



**GOVERNMENT OF INDIA
DIRECTORATE GENERAL OF CIVIL AVIATION
Opposite Safdarjung Airport, New Delhi -1100 03**

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PUBLIC NOTICE

DGCA SAFETY OVERSIGHT SYSTEM

Background:

- As defined by ICAO, Safety is the state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and safety risk management.
- In order to ensure that civil aviation is developed in a safe and orderly manner, all contracting states of ICAO have adopted Standards and Recommended Practices (SARPs) issued by ICAO.

Safety Scenario in India:

- A. As an ICAO contracting State, DGCA has played a very proactive role in implementing the ICAO SARPs through promulgation of legislations viz.
- i) The Aircraft Act, 1934 is the primary legislation that empowers and provides authority to implement other statutes as stipulated in the extent and scope of the Act.
 - ii) The Aircraft Rules, 1937 that provide powers to DGCA to grant certificates, licences, and approvals for operations in civil aviation.
 - iii) The Civil Aviation Requirements (CARs) that provide detailed requirements in operations, airworthiness, licensing, safety, aerodromes and air navigation.
 - iv) DGCA has a robust mechanism for the aviation safety and its oversight which balances the needs of the industry, travelling public and the international

community. Even the ICAO and FAA of USA, during their audits, have found that DGCA has developed a robust regulatory mechanism to ensure safety of aircraft operations.

B. In line with the standards laid down by ICAO, DGCA has put in place regulations in each area of air safety and following processes exist for ensuring safety of aircraft operations:

- i) DGCA conducts in-depth evaluation of the Operator's organization, infrastructure and equipment, aircraft airworthiness, maintenance facilities, personnel and their capability for continued demonstration of their skills, etc. before grant of Air Operator's Certificate (AOC). For ensuring airworthiness of aircraft, robust system is in place by way of issuing Certificate of Airworthiness (C of A) and approval given to MROs for continued maintenance.
- ii) The C of A is issued only after thorough inspection to ensure that the aircraft is of approved Type Design and has been maintained in accordance with periodic inspection schedules stipulated by the aircraft manufacturer. During the course of the validity of C of A of an aircraft, DGCA officer monitor routine maintenance, major checks and significant defects through spot checks and surveillance.
- iii) Aircraft Maintenance Organisations, which undertake aircraft maintenance related work, are approved for specific 'Scope of Work'. The approvals are renewed after inspection to ensure that the capability of the organisation has not deteriorated. The organisation is required to show that they have carried out internal audit and have rectified the deficiencies observed during their internal audit.
- iv) For licensing of flight crew members and Air Traffic Controllers, DGCA has laid down medical standards. In addition, Indian regulations stipulate minimum educational qualifications in respect of pilots and aircraft maintenance engineers. DGCA also conducts written examinations to test the knowledge of the applicants, syllabus of which is same as prescribed by ICAO.
- v) All major operators have established safety management system for identification of hazards and associated risks and take adequate mitigation actions for their removal.

Oversight Programme

- DGCA publishes **Annual Safety Oversight Program** for all areas of air safety. The program includes area of activity of different service providers, which is inspected by DGCA.

- DGCA monitors the operations of the operator through a systematic procedure of surveillance, regulatory audits and spot checks. The purpose of surveillance/regulatory audit is to determine whether compliance with regulations and standards is being maintained by the operator at all times.
- In order to enhance and strengthen aviation safety, DGCA also conducts risk based special audits based on the safety analysis carried out which includes the analysis of occurrences, organizational issues of operators basically an operator's risk profile.

Action on Audit Findings

- The surveillance/regulatory audit findings are reviewed with the operator at each Directorate level. In addition, detailed surveillance meeting is convened at Director General level on monthly basis. Matters of significant safety concern requiring immediate enforcement action are taken up in the Board for Aviation Safety (BFAS) meeting headed by the Director General.
- The surveillance/regulatory audit findings are classified into Level I and Level II, wherein operators are given 07 days to close Level 1 findings and 30 days for Level II findings.
- Based on the outcome of monthly surveillance meetings, Salient findings are also shared with the CEO/Accountable Manager of respective organizations in the meetings held under the Chairmanship of DG for taking urgent corrective action.
- DGCA also highlights the issues related to operations, safety and training separately with the monthly meetings held with the Operations, Safety and Training Heads of the operators.
- Incident details and safety violations are also discussed with the Chief of Safety of airlines in de-identified form.
- DGCA compiles the data of reported occurrences (incidents) on daily basis and analyzes it for further necessary action by the relevant operators.

