

Bhutan Civil Aviation Requirements



Air Traffic Controllers - Personnel licensing (BCAR-ATCO-PEL)

First Edition, June 2021

Issued under the Authority of the Director
Bhutan Civil Aviation Authority

RECORD OF AMENDMENTS

<i>AMENDMENTS</i>				
<i>No</i>	<i>Date applicable</i>	<i>Date entered</i>	<i>Entered by</i>	<i>Subjects</i>
1	05/01/2024	05/12/2023	ANS	ATCO.A.001 ATCO.A.005(a);(d);(e) ATCO.A.015(a) ATCO.A.020(b) ATCO.B.001(b)(2) ATCO.B.005(c)(2);(3);(5);(6) ATCO.B.005(e);(f) ATCO.B.010(a);(7) ATCO.B.015 ATCO.B.025(a)(3) ATCO.B.030(a);(b) ATCO.B.035 ATCO.C.015(b) ATCO.D.010(a);(b);(c);(d) AMC1 ATCO.D.055(b)(6) ATCO.D.060(d)
2	05/01/2026	05/12/2025	ANS	DEFINITIONS ATCO.A.025 ATCO.B.005(f) ATCO.B.010(c);(d) ATCO.B.020(m)
1-1	Incorporated in this edition			

Note: Amendments to the document are indicated with vertical lines along the left margin of the document.



	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Table of Content		Page: ii

TABLE OF CONTENT

RECORD OF AMENDMENTS	i
TABLE OF CONTENT	ii
FOREWORD	iii
DEFINITIONS.....	1
CHAPTER 1: GENERAL REQUIREMENTS	3
CHAPTER 2 — LICENCES, RATING AND ENDORSEMENTS.....	5
CHAPTER 3 — REQUIREMENTS FOR INSTRUCTORS AND ASSESSORS	13
SECTION 1 - INSTRUCTORS	13
SECTION 2 - ASSESSORS.....	15
CHAPTER 4 – AIR TRAFFIC CONTROLLER TRAINING	18
SECTION 1 — GENERAL REQUIREMENTS	18
SECTION 2 — INITIAL TRAINING REQUIREMENT	19
SECTION 3 — UNIT TRAINING REQUIREMENT	21
SECTION 4 — CONTINUATION TRAINING REQUIREMENT	24
SECTION 5 — TRAINING OF INSTRUCTORS AND ASSESSORS	26

	Air Traffic Controller - Personnel Licensing		BCAR-ATCO-PEL
	Foreword		Page: iii

FOREWORD

Section 59 of the Civil Aviation Act of Bhutan 2016 empowers the Head of Bhutan Civil Aviation Authority (BCAA) to make Rules and Regulations concerning the use of airspace, air navigation facilities and services. Pursuant to this provision of the Act, Air traffic Controller (ATCO) Personnel Licensing (PEL) regulation has been developed; laying down the requirements for licensing of Air traffic Controller (ATCO).

BCAR-ATCO-PEL is organised into four parts: the general requirement; license, rating and endorsement; requirements for instructors and assessors; and air traffic controller training. Any legal or natural persons, intending to begin or continue providing the air traffic control service, must demonstrate compliance with all the applicable requirements in this BCAR.

Any difference existing between this BCAR and the related ICAO Standards and Recommended Practices, including those with PANS status, and any amendments thereto will be notified to the ICAO and published in the Aeronautical Information Publication (AIP).

BCAR-ATCO-PEL is a controlled document and the provisions contained herein are subject to change through amendments.



Director General


Date: 01/06/2021

First Edition	Amendment 0	Bhutan Civil Aviation Authority	01/06/2021
---------------	-------------	---------------------------------	------------


DEFINITIONS

For the purposes of this Regulation, the following definitions shall apply:

