



Part 170

Certification of Air Navigation Flight Inspection and Calibration Service Provider

TABLE OF CONTENTS

ITEM	TITLE
<u>SUBPART A:</u>	General
170.1	Applicability
170.3	Laws, regulations and procedures
170.5	Procedure compliance
170.7	Power to inspect
170.9	Definitions
170.11	Acronyms
<u>SUBPART B:</u>	Certification Requirements
170.13	Applications for certificate
170.15	Issuance of certificate
170.17	Privileges of certificate holder
170.19	Duration of certificate
170.21	Renewal of certificate
170.23	Suspension or revocation of certificate
170.25	Withdrawal or change in level of service
<u>170.27</u>	ECAA Inspection Authority
170.29	Transfer of service
170.31	Display of certificate
170.33	Continued compliance
170.35	Contractual arrangements
170.37 Through 43	Reserved
<u>170.45</u>	Exposition
<u>170.47</u>	Documentation
<u>170.49</u>	Records
<u>170.51</u>	Flight calibration system maintenance logbook
<u>170.53</u>	Quality control management system
<u>170.55</u>	Flight Calibration System security program
<u>170.57</u>	Coordination
170.59	Reserved
<u>170.61</u>	Organization
<u>170.63</u>	General Technical Requirements
<u>170.65</u>	Maintenance Procedures
<u>170.67</u>	Measurement Uncertainty
<u>170.69</u>	Aerials
<u>170.71</u>	Aircraft and aircraft operator
<u>170.73</u>	Use of radio
<u>170.75</u>	Operation flight calibration System
<u>170.77</u>	Training
170.79 Through 81	Reserved
<u>170.83</u>	System operation manuals
170.85 Through 93	Reserved
<u>170.95</u>	Certification of flight inspection system performance
<u>170.97</u>	Inspection measuring and test system
170.99 Through 107	Reserved
<u>170.109</u>	Flight calibration system malfunctions
<u>170.111</u>	Changes to certificate holder's exposition
<u>170.113</u>	Safety management system
<u>Appendix A</u>	Flight Inspection report
<u>Appendix B</u>	Records and Graphs

SUBPART A
General

170.1 Applicability

This Part prescribes rules governing the certification of Flight inspection Service provider.

170.3 Laws, regulations and procedures

Each holder of an approval shall ensure that all persons employed, engaged, or contracted by the holder to perform flight inspection activities are familiar with the appropriate sections of legislation, the Egyptian civil aviation regulations, any applicable conditions on the approval and the procedures specified in the approval holder's Exposition.

170.5 Procedure compliance

Each person performing duties in relation to an approval shall conform to the applicable procedures specified in the exposition of the approval holder which authorizes the operation.

170.7 Power to inspect

Each certificate holder shall ensure that any person authorized by ECAA shall have access to any documentation relating to the flight inspection operation. The approval holder shall be responsible for ensuring that, if requested to do so by an authorized person, documentation is produced within a reasonable period of time.

170.9 Definitions

Radio navigation service. A service providing guidance information or position data for the efficient and safe operation of aircraft supported by one or more radio navigation aids.

Flight Inspection. A series of tests carried out by an organization as authorized by a state to establish the operational calibration of the facility.

170.11 Acronyms

DME	Distance Measuring Equipment System
ECAA	Egyptian Civil Aviation Authority
ICAO	International civil aviation organization
ILS	Instrument landing system
NDB	Non-directional radio beacon
RMU	Remote monitoring unit
RTF	Radio Telecommunication Frequency
VOR	Very high frequency Omni directional radio range
RSS	Square Root of the Sum of the Squares

SUBPART B
Certification Requirements

170.13 Applications for certificate

Each applicant for the grant of flight inspection service provider certificate shall:

- (a) Submit of pre-application form shows intent and prompts the ECAA to allocate resources.
- (b) Complete the application form, which shall require the following information:
 - (1) The applicant's name.
 - (2) The specification of flight inspection system to be provided.
 - (3) Name of flight inspection service manager, title, telephone number and address.
 - (4) Such other particulars relating to the applicant and the intended flight inspection system as may be required by the ECAA as indicated by the form.
- (c) Submit the complete form to the ECAA with the exposition required by 170.45.
- (d) Submit a compliance statement with all the requirements of this Part accompanied with supporting documents as appropriate

