



## 3 DIRECTORATE GENERAL OF CIVIL AVIATION

### 3.1 INTRODUCTION

Directorate General of Civil Aviation (DGCA) is the principal regulatory body in the field of civil aviation. It is responsible for regulation of air transport services to/from /within India, formulation and enforcement of civil air regulations, air safety and airworthiness standards, and coordination of all regulatory functions with International Civil Aviation Organisation (ICAO).

### 3.2 ORGANISATION

DGCA has its Headquarters in New Delhi and consists of following Directorates:

- i) Directorate of Regulation & Information. /
- ii) Directorate of Air Transport. /
- iii) Directorate of Airworthiness. /
- iv) Directorate of Air Safety. /
- v) Directorate of Training & Licensing. /
- vi) Directorate of Aerodrome Standards. /
- vii) Directorate of Flying Training. /
- viii) Directorate of Flight Inspection. /
- ix) Directorate of Research & Development /
- x) Directorate of Administration. /



### 3.3 FUNCTIONS

Some of the salient functions discharged by DGCA are as under: -

- i) Regulation of air transport services to/ from/ within India in accordance with the provisions of the Aircraft Rules, 1937, including bilateral and multilateral agreements with foreign countries and the policy pronouncements of the government;
- ii) Registration of civil aircraft;
- iii) Laying down airworthiness requirements for civil aircraft registered in India and grant of Certificate of Airworthiness to such aircraft;
- iv) Licensing of pilots, aircraft maintenance engineers and monitoring of flight crew standards;
- v) Licensing of aerodromes and air carriers;
- vi) Rendering advice to the Government on matters pertaining to civil aviation.
- vii) Processing amendments to Aircraft Act, 1934 and the Aircraft Rules 1937, and other Acts relating to aviation, with a view to implementing in India the provisions of the Chicago Convention and Annexes thereto and other International Conventions relating to aviation;
- viii) Co-ordination of the work relating to International Civil Aviation Organisation and sending replies to state letters after consulting other agencies;
- ix) Investigation of air accidents and incidents and rendering technical assistance to the Courts/ Committees of Inquiry;
- x) Supervision of training activities of Flying/ Gliding Clubs;
- xi) Development of light aircraft, gliders and winches.
- xii) Type certification of aircraft.

### 3.4 REGULATION AND INFORMATION

#### 3.4.1 Air Services Agreements

During the period from April to December, 2006, bilateral air talks were held with United Arab



Emirates, Tanzania, Kenya, Kuwait, Spain, Sri Lanka, Egypt, Oman, Scandinavian Countries, Qatar, Australia, Switzerland and Singapore to review the existing bilateral arrangements. As a result of this, additional capacity to the tune of 51,704 seats per week was granted to the designated airlines of India and the respective foreign countries. In addition talks were held with European Union to enter into a Horizontal Agreement in order to address issues, which came up due to formation of European Union.

#### 3.4.2 Aviation Law

A Bill to amend the Aircraft Act, 1934, has been introduced in the Lok Sabha and is under consideration of the Parliamentary Standing Committee. The proposed amendment addresses the issues pertaining to penalties for violations of various provisions, licensing of ATCOs and certification of CNS/ATM facilities.

Significant amendments were carried out to the Aircraft Rules, 1937 to bring it in line with the advancements in civil aviation sector. The fees for various licences and certificates issued by this office has been rationalized and provisions of the Aircraft (Carriage of Dangerous Goods) Rules, 2003 have been liberalized.

### 3.5 AIR TRANSPORT

#### 3.5.1 Tourist Charters

(i) The tourist charter guidelines have been further liberalized vide Aeronautical Information Circular No. 5/2006. Now there is no restriction on maximum and minimum length of stay for tourists arriving of chartered flights. The requirement of 2:1 between inbound and outbound charters has also been dispensed with for the outbound stations.

(ii) The notice period for an aircraft for the scheduled airline to be used for outbound charter has been brought down from seven working days to three working days. A total of 770 charter flights were operated to India from January to December, 2006 bringing in 1,84,076 foreign tourists as against 1,50,334 tourists during the same period last year.

#### 3.5.2 Non-Scheduled Operator's Permit

As on 31<sup>st</sup> December, 2006, a total of 56 companies were holding Non-Scheduled Operator's Permit as against 44 companies during the last calendar year..