- (1) ‘acceptable means of compliance (AMC)’ means a non-binding standard adopted by the Agency to illustrate means by which to establish compliance with Regulation.
- (2) ‘air traffic control (ATC) service’ means a service provided for the purpose of:
 - a. preventing collisions:
 - between aircraft, and
 - in the manoeuvring area between aircraft and obstructions; and
 - b. expediting and maintaining an orderly flow of air traffic;
- (3) ‘air traffic control (ATC) unit’ means a generic term meaning variously, area control centre, approach control unit or aerodrome control tower;
- (4) ‘assessment’ means an evaluation of the practical skills leading to the issue of the licence, rating and/or endorsement(s) and their revalidation and/or renewal, including behaviour and the practical application of knowledge and understanding being demonstrated by the person being assessed;
- (5) ‘assessor endorsement’ means the authorisation entered on and forming part of the licence, indicating the competence of the holder to assess the practical skills of student air traffic controller and air traffic controller;
- (6) ‘emergency situation’ means a serious and dangerous situation requiring immediate actions;
- (7) ‘examination’ means a formalised test evaluating the person's knowledge and understanding;
- (8) ‘language proficiency endorsement’ means the statement entered on and forming part of a licence, indicating the language proficiency of the holder;
- (9) ‘licence’ means a document issued and endorsed in accordance with these requirements and entitling its lawful holder to exercise the privileges of the ratings and endorsements contained therein;
- (10) ‘on-the-job training instruction’ means the phase of unit training during which previously acquired job-related routines and skills are integrated in practice under the supervision of a qualified on-the-job training instructor in a live traffic situation;
- (11) ‘on-the-job training instructor (OJTI) endorsement’ means the authorisation entered on and forming part of a licence, indicating the competence of the holder to give on-the-job training instruction and instruction on synthetic training devices;
- (12) ‘performance objective’ means a clear and unambiguous statement of the performance expected of the person undertaking the training, the conditions under which the performance takes place and the standards that the person undertaking training should meet;
- (13) ‘provisional inability’ means a temporary state in which the licence holder is prevented from exercising the privileges of the licence when ratings, endorsements and his/her medical certificate are valid;
- (14) ‘psychoactive substance’ means alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas caffeine and tobacco are excluded;

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Definitions		Page: 2

- (15) 'rating endorsement' means the authorisation entered on and forming part of a licence, indicating the specific conditions, privileges or limitations pertaining to the relevant rating;
- (16) 'renewal' means the administrative act taken after a rating, endorsement or certificate has expired that renew the privileges of the rating, endorsement or certificate for a further specified period subject to the fulfilment of specified requirements;
- (17) 'revalidation' means the administrative act taken within the period of validity of a rating, endorsement or certificate that allows the holder to continue to exercise the privileges of a rating, endorsement or certificate for a further specified period subject to the fulfilment of specified requirements;
- (18) 'sector' means a part of a control area and/or part of a flight information region or upper region;
- (19) 'simulator' means a synthetic training device that presents the important features of the real operational environment and reproduces the operational conditions under which the person undertaking training can practice real-time tasks directly;
- (20) 'synthetic training device' means any type of device by which operational conditions are simulated, including simulators and part-task trainers;
- (21) 'training course' means theoretical and/or practical instruction developed within a structured framework and delivered within a defined duration;
- (22) 'training organisation' means an organisation which has been certified by the competent authority to provide one or more types of training;
- (23) 'unit endorsement' means the authorisation entered on and forming part of a licence, indicating the ICAO location indicator and the sector, group of sectors or working positions where the licence holder is competent to work;
- (24) 'validation' means a process by which, through the successful completion of a unit endorsement course associated to a rating or a rating endorsement, the holder may start exercising the privileges of that rating or rating endorsement.

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	General Requirements	Chapter 1	Page: 3

CHAPTER 1: GENERAL REQUIREMENTS

ATCO.A.001 Scope

This document establishes the requirements for the issue, revocation and suspension of student air traffic controller licences and air traffic controller licences, their associated ratings and endorsements, and the conditions of their validity and use. The requirements contained in this document are based on the ICAO annex 1 – “Personnel Licensing” – chapter 4 (section 4.3 to 4.5).

ATCO.A.005 Application for the issue of licences, ratings and endorsements


- (a) An application for the issue of licences, ratings and endorsements shall be submitted to the BCAA in accordance with the procedure established by the authority.
- (b) An application for the issue of further ratings or endorsements, for the revalidation or renewal of endorsements and for the reissue of the licence shall be submitted to the BCAA.
- (c) The licence shall remain the property of the person to whom it is issued, unless it is revoked by the BCAA. The licence holder shall sign the licence and the maintenance of the licence shall be the responsibility of the licence holder.
- (d) The licence shall specify all relevant information related to the privileges that are granted by the licence.
- (e) *Concurrent issuance of two air traffic controller ratings:* When two air traffic controller ratings are sought concurrently, the BCAA shall determine the applicable requirements on the basis of the requirements for each rating. These requirements shall not be less than those of the more demanding rating.

