

# Navy's 26 new Rafales

Why is the induction of the Rafale M important in the context of the Indian Navy? Why does India need aircraft carriers, and advanced fighter jets for these great battleships?

## EXPERT EXPLAINS



MUKUL ASTHANA

INDIA AND France on Monday signed a \$7.4 billion (approximately Rs 63,000 crore) government-to-government contract for 26 Rafale Marine (Rafale M) fighter aircraft for the Indian Navy. Thirty-six Rafale aircraft were earlier inducted into the Indian Air Force from 2021 onward.

Why is the induction of the Rafale M important in the context of the Indian Navy?

### First, what is meant by naval aviation?

Naval aviation is the use of military air power by navies, involving aircraft that operate from warships — such as aircraft carriers and other aircraft — or helicopter-carrying surface combatants, or land bases to support naval operations.

It includes specialised naval aircraft designed to meet the unique demands of carrier operations and small decks, such as short takeoffs and arrested landings, and roles such as air-to-air combat, surface and submarine attack, maritime reconnaissance, search and rescue, and logistical support.

The key roles of naval aviation include:

**FLEET AIR DEFENCE:** providing air cover for naval forces beyond the reach of land-based aircraft;

**STRATEGIC POWER PROJECTION:** allowing deployment of air power without needing land bases;

**ANTI-SURFACE WARFARE:** attacking enemy ships with air-launched missiles;

**SUPPORTING AMPHIBIOUS WARFARE:** aiding marine landings and operations inland; and

**MINE COUNTERMEASURES:** using aircraft to detect and clear enemy mines.

Naval aviation is crucial for maintaining control of the seas, supporting naval and ground forces, and projecting military power along distant shores. It includes fixed-wing carrier borne squadrons, land-based Maritime Patrol Aircraft, Helicopters and Remotely Piloted Aircraft operated from warships and ashore.

### And what exactly is an aircraft carrier?

An aircraft carrier is a warship that serves as a seagoing airbase, equipped with a full-length flight deck and hangar facilities for supporting, arming, deploying, and recovering shipborne aircraft.

It allows a naval force to project seaborne air power far from its homeland without hav-

## Versatile, omnirole fighting machines

Rafale-Marine (Rafale-M), designed and produced by Dassault Aviation, is a French fighter aircraft modified to operate out of an aircraft carrier. Rafale-M entered service with the French Navy in 2004.

**OMNIROLE CAPABILITIES:** The Rafale can carry out a gamut of combat aviation missions — air superiority and air defence, close air support, in-depth strikes, reconnaissance, anti-ship

strikes and nuclear deterrence — in a single sortie if required.

**REINFORCED UNDERCARRIAGE:** All Rafale variants share a common airframe and a common mission system, with the differences between naval and land versions limited mainly to the undercarriage and the arresting hook. This high degree of commonality allows for interoperability with Rafales already

in service with the Indian Air Force.

**MULTI-SENSOR DATA FUSION:** Rafales have the unique capability to fuse and process data provided by all onboard and offboard sensors. At the centre of these enhanced capabilities lies a new Modular Data Processing Unit (MDPU). The system's modularity also makes Rafales upgradeable over their service life, to meet evolving tactics and improvements in computer technology.

Source: Dassault Aviation



ing to rely on airfields ashore. Aircraft carriers as part of the Carrier Battle Groups are often the centerpiece of modern naval warfare, with significant strategic and diplomatic influence in deterrence, command of the sea, and air supremacy.

Aircraft carriers are also adaptable and survivable airfields that are ready to control the seas, conduct strikes, and manoeuvre across the electromagnetic spectrum and cyberspace.

About 50 carriers, operated by the navies of several countries, are currently active around the world. The United States Navy leads with 11 large nuclear powered carriers followed by Brazil, China, France, India, Italy, Russia, Spain, Thailand and the United Kingdom.

### What is the history of carrier aviation in India?

While Indian naval aviation will celebrate its 72nd anniversary on May 11, 2025, India's carrier aviation began with the commissioning of the *INS Vikrant* in 1961.

Since the 1960s, India has operated four carriers — the *INS Vikrant* (1961-1997), *INS Viraat* (1987-2017), *INS Vikramaditya* (since 2013), and the indigenously built *INS Vikrant*, which was commissioned in 2022.

Through this unbroken period of 64 years, India has operated all major types of aircraft launch and recovery systems and continues

to expand its carrier fleet, with future plans for additional indigenous construction.

### But why does India need aircraft carriers?

India requires aircraft carriers for several strategic, military, and geopolitical reasons.