170.15 Issuance of certificate

- (a) The Flight inspection Service provider will be certified if the ECAA finds that the applicant :
 - (1) Meets the requirements of this Part by demonstrating the evidence.
 - (2) Holds the authorization applicable to the kind of operation to be conducted, issued by the Minister of Civil Aviation; and
 - (3) The granting of the certificate is not contrary to the interest of aviation safety.
- (b) The applicant shall submit the payment of the appropriate application fee prescribed by ECAA.
- (c) The specifications that are issued with the certificate are a part of that certificate.

170.17 Privileges of certificate holder

- (a) The Flight inspection Service provider certificate holder shall only carry out tasks in accordance with the exposition and authorized specifications.
- (b) The applicant shall submit any proposed changes to the flight inspection system, operation or organization to ECAA within 30 days for approval before further flight inspection are conducted.

170.19 Duration of certificate

- (a) The Flight inspection Service provider certificate shall be renewed for a period of 12 months.
- (b) The Flight inspection Service provider certificate remains in force until it expires, withdrawn, suspended or revoked.

170.21 Renewal of certificate

- (a) Procedures for The flight inspection service provider certificate renewal are the same as listed under 170.13
- (b) An application for the renewal of the flight inspection service provider certificate shall be submitted to ECAA.
- (c) The application shall be submitted to the ECAA before the expiration date by 30 days at least.
- (d) The holder of the Flight inspection Service provider certificate that expires shall promptly surrender the certificate to the ECAA.

170.23 Suspension or revocation of certificate

- (a) Penalties:
 - (1) ECAA may impose a penalty (according to the Civil Aviation Law N.28 and its amendment Law No.136 of 2010 item No.155), or reduce some privileges to the certificate holder if:
 - (i) ECAA finds that the certificate holder does not comply with the requirements of this Part and such holder failed to remedy such non-compliance within 30 days after receiving notice in written form from ECAA to do so;
 - (ii) Such action is necessary in the interest of safety;

- (iii) ECAA inspector is prevented by the service provider from carrying out a safety inspection when his report recommends such action; and
 - (iv) The certificate holder failed to provide the flight inspection system in the required standard level, which is confirmed to ECAA by receiving reports from the users of the flight inspection system and proved by a legal investigation.
- (2) When proposing a penalty, ECAA will state the reasons for such action and will furnish them to the certificate holder.
- (b) Suspension of certificate:
This is a subsequent procedure to impose a penalty:
- (1) ECAA may suspend for a defined period, the Flight inspection Service provider certificate issued under this Part if:
 - (i) Subject to item 170.23 Paragraph (a), ECAA is satisfied that the certificate holder still unable to remedy any of these non-compliant areas with the specified time frame of 30 days;
 - (ii) The investigation, in case of an incident/accident, proves that it was caused due to the faulty procedures and/or the malfunction or failure of flight inspection system;
 - (iii) The certificate holder failed to perform the corrective action plan stated in the certificate in the exact period of time if so stated; and
 - (iv) Actions still necessary in the interest of aviation safety.
 - (2) When proposing a suspension, ECAA will state the reasons for such action and furnish them to the certificate holder.
 - (3) The certificate holder may appeal against such notice within 30-days of receipt.
 - (4) The applicant shall furnish to ECAA any documents, records, or other pertinent information supporting the appeal.
 - (5) ECAA may confirm, modify, or set aside the proposed suspension based on the appeal.
- (c) Revocation of certificate:
This is a subsequent procedure to suspension:
- (1) ECAA may permanently revoke the Flight inspection Service provider certificate issued under this Part if:
 - (i) It is verified that the certificate holder will not be able to remedy non-compliant areas; or
 - (ii) The certificate holder stops providing the service concerned without a convincing argument.
 - (2) ECAA has decided for the interest of safety to terminate Flight inspection activity.
 - (3) The Ministerial Order issued for the certificate holder is revoked.
 - (4) The revoked certificate cannot be renewed; it has to be reissued not less than one year after the revocation date.