#### 3.5.3 Domestic Scheduled Operators

Apart from Air India, Indian Airlines, Alliance Air and Air India Charters Ltd., there are at present nine private scheduled operators (as against seven private scheduled operators during the year 2005) viz. Jet Airways (India) Ltd., Sahara Airlines Ltd., Deccan Aviation (P) Ltd., Kingfisher Airlines Ltd., Spice Jet Ltd., Paramount Airways Pvt. Ltd., Go Airlines (India) Pvt. Ltd., Indus Airways, Inter Globe Aviation Ltd. (Indigo) operating on the domestic sector providing a wide choice of flights and connectivity to various parts of India. One cargo airline viz. Blue Dart Aviation Pvt. Ltd. is also operating scheduled cargo services in the country. During the calendar year 2006, a total number of 3,83,413 flights were operated by the domestic scheduled operators carrying a total of 32.172 million passengers as against 2,93,084 flights carrying a total of 22.788 million passengers during the year 2005.

### 3.6 UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME

3.6.1 A team of inspectors from International Civil Aviation organization (ICAO) visited DGCA office, from 10-20<sup>th</sup> October 2006, for carrying out Universal Safety Oversight Audit Programme. The team scrutinized the standards, procedures and practices being followed by DGCA. The ICAO Audit team appreciated the actions taken by DGCA, India.

### 3.7 INTERNATIONAL COOPERATION

The following activities were undertaken for international co-operation

(a) COSCAP-SA Training Courses conducted under Cooperative Development of Operational Safety and Continuing Airworthiness (South Asia) COSCAP(SA). Three training courses were conducted during the year 2006. Apart from conducting training courses, experts from COSCAP-

SA rendered technical assistance in conducting audits on Airworthiness, Aerodromes etc.

(b) EU India Cooperation - Two officers from the flight recorder lab attended the training Programme on 'Accident Investigation Techniques' by EU-India Co-operation at DGCA HQ. Eight officers from DGCA also attended the course on 'GALILEO Application'.

(c) More than 25 training courses relating to airworthiness were conducted under EU-India Cooperation programme. Training programmes were conducted at DGCA Hqs. New Delhi on the subjects such as Aviation Meteorology, ATCO licensing, Aerodrome Certification, New Large Aircraft, Satellite Navigation and Heliport Certification.

### 3.8 AIRWORTHINESS

#### 3.8.1 Registration of Aircraft:

As on 31<sup>st</sup> December 2006 there were 1067 aircraft (including micro light, gliders and balloons) on the India's Civil Aircraft Register, of which 190 were registered (including change of ownership) during the year 2006.

#### 3.8.2 Licencing of Aircraft Maintenance Engineers:

A total of 7223 Aircraft Maintenance Engineers Licences including Basic Licences and 282 Flight Engineers ( FE) Licences have been issued so far, of which 717 AME Licences have been issued during the year 2006.

#### 3.8.3 Approval of Firms/organizations:

A total of 587 firms have been approved for manufacture, maintenance, testing, storage, etc. of aircraft, aircraft components/equipment, of which 52 are foreign firms.

#### 3.8.4 Important Policy decisions:

i) Relaxation in the maximum age of import of unpressurised aircraft for flying training purpose: Increased growth in civil aviation sector has resulted in sudden spurt in demand for qualified pilots. Considering the increased demand for trainer aircraft for pilot training, DGCA has relaxed the restriction on import of maximum age of unpressurised aircraft for flying training purpose. CAR, section 2, series F part XX has been revised and the maximum age for import of unpressurised aircraft for flying training purpose





has been increased to 25 years from 20 years subject to the condition that the aircraft has undergone major inspection and engines installed are new or overhauled, before import.

ii) Revision of time limits for rectification defects and simplification of MEL (Minimum Equipment List) approval procedures: DGCA has revised the time limits for rectification of defects of aircraft as per the preamble given in the Master Minimum Equipment List of Manufacturer, which are internationally followed. The MEL approval procedures have also been simplified.

