



CIVIL AVIATION REGULATION 008

Air Traffic Control Approved Training Organization Certification

18 July 2024

RECORD OF AMENDMENTS

Note: updated logo in the cover page on 18 July 2024

NUMBER	DATE APPLICABLE	DATE ENTERED	ENTERED BY

DOCUMENT AUTHORISATION

Insert signed authorization here

FOREWARD

The Kingdom of Bahrain, as a member of the International Civil Aviation Organization and signatory to the Chicago Convention, complies as far as practicable with the standards published in the Annexes to the Convention on International Civil Aviation.

These regulations have been issued by the Bahrain Civil Aviation Affairs in accordance with Article 26 of Law 14 of 2013 with respect to the issuance of Civil Aviation Law and with Annex 1 to the Convention on International Civil Aviation.

This document prescribes the certification requirements for the approval of Air Traffic Control Training Organizations in the Kingdom of Bahrain.

The Director of Aviation Safety & Security (DASS) is responsible for amendments to this Regulation. Interested parties should forward advice of errors, inconsistencies or suggestions for improvement to the DASS at the address below:

Director, Aviation Safety & Security

P.O. 586, Manama, Kingdom of Bahrain

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Mohamed Thamir Al-Kaabi
Undersecretary for Civil Aviation

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INTRODUCTION

AIR TRAFFIC CONTROL APPROVED TRAINING ORGANISATION CERTIFICATION

Civil Aviation Affairs of the Kingdom of Bahrain (the Authority) may make Regulations with respect to aviation safety and, without restricting the generality of the foregoing, may make Regulations with respect to the location, inspection, certification, registration and operation of Air Traffic Control Training Organisations (ATOs).

Any registered organization or individual desiring to provide Air Traffic Control Training that is described in paragraph 1.1 and that is required by the Authority, by rule, to be certified may file with the Authority an application for an Air Traffic Control Authorised Training Organisation certificate. Such application shall include any documentation required by these Regulations for the Authorised Training Organisation. If the Authority determines that an applicant is properly and adequately equipped and able to conduct an operation in accordance with the requirements of these rules, and the Regulations and standards prescribed hereunder, the Authority shall issue an Air Traffic Control Authorised Training Organisation certificate to the applicant. Each Air Traffic Control Authorised Training Organisation certificate shall prescribe such terms, conditions, and limitations as are reasonably necessary to assure regulatory compliance.

Chapter 1 GENERAL

1.1 Applicability

- 1.1.1 No person or organization shall conduct training toward an ATC License, Rating or Endorsement except under the approval of, and in accordance with the provisions of, a BCAA certified approval for the conduct of such training.
- 1.1.2 Approval by the Authority is required for an Organization and/or person who are, or want to become, an Approved Training Organization (ATO) for the purpose of providing training to Air Traffic Controllers or Student Air Traffic Controllers for;
- a) ATC Licenses;
 - b) ATC Ratings;
 - c) ATC Endorsements;
 - d) Courses requiring ATC simulation.
 - e) Any other function declared by the BCAA to be an Air Traffic Control function
- 1.1.3 All approved training shall be aligned with International Civil Aviation Organisation (ICAO) standards and curricula.

1.2 Definitions

When the following terms are used in this Regulation, they have the following meaning:

Accountable Manager: The individual who has corporate authority for ensuring that all training commitments can be financed and carried out to the standard required by the civil aviation affairs (BCAA), and any additional requirements defined by the approved training organization (ATO).

Adapted competency model: A group of competencies with their associated description and performance criteria adapted from an ICAO competency framework that an organization uses to develop competency-based training and assessment for a given role.

Alternate means of compliance: A pre-approved manner of achieving regulatory compliance that has been determined to be an acceptable substitute to the regulatory requirements.

Alternative means of compliance: An approved alternative to prescribed approaches, which has been demonstrated to consistently achieve or exceed the desired outcomes as intended through regulation.

Approved training: Training conducted under special curricula and supervision approved by the Authority.