170.25 Withdrawal of service

Each holder of flight inspection service provider certificate who wishes to permanently withdraw from providing the service shall give the ECAA at least 90 days notice of the proposal and include in that notice a summary of factors considered in arriving at the decision to withdraw the service .

170.27 ECAA Inspection Authority

- (a) Each person holds a certificate under this part (or applied for such certificate) shall grant unrestricted and unlimited access for ECAA inspectors to inspect his personnel, facilities, equipment, documents and records to determine:
 - (1) Eligibility to continue to hold his certificate.
 - (2) Compliance with this ECAR part
- (b) Failure to comply with paragraph (a) above shall be a basis to suspend, withdraw or revoke any certificate issued under this part.

170.29 Transfer of service

- (a) Each applicant for the grant of flight inspection service provider certificate intending to resume responsibility for providing flight inspection service , an existing certificate holder shall include with its application full details of transitional

arrangements endorsed by the flight inspection system managers of both organizations.

- (b) Each holder of Flight inspection Service provider certificate who will be the previous provider of the service shall not hinder the preparation and execution of transitional arrangements.
- (c) The transitional arrangement between both organizations shall be under the approval of ECAA.

170.31 Display of certificate

- (a) Each certificate holder of flight inspection service provider shall display the certificate in a prominent place generally accessible to the public at the holder’s principal place of business and, if a copy of the certificate is displayed, shall produce the original approval to ECAA inspector if so requested by such inspector.
- (b) The flight inspection service manager shall ensure that only one certificate for a flight inspection service is current at any time.

170.33 Continued compliance

- (a) Each holder of a Flight inspection Service provider certificate shall:
 - (1) Comply with all procedures and standards detailed in its exposition;
 - (2) Make each applicable part of its exposition available to personnel who require those parts to carry out their duties;
 - (3) Continue to meet the international standards and comply with the requirements prescribed for certification under this Part;
 - (4) Notify ECAA of any occurrence, which affects flight inspection service.

170.35 Contractual arrangements

- (a) No contracts shall be issued unless it fulfills minimum requirements of this Part.
- (b) Technical specifications of system for developing projects shall be submitted with the Statement Of compliance to ECAA to ensure compliance with international standards.
- (c) The ECAA inspector has the right to attend and approve training courses, factory acceptance test for flight inspection system.
- (d) All contracts for major maintenance must be approved by ECAA.

170.37 Through 170.43 Reserved

170.45 Exposition

- (a) An applicant for the grant of Flight inspection Service provider certificate shall provide ECAA with an exposition containing:
 - (1) Policy statement signed by the accountable manager identified at paragraph 170.61(a)(1) attesting that:
 - (i) The exposition demonstrates compliance with this Part; and
 - (ii) The organization will comply with this Part at all times.
 - (2) The titles and names of the senior person or persons required under paragraphs 170.61; and
 - (3) The duties and responsibilities of the senior person or persons in paragraph 170.61, including matters for which they have responsibility to deal directly with the ECAA on behalf of the organization; and
 - (4) Flight inspection system information listed in the following table, as applicable:

1	Flight inspection system Name	
2	Flight inspection system Installation date	
3	Flight inspection system Function	
4	Flight inspection system User.	
5	Flight inspection system ICAO Annexes ref.	
6	Flight inspection system Certification Date	

- (5) Policy, procedures, evidence or references supporting the following Requirements:
 - (i) Paragraph 170.61 regarding the integrity of the organization;
 - (ii) Paragraph 170.63 regarding the technical requirements for the flight