### 3.9 EXAMINATION

Central Examination Organisation conducts examinations for the issue and/ or extension of Flight Crew as well as Aircraft Maintenance Engineer's License at various Examination centers spread over the country. Schedule of examinations of the entire year is put well in time on DGCA web site (<http://www.dgca.nic.in>.) for the information of general public. Detailed information about the examinations conducted during the period from 1<sup>st</sup> April 2006 to 31<sup>st</sup> December 2006 is as follows: -

Sl. No.	AME	PILOT	TOTAL
No. of applicants	20195	12,273	32,468
No. of papers	26,174	34,842	61,016
No. of Examinations held including special sessions	03	20	23

In addition to above, the following improvements in the examination system have been undertaken :-

1. List of candidates who have been allotted Computer Numbers for a particular session of Examination is put on DGCA Website (<http://dgca.nic.in>) from time to time.
2. List of admitted candidates of all the scheduled examinations is put well in time on DGCA Website.
3. List of PASS candidates of all the scheduled examinations is also put on DGCA Website.

### 3.10 TRAINING AND LICENSING OF AIRCREW

**3.10.1** 1542 Pilots licenses/ratings were issued by DGCA during 2006. In addition, approximately 900 foreign pilots licenses were validated.

**3.10.2** Following steps were taken to increase the available pool of pilots:

i) Due to induction of new type of aircraft B-777 & A 320, there was shortage of trained and type rated pilots on these aircraft. Therefore, foreign pilots were authorized to operate such aircraft and train Indian Pilots to acquire type rating.

ii) There are 17 Flying Training Institute including IGRUA, which are training pilots up to CPL level. Approximately 150 pilots were granted CPL annually and one additional flying training institute is proposed at Gondia, Maharashtra. Capacity of IGRUA is also being increased to train more pilots.

iii) Total flying requirement for issue of Commercial Pilot's Licence (CPL) has been reduced from 250 hrs to 200 hrs.

iv) Age of pilots who can operate commercial flights has been increased from 60 to 65 years subject to fulfilling the prescribed medical fitness conditions.

v) For issue of Instrument Rating, the requirement of flying has been reduced to 100 hrs. from existing 150 hrs.

### 3.11 FLIGHT INSPECTION

**3.11.1** Flight Inspection Directorate (FID) conducts regular inspections and surveillance of scheduled airlines and their aircrew to ensure effective implementation of the Standards and Recommended Practices contained in the Annexes to the Convention on International Civil Aviation, particularly Annex 6 and the relevant rules, regulations, procedures and requirements laid down in Aircraft Rules, Civil Aviation Requirements, Aeronautical Information Circulars, AIP India etc. Continuous surveillance of various operational aspects of operators is ensured by conducting regular inspections/ Surveillance Checks viz. Cockpit En-route Inspection, Cabin Inspection,

Ramp Inspection, Station Facility Inspection and proficiency check etc. In addition to this, Simulator Evaluation and Main Base Inspection etc. of the operators and Standardization/Proficiency Checks of their Training Captains were conducted.

**3.11.2** Flight Inspection Directorate also carried out a large number of activities. Some salient activities were approval of Examiners/Instructors/Check Pilots and standardization checks of Training Captains, approval of Training Programme of Flight Crew, Approval of Simulators and advanced Training Institutes, Flight Dispatchers of Scheduled Operators, approval of Aerodrome Operating Minima, Examination of Operations Manual/Training Manual/ Aircraft Operating Checklist and MEL requirements etc; and approval of Flight Crew Training and operating requirements for Specialized Operating Procedures viz. RVSM/ETOPS/RNP.

**3.11.3** Flight Inspection Directorate also rendered advise to Directorate of Training & Licensing, Directorate of Airworthiness, Directorate of Air Safety, Central Examination Organization and Directorate of Air Transport.

**3.11.4** Evaluation and approval of seven Simulators, two Flight Training Devices, 40 Check Pilots, 36 Instructors and 16 Examiners of various scheduled airlines, 52 Final Release Checks was carried out. 11 Pilots from General Aviation were approved as Check Pilots/ Instructors/ Examiners. In addition 334 pilots/co-pilots were authorized to carry out ILS CAT-II/CAT-III A/IIIB Operations. Various Foreign airlines were permitted to carry out ILS CAT-III B operations at IGI Airport.

**3.11.5** Four Operations Circulars were issued for guidance of Scheduled/Non-scheduled/General Aviation operators in order to enhance safety of aircraft operations. Training approvals were granted to 183 individual pilots to undergo Multi-engine Endorsement Training on the aircraft including helicopters (single and multi-engine) from ICAO contracting states. Similarly 185 and 109 approvals were granted in respect of various types of fixed wing

aircraft and helicopters respectively for Examiners on one time basis to carry out various checks.

**3.11.6** Standard Operating Procedure (SOPs) for operations to new stations and critical airfields like Junagarh, Kullu, Vidyanagar, Male, Port Blair, Gangtok, Manglore, Leh and Leng Pui were examined and approved.