Approved training organization (ATO): An organization approved by the Authority to perform approved training as specified in these Regulations and operating under the supervision of the Authority;

Authority: The Undersecretary for Civil Aviation (USCA).

BCAA: Bahrain Civil Aviation Affairs.

Checking: See definition of testing.

Competency: A dimension of human performance that is used to reliably predict successful performance on the job. A competency is manifested and observed through behaviours that mobilize the relevant knowledge, skills and attitudes to carry out activities or tasks under specified conditions.

Competency-based training and assessment: Training and assessment that are characterized by a performance orientation, emphasis on standards of performance and their measurement, and the development of training to the specified performance standards.

Competency standard: A level of performance that is defined as acceptable when assessing whether or not competency has been achieved.

Compliance: The state of meeting those requirements mandated through regulation.

Conditions: Anything that may qualify a specific environment in which performance will be demonstrated.

Conformity: The state of meeting established criteria, standards, specifications and desired outcomes.

Constitutional Document: A formal document containing the requirements and information described in Chapter 2.10 of this Regulation.

Evaluator: A generic term used in the context of an ATO to describe a person who is qualified, authorized and assigned to carry out specific assessment, checking, testing and/or auditing duties to determine that all required standards of performance have been satisfactorily achieved.

Finding: A conclusion by the operator's (or by the BCAA's) audit personnel that demonstrates either non-compliance with a regulation or non-conformity with a specific standard.

Foreign ATO: An ATO located outside of the Kingdom of Bahrain.

Hazard: A condition or an object with the potential to cause injuries to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function.

Head of training: The individual responsible for the organization's activities, policies, practices and procedures while ensuring the continued maintenance of the training organization's approval status.

ICAO competency framework: A competency framework, developed by ICAO, with a selected group of competencies for a given aviation discipline. Each competency has an associated description and observable behaviours.

Instructional services manager: The manager responsible for the day-to-day delivery of training services that consistently meet regulatory requirements and organizational objectives.

Note. — The head of training is generally the instructional services manager except when the delivery of training services may spread over several locations or over several specialties, with dedicated instructional services managers.

Instructional systems design (ISD): A formal process for designing training which includes the analyse, design, develop, implement and evaluate (ADDIE) framework.

Observable behaviour (OB): A single role-related behaviour that can be observed and may or may not be measurable.

Performance criteria: Statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an observable behaviour, condition(s) and a competency standard.

Policy: A document containing the organization's position or stance regarding a specific issue.

Process: A set of interrelated or interactive activities which transform inputs into outputs.

Proponent: An ANSP who proposes an ATC training requirement.

Quality: The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

Quality assurance (QA): All the planned and systematic actions necessary to provide adequate confidence that all training activities satisfy given standards and requirements, including the ones specified by the approved training organization in relevant manuals.

Quality audit: A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

Quality manager: The manager responsible for the quality monitoring function and for requesting remedial action.

Note. — The quality manager is responsible directly to the head of training. In the event the ATO's head of training is not the accountable manager, reporting mechanisms should be instituted to ensure that the accountable manager is aware of all issues impacting the quality of the training services being provided by the affected ATO.

Quality manual: The document containing the relevant information pertaining to the approved training organization's quality system.

Quality management system (QMS): The aggregate of all the organization's activities, plans, policies, processes, procedures, resources, incentives and infrastructure working in unison towards a total quality management approach. It requires an organizational construct complete with documented policies, processes, procedures and resources that underpins a commitment by all employees to achieve excellence in product and service delivery through the implementation of best practices in quality management.

Quality of training: The outcome of the training that meets stated or implied needs within the framework of defined standards.

Safety management system (SMS): A systematic approach to managing safety, including the necessary organizational structures, accountabilities, responsibilities, policies and procedures.

Note 1. — A safety management system, consisting of documented policies, processes and procedures designed to manage risks, integrates operations and technical systems with the management of financial and human resources to ensure aviation safety and the safety of the public.

Note 2. — The requirement to adopt SMS practices is restricted to only those entities whose activities directly impact upon the safe operation of aircraft.