- inspection system;
 - (iii) Paragraph 170.65 regarding maintenance of the flight inspection system;
 - (iv) Paragraph 170.67 regarding evidence as to meeting measurement uncertainty requirements;
 - (v) Paragraph 170.69 regarding flight inspection system aerials;
 - (vi) Paragraph 170.71 regarding the suitability of the aircraft and aircraft operator for the purpose of flight inspection;
 - (vii) Paragraph 170.73 regarding the use of aeronautical radio frequencies for the purpose of flight inspection;
 - (viii) Paragraph 170.75 regarding the operational implementation of the flight inspection system; and
 - (ix) Paragraph 170.53 regarding the implementation of quality management procedures.
- (6) Factory acceptance tests for flight inspection system or a copy of commissioning;
 - (7) ECAA directives;
 - (8) Flight inspection system description in different levels:
 - (i) Flight inspection system block diagram ; and
 - (ii) List of all system in the flight inspection system with function, type model, date of installation.
 - (9) List of test equipment and calibration check list (170.97);
 - (10) List of tools and tools checklist;
 - (11) Maintenance levels for flight inspection system.
 - (level 1: operation, Level 2: Replacement fuses, switches, level 3: change cards or modules, Level 4: change components level 5: upgrade and system modification);
 - (12) Approved agreements and contracts from ECAA with external agencies (e.g. military, telecommunication authorities...); and
 - (13) Last version of software programs, and password level control;
 - (14) List of current spares parts available on site;
 - (15) Approved training programs for service provider and personnel assessment (170.77);
 - (16) Flight inspection system Records:
 - (i) Statistic reports for flight inspection system malfunction (170.109);and
 - (ii) Accident and incident investigation and actions reports.
 - (17) Details of the staffing structure which include:
 - (i) Organization chart;
 - (ii) Organization employee database & job description; and
 - (iii) Organization employee and authorizations records.
 - (18) Administrative regulations;
 - (19) Safety regulations for flight inspection service;
 - (20) Security regulations for flight inspection service;
 - (21) Regulation for flight inspection system performance protection (e.g. service interference).
- (b) Procedures to control amendment and distribute the exposition; and
 - (c) The applicant's exposition must be approved by ECAA.

170.47 Documentation

- (a) Each applicant for the grant of flight inspection service provider certificate shall hold copies of the relevant system manuals, technical standards, and international standards and recommended practices (including Annex 10) and (Doc 8071).
- (b) The applicant shall establish a procedure to control all the documentation required by paragraph (a). The procedure shall ensure that:
 - (1) All incoming documentation is reviewed, and directed as required, by authorized personnel;
 - (2) All documentation is reviewed by appropriate personnel;
 - (3) Current of the relevant documentation are available to personnel at all locations where they need access to such documentation for the provision and operation of flight inspection system ;
 - (4) All obsolete documentation is promptly removed from all points of issue or use;

- (5) Any obsolete documents retained as archives are suitably identified as obsolete;
- (6) Changes to documentation are reviewed and approved by appropriate personnel who shall have access to pertinent background information upon which to base their review and approval; and
- (7) The current version of each item of documentation can be identified to preclude the use of out-of-date editions.

170.49 Records

- (a) Each applicant for the grant of flight inspection service provider certificate shall establish systems and procedures to identify, collect, index, file, store, secure, maintain, access, and dispose of , in a manner to facilitate:
 - (1) Safe provision and operation of the flight inspection system listed in their exposition; and
 - (2) Assistance with any accident or incident investigation.
- (b) The procedures shall ensure that:
 - (1) A record is kept for each flight inspection system in order to:
 - (i) Provide date of installation;
 - (ii) Document the performance of the flight inspection system; and
 - (iii) Provide a history of its maintenance and the periodic tests. The history shall be traceable to the person or persons responsible for each of the recorded activities.
 - (2) A record for each item of test equipment required for the measurement of critical performance parameters. The record shall provide a traceable history of the location, maintenance, and the calibration checks for such test equipment;
 - (3) A record of each flight inspection system malfunction recorded and investigated under the procedures required by 170.109 (flight calibration system malfunction). The record shall detail the nature of the malfunction, the findings of the investigation, the follow up corrective actions, or where applicable include a copy of the report forwarded to the certificate holder Chairman;
 - (4) A record of each internal quality assurance review of the applicant's organization carried out under the procedures required by 170.53 (internal quality management system);
 - (5) A record for each person who is authorized by the applicant to place flight inspection system into operational service. The record shall include details of their experience, qualifications, training, competence assessments and current authorizations;
 - (6) The record can be either hardcopy or softcopy or any combination of both and shall be stored in a safe way with regards to fire, food and theft;
 - (7) The hardcopy records shall use robust material which can withstand normal handling and filling. The record shall legible throughout the required retention period;
 - (8) The softcopy records used for maintenance records shall have at least one backup system which shall be updated;
 - (9) Each terminal is required to contain program safeguards against the ability of authorized personnel to alter the data base;
 - (10) All flight inspection system records are retained for a period of at least 3 years unless a longer period is required to establish a performance history for a flight calibration system; and
 - (11) The maintenance record shall be inspected and stored as required by ECAA .