### 3.12 AERODROME STANDARDS

**3.12.1** Directorate of Aerodrome Standards carried out examination and site inspection and granted approval to various private and public aerodromes, heliports and rooftop helipads.

**3.12.2** Aerodrome licence was issued in favour of Delhi and Mumbai airports under public use category. Aerodrome License was also issued for Vidhyanagar aerodrome (Karnataka) under public use category for domestic schedule flight operation. Inspection of the AAI managed aerodromes for licensing purpose, was carried out at NSCBI Kolkata, Chennai, Trivandrum, Ahmedabad, Jaipur, Coimbatore, Lucknow, Calicut, Varanasi, Hyderabad, Amritsar, Nagpur. Directorate also carried out inspection of upcoming BIAL & HIAL airports for monitoring the progress.

**3.12.3** A number of Civil Aviation Requirements (CAR) were issued on Aerodrome Design & Operations, Minimum Safety Requirements for temporary Helicopter Landing Areas, Heliports, Exemption procedure for non-compliance at aerodromes, Requirements for maintenance / inspections of communication/Navigation, landing and other equipments installed at airports and en-route, Aeronautical information service, Aeronautical Charts, Search and Rescue, Aeronautical Telecommunications' Radio Navigation Aids, Aeronautical Telecommunications Communications Procedures, Aeronautical Telecommunications' Digital Data Communication and Voice Communication System, Aeronautical Telecommunications' Secondary Surveillance Radar, Aeronautical Telecommunications, Aeronautical Radio Frequency Spectrum Utilization and Air Traffic Services. In addition, a few CARs were amended to

update requirements to bring them in line with changed circumstances.

### 3.13 AIR SAFETY

**3.13.1** Officers of this Directorate carried out periodic inspection of various aerodromes and facilities available at these aerodromes to ensure that the aerodromes meet the stipulated standards of safety. They also carried out Safety Audits, Cabin Inspection, Operational Inspection, Preflight Medical Check, Random monitoring of FDTL & Monitoring of flights through CVR/DFDR analysis. Analytical review of accidents and incidents were made to prepare the statistical data for the purpose of 'trend analysis'. High priority action was taken to eliminate/reduce the problems of bird strikes to aircraft at Indian Airports. Directives of the Committee of Secretaries and the High Level Bird Strike Committee are being implemented in a phased manner. Work of Airfield Environment Management Committees established at all aerodromes is being coordinated for remedial measures.

**3.13.2** There were four accidents to Indian Registered Aircrafts during the reporting period. These accidents are under investigation by the Inspector of Accidents under Rule 71 of Aircraft Rule, 1937.

**3.13.3** There were total 806 reported incidents to various scheduled/non-scheduled/private/state Govt. aircraft. Out of these 17 were serious incidents while 14 were air miss incidents. There were total 144 reported bird strike incidents.

**3.13.4** Safety audit was carried out in 7 organisations. In addition 85 surveillances inspections, 81 ramp inspection/spot checks, in random 145 alcohol checks and 9 aerodrome inspections were carried out. One Civil Aviation Requirement and four Air Safety Circulars were issued.

### 3.14 RESEARCH & DEVELOPMENT

#### 3.14.1 Accident/Incident Analysis:

A large number of records pertaining to Cockpit Voice

Recorder of Indian and Foreign aircraft were analyzed and decoded in the lab. The transcription and report submitted to inspector of accident or the foreign civil aviation authority. The physical & chemical lab of this Directorate have analysed three fuel and oil samples drawn from accidental/incidental aircraft.

#### 3.14.2 Acceptance of Helicopter for Operation in India

Acceptance in respect of Bell 427, MBB-BK-117 C2, Euro copter EC 155 B1, ENSTR0M 480B, Augsta 109S Grand, AB 319/AW 139, EC 135, MTOW upgraded validation and Agusta A109C and Agusta A109E was issued for operation in India.

#### 3.14.3 Acceptance of Aircraft for Operation in India

Acceptance in respect of Cessna Citation 650, Falcon 900 EX, Seabird Seeker SB71-360A, Air Bus 330-200, 320, 319, Bombardier Challenger CL 600-2B16 (CL-604 variant), STC of Super King Air B300, TC of Avro-146,

EASA certificate A 300B4-600 series A300C4-600 series, Sinus 912 Motor Glider was issued for operation in India.