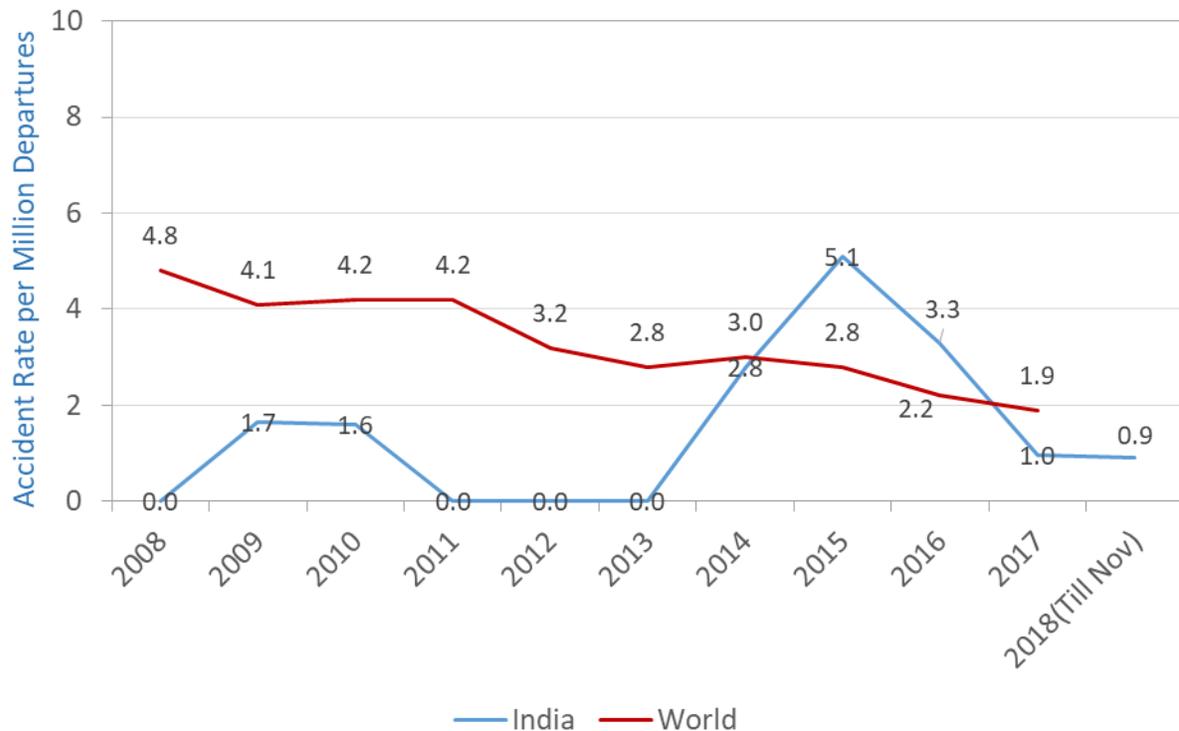
BRIEF ON SAFETY ISSUES

Air Travel – Safest mode of travel

- As per the research paper published in “The Economics of Transportation Safety”, USA, comparison of fatality risks in United States transportation across modes and over time has revealed that **travel by air is the safest mode of travel**.
- As per the paper, the fatality rate in air travel is 0.07 per billion passenger miles compared to 0.11 per billion passenger miles in highway accidents and 0.43 per billion passenger miles in railways accidents.