170.51 Flight inspection system maintenance logbook

- (a) Each applicant for the grant of flight inspection service provider certificate shall establish procedures to ensure that a logbook, with sequentially numbered pages, is kept at each flight calibration system in their exposition and, where a flight inspection system has physically separate operations areas, at each such location within the flight calibration system;
- (b) The procedure shall ensure that:
 - (1) The logbook is maintained by the senior person, or the person on duty at a nominated operating position;
 - (2) The logbook is maintained throughout the operating hours of the flight inspection system;
 - (3) All entries include the date, time of entry and signature;

- (4) Every page of the logbook must be signed by the flight inspection system manager or senior person;
- (5) Logbook entries are:
 - (i) In chronological sequence and in ink;
 - (ii) Without erasure, defacement, or obliteration; and
 - (iii) Corrected by drawing a single line through the erroneous information and initialing the correction.
- (6) Actual times of opening and closing flight inspection system are recorded in the logbook, together with the reason for every variation from published hours of service; and
- (7) Logbooks are retained for a period of 3 years from the date of final entry.
- (c) The procedure shall ensure that the flight inspection system maintenance log:
 - (1) Contains sufficient information in the first pages of the logbook to identify:
 - (i) Flight inspection system information as described in 170.45(a);
 - (ii) Precautions of operation or its reference number that included in the exposition; and
 - (iii) The services are being provided from the flight inspection system.
 - (2) Is retained for a period of 3 years from the date of first filing.

170.53 Quality control management system

- (a) Each applicant for the grant of flight inspection service provider certificate shall establish an internal quality management system to ensure compliance with, and the adequacy of, the procedures required by this Part as approved by the ECAA;
- (b) The internal quality management system shall include:
 - (1) An inspection policy;
 - (2) Inspection procedures that are understood, implemented, and maintained at all levels of the organization;
 - (3) A procedure to ensure quality control indicators, including maintenance records, defect, interference and incident reports, and personnel and customer feedback, are monitored to implement required performance standards and to identify existing problems or potential causes of problems within the system;
 - (4) A procedure for corrective action specifying how to:
 - (i) Correct an existing problem;
 - (ii) Follow up a corrective action to ensure the action is effective; and
 - (iii) Measure the effectiveness of any corrective action taken.
 - (5) A procedure for preventive action specifying how to manage a potential problem;

170.55 Flight inspection service security program

- (a) Each applicant for the grant of flight inspection service provider certificate shall prepare a security program;
- (b) Each security program shall specify the following requirements:
 - (i) The physical security requirements, practices, and procedures to be followed for the purpose of minimizing the risk of destruction, damage or interference with the operation of any other system operated by the applicant where such destruction, damage, or interference is likely to endanger the safety of aircraft.
 - (ii) Data or software security requirements and procedures to be followed to secure data or software from unauthorized personnel.

170.57 Coordination

Each applicant for the grant of flight inspection service provider certificate shall establish systems and procedures to ensure co-ordination between the flight inspection service provider and the following agencies:

- (1) The Egyptian Defense Force;
- (2) Search and rescue authorities; and
- (3) Telecommunication service authorities to coordinate Frequencies used for flight inspection system.

