

The Centre has not yet decided whether to update the National Population Register (NPR) during the upcoming Census 2027, senior Home Ministry officials have told Census directors during a preparatory meeting.

When questions were raised about the NPR during a two-day conference of the Directors of Census Operations held on July 3 and 4, participants were told that no decision had yet been made regarding the database, and that they would be informed at an appropriate time, sources told *The Hindu*.

The conference sessions were addressed by Union Home Secretary Govind Mohan and Registrar-General of India (RGI) and Census Commissioner of India Mritunjay Kumar Narayan. This was the first preparatory meeting for the Census, the first phase of which begins in April 2026.

A June 27 letter from the RGI to the Chief Secretaries of all States on preparations for the Census also did not mention the NPR.

The NPR is the first step towards the creation of a National Register of Citizens (NRC), according to the Citizenship Rules, 2003 under the Citizenship Act, 1955. The NPR was first created in 2010 and data was collected simultaneously during the first phase – called the House Listing and Housing (HLO) schedule – of the 2011 Census. The NPR database was then updated in 2015-16.

The NPR database has household-wise details of the country's 119 crore usual residents. Unlike Census data, which is only shared in an aggregate format, specific individual and household data from the NPR can be shared with Central and State governments and agencies.

Enumerators for the 2027 Census will begin training for the exercise in the last week of July, a government official said. This will be the first Census in which enumerators use mobile apps to collect data.

The pre-test exercise to check the efficacy of the entire process will be held in the last week of August and the first week of September.

Pre-test questionnaires

This is the first Census since 2011 as the Census scheduled to take place in 2021 was delayed due to the COVID-19 pandemic and will now be completed in 2027. The pre-test exercise for the planned 2021 Census took place in 2019, covering more than 26 lakh people in all States. It included questions on household amenities from the first phase, and questions from the second Population Enumeration phase, as well as questions for the NPR database.

This time around, however, only questions pertaining to household amenities in the first phase will be asked in the pre-test. There will not be any trial exercise of the questionnaire for Population Enumeration, the official said.

This second phase, expected to take place in February 2027, will include a question on caste as this is the first Census in independent India to enumerate caste. The fact that it is not being included in the pre-test exercise indicates that the methodology to count the population by caste is yet to be finalised.

Detailed list

The NPR is the first step towards the creation of a National Register of Citizens

A census official collects information from a household at Bonda on the outskirts of Guwahati in 2011. AP

- The NPR was first created in 2010 and updated in 2015-16
- Data for NPR was collected simultaneously during the first phase of the 2011 Census
- The NPR has details of household-wise database of 119 crore usual residents of the country
- NPR data can be shared with government agencies and States, unlike the Census data