



ASSEMBLY – 35TH SESSION

PLENARY

Agenda Item 2: Statements by delegations of Contracting States and of Observers

INDONESIAN AIRWORTHINESS SYSTEMS

(Presented by Indonesia)

INFORMATION PAPER

SUMMARY

This paper provides brief accounts of Airworthiness Systems in Indonesia.

The Indonesian Airworthiness System covers area of designs, manufactures, flight operations and maintenance of aircrafts. The organization responsible for safety oversight is the Directorate of Airworthiness Certifications (DAC), Directorate General of Air Communications (DGAC) and Department of Communications.

I. LAW, REGULATIONS AND GUIDANCE MATERIALS

- i). Civil Aviation Act 15 / 1992.
- ii). Civil Aviation Safety Regulations (CASRs).
- iii). Staff Instructions.
- iv). Advisory Circulars.

II. ORGANIZATION

1. Structure

The Directorate of Airworthiness Certification consists of :

- a. The Sub Directorate of Standards – Responsible for preparing laws, regulations and guidance materials; organization certification and audit; international relations and accident/incident preventions.

- b. The Sub Directorate of Engineering – Responsibilities for type certifications, designs and modification approvals, flight and performance tests, Service Difficulty Reports and reliability analysis and issuance of Airworthiness Directives (AD).
- c. The Sub Directorate of Aeronautical Product – Responsibilities for production surveillances, conformity inspections, initial airworthiness certifications and aircraft registrations.
- d. The Sub Directorate of Aircraft Operation – Responsibilities for air operator surveillances, air and ground crew licensings.
- e. The Sub Directorate of Aircraft Maintenance – Responsibilities for air operator maintenance surveillances, recurrent airworthiness certifications and maintenance personnel licensings.
- f. The Sub Division of Administrations – Responsibilities for plannings, the operation of information systems, personnel affairs, general and home affairs, finance and travels, legal, publications and library.

2. Staffing

Staffing, including recruitment requirements and training programs for the Engineers and Inspectors which are defined in Staff Instruction : HRD-01 HUMAN RESOURCES DEVELOPMENT OF DIRECTORATE OF AIRWORTHINESS CERTIFICATION PERSONNEL.

Total of technical staff are 116 persons, grouped as follows :

a.	Personnel Licensings	24
b.	Operations	12
c.	Airworthiness - Maintenance (Inspection)	29
	- Engineering (Type/Design Certification)	26
d.	Others	25

3. Training Programs

The following are the policies concerning training and records of training programs which has been completed or being carried out :

- a. Training Institutions
Trainings, workshops, on the job trainings other than those that can be conducted in-house or within the country, such as at Civil Aviation Training Center – Curug by DGAC own experts or international experts provided by ICAO or other institution under technical assistance. DAC Engineers / Inspectors are sent to reputable training institutions abroad.
- b. Factory Training
Engineers and inspectors are sent to factory for on the job trainings / type trainings.
- c. ICAO Projects
The followings are the ICAO Technical Assistance Projects to the DGAC since 1984:

- 1). INS/82/003 – Strengthening the DGAC Aviation Plannings and Administrations (April 1984 – February 1990).
 - a). Experts provided.
 - i). Airworthiness Certification Advisor.
 - ii). Flight Operation Advisor.
 - iii). Airworthiness Advisor – General Aviation.
 - iv). Airworthiness Advisor – Airlines Maintenance.
 - v). Technical Writer.
 - b). Training provided in the USA.
 - i). Airworthiness.
 - 1). Manufacturing Indoctrination.
 - 2). Inspection Techniques.
 - ii). Flight Operations.
Procedures for Air Navigation Services.
 - iii). Flight Inspections.
 - iv). Legal.
Legal Enforcements.
 - v). Management.
 - 1). Material Management.
 - 2). Personnel Management.
 - vi). Aerospace Medicines.
- 2). INS/86/026 – Training of Manufacturing and Airworthiness Inspectors (15/06/1988 – 1998).
 - a). Experts provided.
 - i). Airworthiness.
 - ii). Manufacturing.
 - b). Training provided.
 - i). Original Airworthiness.
 - ii). Continuing Airworthiness.
- 3). RAS/89/006 – Flight Safety Surveillance, Airworthiness and Operations (12/1990 – 1993).
 - a). Experts provided.
 - i). Flight Safety Surveyor - Airworthiness.
 - ii). Flight Safety Surveyor - Flight Operation.
 - b). Training provided.
 - i). Airworthiness Surveillance.
 - ii). Flight Operation Surveillance.
- 4). INS/86/027 – Type Certification of Aircrafts (03/1988 – 07/1998).
 - a). Experts provided.
 - i). Structure Engineer.
 - ii). Powerplant Installation Engineer.
 - iii). Mechanical System Engineer.