Safety manager: The manager responsible for providing guidance and direction for the planning, implementation and operation of the organization's safety management system.

Note. — The safety manager is directly responsible to the accountable manager. In the event that the ATO's head of training is not the accountable manager, reporting mechanisms should be instituted to ensure that the accountable manager is aware of all issues impacting the safety programme of the affected ATO.

Testing: The comparison of the knowledge about a task or the skill to perform a task against an established set of criteria to determine that the knowledge or skill observed meets or exceeds, or does not meet, those criteria.

Training and Procedures Manual (TPM): A document prescribing the policies, processes and instructions adopted by the ATO for the development and delivery of training.

1.3 Acronyms

When the following acronyms are used in this Regulation, they have the following meaning:

AAP	Alternative approval process
ADDIE	Analyse, design, develop, implement and evaluate
AQP	Advanced qualification programme
ATC	Air Traffic Control
ATO	Approved training organization
ATS	Air Traffic Services
ATSI	Air Traffic Services Instructor
ATQP	Alternative training and qualification programme
ASSD	Aviation Safety & Security Directorate
BCAA	Civil Aviation Affairs of the Kingdom of Bahrain
ISD	Instructional systems design
ELP	English Language Proficiency
KSA	Knowledge, skill(s) and attitude(s)
LMS	Learning Management System
PANS-TRG	Procedures for Air Navigation Services — Training
PDCA	Plan – do – check – act
QA	Quality assurance
QMS	Quality management system
RA	Risk assessment
SMM	Safety management manual
SMS	Safety management system
TPM	Training and Procedures Manual
USCA	Undersecretary for Civil Aviation

1.4 Eligibility

1.4.1 To be eligible for an Air Traffic Control Training Organisation (ATO) Certificate, the applicant shall meet the requirements of this Regulation to the satisfaction of the Authority and shall submit the following as part of their supporting documentation:

- a) Registration in the Ministry of Commerce according to the applicable national Laws.
- b) Valid Insurance policy with an adequate amount to cover liability arising from its activities.
- c) Ownership or lease agreement for building(s) appropriate for the ratings applied for and the size of the potential operations.

1.5 Application Process

1.5.1 The applicant shall submit a written application on Form ATO 01 to the USCA.

Note- Form ATO1 may be found in Appendix 1 of this document.

1.5.2 The application shall contain supporting documentation which demonstrates compliance with all aspects of this Regulation.

1.5.3 The application and supporting documentation shall be submitted to the USCA at least ninety (90) days prior to the intended commencement of proposed approved training.

1.5.4 The application shall include evidence of payment of any prescribed fee for application.

1.5.5 The BCAA will review submitted documents in an initial document review phase. Further documents may be required by the BCAA. Document review may take up to three (3) months.

1.5.6 After the document review, the BCAA may then conduct an inspection of facilities (including simulators, if applicable) in an inspection phase.

1.5.7 The applicant shall make nominated post holders available to the BCAA for interview.

1.5.8 The Authority may issue Conditional Certification, subject to inspection and review of the practical conduct of a course (in a first-of-type application).

1.5 Issue of Approval

1.5.1 After consideration of an application, the Authority shall grant approval to conduct ATC training to an organisation which has been found to be acceptable to the Authority.

1.5.2 An ATO shall prominently display its approval certificate at its premises.

1.6 Validity of the certificate

- 1.6.1 A certificate issued to an approved training organization (ATO) shall be valid for three (3) years from the date of issuance or renewal, unless a shorter period is specified by the Authority, or the Authority amends, suspends, revokes or otherwise terminates the certificate.
- 1.6.2 The approval shall be subject to periodic surveillance audits conducted at the discretion of the BCAA in order to confirm ongoing maintenance of standards acceptable to the Authority.
- 1.6.3 The validity of the approval is based upon the continued operation in accordance with the standards and recommended practices published by the ICAO, and Air Navigation Technical Regulations, Civil Aviation Regulations, Civil Aviation Publications, Directives and Information Bulletins published by the BCAA.
- 1.6.4 The holder of a BCAA approval for the conduct of ATC training that expires, is suspended or is revoked shall surrender the certificate of approval to the Authority.