170.59 Reserved

170.61 Organization

- (a) The applicant shall nominate:
 - (1) a senior person assigned as the Accountable Manager who has the authority within the applicant's organization to ensure:
 - (i) The organization can be adequately financed and resourced;
 - (ii) That safety is given the highest priority when assessing commercial, operational, environmental or social pressures;
 - (iii) Compliance is achieved and maintained with the requirements of this Part; and
 - (iv) Flight check inspector or other post is appointed with sufficient authority to be clearly accountable for the contents of flight inspection reports.
 - (2) A senior person or persons who are responsible for ensuring that the applicant's organization complies with the requirements of this Part. Such nominated person or persons shall be ultimately responsible to the Accountable Manager; and
 - (3) Sufficient, competent, qualified and trained personnel.
- (b) Written records and procedures shall be established, to:
 - (1) Assess the competence of those authorized personnel;
 - (2) Maintain the competence of those authorized personnel; and
 - (3) Establish a means to provide those personnel with signed written evidence of the scope of their authorization; and establish the job descriptions containing safety responsibilities.

170.63 General technical requirements

- (a) The flight inspection service provider shall comply with Annex 10, volume I, its amendments and the guidance given in ICAO Doc 8071, Manual on Testing of Radio Navigation Aids and provide ECAA with:
 - (1) Evidence that the flight inspection system can measure the parameters required for the navigation aid being inspected;
 - (2) functional and technical descriptions, technical specifications and manufacturer's type number for all major items of the flight inspection system;
 - (3) Functional and technical descriptions, technical specifications and manufacturer's type number for system used to calibrate the items referred in 170.63(a) (2);
 - (4) Build state documentation for all measuring system; and
 - (5) The name of the design authority for all major items referred in 170.63(a) (2) and (3);
 - (6) the location, characteristic and type of all fixed or temporary measurement aerials on the aircraft;
 - (7) The procedures used for the calibration of the system referred in 170.63(a) (3); and
 - (8) Details the function and support of all software and firmware used in the measurement system; and
- (b) The system referred to in paragraph 170.63(a) (2) shall not interfere with the aircraft systems or normal navigation and general avionics system.
- (c) Identity transmissions should be verified throughout a flight inspection and calibration.
- (d) The flight inspection system shall include an independent system that can continuously determine and record the horizontal position in space of a known reference point on the aircraft. The uncertainty of this position shall be no more than the uncertainty requirement for the parameter being measured.
- (e) The applicant shall notify the ECAA of all proposed system changes, modifications or change of aircraft.

170.65 Maintenance procedures

The applicant shall provide to ECAA details of:

- (a) Procedures for managing spares in relation to the flight inspection system;
- (b) Procedures for recording faults and taking subsequent action; and
- (c) Procedures for planned maintenance of the flight inspection system.

170.67 Measurement uncertainty

- (a) A minimum measurement uncertainty of 95% probability shall be achieved by each Parameter to be measured by the system.

- (b) Uncertainty calculations shall be recorded in the exposition and shall account for all errors in the measurement and recording system and shall be combined using RSS (The square root of the sum of the squares).
- (c) Uncertainty calculations shall account for environmental conditions such as expected temperature and humidity range. Manufacturer's data shall be submitted if used as evidence of compliance.
- (d) When modifications are made which affect the uncertainty of measurements the applicant shall submit new calculations in the Exposition.

170.69 Aerials

Any aerial used for the purpose of flight inspection shall be:

- (a) Positioned so that it is not obscured from the navigation aid signal during all anticipated flying maneuvers;
- (b) positioned so that the distance between its phase centre and the reference point of the independent positioning system (see paragraph 170.163 (d)) is accounted for when determining measurement uncertainty and crosswind limitations.
- (c) Positioned to so that propeller modulation is demonstrated to be reduced to an acceptably low level.

170.71 Aircraft and aircraft operator

Aircraft used for the purpose of the flight calibration shall be:

- (a) Capable of safely flying the flight calibration profile;
- (b) Operated under a certificate acceptable to ECAA;
- (c) Compatible with calibration system; and
- (d) Approved crewed (flight inspection crew which normally consists of two pilots and one or two engineer(s) / technician(s) complying with ICAO Doc 8071).