ATCO.A.010 [Reserved]

ATCO.A.015 Exercise of the privileges of license and provisional inability

- (a) The exercise of the privileges granted by a licence shall be dependent on the validity of the ratings, endorsements, and of the medical certificate, and shall be in accordance with ICAO Annex 1 to the Chicago Convention, section 4.5.3.
- (b) Licence holders shall not exercise the privileges of their licence when having doubts of being able to safely exercise the privileges of the licence and shall in such cases immediately notify the relevant air navigation service provider of the provisional inability to exercise the privileges of their licence.
- (c) Air navigation service providers may declare the provisional inability of the licence holder if they become aware of any doubt concerning the ability of the licence holder to safely exercise the privileges of the licence.
- (d) Air navigation service providers shall develop and implement objective, transparent and non-discriminatory procedures to enable licence holders declaring provisional inability to exercise the privileges of their licence in accordance with point (b), to declare the provisional inability of the licence holder in accordance with point (c), to manage the operational impact of provisional inability cases and to inform the BCAA as defined in that procedure.
- (e) The procedures referred to in point (d) shall be included in the unit competence scheme according to ATCO.B.025(a)(13).

First Edition	Amendment 2	Bhutan Civil Aviation Authority	05/01/2026
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	General Requirements	Chapter 1	Page: 4

ATCO.A.020 Revocation and suspension of license, ratings and endorsements

- (a) Licences, ratings and endorsements may be suspended or revoked by the BCAA If:
- (1) During oversight or by any other means evidence is found by the BCAA that shows non-compliance with the applicable requirements by a person holding a licence issued in accordance with this Regulation.
 - (2) The provisional inability is terminated without compliance to the procedure established for termination of inability under ATCO.A.015(e).
 - (3) The student air traffic controller or an air traffic controller licence, rating, endorsement or certificate is obtained by falsification of submitted documentary evidence;
 - (4) licence or certificate records are falsified;
 - (5) Privileges of the licence, rating(s) or endorsement(s) are exercised under the influence of alcohol and/or psychoactive substances.


In cases of suspension or revocation of licences, ratings and endorsements, the BCAA shall inform the licence holder in writing of this decision and of their right of appeal in accordance with section 114 of Civil Aviation Act of Bhutan 2016. The suspension or revocation should be notified to the relevant air navigation service provider as well.

- (b) When the licence holder has his/her licence revoked, he/she shall immediately return the licence to the BCAA according to the administrative procedures established by the authority.
- (c) With the issue of the air traffic controller licence the student air traffic controller licence is revoked and shall be returned to the BCAA.

ATCO.A.025 Replacement of an air traffic controller licence

Where an air traffic controller licence has been lost or defaced before its expiry, the holder of the licence may apply to the BCAA for the issue of a replacement air traffic controller licence.

First Edition	Amendment 2	Bhutan Civil Aviation Authority	05/01/2026
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 2	Page: 5

CHAPTER 2 — LICENCES, RATING AND ENDORSEMENTS

ATCO.B.001 Student air traffic controller licence

- (a) Holders of a student air traffic controller licence shall be authorised to provide air traffic control services in accordance with the rating(s) contained in their licence under the supervision of an on-the-job training instructor for the purpose of unit training.
- (b) Applicants for the issue of a student air traffic controller licence shall:
 - (1) [Reserved]
 - (2) have successfully completed initial training, satisfying the requirements set out in chapter 4 section 2, at a training center recognized as an active ICAO Trainair Plus member which offers valid ICAO standardized training packages (STP);
 - (3) hold a valid Class 3 medical certificate;
 - (4) have demonstrated an adequate level of language proficiency in accordance with the requirements set out in ATCO.B.030.
- (c) The student air traffic controller licence shall contain the language endorsement(s) and at least one rating.
- (d) The holder of a student air traffic controller licence who has not started exercising the privileges of that licence within one year from the date of completion of the initial training or has interrupted exercising those privileges for a period of more than one year may only start or continue unit training in that rating after an assessment of his/her previous competence and after satisfying any training requirements resulting from this assessment.

AMC1 ATCO.B.001(d) Student air traffic controller licence


ASSESSMENT OF PREVIOUS COMPETENCE

When establishing previous competence in a rating, the assessment should be based on the requirements set out in chapter 4, section 2.