1.7 Changes requiring notice to the Authority

- 1.7.1 An approved training organization ATO shall notify the Authority within thirty (30) days if any of the following changes:
 - i. the Accountable Manager post holder;
 - ii. the Quality Manager post holder;
 - iii. the instructional staff; or
 - iv. the housing, training facilities and equipment, procedures, training location.

1.8 Privileges of Approval

The BCAA approval for the conduct of ATC training shall specify the courses that the approval holder is authorised to provide.

1.9 Acceptance of Foreign ATO Approval

The BCAA may accept the approval of an ATO based upon a foreign ATO approval. This shall be at the discretion of the Authority.

Chapter 2 Certification Requirements

2.1 Personnel Requirements

2.1.1 An applicant for the grant of an ATO Certificate must employ, contract, or otherwise engage:

- a) A person identified as the Accountable Manager, who has the authority within the applicant's organization to ensure that the services listed in its Constitutional Document can be financed and are provided in accordance with the requirements of this CAR; and
- b) A Head of ATS who is responsible for ensuring that the organization complies with the requirements of this CAR; and
- c) A Training manager responsible for ensuring that the organization complies with the training requirements of this CAR; and
- d) A Quality manager responsible for the provision of a quality management system according to the requirements of this CAR; and
- e) Sufficient personnel to manage, supervise and conduct the business of and provide support to the ATO.

2.1.2 Qualifications and experience details for the candidates nominated by the applicant for the positions listed in 2.1.1 above should be forwarded to the BCAA for acceptance prior to the person being appointed to that position by the applicant.

2.1.3 The persons listed in 2.1.1 above shall ultimately be responsible to the Accountable manager.

2.1.4 The applicant shall establish a training program acceptable to the Authority to ensure the competence of those personnel who:

- a) Conduct instruction or evaluation; or
- b) Provide simulation support services listed in the applicant's Constitutional Document.

2.1.5 The applicant shall establish procedures acceptable to the Authority to:

- a) Provide ongoing training and assessment for those instructors and simulator support staff in accordance with 2.1.4 above; and
- b) Provide technical support for instructors so that the latest information is available; and
- c) Provide personnel listed in 2.1.1 above with written evidence of the scope of their authorization; and
- d) Ensure that instructional personnel hold current instructional techniques qualifications acceptable to the BCAA which have been obtained or updated within the previous 5 years.

2.2 Instructor Qualifications.

2.2.1 Personnel engaged in instructing of ATC courses shall:

- a) Hold or have held an ATC License in a rating for which unit ATC theoretical rating training or academic ATC theoretical and simulator training will be conducted, for a minimum of 5 years; and
- b) Hold or have held an OJT Instructor endorsement for minimum 1 year in a rating for which training will be conducted;
- c) For unit-specific training, hold or have held a Certificate of Competence for a minimum of 2 years at the ATS unit in a rating for which unit ATC theoretical rating training will be conducted;
- d) Possess a high level of written and verbal English communications skills (ICAO ELP level 5 or higher);
- e) Have successfully completed a classroom presentation/ instructional techniques course acceptable to the BCAA, and maintain currency of that qualification (should not exceed 5 years);
- f) Have successfully demonstrated competence in the conduct of classroom instruction acceptable to the ATO Head of ATS Training or Accountable Manager.

2.2.2 Variations to the acceptable qualifications required in 2.2.1 above may be considered on a case-by-case basis, when supported by compelling argument and evidence by the ATO. Such consideration is at the sole discretion of the Authority.

2.3 Documents

2.3.1 The applicant for the grant of a BCAA approval for the conduct of ATC training shall document the format and standards for the courses offered under the authority of their approval in a manner acceptable to the Authority.

2.3.2 The applicant shall hold copies, or an acceptable method of accessing electronic documents, of relevant reference materials, standards, practices and procedures (Student and Instructor handbooks), Curricula, Lesson Plans and any other documentation that is necessary for the courses listed in their Constitutional Document.

