



ASSEMBLY — 37TH SESSION

TECHNICAL COMMISSION

Agenda Item 26: Safety management and safety data

CURRENT SAFETY INITIATIVES OF DGCA INDIA

(Presented by India)

EXECUTIVE SUMMARY	
This paper presents information on the development and implementation of India's State Safety Programme by the Directorate General of Civil Aviation (DGCA) of India in accordance with ICAO standards and recommended practices.	
<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective A (Enhance global civil aviation safety).
<i>Financial implications:</i>	Not applicable.
<i>References:</i>	

1. INTRODUCTION

1.1 The civil aviation sector in India witnessed phenomenal growth in the past few years. Domestic and International passenger traffic grew from 22.3 million and 19.3 million in 2005 to 44.5 million and 29 million in 2009 respectively. The total air traffic in India touched 73.5 million in 2009 as against 41.6 million in 2005. The cargo sector has also seen an increasing trend from 0.8 million tons in the year 2005 to 1.4 million tons in the year 2009. Similarly, aircraft movement increased from 838 thousand in 2005-2006 to 1331 thousand in 2009-2010. The total passenger throughput in India in 2009-2010 grew to 123.75 million from 40 million in 2000-2001. Airports Council International (ACI) estimates (2010-2015) suggest that passenger traffic in India in 2015 shall be of the order of 177.71 million whereas as per long term forecasts by ACI (2008-27), the passenger traffic is likely to increase to 580.78 million in 2027, at a growth rate of 9.2% per annum.

1.2 This increase in air traffic in the past few years has not only increased demand of aircraft but also put demand for enhanced airport and air navigation infrastructure to ensure safe, orderly and efficient operations. This has further resulted in greater demand on DGCA to ensure adherence by service providers to safety standards including safety oversight responsibility. The current and future phenomenal growth can only be handled by strengthening the existing civil aviation safety oversight system in DGCA.

1.3 The International Civil Aviation Organization (ICAO) USOAP safety audit of India in October 2006 detected 70 findings and recommendations primarily on the lack of an adequately structured civil aviation organization, shortage of trained technical manpower (especially in areas of flight operations, air navigation services and aerodromes) and an effective mechanism of resolution of safety

concerns for safe civil aviation. As of date, sixty-one findings have been acted upon and the action on the remaining nine findings mainly in the area of air navigation services, are likely to be completed by June 2011. The current status of these actions is posted on the FSIX website of ICAO.

1.4 Based on the ICAO audit report, the Federal Aviation Administration (FAA), in March 2009, under IASA programme raised nineteen observations in the areas of adequate technical guidance for DGCA technical officials; hiring and retaining adequate technical personnel in DGCA; establishment of an on-going surveillance programme of air operators; and resolution of identified safety issues. DGCA ensured compliance of all observations in five months. The FAA, during their follow up visit in September 2009, informed DGCA of being in compliance with international standards for aviation safety and stated that India continues to be maintained in Category 1. This was again endorsed during a visit by FAA in July 2010 wherein the FAA team appreciated the initiatives taken by DGCA and stated that DGCA has not only sustained the actions taken till September 2009 but has also demonstrated amazing improvement in continuing to enhance and improve safety oversight system beyond expectations. In their concluding remarks, FAA stated that India is considered to be a '**Role Model**' and a leadership role for other nations in the Asia region in the civil aviation sector.

1.5 The civil aviation sector in India operates above the international standards as confirmed by the FAA.

2. RECENT SAFETY INITIATIVES

2.1 In order to sustain the actions taken so far, a system for constant monitoring has been set-up in DGCA. A 'Roadmap' identifying eleven areas of aviation safety at DGCA level has been prepared post ICAO and IASA audits.

2.2 A brief summary of some of recent initiatives is given below:

- a) ICAO audit and IASA findings, pointed towards a need for an effective organisation structure of DGCA with sufficient administrative and financial flexibility to carry out safety oversight work. In this regard, the Ministry and DGCA commissioned ICAO to conduct the '*Feasibility Study on establishment of a Civil Aviation Authority*'. The final report has been received in April 2010. The report addresses the need for setting up a Civil Aviation Authority (CAA) and lays down the legislative and administrative measures required for the establishment and operation of a CAA India. The report is under examination of the Government.
- b) Technical guidance in areas of operations, airworthiness and enforcement for the guidance and use of aviation safety inspectors of DGCA has been prepared. All inspectors have been trained on the use of the technical guidance.
- c) A Surveillance manual and an Enforcement Policy and Procedures manual have been published which provide the policy and comprehensive procedures for DGCA officers to carry out surveillance and enforcement action against individuals, organisations and airlines and specifically requires the participation of legal staff in the enforcement process.
- d) A *Surveillance and Enforcement Division* has been set up in DGCA for preparation and monitoring the Annual Surveillance programme. The Division coordinates monthly meeting to review the surveillance conducted, maintains a database of all

findings detected during surveillance and monitors the same till closure of the observation. DGCA conducted 4327 surveillance activities in 2009 and has planned 4788 activities in 2010. During 2009 and 2010 (till June 2010), 189 enforcement actions have been carried out.