ATCO.B.005 Air traffic controller licence

- (a) Holders of an air traffic controller licence shall be authorised to provide air traffic control services in accordance with the ratings of their licence, and to exercise the privileges of the endorsements contained therein.
- (b) The privileges of an air traffic controller licence shall include the privileges of a student air traffic controller licence as set out in ATCO.B.001(a).
- (c) Applicants for the first issue of an air traffic controller licence shall:
 - (1) hold a student air traffic controller licence

First Edition	Amendment 1	Bhutan Civil Aviation Authority	05/01/2024
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 2	Page: 6

- (2) have completed a unit endorsement course and successfully passed the appropriate examinations and assessments in accordance with the requirements set out in chapter 4, section 3 within 6 months immediately preceding the application;
 - (3) hold a valid Class 3 medical certificate;
 - (4) have demonstrated an adequate level of language proficiency in accordance with the requirements set out in ATCO.B.030;
 - (5) be not less than 21 years of age;
 - (6) have accomplished not less than three months of satisfactory service engaged in the actual control of air traffic under the supervision of an ATC OJTI. The experience requirements specified for air traffic controller ratings in ATCO.D.060 (d) may be credited as part of the experience specified in this paragraph.
- (d) The air traffic controller licence shall be validated by the inclusion of one or more ratings, unit and language proficiency endorsement for which the training was successful.
- (e) The holder of an air traffic controller licence who has not started exercising the privileges of a rating within one year from the date of completion of the initial training for the rating, or has interrupted exercising those privileges for a period of more than one year may only start or continue unit training in that rating after an assessment of his/her previous competence and after satisfying any training requirements resulting from this assessment.
- (f) No person shall provide an air traffic control service within the airspace of Bhutan, unless such person holds and are in the possession of a valid air traffic controller-licence during the duty hour.


AMC1 ATCO.B.005(b) Air traffic controller licence

An Air traffic controller undergoing training for additional rating shall be identified as a Trainee Air Traffic Controller.

ATCO.B.010 Air traffic controller rating

- (a) Licences shall contain one or more of the following types of ratings in order to indicate the type of service which the licence holder is authorised to provide:
- (1) the Aerodrome Control (ADC) rating, indicating that the licence holder is competent to provide an air traffic control service to aerodrome traffic;
 - (2) [Reserved]
 - (3) the Approach Control Procedural (APP) rating, indicating that the licence holder is competent to provide an air traffic control service to arriving, departing or transiting aircraft without the use of surveillance equipment;

First Edition	Amendment 2	Bhutan Civil Aviation Authority	05/01/2026
---------------	-------------	---------------------------------	------------


	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 2	Page: 7

- (4) the Approach Control Surveillance (APS) rating, indicating that the licence holder is competent to provide an air traffic control service to arriving, departing or transiting aircraft with the use of surveillance equipment;
 - (5) the Area Control Procedural (ACP) rating, indicating that the licence holder is competent to provide an air traffic control service to aircraft without the use of surveillance equipment;
 - (6) the Area Control Surveillance (ACS) rating, indicating that the licence holder is competent to provide an air traffic control service to aircraft with the use of surveillance equipment;
- (b) The holder of a rating who has interrupted exercising the privileges associated with that rating for a period of four or more immediately preceding consecutive years may only start unit training in that rating after assessment of previous competence, and after satisfying any training requirements resulting from this assessment.
- (c) Requirements for Air Traffic Controller Ratings

To be eligible for an air traffic controller rating and an initial validation of that rating a person shall:

- (i) have satisfactorily completed a training course relevant to the rating and validation, in the following subject areas as per the requirements mentioned on Chapter 4, Section 2, ATCO.D.010 (b).
 - (1) Aerodrome control rating: Aerodrome layout; physical characteristics and visual aids; airspace structure; applicable rules, procedures and source of information; air navigation facilities; air traffic control equipment and its use; terrain and prominent landmarks; characteristics of air traffic; weather phenomena; and emergency and search and rescue plans.
 - (2) Area control procedural rating: Airspace structure; applicable rules, procedures and source of information; air navigation facilities; air traffic control equipment and its use; terrain and prominent landmarks; characteristics of air traffic and traffic flow; weather phenomena; and emergency and search and rescue plans.
 - (3) Approach control surveillance rating: Airspace structure; applicable rules, procedures and source of information; air navigation facilities; air traffic control equipment and its use; terrain and prominent landmarks; characteristics of air traffic and traffic flow; weather phenomena; emergency and search and rescue plans; principles, use and limitations of radar, other surveillance systems and associated equipment; and procedures for the provision of approach radar control service including procedures to ensure appropriate terrain clearance.
 - (4) Area control surveillance rating: Airspace structure; applicable rules, procedures and source of information; air navigation facilities; air traffic control equipment and its use; terrain and prominent landmarks; characteristics of air traffic and traffic flow; weather phenomena; emergency and search and rescue plans; principles, use and limitations of radar, other surveillance systems and associated equipment; and procedures for the provision of area radar control service including procedures to ensure appropriate terrain clearance.