2.4 Document Control

2.4.1 The applicant for the grant of a BCAA approval for the conduct of ATC training shall establish a procedure acceptable to the Authority to control all the documentation in 2.3 above.

2.5 Operations Manual

2.5.1 A certified ATO shall implement and maintain an Operations Manual acceptable to the Authority.

2.6 Tests and checks conducted by an ATO for the issuance of a license or a rating

2.6.1 When the BCAA has authorized an ATO to conduct the testing required for the issuance of a license or rating in accordance with the Operations Manual, the manual should include:

- a) the name(s) of the personnel with testing authority and the scope of the authority;
- b) the role and duties of the authorized personnel;
- c) if the school has been given authority to appoint personnel to conduct the testing required for the issuance of a license or rating, the minimum requirements for appointment as well as the selection and appointment procedure; and
- d) the applicable requirements established by the BCAA, such as:
 - i) the procedures to be followed in the conduct of checks and tests; and
 - ii) the methods for completion and retention of testing records as required by the BCAA.

2.7 Records

2.7.1 The ATO Operations Manual shall specify the procedures regarding the recording and storage of the following records:

- a) attendance records;
- b) student training records;
- c) staff training and qualification records;
- d) persons responsible for checking records and student personal logs;
- e) nature and frequency of record checks;
- f) standardization of record entries;
- g) personal log entries; and
- h) security of records and documents.

2.7.2 The ATO shall have a system acceptable to the Authority for securely retaining records relating to student attendance, performance, counseling, and testing or examination results. These records may be forwarded to the proponent at the completion of courses, at the discretion of the Proponent.

2.7.3 The documentation in 2.7.1 above shall become the property and hence the responsibility of the Proponent once the ATO has officially signed over the documentation to the Proponent. Thereafter the ATO shall only be responsible to store a record of the official handover form signed by both parties.

2.7.4 All records related to an ATO shall be retained for a period of 3 years beyond the completion of any course if they are not transferred to the Proponent.

2.8 Appeal Procedure

2.8.1 Authorised Training Organisations shall establish and publish an internal appeal procedure acceptable to the Authority for use by any student who believes he/she has been disadvantaged by the conduct of an assessment.

2.8.2 Records shall be maintained which show that students have acknowledged receipt of the appeal procedure.

2.9 Quality Management System

2.9.1 The applicant for the grant of a BCAA approval for the conduct of ATC training shall operate a Quality Management System (QMS) acceptable to the Authority.

2.10 Organizational Constitutional Document

2.10.1 The applicant for the grant of a BCAA approval for the conduct of ATC training shall provide a Constitutional Document acceptable to the Authority.

2.10.2 Should the applicant be unable to demonstrate any aspect of the guidance as to the BCAA's expectations described in this Regulation and explained in CAP109, the applicant's Constitutional Document shall contain an explanation and/or mitigation for that situation.

2.10.3 The applicant for approval for the conduct of ATC training shall provide the BCAA with a Constitutional Document containing:

i) A statement signed by the Accountable Manager on behalf of the applicant's organisation confirming that the Constitutional Document and any included manuals –

a) Define the organisation and demonstrate its means and methods for ensuring ongoing compliance with this and any other applicable Regulation;

b) Are required to be complied with by its personnel at all times;

ii) A statement signed by the Accountable Manager on behalf of the applicant's organisation confirming that:

a) The organisation has sufficient financial strength to provide the services contained within the organisation's Constitutional Document;

b) the organisation has sufficient liability and insurance cover to meet any claims that could be made relating to the services contained within the organisation's Constitutional Document;

iii) The titles and names of the person or persons required by 2.1.1 a) to 2.1.1 d) inclusive;

iv) The duties and responsibilities of the person or persons specified in 2.10.3 iii), including matters for which they have responsibility to deal directly with the BCAA on behalf of the organisation;

v) An organisation chart showing lines of responsibility of the persons specified in 2.10.3 iii);

vi) A document matrix detailing where the requirements of Chapters 2 thru 4 are contained within the organisation's operational manuals; and

vii) Procedures to control, amend and distribute the Constitutional Document.

viii) If endorsed by the Authority to issue ATC licenses, the Document shall contain the procedures for issue, control and recording of licenses, the names of authorized evaluators, as well as the certificate of insurance held for any licenses issued.