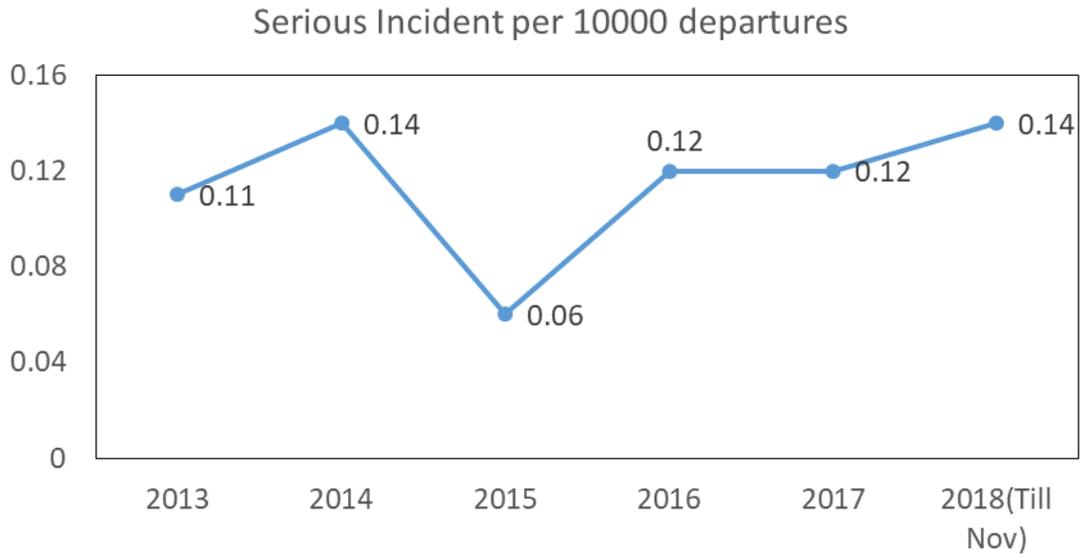
Accident Analysis

- As per ICAO, accident is defined as an occurrence wherein a person is fatally or seriously injured or aircraft sustains substantial damage or aircraft is missing or completely inaccessible.
- Comparison between the world and Indian accident rate per million departures clearly indicates that Indian Aviation accident rate is well below the world average.



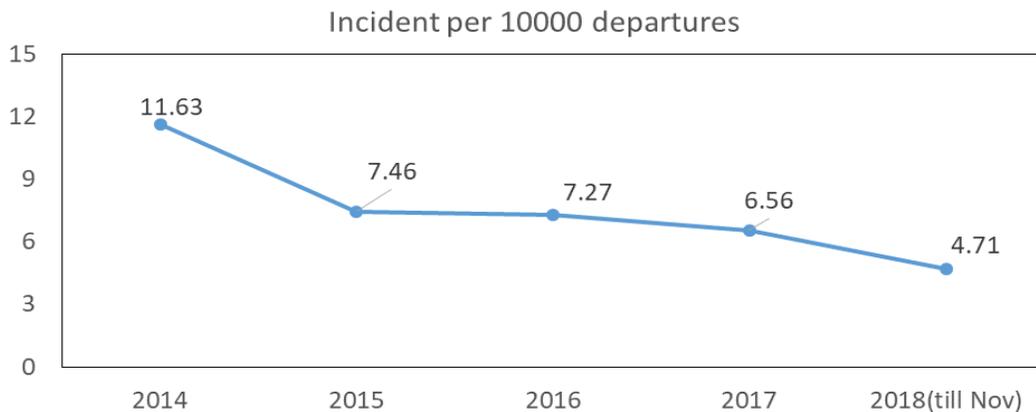
Serious Incidents

- ICAO defines serious incident as an occurrence where there was a high probability of accident associated with operation of aircraft.
- Analysis of serious incidents reveals that serious incident rate is consistent in India.



