

5. Civil Aviation Safety- Governance

Ajit Pawar plane crash- What a recent Parliamentary panel report said about gaps in civil aviation safety framework. In 2025, the Parliamentary Standing Committee on Transport, Tourism and Culture released a comprehensive report titled ‘Overall Review of Safety in the Civil Aviation Sector’. This report flagged systemic vulnerabilities in India’s aviation safety, highlighting that rapid fleet expansion must be matched by equally robust regulatory and infrastructural "guardrails."

India’s Civil Aviation Safety Framework

India operates a multi-layered oversight system aligned with ICAO Standards and Recommended Practices (SARPs).

Core Oversight- Led by the Ministry of Civil Aviation (MoCA).

Specialized Statutory Bodies-

- a. DGCA- The primary regulator for safety, airworthiness, and licensing.
- b. AAIB (Aircraft Accident Investigation Bureau)- Responsible for independent accident probes.
- c. BCAS (Bureau of Civil Aviation Security)- Focuses on preventing unlawful interference.

State Safety Programme (SSP)- A continuous improvement framework aimed at preventive safety and regulatory compliance.

Key Challenges & Recommendations (August 2025 Report)

The committee identified several "critical gaps" that require immediate legislative and administrative intervention.

Regulatory and Institutional Reforms

DGCA Autonomy- The committee found a 50% vacancy rate and limited recruitment freedom. It recommended granting the DGCA full statutory, administrative, and financial autonomy to recruit specialists with competitive compensation.

ATC Modernization- Current Air Traffic Control (ATC) systems show performance degradation. The committee urged an AI-driven overhaul to include conflict detection and predictive analytics.

MRO Capabilities- 85% of maintenance work is currently outsourced abroad. The report called for a comprehensive policy review to reduce tax burdens and incentivize a domestic Maintenance, Repair, and Overhaul (MRO) ecosystem.

Operational Risk Management

Air Traffic Management- A severe shortage of Air Traffic Controllers (ATCOs) has led to dangerous fatigue. Recommendations include staffing audits and a national Fatigue Risk Management System (FRMS).

Recurring Incidents- Noting that runway incursions in 2024 exceeded safety targets, the committee mandated **root cause analysis** for every high-risk event.

Helicopter Safety- Gaps in state-managed operations led to a proposal for a uniform national framework and mandatory terrain-specific training for pilots.

Safety Culture and Infrastructure

Whistleblower Protection- To move away from a "punitive culture," the committee advised reviewing penalties on individuals (often up to ₹25 lakh) and establishing "Just Culture" principles to encourage voluntary error reporting.

Capacity Alignment- With aircraft induction outpacing airport readiness (846 aircraft vs. 162 functional airports as of June 2025), a National Capacity Alignment Plan was proposed to synchronize growth.

Global Benchmarking- Learning from International Models

Feature	India (DGCA)	European Union (EASA)	United States (FAA)
Fatigue Management	Updated FDTL (48hr weekly rest)	Strict night period (02-00-04-59)	Science-based circadian limits
Expansion Control	National Capacity Alignment Plan	Resource Assurance Certificate	Risk-based expansion oversight

Monitoring Tech	eGCA 2.0 (Digital platform)	Real-time crew monitoring	Voluntary SMSVP framework
Oversight Model	Prescriptive/Regulatory	Predictive models (Machine Learning)	Risk-based/Systemic analysis

The Directorate General of Civil Aviation (DGCA)

Established in 1927 and elevated to a statutory body in 2020, the DGCA is India's apex aviation regulator.

Organizational Structure

- a. Headquarters- New Delhi.
- b. Regional Offices- Located across major cities for localized oversight and inspections.

Key Functions and Initiatives

Licensing- Issues certifications for pilots, engineers, and ATCOs.

Airworthiness- Formulates standards for civil aircraft and enforces ICAO compliance.

Safety Surveillance- Conducts audits of airlines, training organizations, and airports.

Digital Transformation-

- a. eGCA Platform- A single-window portal to reduce paperwork and increase transparency.
- b. eGCA 2.0- Focuses on real-time pilot flying hour tracking and automated licensing.

Emerging Tech- Oversees the registration and regulation of Unmanned Aircraft Systems (Drones) and recently updated Flight Duty Time Limitations (FDTL) to mitigate pilot fatigue.

Source- <https://indianexpress.com/article/explained/ajit-pawar-plane-crash-civil-aviation-safety-10499168/>