

AIRWORTHINESS INSPECTOR'S HANDBOOK

- BOOK TWO



Version 5.0

June 24, 2016

CIVIL AERONAUTICS ADMINISTRATION
TAIWAN R.O.C.

DISTRIBUTION:

ALL AIRWORTHINESS INSPECTORS

INITIATED BY :

DIRECTOR GENERAL

CIVIL AERONAUTICS ADMINISTRATION

AIRWORTHINESS INSPECTOR'S HANDBOOK - BOOK TWO

PREFACE

PURPOSE. This handbook directs the job guidance of Aviation Safety Inspectors (ASIs) who are responsible for conducting the initial airworthiness related certification on applicant and ongoing certificate management activities on certificate holders.

DISTRIBUTION. This handbook is distributed to all initial airworthiness inspectors.

AUTHORITY TO CHANGE THIS DOCUMENT.

The Director General , CAA, must approve all changes to this order and its appendices.

HANDBOOK UTILIZATION. This handbook has been designed to serve as a multipurpose document that will meet the needs of newly hired inspectors as well as experienced principal inspectors.

Suggestions for changes or additions and comments on the content of this order are invited and will be given careful consideration in keeping the order and its associated appendices current and valuable to all users. As appropriate, user comments should be addressed to:

Ministry of Transportation and Communications
Civil Aeronautics Administration
Sung Shan Airport CAA Building
Taipei, Taiwan 10548
R.O.C.

GENERAL INFORMATION

1. PURPOSE. This handbook directs the job guidance of Aviation Safety Inspectors (ASIs) who are responsible for conducting the initial airworthiness related certification on applicant and ongoing certificate management activities on certificate holders.

2.DISTRIBUTION. This handbook is distributed to all initial airworthiness inspectors.

3.GENERAL BACKGROUND.

A. This handbook contains three volumes:

- (1) Volume I - This volume contains all the procedures necessary to certify an applicant.
- (2) Volume II - This volume contains procedures and information for conducting and validating initial certification related activities.
- (3) Volume III - This volume contains the job functions with detailed process and method to perform certification, review, inspection, evaluation/audit on initial certification related activities..

AIRWORTHINESS INSPECTOR'S HANDBOOK

**CIVIL AERONAUTICS
ADMINISTRATION
R.O.C.
FLIGHT STANDARDS**

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**PERFORMANCE STANDARDS

FOR
INITIAL AIRWORTHINESS CERTIFICATION
AVIATION SAFETY INSPECTORS**

**PERFORMANCE STANDARDS FOR
INITIAL AIRWORTHINESS CERTIFICATION
AVIATION SAFETY INSPECTOR
(ENGINEERING/MANUFACTURING)**

A. TECHNICAL ADMINISTRATION

- Investigations/review are thoroughly conducted in a timely manner with an impartial and unbiased approach. Required reports are factually and accurately completed and submitted through channels to designate recipients within established time frames.
- Assigned work program activities are effectively prioritized, planned and executed within the parameters of CAA office policies.
- Technical information provided is accurate and in accordance with CAA Regulations and policy. Recommended solutions can be implemented without major revision.
- The supervisor is informed of problems and/or anticipated problems at the earliest possible time.
- Deficiencies and/or problems are promptly communicated through channels to the user for corrective action. Follow-up action is initiated to insure correction of the deficiency and/or problem.
- Effective working relationships are established with the certificate holder/certification applicant.

B. CERTIFICATION

- Certification actions are accomplished and documented in accordance with applicable standards and within established time frames.
- Deficiencies/problems are promptly communicated through channels to the certificate holder/certification applicant for corrective action.
- Certification actions are appropriately coordinated.
- All contacts and responses are handled in a courteous and professional manner.

C. INSPECTION/REVIEW

- Conducting inspection/review activities correctly indicate compliance/non compliance with the CAA Regulations.
- Deficiencies are promptly communicated through channels to the appropriate management levels.
- Data analysis is continuously performed which detects trends in the certificate holder's safety of operations.
- Safety issues requiring special emphasis are identified and promptly communicated through channels to the CAA office and the certificate holder/certification applicant.
- An effective working relationship is maintained with the public, industry organizations and governmental agencies. All contacts and responses are handled in a courteous and professional manner.
- Meetings are arranged with the industries, and appropriate CAA officials when conditions warrant resolving local safety-related issues.

AIRWORTHINESS INSPECTOR'S HANDBOOK

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**POSITION DESCRIPTION
FOR
INITIAL AIRWORTHINESS CERTIFICATION
AVIATION SAFETY INSPECTOR**

**PERFORMANCE STANDARDS FOR
INITIAL AIRWORTHINESS CERTIFICATION
AVIATION SAFETY INSPECTOR
(ENGINEERING/MANUFACTURING)**

POSITION SUMMARY

The Aviation Safety Inspector (engineering/manufacturing)'s functions is on behalf of the Civil Aeronautics Administration (CAA) and conducting initial airworthiness certification related activities. ASI acts as the primary airworthiness certification interface between CAA and the industries who design, manufacture, and assembly of the aviation products. Meanwhile, inspect, review and validate the design, manufacture, and assembly of the aviation products meet all regulatory requirements and airworthiness standards.

ASI has responsibility to monitor delegated organizations/units, assure their production and assembly meet CAA regulation and policy. Determines the need for inspection and prepare the inspection plan, to assure that they adherence to the applicable regulations.

