

Polity/Bodies (2)

• Teachers' Day — Radhakrishnan and the two highest offices

Body: President conferred the **National Awards on Teachers**, 5 Sep 2026; **Dr S. Radhakrishnan** (b. 1888, Tiruttani): first Vice-President 1952–62, second President 1962–67, Bharat Ratna 1954, Spalding Professor at Oxford, chaired the University Education Commission 1948–49 → UGC. **World Teachers' Day** = 5 October

Detail: Presidents: **Prasad** (two terms) → Radhakrishnan → Zakir Husain (died in office) → Giri → Ahmed → Reddy (unopposed) → Zail Singh → Venkataraman → Sharma → Narayanan → Kalam → Patil (first woman) → Mukherjee → Kovind → Murmu (first tribal)
Detail: Six VPs became President: Radhakrishnan, Husain, Giri, Venkataraman, Sharma, Narayanan

Detail: President (Arts. 52–62): college of elected MPs + elected MLAs (Art. 54), **nominated excluded; impeachment Art. 61**

Detail: Vice-President (Arts. 63–71): both Houses incl. **nominated members, no MLAs; ex officio Chairman of Rajya Sabha** (Art. 64); removed by **Rajya Sabha resolution agreed by Lok Sabha** — no impeachment

PIB 2306919 · 2026-09-05

• Drug-Free India by 2029 — the NDPS framework

Body: Home Minister's roadmap at Panaji, 6 Sep 2026: **July 2026–July 2029; four pillars — enforcement, precursor/synthetic control, demand and harm reduction, capacity building**

Detail: Seizures: **2004–14: 2.6 million kg / Rs 40,000 crore; 2014–26: 11.9 million kg / Rs 1.89 lakh crore. NMBA: 250 million pledged; de-addiction centres to 1,751**

Detail: NDPS Act 1985 (amended 1989, 2001, 2014, 2021): **quantity-based punishment; S.31A death penalty discretionary since 2014; UN conventions 1961, 1971, 1988. PIT-NDPS 1988** = preventive detention

Detail: Entry 19, Concurrent List; Art. 47. **Golden Crescent** = Afghanistan-Pakistan-Iran; **Golden Triangle** = Myanmar-Laos-Thailand

Detail: NCB 1986 (MHA); NCORD 2016, four-tier since 2019; **MANAS helpline 1933; NMBA 15 Aug 2020 (MoSJE); 26 June** = International Day Against Drug Abuse; INCB, Vienna

Defence (6)

• AVM Shakti Sharma — first woman non-medical two-star officer

Body: Assumed Assistant Chief of the Air Staff (Education) on 1 Sep 2026; commissioned into the IAF Education Branch 18 June 1994; first woman to command a Sainik School (Kapurthala)

Detail: Two-star: Major General = Rear Admiral = Air Vice Marshal. One-star: Brigadier = Commodore = Air Commodore — Commodore is not two-star

Detail: Three-star: Lt Gen = Vice Admiral = Air Marshal. Four-star: General = Admiral = Air Chief Marshal. Five-star: two Field Marshals (Cariappa, Manekshaw), one MIAF (Arjan Singh), no Admiral of the Fleet

Detail: Women's timeline: 1992 SSC entry → 2016 fighter pilots → 2020 Permanent Commission (Babita Puniya) → 2021 NDA opened, 2022 first cadets → 2026 first non-medical two-star

Detail: Sainik Schools: Sainik Schools Society, MoD, since 1961; open to girls from 2021-22

PIB 2305594 · 2026-09-01

• Raksha Mantri reviews 16 DPSUs — defence production Rs 1.8 lakh crore

Body: 2025-26 defence production ≈ Rs 1.8 lakh crore; DPSUs Rs 1.29 lakh crore (~72%); balance ≈ Rs 51,000 crore from private industry and other PSUs

Detail: 9 DPSUs before 2021: HAL, BEL, BEML, BDL, GRSE, Goa Shipyard, Mazagon Dock, MIDHANI, Hindustan Shipyard. OFB corporatised 1 Oct 2021 into 7 — MIL, AVNL, AWE India, Troop Comforts, Yantra India, India Optel, Gliders India. 9 + 7 = 16

Detail: DPSUs → Department of Defence Production; DRDO → Department of Defence R&D

Detail: DAP 2020 tops out at Buy (Indian-IDDM); iDEX funds start-ups; SRIJAN portal; Defence Industrial Corridors in UP and Tamil Nadu
Detail: R&D to be judged on technologies, IP, prototypes, operational products, not spend; security logic = surge capacity, spares, sustained production

PIB 2305615 · 2026-09-01

• INS Sudarshini at Barcelona — sail training and the naval commands

Body: Sail training ship reached Barcelona, 1 Sep 2026 on expedition Lokayan 26; engagements with the Spanish Navy; open to visitors 4 Sep

Detail: Sail training ships: INS Tarangini (1997, first) and INS Sudarshini (2012) — three-masted barques, built at Goa Shipyard, in the First Training Squadron, Kochi. INSV Tarini/Mhadei are circumnavigation vessels