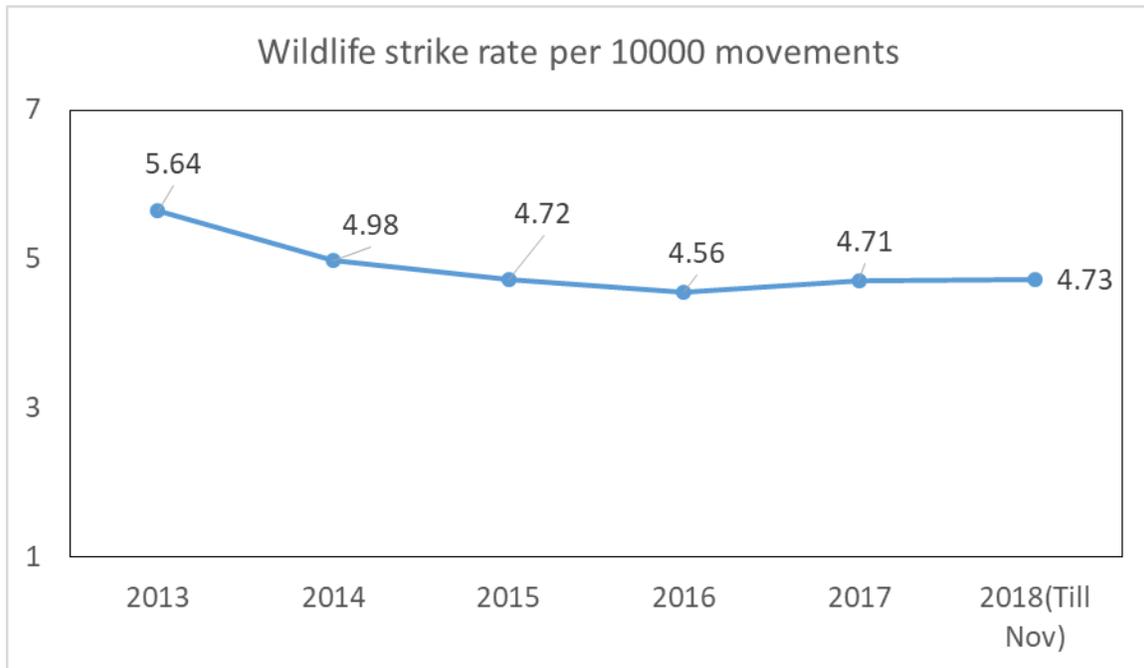
Incident Analysis

- ICAO defines incident as an occurrence, other than an accident/serious incident, associated with operation of aircraft, which could have seriously affected safety of operation leading to accident/ serious incident.
- However, even after the increase in air transport, the incident analysis indicates decreasing trend due to the safety measures in place.



Wildlife Strikes

- The wildlife strike rate for the year 2018 is 4.73 which is below the average.
- Wildlife strike per 10000 movements is given below.



Steps taken for Bird/Wildlife Hazard Management (BWHM)

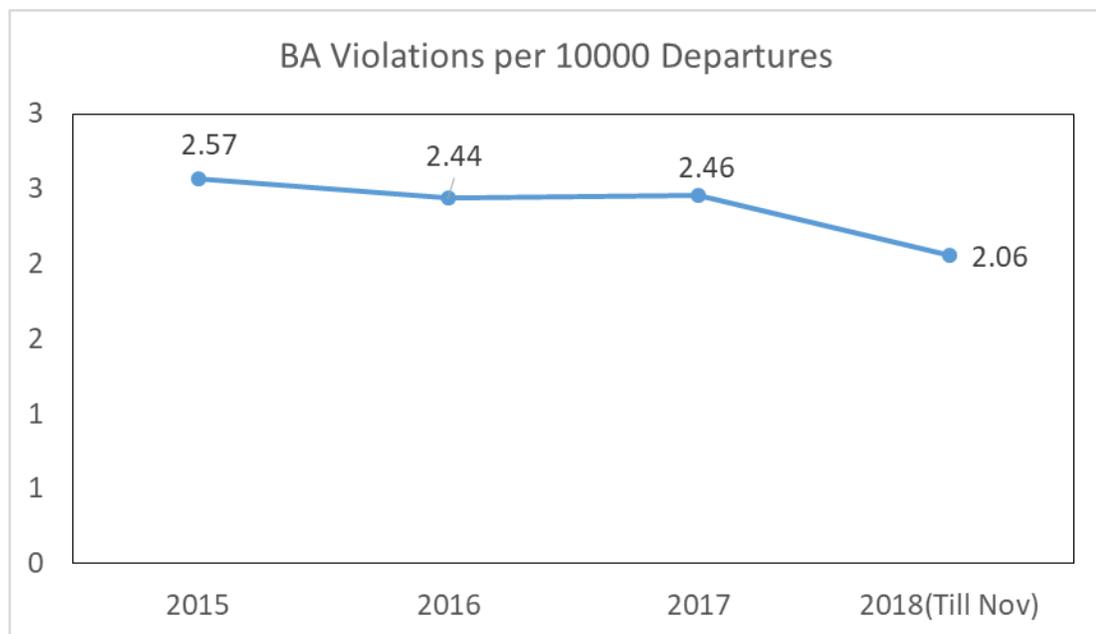
DGCA has given top priority for ensuring safety of aircraft from birds as well as from other wildlife. Major steps taken by DGCA to reduce these strikes are as follows:

- As part of the State Safety Programme, one of the most important State Safety Priority was identified as Wildlife (Bird/Animal) Strike to the aircraft.
- Regular joint inspection of the areas around the airport is carried out by a team consisting officers of DGCA and representative of various airlines/stake holders.
- Workshop on “Wildlife strike management” was conducted in association with Bird Strike Research Group of India, for the awareness about best international practices. The workshop was attended by aerodromes operator and airlines.
- 4th National Bird Control Committee (NBCC) was convened under the chairmanship of DG, CA on 12.02.2018

- Matter was taken up at Chief Secretary level to regularly convene Airfield Environmental Management Committee and highlight the importance of wildlife management.

Robust Regulatory System For Breath Analyzer Test In Place

- Indian regulations are more stringent compared to global standards of Federal Aviation Administration (FAA) of USA and European Aviation Safety Agency (EASA).
- In most foreign countries, breath-analyser test on flight crew is done on random basis, whereas DGCA ensures the same in 100% of the cases.
- No impact on safety of the aircraft operations and its occupants as any pilot detected for the consumption of alcohol is not allowed to operate the flight as per the proviso of the applicable Civil Aviation Requirements.



Director General of Civil Aviation