2.11 Attendance, tests and enrollment

2.11.1 A certified ATO shall:

a) Not require any student to attend classes of instruction for more than eight (8) hours in any day or more than five (5) days or forty (40) hours in any seven-day period;

b) Give appropriate tests acceptable to the Authority to each student who completes a unit of instruction as shown in that training center's curriculum;

c) Not graduate a student unless he has completed all of the appropriate curriculum requirements; and

d) Use a procedure acceptable to the Authority for determining final course grades and for recording student attendance. That procedure shall take account of hours of any absence and show how the missed material will be made available to the student.

2.11.2 A certified ATO shall not accept the application for enrollment, nor shall a person enroll in an ATO unless he/she:

a) Holds a General Secondary Certificate or equivalent foreign certificate with pass result not less than 70%; and

b) Shall demonstrate the certified ability to speak, write and understand English language at an equivalence of ELP 4 or greater.

c) Hold an aviation medical certification as prescribed by the Authority.

2.12 Transcripts and graduation certificates

2.12.1 A certificated ATO shall, upon request of the Authority, provide a transcript authenticated by the ATO of student's grades for each student who is graduated from that training center or who leaves it before being graduated.

2.12.2 The transcript shall state the curriculum in which the student was enrolled, whether the student satisfactorily completed that curriculum or not, the name and title of the official authenticating it and the final grades the student received.

2.12.3 A certified ATO shall give an authenticated graduation certificate or a certificate of completion to each student that it graduates.

2.12.4 The certificate shall show the date of graduation, the name and title of the official authenticating it and the approved curriculum title.

2.13 Maintenance of curriculum requirements

2.13.1 A certified ATO shall adhere to its approved curricula.

2.13.2 A certified ATO shall not change its approved curricula unless the change is approved by the Authority in advance.

2.14 Audit and Inspection

2.14.1 The BCAA may, at any time, inspect a certified ATO to determine its compliance with the requirements under which it is certificated.

2.14.2 After each audit or inspection, the ATO shall be notified in writing of any deficiencies found during the inspection.

2.14.3 Corrective Action Plans shall be developed by the ATO to redress deficiencies identified by the BCAA.

2.14.4 Mitigations or corrections and their timelines for implementation shall be agreed by the Authority.

2.15 Facility Requirements

2.15.1 The building(s) to be used in the conduct of training shall be constructed and established according to a standard acceptable to the authority.

2.15.2 The training facility shall be located in a place acceptable to the Authority.

2.15.3 The training facility shall be separated from other activities in a manner acceptable to the Authority.

2.15.4 The environment of the training facility shall be acceptable to the Authority.

2.15.5 The training facility shall be designed and constructed to ensure adequate safety in a manner acceptable to the Authority.

2.15.6 The simulators used in training shall be acceptable to the Authority.

- 2.15.7 Classrooms shall be equipped to a standard acceptable to the Authority.
- 2.15.8 Equipment used for air traffic control simulation shall be acceptable to the authority.

Chapter 3 Quality Assurance

3.1 Quality Assurance (QA)

3.1.1 An applicant for ATO shall develop and implement a Quality Assurance Program which includes all planned and systematic actions necessary to provide confidence that training is conducted in accordance with all applicable requirements, standards and procedures.

3.1.2 The Quality Assurance Program shall describe:

- i. Schedule of the monitoring process;
- ii. Audit procedures;
- iii. Reporting procedures;
- iv. Follow-up and corrective action procedures;
- v. Recording System;
- vi. The training syllabus;
- vii. Document control.

3.1.3 The Quality Assurance Program of the ATO shall identify the persons within the ATO who have the experience, responsibility, and authority to:

- i. Perform quality inspections and audits as part of ongoing Quality Assurance;
- ii. Identify and record any concerns or findings, and the evidence necessary to substantiate such concerns or findings;
- iii. Initiate or recommend solutions to concerns or findings through designated reporting channels;
- iv. Verify the implementation of solutions within specific timescales;
- v. Report directly to the Quality Manager.