Detail: Commands: Western — Mumbai; Eastern — Visakhapatnam; Southern — Kochi (training); Andaman & Nicobar Command, Port Blair, 2001 = only tri-service theatre command

Detail: Officer pipeline: NDA Khadakwasla → Indian Naval Academy, Ezhimala (2009) → afloat training → fleet

Detail: SAGAR (2015); India as net security provider; widened to MAHASAGAR (2025)

PIB 2305902 · 2026-09-02

• 16th Aero India — 8–12 February 2027, Yelahanka

Body: Air Force Station Yelahanka, Bengaluru; organised by the Department of Defence Production — not DRDO, not the IAF; registration from 3 Sep 2026

Detail: Biennial, odd years, since 1996, always at Yelahanka. DefExpo = land and naval, even years, rotating venue

Detail: Bengaluru cluster: HAL (manufacture), ADA (designs Tejas), CSIR-NAL (Saras, Hansa), DRDO labs — ADE, LRDE, GTRE (Kaveri)

Detail: Display teams: Suryakiran — Hawk Mk 132 (jets); Sarang — Dhruv ALH (helicopters); Akash Ganga — skydiving

Detail: Exports on show: BrahMos (India–Russia JV; Philippines 2022), Dhruv (Mauritius, Maldives, Nepal, Ecuador), the Tejas pitch

PIB 2305993 · 2026-09-02

• RAKSHA defence diplomacy document — four pillars, ten years

Body: Released by Rajnath Singh, 3 Sep 2026; 10-year roadmap; pillars — Strategic Partnerships, Capacity Building, Indigenous Exports, Maritime Security

Detail: Defence diplomacy = armed forces as a peacetime foreign-policy instrument: exercises, training, attachés, port calls, HADR, arms transfers

Detail: Net Security Provider — contributes more security than it consumes; IFC-IOR, Gurugram, 2018. First Responder = HADR: Rahat 2015, Dost 2023, Sadbhav 2024, Brahma 2025

Detail: Exercises: Yudh Abhyas (USA, Army), Malabar (USA–Japan–Australia, Navy), Varuna (France, Navy), Garuda (France, Air), Indra (Russia), Ajeya Warrior (UK), Dharma Guardian (Japan), Surya Kiran (Nepal), Mitra Shakti (Sri Lanka), Ekuverin (Maldives)

Detail: Same day: India–Belgium Defence CEOs Roundtable — co-development in cyber, AI-enabled UAS, underwater vehicles, complex weapons

PIB 2306256 · 2026-09-03

- **Sarang at the El Alamein International Airshow, Egypt**
Body: IAF's Sarang helicopter team at the 2nd El Alamein Airshow, 8–10 Sep 2026; new manoeuvre 'Spot Stall Turn' with the 'Dolphin Leap'
Detail: World's only five-helicopter display team; formed 2003, first display Singapore 2004; based at AFS Sulur; name = peacock. Aircraft: HAL Dhruv ALH (first flight 1992, inducted 2002, Shakti engine; armed variant Rudra)
Detail: Rotor physics: tail rotor cancels main-rotor torque; translational lift; autorotation on engine failure
Detail: India–Egypt: Nehru–Nasser, NAM; Strategic Partnership 2023; Order of the Nile to the PM; exercises Cyclone (SF), Desert Warrior (AF), Bright Star; Egypt in BRICS 2024; Suez Canal
Detail: Second Battle of El Alamein, Oct–Nov 1942 — Montgomery's Eighth Army beat Rommel; 4th Indian Division (Red Eagles) fought there. WWII Indian Army 2.5 million — largest volunteer army

Environment (1)

- **CAQM inspection at Nuh — 17 of 35 units non-compliant**
Body: 8 flying squads with HSPCB, 3 Sep 2026; 17 non-compliant, 11 compliant, 7 closed; violations — defective wet scrubbers, non-functional ESPs, low stack height, fugitive dust, non-compliant DG sets, wood burning
Detail: CAQM: ordinance Oct 2020, Act 2021; statutory; replaced EPCA (1998, Supreme Court); jurisdiction NCR + Haryana, Punjab, Rajasthan, UP; directions override State boards; penalty up to 5 years / Rs 1 crore
Detail: Consent to Establish / Consent to Operate under the Air Act 1981 and Water Act 1974, issued by the SPCB
Detail: Wet scrubber = water capture; ESP = electric charge + collecting plates; stack height = dispersion; fugitive dust = emissions not from a stack
Detail: AQI (8 pollutants): Poor 201–300, Very Poor 301–400, Severe 401–500. GRAP Stages I–IV (IV above 450). NCAP 2019: 40% PM cut by 2026, 2017 base, 131 cities
 PIB 2306808 · 2026-09-04

Sci/Tech (5)