#### 3.14.4 Routine Monitoring of Flight Recorders (Black Box):

As part of random monitoring of CVR cassettes a total 686 reports were prepared and 166 analysed print outs were sent to operators. Out of these reports, 170 numbers of CVR and 54 numbers of FDR reports were sent to DAS and DAW for directing operators to make corrective action.

#### 3.14.5 Testing/Approvals:

Standard of Preparation of Dhruv Helicopter-skid, retractable wheel and fixed wheel versions were approved. Approval of Service Bulletins for installation of TRVWS, installation of 12 pax seat etc., Coordinated Full Spectrum Qualification testing of Saras Wheel and Brake, auto pilot aspects, Software aspects and Hardware aspects for Stall Warning device and specifications of nose wheel devices. One hundred and nineteen welded samples

were tested and evaluated for issuing competency certificate for welders. Forty-three Carpet & upholstery specimens and two cable-tensiometer were tested and approved for various types of aircraft and helicopter. In addition, two indigenously developed samples of nylon cord developed by Kohli Enterprises for Ministry of Defense requirement were tested and evaluated by Material Testing Lab of R&D Dte.

Physical and Chemical Lab of R&D is entrusted with responsibility of monitoring the quality of aviation turbine Fuel. In this regard 200 samples were tested. In addition, this lab does necessary testing of fuel samples prior to commencement of VVIP flight. In this regard 60 VVIP flight fuel samples were tested.

#### 3.14.6 Audit for Design Organization :

Audit was carried out by a team of officers for approval of design organizations. ICAO compliance statement was prepared. Coordination of work relating to Audit Protocol by ICAO team members was undertaken. This Directorate was also associated with the approval of commissioning of new fuel tanks, pipelines, refineries, laboratories etc. In this connection complete analysis of 16 fuel samples were carried out. In addition, the analysis of batch formation test reports of Aviation Fuel produced in different refineries of India, was carried out.

### 3.15 ADMINISTRATION

#### 3.15.1 Implementation of Official Language Policy :

All general orders, establishment orders and notifications were issued bilingually in the office of the Director General of Civil Aviation. Air Accident Report, Statistical Report and Annual Report were brought out in bilingual form.

During the year 25 employees were imparted training in Hindi Workshop. The target of Hindi and Hindi typing training has been achieved under Govt.'s Hindi teaching scheme. One employee was imparted training of Hindi stenography. In order to promote Hindi work on computers, Hindi software 'Leap Office' was made available to all the subordinate offices. Various Hindi competitions were conducted and Hindi

Day was celebrated enthusiastically. Director General gave commendation certificates and cash awards to the winners.

Five officials were given cash awards for doing their maximum work in Hindi under Incentive Scheme of Official Language Department for doing original noting/drafting in Hindi. One officer was given cash award for giving maximum dictation in Hindi. Four typists got incentive allowance for doing Hindi typing along with English. Hindi books were purchased from library fund to ensure implementation of Official Language Policy. Meetings of Official Language Implementation Committee were conducted regularly in every quarter. Inspection of subordinate offices was carried out.

#### 3.15.2 Vigilance Activities :

During the period, Shri P.K.Chattopadhyay, Joint Director General continued to function as Vigilance Officer for the Office of DGCA. Large size painted boards have been displayed at all prominent places showing the name, official and residential address and telephone number of the Chief Vigilance Officer and Vigilance Officer. Other instructions on the vigilance matters, as and when received from the Ministries/Central Vigilance Commission are scrupulously followed and circulated.

#### 3.15.3 Audit

16 audit paras were dropped and 45 paras are still outstanding.

#### 3.15.4 KAW Committee

Directorate General of Civil Aviation (DGCA) at present has a multi-faceted role as repository of Act and Rules, inspecting authority, regulatory authority and investigating authority etc. Considering the latest growth in the aviation sector, change in the scope of activities, necessity to comply with the ICAO standards and recommended practices as a signatory to the ICAO Convention, it has become necessary to fine tune the role & functions of the DGCA with the Civil Aviation Organisation the world over. In this context, it was decided that the role, functions and organizational structure of DGCA be reviewed.

To examine/ review the different aspects of the functioning of DGCA and make appropriate recommendations, a Committee under the Chairmanship of Shri M.K.Kaw, former Secretary(CA) was constituted in August, 2005. Report of the Committee has been received and its recommendations are under the consideration of the Government.