3.2 Quality Inspections and Audits

3.2.1 The ATO shall make its internal quality inspection reports and audit reports available for BCAA review.

3.2.2 The BCAA may conduct quality inspections and audits at any time.

Appendix 1

Application form

Application Form ATO/01

Applicant:

Organization:

Address:

Contact:

Supporting Documents list:

Declaration: I, the undersigned, being the authorized representative of the Applicant, do hereby apply for Approval of the BCAA as an Approved Training Organization for ATC. I further affirm that the information provided in this application is true and correct at the time of application.

Signed:

Date:

Position:

Address for service: Director, Aviation Safety & Security, Civil Aviation Affairs, PO Box 586, Manama, Kingdom of Bahrain. <http://www.mot.gov.bh> Fax: +973 17 329983

Appendix ATO Certificate



Bahrain Civil Aviation Affairs

CERTIFICATE FOR APPROVED AIR TRAFFIC CONTROLLER TRAINING ORGANISATION

Certificate Number:

Reference:

Pursuant to CAR008 and subject to the conditions specified below, the Bahrain Civil Aviation Affairs hereby certifies:

[Training Organisation's Name] [Address of the Training Organisation]

as an Approved Training Organisation with the privilege to provide ATCO Training, as listed in the attached training approval.

Terms of approval and privileges:

- a) This certificate is limited to the privileges and the scope of providing training as listed in the attached training approval.
- b) This certificate is valid whilst the certified organisation remains in compliance with CAR008 and other applicable regulations.
- c) Subject to compliance with the foregoing terms of approval and privileges, this certificate shall remain valid for three years from the Date of Issue unless the certificate has been surrendered, superseded, limited, suspended or revoked.

Date of issue:

Signed:

Undersecretary for Civil Aviation

Appendix 3

Curriculum Subjects for ATC

This appendix lists the general curriculum subjects required in ATC and the subjects that affect the area of ATC responsibility, in accordance with the recommendations stated in ICAO Doc 10056 - Manual on Air Traffic Controller Competency-based Training and Assessment.

(A) General Curriculum Subjects.

Air law: rules and regulations relevant to the air traffic controller;

Air traffic control equipment: principles, use and limitations of equipment used in air traffic control;

General knowledge: principles of flight; principles of operation and functioning of aircraft, power plants and systems; aircraft performance relevant to air traffic control operations;

Human performance: human performance including principles of threat and error management;

Meteorology: aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry;

Navigation: principles of air navigation; principle, limitation and accuracy of navigation systems and visual aids; and

Operational procedures: air traffic control, communication, radiotelephony and phraseology procedures (routine, non-routine and emergency); use of the relevant aeronautical documentation; safety practices associated with flight.

(B) Curriculum Subjects that affect the area of ATC responsibility.

(1) Air Traffic Control Assistant (ATCA)

Aviation English

Trainee(s) should be able to demonstrate a knowledge and understanding of English Language to ICAO ELP Level 4 or above. Consideration should be given for the provision of training in Aviation English to marginal candidates as preparation for undergoing ATC training.

Aviation Law

- International/National organizations

- International Documents
- ATS Safety Management
- ATCO licensing/certification
- Provision and objectives of ATS
- Rules of the Air
- Airspace classification and ATS routes
- AIS and Flight Planning
- Aerodrome operations/layout
- Holding procedures for IFR & VFR flights

Air Traffic Management

- Air Traffic Control Service
- Flight information/Advisory and Alerting Services
- Air Traffic Flow Management
- Altimetry and Level Allocation
- Radiotelephony (RTF)
- ATC clearances and instructions
- Coordination between ATS units
- Data display
- Flight progress strips and marking procedures
- Separations
- ACAS and Ground-based safety nets
- Use of radar in ATC