**STRATEGIC DETERRENCE AND POWER PROJECTION:** Aircraft carriers enable India to assert influence and maintain favourable balance of power in the Indian Ocean, a region critical for trade, energy flow and security for India and the world.

**PROTECTION OF MARITIME INTERESTS:** More than 90% of India's trade by volume moves by sea. Carriers help secure Sea Lines of Communication (SLOCs), protect island territories, and deter potential threats.

**BLUE WATER NAVY CAPABILITY:** Carriers allow the Indian Navy to operate far from home shores, reinforcing its status as a blue water force capable of extended operations and rapid responses to crises.

**CONTINUOUS OPERATIONAL READINESS:** Having multiple carriers ensures that at least one is always operational on each coast, even as others are in maintenance or refit.

**NON-MILITARY ROLES:** Carriers also play a vital role in Humanitarian & Disaster Relief (HADR) operations that project India's soft power and the ability to respond to regional emergencies and calamities, which are

not uncommon in the Indian Ocean Region.

### How will the Rafale Ms help the Navy?

Over the years, India has operated a wide variety of carrier-based fighters — from Sea Hawks, Alizes, Sea Harriers and, at present, the very capable fourth generation MiG29Ks.

The country is now developing the fifth generation Twin Engine Deck Based Fighter (TEDBF), that is likely to be operationalised in the middle of the next decade.

The 26 Rafale M jets, a four-and-a-half-generation battle-proven combat aircraft, will augment the existing MiG29K fleet.

A great advantage that accrues with the induction of the 26 Rafale Ms for the Indian Navy is the commonality with the IAF Rafales. This provides the desirable scope for interoperability and joint training, as well as for maintenance and safe practices of these assets and their aircrew between the two services.

The induction of this very capable aircraft in the coming years is a shot in the arm for the Indian armed forces, and shall ensure continued and enhanced combat capabilities across the full spectrum of India's military might.

Rear Admiral Mukul Asthana (Retd) is a naval aviator who retired from the Indian Navy in October 2020 as Assistant Chief of Naval Staff (Air)



# Pak Defence Minister's open confession exposes country as 'rogue State': India at UN

By Yoshita Singh

UNITED NATIONS, Apr 29 (PTI)

INDIA said that the open confession of Pakistan's Defence Minister Khawaja Asif admitting to his country's history of supporting and funding terrorist organisations exposes Pakistan as a "rogue State" fuelling global terrorism and destabilising the region.

India's Deputy Permanent Representative to the UN, Ambassador Yojna Patel delivered a strong Right of Reply at the hybrid launch event for the 'Victims of Terrorism Association Network' (VoTAN) of the UN Office of Counter-Terrorism here Monday when Pakistan's delegate made a reference to the Pahalgam terror attack in Jammu and Kashmir. "It is unfortunate that one particular delegation has chosen to misuse and undermine this forum to indulge in propaganda and make baseless allegations against India," Patel

said. "The whole world has heard the Pakistani Defence Minister Khawaja Asif admitting and confessing Pakistan's history of supporting, training and funding terrorist organisations in a recent television interview," she said. Patel asserted that "this open confession surprises me and exposes Pakistan as a rogue state fuelling global terrorism and destabilising the region."

The world can no longer turn a blind eye. I have nothing further to add," she said.

In a recent interview on Sky News, Asif said "Well, we have been doing this dirty work for the United States for about three decades, you know, and West, including Britain" to a comment that he admits that Pakistan has had a long history of backing, supporting, training and funding these terrorist organisations.

Also, India said that the "strong, unequivocal" support and solidarity extended by global

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## Forces have freedom to decide mode, target, timing of response: PM



NEW DELHI, Apr 29 (PTI)

PRIME Minister Narendra Modi asserted on Tuesday that the Armed Forces have "complete operational freedom" to decide on the mode, targets and timing of India's response to the Pahalgam terror attack, as he chaired a meeting with the top defence establishment.

During the high-level meeting, which was attended by Defence Minister Rajnath Singh, National Security Advisor Ajit Doval and the Chiefs of three Services, Modi affirmed that it is the national resolve to deal

a crushing blow to terrorism, Government sources said. Modi expressed complete faith and confidence in the professional abilities of the Armed Forces. "They have complete operational freedom to decide on the mode, targets and timing of our response," a source quoted Modi as saying.

Chief of Defence Staff General Anil Chauhan was also part of the meeting, which was held amid India weighing its options for countermeasures following the Pahalgam terror attack which left at least 26 civilians, mostly tourists, dead.