170.73 Use of radio

The applicant, for the purpose of RTF used during trials, shall hold relevant approval and licenses.

170.75 Operation flight calibration system

The applicant shall provide ECAA with:

- (a) A list of navigation aids that can be calibrated by the flight inspection service provider in compliance with this Part and its category if applicable;
- (b) A sample flight inspection report compliant with Appendix A;
- (c) A sample structure measurement for applicable navigation aids;
- (d) A procedure to ensure communication with the navigation aid providing organization of immediately notifiable deficiencies; and
- (e) A procedure for flight inspection at night complying with ICAO Doc 8071, Chapter 1
- (f) The flight inspection operating instructions for the inspector and flight crew including reference to:
 - (1) The flight profile to be used for individual measurements;
 - (2) Pre-flight calibration of measuring system;
 - (3) Sitting of any necessary ground tracking or position fixing system;
 - (4) Operation of measuring system;
 - (5) Production of the flight inspection report;
 - (6) The production of records and graphs in compliance with Appendix B;
 - (7) Production of a certificate attesting the result of a flight inspection and calibration; and
 - (8) The method used to calculate results which are not output directly by the measuring system.

170.77 Training

- (a) Each applicant for the grant of flight inspection service provider certificate shall establish procedures acceptable to the ECAA and follow the approved training programs for flight check inspector as follows, as appropriate:
 - (1) Phase one - Basic training;
 - (2) Phase two - Qualification training;
 - (3) Phase three - System training;
 - (4) Developmental training – flight check inspector;

- (5) Continuous training (Refreshment Course); and
- (6) Human factor.
- (b) Each of training type mentioned in paragraph (a) shall fulfill the training standards requirements listed in ICAO Training Manual (Doc 7192 Part E-2).
- (c) The requirements to obtain rating for personnel to operate or maintain systems listed in the training manual which shall be submitted to ECAA for approval.
- (d) Each applicant shall ensure that personnel giving instructions to the maintenance personnel are appropriately qualified.

170.79 Through 170.81 Reserved

170.83 Flight inspection system operation manuals

Each holder of flight inspection service provider certificate shall provide an operation manual or system of manuals for the service listed in its exposition and complied by its personnel.

170.85 Through 170.93 Reserved

170.95 Certification of flight inspection system performance

Each holder of flight inspection service provider certificate shall establish a procedure to ensure that no flight calibration system listed in their exposition is placed into operational service unless:

- (a) The person placing the flight inspection system into operational service is authorized and is assessed as competent under the procedures required by 170.61 (b);
- (b) The appropriate checks have been carried out to verify the performance of the flight inspection system under the procedures required by the periodic inspection and testing of the flight inspection system listed in their exposition to verify that they meet the applicable operational requirements and performance specifications; and
- (c) The flight inspection system record has been completed in accordance with the procedures required by 170.49.

170.97 Inspection measuring and test system

- (a) Each holder of flight inspection service provider certificate shall ensure that appropriate measuring and test equipment is available for their personnel to maintain the safe operation of flight calibration system listed in their exposition.
- (b) The applicant shall establish a procedure to control, calibrate and maintain all of the applicant's inspection, measuring and test system to ensure that each item of system has the precision and accuracy that is necessary for the measurements and tests to be performed.
- (c) The procedure shall ensure that each item of test system required for the measurement of critical performance parameters is:
 - (1) Calibrated before use or at prescribed intervals against certified system having a known valid relationship to nationally recognized standards. Where such standards not exist; the basis used for the calibration shall be documented. Records of such calibrations and the standards used shall be maintained in accordance with the procedures required by 170.49;
 - (2) identified with a suitable indicator to show its calibration status;
 - (3) Controlled to:
 - (i) Safeguard against adjustments that would invalidate the calibration setting;
 - (ii) Ensure that the handling, preservation and storage are such that the accuracy and fitness for use is maintained.
- (d) Where hardware and software systems are used as an alternative form of flight inspection system performance testing, the functions of the systems shall be checked before being released for use in order to establish that they are capable of verifying the performance of the flight calibration system. These functions shall be checked at prescribed intervals. Records of these checks shall be maintained as evidence and verification of adequate performance of the test system.