First Edition	Amendment 2	Bhutan Civil Aviation Authority	05/01/2026
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 2	Page: 8

(ii) have demonstrated the required competence while providing, under the supervision of an air traffic control on-the-job training instructor (OJTI), for a period specified below at the unit for which the rating is sought:

- (1) in the case of an initial aerodrome control rating, an aerodrome control service for a period of at least 90 hours to be completed over at least one month; whichever is greater, at the unit for which the rating is sought;
- (2) in the case of an initial approach control surveillance rating, area control procedural rating or area control surveillance rating, the control service for which the rating is sought, for a period of at least 180 hours to be completed over at least three months;
- (3) in the case of an ATCO who already holds an air traffic controller rating in another category, or the same rating for another unit, for a period of:
 - (i) at least one month for an aerodrome rating; and
 - (ii) at least three months, for approach control surveillance rating, area control procedural rating and area control surveillance rating.

(iii) Skill

The applicant shall have demonstrated, at a level appropriate to the privileges being granted, the skill, judgement and performance required to provide a safe, orderly and expeditious control service, including the recognition and management of threats and errors.

(d) Validity of ratings

A rating shall become invalid when an air traffic controller has ceased to exercise the privileges of the rating for a period determined by the Licensing Authority. That period shall not exceed six months. A rating shall remain invalid until the controller's ability to exercise the privileges of the rating has been re-established.

AMC1 ATCO.B.010(b) Air traffic controller rating

ASSESSMENT OF PREVIOUS COMPETENCE


When establishing previous competence in a rating, the assessment should be based on the requirements set out in chapter 4, section 2 – Initial Training Requirements.

ATCO.B.015 [Reserved]

ATCO.B.020 Unit Endorsement

- (a) The unit endorsement shall authorise the licence holder to provide air traffic control services for a specific sector, group of sectors and/or working positions under the responsibility of an air traffic services unit.

First Edition	Amendment 2	Bhutan Civil Aviation Authority	05/01/2026
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 2	Page: 9

- (b) Applicants for a unit endorsement shall have successfully completed a unit endorsement course in accordance with the requirements set out in chapter 4, section 3 – Unit Training Requirements- within 6 months immediately preceding the application.
- (c) [Reserved]
- (d) For air traffic controllers providing air traffic control services to aircraft carrying out flight tests, the BCAA may, in addition to the requirements set out in point (b), set out additional requirements to be met.
- (e) Unit endorsements shall be valid for a period three years.
- (f) The validity period of unit endorsements for initial issue, revalidation and renewal shall start not later than 30 days from the date on which the assessment has been successfully completed.
- (g) Unit endorsements shall be revalidated if:
 - (1) the applicant has been exercising the privileges of the licence for a minimum number of hours as defined in the unit competence scheme;
 - (2) the applicant has undertaken refresher training within the validity period of the unit endorsement according to the unit competence scheme;
 - (3) the applicant's competence has been assessed in accordance with the unit competence scheme not earlier than three months prior to date of application.
 - (4) The applicant has not interrupted exercising the privileges of the endorsement for a maximum continuous period as defined in the unit competence scheme.
- (h) [Reserved]
- (i) [Reserved]
- (j) If the validity of a unit endorsement expires or the unit endorsement is made invalid, then in order to regain competency and reactivate the validity of unit endorsement, the licence holder who has not exercised the privileges of the unit endorsement on his licence at least for 20 hours in a period of six months shall be required to regain competency in the following manner.