- e) A *Board for Aviation Safety (BFAS)* has been set up to resolve Level I surveillance findings and their monitoring. The Board also monitors the progress of Level II deficiencies and determines enforcement actions against the approval holders based on the seriousness of the deficiencies observed in the surveillance.
- f) To promote sharing of safety related information by all stakeholders, Level I findings are being displayed in a de-identified form on DGCA's website. This new approach will help identify and deal with threats before they result in incidents/ accidents in an organization.
- g) A *Dangerous Goods Division* has been set up in DGCA headed by a Chief Inspector of Dangerous Goods positioned at Headquarters. Surveillance activities is carried out by Dangerous Goods Inspectors seconded from the industry.
- h) A *Surveillance of foreign airlines (SOFA)* programme has been launched in July 2009 to fulfil DGCA's obligation to ICAO Annex 6 standards. The surveillance programme 2010 includes surveillance of 70 foreign airlines.
- i) Increased demand for licensed pilots has led many aspirant pilots to go to other Contracting States. DGCA under regulations converts these foreign licences to Indian licences. In order to monitor the quality of training carried out at foreign training organisations, A system of *Quality Assurance of foreign training activities* has been set up in DGCA. Under the system, the inspection of the foreign institute(s) is carried out by DGCA in association with the CAA of that country. Type Rated Training Organizations (TRTOs) are also subjected to similar inspection by DGCA officers.
- j) The economic slowdown experienced during the previous year (2009) brought about a need to check on the financial health of an airline and to see its impact on safety. A system of *Financial Surveillance of Air Operators* has been put in place wherein based on assessment of the financial condition, need for heightened surveillance is adjudged during the distress period of an airline. A regulation for the Evaluation of Air Carrier's Management of Significant changes - Financial Surveillance from safety perspective has been issued.
- k) Government of India accorded approval for the creation of 427 technical positions and 129 non-technical support staff for strengthening and restructuring of DGCA. As against 144 technical positions in March 2009, DGCA had 254 technical officers in June 2010, which is likely to increase to 432 by September 2010. Flight Standards Directorate of DGCA has 32 experienced pilots in fixed wing, helicopters and general aviation.
- l) Three new directorates namely *Air Traffic And Air Space Management, Information Technology and Training Academy* have been created. DGCA Training Academy has been set up as a joint venture with Airports Authority of India.

- m) The regional offices of DGCA have been expanded to cover operations, airworthiness and air safety divisions and are now headed by Deputy Directors General having financial and administrative powers.
- n) Three ICAO technical projects in the areas of flight safety, aerodromes and air navigation services had been commissioned in 2009 to enhance safety oversight capability of DGCA. The aerodromes project has recently completed and ICAO audit findings in aerodrome area have been addressed. The other two projects are underway and will be completed in 6 months to one year.
- o) A standing *Aviation Regulatory Advisory Panel (ARAP)* with eight Working Groups (WGs) has been set up in 2009 consisting of officials from DGCA, service providers and operators to review existing regulations in the fields of airworthiness, flight operations, flight safety, licensing of personnel, air transport services, aerodromes and air navigation services, study best international industry practices and globally harmonized standards and suggest revision in current regulations where required. Much work has been accomplished by the Working Groups.
- p) To avoid multiplicity, duplicity and ensure consistency of regulations, a Civil Aviation Regulation Group (CARG) has been set up under the Chairmanship of Director General in January 2010.
- q) A '*State's Safety Programme*' (SSP) as per ICAO standards has been drafted by conducting a gap analysis. The document laying down key safety indicators will be launched in November 2010.
- r) Under ICAO standards, airlines, maintenance organizations, aerodromes, air navigation providers are required to establish *Safety Management System (SMS)* in their organisation. To establish the process for the acceptance of Safety management Systems (SMS) by DGCA, a regulation has been issued.
- s) A *Civil Aviation Safety Advisory Council (CASAC)* has been set up in DGCA under Chairmanship of Director General of Civil Aviation. The Council advises DGCA to further strengthen aviation safety environment through synergisation of available expertise and comprises of experts from airlines, flight operations, airworthiness, aerodromes, air navigation services, aircraft engineering and human performance. The Council can also invite international experts from ICAO, FAA, EASA, Boeing, Airbus, etc.
- t) A *Safety Information Analysis System (SIAS)* for initiating proactive actions for strengthening and enhancement of aviation safety through utilization of safety related information has been set up in DGCA. The system became operational from June 2010.
- u) The aviation safety inspectors of DGCA are technically qualified, experienced and trained professionals. Training (both in house and external) to inspectors is provided at manufacture's, civil aviation authorities facilities and other agencies like the FAA, CAAS, IATA etc. From time to time, DGCA also organizes conferences, workshops, seminars for the promotion and enhancement of safety. For the ease of functioning and transparency, DGCA is adopting IT driven solutions through establishment of

data-driven processes for better and efficient use of its human resources. DGCA has also put in a system for ensuring timely compliance and adherence to *Standards and Recommended Practices (SARPs)* adopted by ICAO.

1. CONCLUSION

1.1 DGCA is committed to sustain and enhance safety oversight system through proactive regulation making and its compliance by approved organizations. The real challenge before DGCA is to manage phenomenal growth of air traffic with safety.

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