- **C-DOT unveils 14 indigenous quantum products**
Body: C-DOT, the R&D centre of the Department of Telecommunications, released 14 indigenous quantum products at its 43rd Foundation Day, across QKD and PQC
Detail: The threat — RSA and elliptic-curve encryption rest on factoring and discrete logarithms being hard classically; Shor's algorithm on a large enough quantum computer breaks both
Detail: "Harvest now, decrypt later" — an adversary can store encrypted traffic today and decrypt it years later, so long-secrecy data is already at risk
Detail: QKD draws security from physics — measurement disturbs a quantum state and the no-cloning theorem forbids copying, so eavesdropping is detectable; needs special hardware and fibre, limited range, secures key exchange only
Detail: PQC is classical software cryptography (lattice-based, hash-based) believed hard even for quantum computers; runs on ordinary computers and covers encryption, signatures and key exchange. PQC needs no quantum hardware — the commonest misconception
Detail: Products include Q-AKSHAY CD (COW and DPS protocols) and Q-AKSHAY MD (Measurement Device Independent protocol)
- **Cyber-Physical Systems and the NM-ICPS mission**
Body: PIB backgrounder, *Cyber-Physical Systems: Foundation for a Technology-Driven Future*
Detail: A CPS links computing with physical systems through sensors, software and communication networks, uniting computation, communication and physical processes in a closed loop — sense → compute → act → sense again
Detail: The distinguishing test — a computer computes but does not act physically; a machine acts but does not sense and decide; an IoT device senses and reports; a CPS closes the loop
Detail: Overnight analysis is analytics; a decision bounded in milliseconds is a CPS. The engineering difficulty is guaranteeing a correct decision within a bounded time, every time
Detail: NM-ICPS — National Mission on Interdisciplinary Cyber-Physical Systems, implemented by the Department of Science and Technology, approved 2018, outlay Rs 3,660 crore over nine years, delivered through Technology Innovation Hubs and Translation Research Parks

- **Green shipping corridors and green-fuel bunkering hubs**
Body: Ports Minister at TERI, Gurugram; reviewed the National Centre of Excellence for Green Ports and Shipping; bunkering hubs at Deendayal (Kandla), Paradip, V.O. Chidambaranar (Thoothukudi); Kamarajar (Ennore) has shore power at coal terminals
Detail: Bunkering = fuelling a ship. Shore power / cold ironing = grid electricity at berth. Green corridor = a route with fuels, ships and infrastructure committed together — Clydebank Declaration, COP26 2021
Detail: Fuels: ammonia (carbon-free, toxic), methanol (liquid, easier), hydrogen (cleanest, −253 °C), LNG (transitional; methane slip)
Detail: IMO (London) 2023 strategy: net-zero by or around 2050. 12 major ports under the Major Port Authorities Act 2021; VadHAVAN 13th (2024)
Detail: Frameworks: Harit Sagar 2023, Maritime India Vision 2030, Amrit Kaal Vision 2047; National Green Hydrogen Mission 2023 named the same three ports
 PIB 2306501 · 2026-09-03
- **GSLV-F17 launches EOS-05 — India's first geo-imaging satellite**
Body: 4 Sep 2026; PM: 'first-ever imaging satellite from geosynchronous orbit'; ISRO–industry partnership stressed
Detail: GEO ≈ 35,786 km, period one day, appears fixed — continuous view, coarser resolution; LEO/SSO 500–800 km — high resolution, periodic revisit. Earlier attempt EOS-03 on GSLV-F10, Aug 2021, lost to a cryogenic ignition failure
Detail: GSLV Mk II: solid first stage + 4 liquid strap-ons → liquid second (Vikas) → cryogenic third (LH₂/LOX); indigenous cryo stage first flew GSLV-D5, Jan 2014
Detail: PSLV → polar/SSO ~1.75 t; GSLV Mk II → GTO ~2–2.5 t; LVM3 → GTO ~4 t (Chandrayaan-3, Gaganyaan). Sriharikota; GSLV-F15 (NVS-02, Jan 2025) = 100th launch
Detail: IN-SPACe (2020), NSIL (2019). India–France: International Space Summit, Paris; Vikas derives from the French Viking
 PIB 2306635 · 2026-09-04
- **Coal gasification scheme — Rs 37,500 crore; Coal India's monsoon recovery**
Body: Scheme approved 13 May 2026, Rs 37,500 crore; products syngas, methanol, ammonia, urea; RFP 7 July, first deadline 7 Sep 2026; applicants Talcher Fertilisers and NTPC. CIL supplied 322.90 MT in Apr–Aug, +6.70%
Detail: Gasification: coal + steam + limited O₂ → syngas (CO + H₂); C + H₂O → CO + H₂; methanol CO + 2H₂ → CH₃OH; ammonia via Haber-Bosch; urea from NH₃ + CO₂. Surface vs underground gasification; lignite = Neyveli
Detail: CIL: 1975, Kolkata, Maharatna, world's largest coal producer; 7 subsidiaries + CMPDIL. India = 2nd-largest producer (China first); output > 1 billion tonnes in 2024–25
Detail: Opencast mining; overburden removal = leading indicator. Monsoon: sticky coal, flooded benches, failed haul roads; daily output 1.36 → 1.7 MT/day as rain eased
Detail: Gondwana coal ≈ 98% of reserves; Tertiary in the NE; Jharia = coking coal; Indian coal high ash, low sulphur
 PIB 2306880 · 2026-09-05