When the lapsed period, from the last date of exercising the privileges of that endorsement, is

- i) More than 30 days but not less than 60 days

Shall Temporarily complete 10 OJT sessions under the supervision of an appropriately rated OJT instructor in a period of 02 weeks.
- ii) More than 60 days but less than 90 days

Shall satisfactorily complete 15 OJT sessions under the supervision of an appropriately rated OJT instructor in a period of 03 weeks
- iii) More than 90 days but less than 120 days

First Edition	Amendment 2	Bhutan Civil Aviation Authority	05/01/2026
---------------	-------------	---------------------------------	------------

Shall satisfactorily complete 20 OJT sessions under the supervision of an appropriately rated OJTI in a period of 04 weeks and competency assessment.

- iv) More than 120 days but less than 190 days

Shall satisfactorily complete 25 OJT sessions under the supervision of an appropriately rated OJTI in a period of 05 weeks and competency assessment.

- v) Over 190 days or 06 months

Equivalent to a new issuance of an endorsement. The licence holder shall successfully complete the unit endorsement course in accordance with the requirements set out in chapter 4, section 3 – Unit Training Requirements in order to renew the endorsement.


AMC1 ATCO.B.020(e) Unit endorsement

VALIDITY OF THE UNIT ENDORSEMENT

Appropriate means should be in place to monitor and ensure the continuous competence of the air traffic controllers. This should include a competency assessment at least once every 12 months.

ATCO.B.025 Unit competency scheme

- (a) Unit competence schemes shall be established by the air navigation service provider and approved by the BCAA. It shall include at least the following elements:
- (1) the validity of the unit endorsement in accordance with ATCO.B.020(e);
 - (2) the maximum continuous period when the privileges of a unit endorsement are not exercised, during its validity, leading to the endorsement becoming invalid. This period shall not exceed 6 months;
 - (3) the minimum number of hours for exercising the privileges of the unit endorsement within a period of 12 months, leading to the endorsement becoming invalid. The specified minimum hours shall be not less than 90 hours. For OJT instructors exercising the privileges of the OJTI endorsement, the time spent instructing shall be counted for the maximum of 50% of the hours required for revalidation of the unit endorsement;
 - (4) procedures, including informing the BCAA, for the cases where the licence holder does not meet the requirements set out in point (a)(2) and (3);
 - (5) processes for assessing competence, including assessment of the refresher training subjects according to ATCO.D.080(b);
 - (6) processes for the examination of theoretical knowledge and understanding, and assessment of practical skills necessary to exercise privileges of the ratings and endorsements;
 - (7) processes to identify the topics and subtopics, objectives and training methods for continuation training;

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 2	Page: 11

- (8) the minimum duration and frequency of the refresher training;
 - (9) processes for the examination of theoretical knowledge and/or the assessment of practical skills acquired during conversion training, including pass marks for examinations;
 - (10) processes in case of failure of an examination or assessment, including the appeal processes;
 - (11) training personnel qualifications, roles and responsibilities;
 - (12) procedure to ensure that practical instructors have practiced instructional techniques in the procedures in which it is intended to provide instruction in accordance with ATCO.C.010(b)(3) and ATCO.C.030(b)(3);
 - (13) procedures for the declaration and the management of cases of provisional inability to exercise the privileges of a licence, as well as for informing the BCAA in accordance with ATCO.A.015(d);
 - (14) identification of records to be kept;
 - (15) process and reasons for reviewing and amending the unit competence scheme and its submission to the BCAA. The review of the unit competence scheme shall take place at least once every three years.
- (b) In order to comply with the requirement, set out in point (a)(3), air navigation service providers shall keep records of the hours, during which each licence holder exercises the privileges of his/her unit endorsement working in sectors, group of sectors and/or working positions in the ATC unit and shall provide that data to the BCAA and to the licence holder upon request.
 - (c) When establishing the procedures referred to in point (a)(4) and (13) air navigation service providers shall ensure that mechanisms are applied to guarantee fair treatment of licence holders where the validity of their endorsements cannot be extended.

AMC1 ATCO.B.025(a)(5); (6) Unit competence scheme


PROCESSES FOR ASSESSING COMPETENCE AND EXAMINING THEORETICAL KNOWLEDGE AND UNDERSTANDING

- (a) The practical performance and skills should be assessed in live traffic situations.
- (b) Theoretical competence should be examined to ascertain the knowledge and understanding of air traffic controllers.
- (c) Subjects taught during refresher training such as standard practices and procedures, abnormal and emergency situations and human factors should be assessed on STD or in other simulated environments and/or examined.