170.99 Through 170.107 Reserved

170.109 Flight calibration system malfunctions

- (a) Each holder of flight inspection service provider certificate shall establish a procedure to record, investigate, and rectify any detected or reported malfunction of any flight calibration system listed in their exposition.
- (b) The procedure shall ensure that a report is forwarded to ECAA whenever a flight inspection system malfunction investigation reveals that:
 - (1) The flight inspection system has been operating outside the allowable tolerances; or
 - (2) The flight inspection system had the potential to operate outside the allowable tolerance; or
 - (3) There appears to be a recurring cause for the flight calibration system malfunction reports.
- (c) The report required in paragraph (b) shall be forwarded within 7 days of malfunction being detected or reported and shall include full details of the malfunction, the findings of the investigation and the corrective action taken to prevent a recurrence.

170.111 Changes to certificate holder's exposition

- (a) Each holder of flight inspection service provider certificate shall ensure that their exposition is amended so as to remain a current description of the holder's organization and flight inspection system.
- (b) The certificate holder shall ensure that any amendments made to the holder's exposition meet the applicable requirements of this Part;
- (c) The certificate holder shall provide ECAA with a copy of each amendment to the holder's exposition as soon as practicable before its incorporation into the exposition.
- (d) ECAA may prescribe conditions under which a certificate holder may operate during or following any of the changes specified under paragraph(c).
- (e) A certificate holder shall comply with any conditions prescribed under paragraph (d).
- (f) Where any of the changes referred to in this rule requires an amendment to the certificate, the certificate holder shall forward the certificate to ECAA as soon as possible.
- (g) The certificate holder shall make such amendments to the holder's exposition, as ECAA may consider necessary in the interest of aviation safety.

170.113 Safety management system

- (a) Each certificate holder shall establish, implement, maintain and adhere to a safety management system that is appropriate to the size, nature and complexity of all activities authorized to be conducted under the certificate and in accordance with EAC 00-11.
- (b) That system shall as a minimum:
 - (1) Identify safety hazards;
 - (2) ensure that remedial action necessary to maintain an acceptable level of safety is implemented;
 - (3) Provide for continuous monitoring and regular assessment of the safety level achieved; and
 - (4) Aim to make continuous improvement to the overall level of safety.
- (c) The results of this system and related audits and corrective actions shall be made available to the ECAA upon request.

Appendix A**Flight Inspection Report**

All flight inspection results shall be documented to a report format agreed with ECAA. The minimum information to be provided on the report shall be:

- (a) Station name and facility designation; and
- (b) Category of operation; and
- (c) Date of inspection; and
- (d) Unique serial number of report; and
- (e) Type of inspection; and
- (f) Aircraft registration; and
- (g) Manufacturer's type of system being inspected; and
- (h) Names and functions of all personnel involved in the inspection; and
- (i) Results of all measurements made; and
- (j) Method of making each measurement; and
- (k) Details of associated attachments (recordings, etc.); and
- (l) Details of extra flights made necessary by system adjustments; and
- (m) an assessment by the aircraft captain on the navigational aid performance; and
- (n) Comments by the navigation aid inspector operator in the navigation aid performance; and
- (o) Details of any immediately notifiable deficiencies; and
- (p) Statement of conformance/non conformance; and
- (q) Navigation aid inspector's signature; and
- (r) Pilot's signature; and
- (s) Signature of the individual who is legally responsible.

Appendix B
Records and Graphs

- (a) If recordings or graphs are used to present results for the flight inspection report, the scales shall be chosen so that it can be determined if the measurement is within the uncertainty parameters.
- (b) The raw data from which the records and graphs are produced shall be retained and archived in a form where it can be re-processed if necessary.
- (c) Recordings shall be marked so that they can be correlated with the aircraft's position at the time of the measurement.
- (d) The minimum identification on each record and graph shall be:
 - (1) Serial number;
 - (2) Date;
 - (3) Description of type of flight; and
 - (4) Name of airport;
 - (5) Designation of facility being inspected.