Modi has vowed to pursue the terrorists behind the attack and their patrons, a clear reference to Pakistan which has a history of sponsoring terror strikes in India, to the "ends of earth"

and inflict the harshest punishment on them "beyond their imagination".

Terrorists had gunned down tourists, who were from different parts of the country, in the popular destination of Pahalgam in Kashmir exactly a week ago on April 22.

This most brutal attack on civilians in a long spell of time in the region has sparked a wave of outrage across the country and a demand for retaliatory action against the perpetrators and their handlers.

The Prime Minister's tough assertions coupled with his Government's avowed muscular stand on the issues of national security have heightened expectations of a stringent counteraction from India.

## J&K Govt closes 48 tourist spots

Srinagar, Apr 29 (IANS)

THE Jammu and Kashmir Government said on Tuesday that 48 destinations across the Valley have been shut for tourists. The action comes after horrific attack on tourists in the Baisaran meadow near Pahalgam town in Kashmir.

Twenty-six tourists were killed in the firing by terrorists, who singled out Hindu men for their religion. The Valley has 87 total destinations, out of which 48 have been closed now. Kashmir has witnessed a drop in tourists after the Pahalgam terror attack.

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A Lot More to do  
on Editorial page

## Home Secy chairs top security meet

UNION Home Secretary Govind Mohan on Tuesday chaired a high-level meeting attended by chiefs of three paramilitary forces and seniors of two other security organisations.

Director General of Border Security Force Daljit Singh Chaudhary, DG of National Security Guard Brighu Srinivasan and DG of the Assam Rifles Lt Gen Vikas Lakhera attended the meeting, the sources said. Additional Director General of the Sashastra Seema Bal Anupama Nilekar Chandra were among the other attendees in the meeting.

# Mark Carney's Liberal Party **WINS** Canadian election

TORONTO, Apr 29 (AP)

**PRIME** Minister Mark Carney's Liberal Party won Canada's federal election on Monday, capping a stunning turnaround in fortunes fuelled by US President Donald Trump's annexation threats and trade war.

After polls closed, the Liberals were projected to win more of Parliament's 343 seats than the Conservatives. It wasn't immediately clear, though, if they would win an outright majority — at least 172 — or would need to rely on one of the smaller parties to pass legislation.

The Liberals looked headed for a crushing defeat until the American president started attacking Canada's economy and threatening its sovereignty, suggesting it should become the 51st State.

Trump's actions infuriated Canadians and stoked a surge in



Canadian Prime Minister Mark Carney arrives on stage at his campaign headquarters after the Liberal Party won the Canadian election in Ottawa on Tuesday. (AP)

nationalism that helped the Liberals flip the election narrative and win a fourth-straight term in power.

In a victory speech before sup-

porters in Ottawa, Carney stressed the importance of Canadian unity in the face of Washington's threats. He also said

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## Looking forward to strengthening partnership: PM Modi

NEW DELHI, Apr 29 (PTI)

**PRIME** Minister Narendra Modi on Tuesday congratulated Canadian PM Mark Carney on the victory of his Liberal Party in federal elections and said he was looking forward to strengthening bilateral ties and unlocking greater opportunities for people of the two nations.

Carney, an economist and political newcomer, led the Liberal Party to its remarkable victory in the elections

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# JUSTICE GAVAI appointed next CJI, oath on May 14

NEW DELHI, Apr 29 (PTI)

**JUSTICE** Bhushan Ramkrishna Gavai was on Tuesday appointed the next Chief Justice of India.

He would enter the office of the CJI on May 14, a day after incumbent CJI Justice Sanjiv Khanna retires.

The Law Ministry issued a notification announcing Justice Gavai's appointment as 52nd Chief Justice of India.

"In exercise of the powers conferred by clause (2) of Article 124 of the Constitution of India, the President is pleased to appoint Shri Justice Bhushan Ramkrishna Gavai, Judge of the Supreme Court, to be the Chief Justice of India with effect from 14th May, 2025," said the notification issued by the department of justice.

As per laid down procedure, his name was recommended by

CJI Khanna on April 16 to the Central Government. Justice Gavai, who was elevated as a judge of the Supreme Court on May 24, 2019, will have a tenure of over six months and he would demit office on November 23 on attaining the age of 65 years.

He is the senior-most Supreme Court judge after the incumbent CJI Khanna.

Born on November 24, 1960 at Amravati, Justice Gavai was elevated as an additional judge of the Bombay High Court on November 14, 2003. He became a permanent judge of the high court on November 12, 2005.