DUTIES AND RESPONSIBILITIES

A. TECHNICAL ADMINISTRATION

Assures on a continuing basis that assigned organizations are properly and adequately organized, staffed and equipped; have and conduct an adequate training program, including an acceptable record keeping system; and have facilities and procedures that meet all regulatory requirements. Chairs joint CAA-industry meetings; maintains regular contact with organizations assigned; and coordinates with top management officials. Requires or directs correction of any deficiencies/discrepancies and refuses or withdraws approval if they cannot be resolved.

Is responsible for the investigation of service difficulty of aircraft, engine, propeller, systems, and components. And evaluation the necessity of issuance Airworthiness Directives to an unsafe condition exists in any aviation product.

Review and distribute of Airworthiness Directives and analyses the Mandatory Service Bulletin.

Is responsible for the conduct of non-compliance investigations and preparation of investigation reports and recommendations on disposition.

B. CERTIFICATION

Is responsible for the design certification of aircraft, engine, propeller, systems, and components.

Is responsible for the production certification of aircraft, engine, propeller, systems, and components.

Is responsible for the supplement type certification of aircraft, engine, propeller.

Is responsible for the airworthiness approval of aircraft, engines, propeller, systems, and components.

Is responsible for ultra-light vehicle design approval and inspection.

C. INSPECTION/REVIEW

Directs the production certification and surveillance of the aircraft, engine, propeller, systems, and components.

Directs the certification of the aircraft, engine, propeller, systems, and component's major modification.

Review of equivalent tools/equipment/test apparatus.

Review/ surveillance the quality assurance system submitted by those industries that manufacture and assembly the aviation products, to ensure their compliance with the regulations and airworthiness standards. And assures the industries maintain an effective quality control system to meet the requirements of the CAA regulations and policies.

Is responsible for inspection/reviewing the activities of design, manufacture, and assembly of the aviation products.

SUPERVISION RECEIVED

General technical and administrative supervision is provided by an assigned supervisor within the CAA office. Is independently responsible for all regulatory, certification, and/or surveillance activities conducted within assigned responsibilities.

CIVIL AERONAUTICS

ADMINISTRATION

R.O.C.

FLIGHT STANDARDS

JOB TASK LISTING

AVIATION SAFETY INSPECTORS

AVIATION SAFETY INSPECTORS (ENGINEERING/MANUFACTURING)

JOB TASK LISTING

TECHNICAL ADMINISTRATION

- * Issuing Airworthiness Directives
- * Service Difficulty Investigation
- * Suspected Unapproved Part (SUP) Investigation
- * Compliance and Enforcement Investigation

CERTIFICATION

- * Type Certification
- * Imported Aircraft Type Certificate Validation
- * Supplemental Type Certification
- * Foreign Supplemental Type Certificate Validation
- * Production Certification
- * Parts Manufacturer Approval Certification
- * Technical Standard Order Authorization
- * Airworthiness Approval
- * Ultra-Light Vehicle Inspection

INSPECTION/REVIEW

- * Review and Approval of Certification Basis and Certification Plan
- * Review and Approval of Type Design Data
- * Review and Approve Analysis Data
- * Review and Approve Test Plan, Witness Certification Tests, Review and Approve Test Results
- * Conduct Compliance Inspection
- * Review Compliance to Certification Basis
- * Review of Equivalent Tools/Equipment/Test Apparatus
- * Production Certificate and Surveillance
- * Conformity Inspection
- * Product Audit
- * Supplier Control Audit
- * QASEP Evaluation
- * Principal Inspector Audit
- * Foreign Authority Delegated Production Surveillance
- * Ultra Light Vehicles Manufacturers Audit
- * Cockpit And Cabin En Route Inspection

JOB FUNCTION LIST

JOB	FUNCTION	WORKING HOUR (HR/TIME)	PERIOD (TIME/ YEAR)
1	REVIEW AND APPROVAL OF CERTIFICATION BASIS AND CERTIFICATION PLAN	Cert. Basis: 3 Cert. Plan: 3	12~18
2	REVIEW AND APPROVAL OF DESIGN DATA	AD data: 1 None-AD Data: 3	as required 12~24
3	REVIEW AND APPROVE ANALYSES	3	1~3
4	REVIEW AND APPROVE TEST PLAN, WITNESS CERTIFICATION TESTS, REVIEW AND APPROVE TEST RESULTS	Test Plan: 3 Test Report: 2 Witness Test: 4	6~12
5	CONDUCT COMPLIANCE INSPECTION	3	1~3
6	REVIEW COMPLIANCE TO CERTIFICATION BASIS	3	6~12
7	ENGINEERING REVIEW OF EQUIVALENT TEST EQUIPMENT	4	as required
8	CONFORMITY INSPECTION	3	6~12
9	PRODUCTION APPROVAL	3	1~3
10	PRODUCT AUDIT	3	6~12
11	QASEP EVALUATION	4	6~12
12	PRINCIPAL INSPECTOR AUDIT	3	8~16
13	PARTS AIRWORTHINESS INSPECTION	3	12~24
14	PRODUCTION SURVEILLANCE AND INSPECTION ACTIVITIES DELEGATED FROM FOREIGN AUTHORITY	3	6~12
15	SUPERVISORY INSPECTION OF FLIGHT SAFETY ACTIVITIES	2	1~3
16	ULTRA LIGHT VEHICLES MANUFACTURERS AUDIT	4	as required
17	COCKPIT AND CABIN EN ROUTE INSPECTION	1~1.5	6~12

REMARK: Working hours can be adjusted for different working condition.