- iv). Electrical/Avionics Engineer.
 - v). Flight Test Pilot.
 - vi). Flight Test Engineer.
 - vii). Dynamic Analyst.
 - viii). Airworthiness Regulations.
 - ix). Manufacturing Inspector.
 - x). Maintenance Inspector.
- b). Training provided.
- i). Classroom.
 - ii). Working Group.
 - iii). On the Job.
 - iv). Abroad :
 - Safety Assessment of Aircraft Systems.
 - Reliability Analysis.
 - Introduction to Engineering Dynamic and Vibration.
 - Lightning Protection.
 - Reliability Control.
 - Airworthiness Engineer.
 - Flight Test Engineer.
 - Flight Test Pilot.
 - Aircraft Structure Loads.
 - Aircraft Certification Indoctrination.
 - Certifications On the Job Training.
 - Aircraft Manufacturing and Inspection on the Job Trainings.
 - Accident Investigations.
 - Accident Investigation Interactive.
 - Aircraft Icing Protection and Certifications.
 - Fundamental of Avionics Construction and Database Techniques.
 - Flight Test Pilot/Engineer On the Job Trainings.
 - Aircraft Manufacturing Inspection On the Job Trainings.
- 5). INS/95/016 – Upgrading of Flight Operation Surveillance (1997- now).
- a). Experts provided.
Flight Operation Inspectors.
 - b). Training provided.
Classroom, Working Group and On the Job on the following subjects :
 - i). Audit and surveillance techniques and procedures.
 - ii). AOC certifications and Surveillance.
 - iii). Regulations, Staff Instructions and Advisory Circulars development.
- 6). INS/96/003 – Streghtening Aviation Maintenance Safety Standards (1997–now).
- a). Experts provided.
Maintenance Inspector.

- b). Training provided.
Classroom, Working Group and On the Job on the following subject :
 - i). Audit and surveillance techniques and procedures.
 - ii). AOC and Aircraft Maintenance Organization certification and Surveillance.
 - iii). Regulations, Staff Instructions and Advisory Circular development.

- 7). Other Programs
 - a). FAA.
 - i). Damage Tolerance.
 - ii). Engine Certifications.
 - iii). Maintenance Review Board.
 - iv). Software Certification.
 - v). 16 G Seat Certification.
 - vi). Aircraft Certifications System Evaluation Programs.
 - vii). Mechanical and Flight Control Certification.
 - viii). Composite Certification.
 - ix). Crashworthiness Certification.
 - x). Designee Management.
 - xi). Airworthiness Safety Inspection, International Course 21028.
 - xii). Air Carrier Operation, Course 21029.

 - b). NTSB.
Accident Investigation (NTSB).

 - c). Airbus Industries.
Fly by Wire.

 - d). Bramadi.
 - i). Type of certification management.
 - ii). Manufacturing Inspection.
 - iii). Flight Testing.
 - iv). Flight Test Engineering.

 - e). I)
 - ii). Aviation Law (Attended by DGAC Legal Division).
 - iii). Top Level Airline Management.
 - iv). Maintenance, a Chance for Efficiency.
 - v). Aerodrome Licensing (Attended by DGAC Directorate of Aviation Safety).
 - vi). Production Management : Business Strategy and Change Management.
 - vii). Manufacturing Capability Development / Production Planning Accident Investigation.
 - viii). Engine Maintenance, Repair, Overhaul – Total Engine Care.
 - ix). Airport Management.
 - x). Flight Operation Inspector Workshop

III. CERTIFICATES / APPROVAL / LICENCES

Civil Aviation Safety Regulations have provision for the DGAC to issue the following certificates/approvals/Licences :

- 1). Aircraft Type Certificate (and validation).
- 2). Engine Type Certificate (and validation).
- 3). Propeller Type Certificate (and validation).
- 4). Design / modification approval.
- 5). Aircraft Type Noise Certificate.
- 6). Production certificate.
- 7). Certificate of Airworthiness.
- 8). Certificate of Registration.
- 9). Air Operator Certificate.
- 10). Training School Certificate.
- 11). Approved Maintenance Organization Certificate.
- 12). Aeronautical Product Distributor Certificate.
- 13). Export Certificate of Airworthiness.
- 14). Pilot Licences.
- 15). Flight Engineer Licences.
- 16). Flight Attendance Licences.
- 17). Pilot Operation Officer Licences.
- 18). Maintenance Engineer Licences.

IV. CIVIL AVIATION ACTIVITIES

DESCRIPTION	NUMBER
1. Number of Technical Staff	116
2. Number of Active Pilot Licenses	4,336
3. Number of Active Flight Crew Licenses Other Than Pilot (Flt.Engineer = 200; Navigator = 0)	200
4. Number of Aviation Training Establishment	4
5. Number of Active Licensec Other Than Flight Crew Licenses (FOO = 1,668; AME = 4,490; Aeronautical Station Operator = 151; ATC = 1,191; Others = 1,662)	9162
6. Number of AOC Issued	59
7. Number of Aircraft Registered	982
8. Number of Currently Valid Certificates of Airworthiness Issued	608
9. Number of AMO	56
10. Number of Design Organization	1
11. Number of Aircraft Manufacturing Organization	1
12. Number of Type Certificate Issued	1

V. SAFETY OVERSIGHT METHODS

Safety oversight is conducted with the following methods :

1. Random, for example by investigation of SDR in location and ramp check.

2. Continuously, for example by monitoring quality system and appointment of Principal Inspectors / Principal Operation Inspectors / Principal Maintenance Inspectors.
3. Audits, for example by product audits and quality system audits.

VI. PARTICIPATION ON ICAO PROGRAMME

Indonesia is the team leader for ICAO Task Force on RVSM Aircraft Operations and Airworthiness for Asia Pacific regions.

VII. ICAO USOAP FOLLOW UP

Indonesia has just finished to be audited on 15 April 2004 as a follow up to ICAO USOAP in 6-13 November 2000, and expecting the formal satisfactory notification within a couple of months.

VIII. ACTION BY THE MEETING

The meeting is requested to note and review this information.

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