Justice Gavai has been a part of several Constitution benches in the apex court which delivered path-breaking verdicts.

He was part of a five-judge Constitution bench which in

*(Contd on page 3)*



# 'Global talks for N-disarmament for 2026 UN meet vital'

NEW YORK, Apr 29 (IANS)

THE Japanese Foreign Minister Iwaya Takeshi called on the world leaders for a "dialogue" and "cooperation" on nuclear disarmament towards an important United Nations conference in 2026.

He said this while delivering a statement on Monday (local time) at the General Debate of the Third Session of the Preparatory Committee for the 2026 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), being held in New York.

"The cry that the tragedies of

nuclear weapons must never be repeated and the call for achieving a 'world without nuclear weapons' are now louder than ever," Iwaya said.

According to Japan's Ministry of Foreign Affairs, Minister Iwaya introduced the recommendations of the International Group of Eminent Persons for a World without Nuclear Weapons, which Japan launched back in 2022 as an "eloquent example" of how engaging in sincere dialogue and constructive discussion can create wisdom, even in this increasingly divided world.

"He appealed to all countries to fulfil their responsibility to

find a common ground, to maintain and strengthen the NPT architecture, which is the only universal framework for nuclear disarmament and non-proliferation, and to advance toward the realisation of a world without nuclear weapons," the Foreign Ministry said in a statement.

Last month, the government faced criticism from atomic bomb survivors for not attending as an observer in a convention of signatories to a UN nuclear weapons ban treaty held in New York.

Iwaya's participation in this conference is aimed at establishing the efforts of the Japanese

Government to work towards promotion of nuclear disarmament, according to Japanese media, Kyodo News.

The report said that the Japanese government has aspired for a world free of nuclear weapons, as Japan is the only country to have suffered nuclear attacks in war.

The Japanese Foreign Ministry further affirmed that in his speech, Iwaya also discussed Nihon Hidankyo, Japan's leading group of atomic bomb survivors and winner of the 2024 Nobel Peace Prize.

He further pointed towards the work of the Hibakusha, the

surviving victims of the atomic bombs that fell on Hiroshima and Nagasaki.

"The Hibakusha have worked tirelessly, despite their deep emotional and psychological wounds and scars, to raise awareness of the devastation caused by nuclear weapons," the Foreign Minister said in the speech.

The Foreign Ministry added that in the statement, Iwaya mentioned the "difficulties" the NPT regime is facing in light of North Korea's nuclear and missile development programme and the "rapid buildup of nuclear capabilities in an opaque manner."



# India, US eye 'early wins' in trade deal

TIMES NEWS NETWORK

**New Delhi:** India and the US are eyeing "early mutual wins" to finalise some elements of the proposed bilateral trade agreement (BTA) ahead of the Fall (Sept-Oct) deadline, govt said on Tuesday.

"During the meetings in Washington DC (last week), the team had fruitful discussions on wide ranging subjects covering tariff and non-tariff matters. The team discussed the pathway for concluding the first tranche of the mutually beneficial, multi-sector BTA by Fall of 2025, including through opportunities for early mutual wins. While productive sectoral expert level engagements have taken place

through the virtual format, in-person sectoral engagements are planned from May end," the commerce department said in a statement after officials led by India's chief negotiator Rajesh Agrawal returned from the US.

Govt sources indicated that talks at the end of May will not be the first round of negotiations. While officials have spoken about the possibility of an "early tranche" before the end of the 90-day pause on reciprocal tariffs, this is the first time the govt has disclosed plans for some gains being harvested before Fall.

Industry is complaining that they are in the dark about how the negotiations are progressing and the possible out-

## In The Dark On Talks: Industry

> Industry is saying that they are in the dark about how negotiations are progressing and possible outcome of the proposed trade deal with US

> There has been no discussion on the possible rules of origin — how the US and India are going to determine the origin of a product



come from the proposed deal. The two sides have agreed to terms of reference or modalities for the talks that span 19 chapters. Even that has not been disclosed to industry, citing confidentiality, nor has any fe-

edback been taken from them so far, adding to the elevated levels of uncertainty created by US President Donald Trump's repeated flip-flop on tariffs.

There has been no discussion on the possible rules of origin — how the US and India are going to determine the origin of a product — or even the areas where concessions are proposed to be offered or even sought. So far, it is only the US which has been publicly making demands — be it automobiles, whiskey or farm products. All that govt officials have communicated is that India will seek market access for labour-intensive sectors, which are of interest to it. When contacted, commerce department officials refused to comment.