Meteorology

- Composition of the atmosphere
- International Standard Atmosphere

- Heat and temperature
- Water in the atmosphere
- Atmospheric pressure
- Air masses and frontal systems
- Forces which influence wind
- Cloud formation and types
- Visibility
- Meteorological hazards to aviation
- Weather reports and forecasts

Navigation

- Direction/Position and Distance on Earth
- Time and speed calculations
- Influence of wind on the flight path
- Maps projections/uses
- Maps and charts used in aviation
- Visual navigation
- Radio aids to navigation
- Inertial Navigation Systems
- Satellite-based systems
- Instrument approach procedures
- Area navigation/PBN

Aircraft

- Principles of flight
- Structural components of an aircraft
- Aircraft categories
- Aircraft performance and recognition

- Aircraft engines and propulsion
- Aircraft systems and instruments
- Factors affecting performance

Human Factors

- Human Factors and ATC
- Human performance
- Teamwork
- Managing Stress
- Managing Human error
- Risk analysis and risk management
- Communication
- Work environment

Equipment and Systems

- Radio theory
- Communication equipment
- Principles of Radar (PSR/SSR)
- Transponder modes and codes
- Use of Mode S
- Automatic Dependent Surveillance (ADS)
- Multilateration (MLAT)
- Flight Data Processing

(2) Additional curriculum for Aerodrome Control Rating (ADC):

- i) aerodrome layout; physical characteristics and visual aids;
- ii) airspace structure;
- iii) applicable rules, procedures and source of information;
- iv) air navigation facilities;
- v) air traffic control equipment and its use;
- vi) terrain and prominent landmarks;
- vii) characteristics of air traffic;
- viii) weather phenomena;
- ix) emergency and search and rescue plans; and
- x) human performance relevant to ATC.

(3) Approach Control Procedural and Area Control Procedural ratings:

- i) airspace structure;
- ii) applicable rules, procedures and source of information;
- iii) air navigation facilities;
- iv) air traffic control equipment and its use;
- v) terrain and prominent landmarks;
- vi) characteristics of air traffic and traffic flow;
- vii) weather phenomena;
- viii) emergency and search and rescue plans; and
- ix) human performance relevant to ATC.

**(4) Approach Control Surveillance, Approach Precision Radar Control and Area Control
Surveillance ratings:**

The applicant shall meet the requirements specified in (B)(3) in so far as they affect the area of responsibility, and shall have demonstrated a level of knowledge appropriate to the privileges granted, in at least the following additional subjects:

- i) Principles, use and limitations of applicable ATS surveillance systems and associated equipment;
and
- ii) Procedures for the provision of ATS surveillance service, as appropriate, including procedures to ensure appropriate terrain clearance.

Appendix 4

Criteria for the Use of Simulators in ATCO Training

All training plans are required to indicate the amount of training, if any, that will be conducted on a simulator. The simulator will be approved by the Authority as part of the course approval process. The training organisation is required to demonstrate how the simulator and the associated exercises will provide adequate support for the particular training plan.

The approval of the use of a simulator and the part of the particular training plan for which the training organisation proposes to use it will be based on an assessment against the criteria listed below. The extent to which the simulator achieves these criteria will be used to determine the adequacy of the simulator for the proposed use. As a general principle, the greater the degree of replication of the operational position being represented, the greater the use that will be possible in any particular training plan. The criteria are:

- a) the general environment, which should provide an environment in which simulator exercises may be run without undue interference from unrelated activities;
- b) the simulator layout;
- c) the equipment provided;
- d) the display presentation and updating of operational information;
- e) functionality, including the ability to record and replay;
- f) data displays, including strip displays, where appropriate;
- g) co-ordination facilities;
- h) aircraft performance characteristics, including the availability of maneuvers required for a particular simulation;
- i) the availability of real-time changes during an exercise;
- j) the ability of the simulated environment to enable students to meet the stated objectives of the practical training exercises;
- k) the ability of the simulator and its exercises to enable the performance objectives to be assessed to the level determined in the training programme;
- l) the level of support provided for the operation of the simulator; and
- m) the level of support provided to develop simulator exercises.