# Modi gives armed forces free hand on response against Pak

**They Can Decide Mode, Targets & Timing: Sources**

**Akhilesh Singh & Manash Pratim Gohain**

**New Delhi:** Amid growing indications of a retaliation against the Pahalgam terror attack, PM Narendra Modi is learned to have given complete operational freedom to the armed forces to decide on the mode, targets and timing of response to Pakistan.

Sources said he expressed full faith and confidence in the professional abilities of the forces and conveyed his go-ahead at a meeting with defence minister Rajnath Singh, NSA Ajit Doval, Chief of Defence Staff General Anil Chauhan

**► EDIT PAGE: Where Are India's Eyes In The Sky?**

and the three service chiefs.

After the huddle, Modi met home minister Amit Shah and RSS chief Mohan Bhagwat, who had last week said that "dharma" required India to punish the enemy.

The PM convened a meeting, the second since the Pahalgam attack, of the cabinet committee on security on Wednesday, when other important bodies — cabinet committees on political and economic affairs and the full Union Cabinet — are also scheduled to meet.

Earlier in the day, Modi had boosted expectations of an early response to Pakistan with his "**samay seemit hai, lakshya bade hain (we have limited time, and high goals to achieve)**" remark at an education conclave.

Photo: PTI



PM Modi with defence minister Rajnath Singh, NSA Ajit Doval, CDS Gen Anil Chauhan and the three service chiefs on Tuesday

► **'India has our full support' to go after Pahalgam terrorists, UK govt says** as it seeks to play its 'full diplomatic role to help manage' India-Pak tensions

► **Pak claims to have downed Indian spy drone**, accuses New Delhi of violating its airspace in Manawar sector of Bhimber

► **Hunt for Pahalgam killers enters 7th day, 100 questioned** as crackdown widens

► **Centre orders blocking of Pak defence minister Khawaja Asif's X account** after he threatens use of N-weapons against India

► **India thwarts cyberattacks emanating from Pak** targeting websites of armed forces

► **Infra constraints limit India's capacity to stop flow of river waters to Pak** in summer, but it could be hit harder in winter

► **Man who raised pro-Pak slogan during cricket match in Mangaluru lynched**, 15 arrested

► **Harvard's South Asia Institute, bankrolled by PIO tycoon L N Mittal, under fire for hosting a Pak conference**

**FULL COVERAGE: 21 & 28**

**Pak a rogue state fuelling global terror: India at UN**

India slammed Pakistan at UN on Monday, calling it a "rogue state fuelling global terrorism". Yojna Patel, India's deputy permanent representative to UN, said in New York, "The whole world has heard Pakistani defence minister Khawaja Asif admitting and confessing its history of supporting, training and fun-

**► UN chief talks to EAM, condemns attack, P 21**

ding terrorist organisations in a recent interview. This open confession surprises no one and exposes Pakistan as (the one) destabilising the region. The world can no longer turn a blind eye." TNN & AGENCIES

**► Continued on P 28**

## Pahalgam fallout: 48 tourist spots in Valley shut over security concerns

**Naseer.Ganal@timesofindia.com**

**Srinagar:** J&K govt has shut down 48 of its 87 tourist destinations across Kashmir valley following the April 22 terrorist attack near Pahalgam in which 25 tourists and a local ponywallah was killed.

Authorities have ramped up security across the region, deploying paramilitary forces at key locations, but officials said Tuesday that nearly half of all tourist sites have been closed due to safety concerns.

Among the destinations shut are the alpine Kounsarnag lake in Pir Panjal range of

terfalls (also Kulgam), high-altitude Doodhpathri meadows in Budgam, and the scenic valleys of Bangus in Kupwara and Verinag in Anantnag.

Baba Reshi shrine on the road between Tangmarg and Gulmarg, Shrunz falls in Gulmarg, sun temple at Kheribal in Anantnag, and the Naranag temple ruins in Ganderbal are also off-limits. In Srinagar, major attractions such as Botanical Garden, Mughal garden Chashma Shahi, and Pari Mahal atop the Zabarwan mountain range are open but under heightened security.

**NIA picks up zipline operator who said 'Allahu Akbar'**

Zipline operator Muzamil, who was heard saying 'Allahu Akbar' thrice before sending off a tourist on the zipline amid audible firing by the Pahalgam attackers on April 22, has been picked up by NIA for questioning. The video shot by the tourist has been shared widely. Muzamil's father said his son was terrified and meant harm. "Even if a storm com-