ATCO.B.030 language proficiency endorsement

- (a) Air traffic controllers and student air traffic controllers shall not exercise the privileges of their licences unless they have a valid Operational Level (Level 4) English language proficiency endorsement. The language proficiency endorsement shall indicate the language(s), the level(s) of proficiency and the expiry date(s);


First Edition	Amendment 2	Bhutan Civil Aviation Authority	05/01/2026
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 2	Page: 12

- (b) The language proficiency endorsement shall be in accordance with the applicable provisions of BCAR – PEL, chapter 1, section 1.2.9.

ATCO.B.035 Validity of language proficiency endorsement

The validity of the language proficiency endorsement shall be in accordance with BCAR-PEL, chapter 1, section 1.2.9.6.

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 3	Page: 13

CHAPTER 3 — REQUIREMENTS FOR INSTRUCTORS AND ASSESSORS

SECTION 1 - INSTRUCTORS

ATCO.C.001 Theoretical instructors

- (a) Theoretical training shall only be carried out by appropriately qualified instructors.
- (b) A theoretical instructor is appropriately qualified if he/she:
 - (1) holds an air traffic controller licence and/or holds a professional qualification appropriate to the subject being taught and/or has demonstrated adequate knowledge and experience to the ANSP;
 - (2) has demonstrated instructional skills to the ANSP.

AMC1 ATCO.C.001(b)(2) Theoretical Instructors

INSTRUCTIONAL SKILLS FOR THEORETICAL INSTRUCTORS

A satisfactory demonstration of instructional skills for theoretical instructors should establish competence at least in the following areas:

- (a) lesson objectives are defined and communicated;
- (b) subject questions are fully answered;
- (c) visual aids are used appropriately;
- (d) language is unambiguous;
- (e) the lesson is correctly summarised;
- (f) lesson objectives are fulfilled.


ATCO.C.005 Practical instructors

A person shall only carry out practical training when he/she holds an air traffic controller licence with an on-the-job training instructor (OJTI) endorsement.

ATCO.C.010 On-The-Job training instructor (OJTI) privileges

- (a) Holders of an OJTI endorsement are authorised to provide practical training and supervision on operational working positions for which a valid unit endorsement is held and on synthetic training devices in the ratings held. Holders of an OJTI endorsement may provide theoretical training upon fulfilling ATCO.C.001(b)(2).
- (b) Holders of an OJTI endorsement shall only exercise the privileges of the endorsement if they have:
 - (1) exercised for at least two years the privilege of the rating they will instruct in;
 - (2) exercised for an immediately preceding period of at least 90 days the privilege of the valid unit endorsement, in which instruction will be given;

First Edition	Amendment 0	Bhutan Civil Aviation Authority	01/06/2021
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 3	Page: 14

(3) practised instructional skills in those procedures in which it is intended to provide instruction.

- (c) The period of two years referred to in point (b)(1) can be shortened to not less than one year by the BCAA when requested by the ANSP.

ATCO.C.015 Application for on-the-job training instructor endorsement

Applicants for the issue of an OJTI endorsement shall:

- (a) hold an air traffic controller licence with a valid unit endorsement;
- (b) have exercised the privileges of an air traffic controller licence for a period of at least two years immediately preceding the application; and
- (c) within the year preceding the application, have successfully completed an OJTI course during which the required knowledge and pedagogical skills are taught and have been appropriately assessed.

ATCO.C.020 Validity of on-the-job training instructor endorsement

- (a) The OJTI endorsement shall be valid for a period of three years.
- (b) The OJTI endorsement may be revalidated by successfully completing refresher training on OJTI skills during its validity period, provided that the requirements of ATCO.C.015(a) and (b) are met.
- (c) If the OJTI endorsement has expired, it may be renewed by:
 - (1) receiving refresher training on OJTI skills; and
 - (2) successfully passing an OJTI competence assessment;


within the year preceding the application for renewal, provided that the requirements of ATCO.C.015(a) and (b) are met.

- (d) In the case of first issue, revalidation and renewal the period of validity of the OJTI endorsement shall start not later than 30 days from the date on which the assessment has been successfully completed.

ATCO.C.025 Temporary OJTI authorisation

- (a) When compliance with the requirements provided for in ATCO.C.010(b)(2) is not possible, the BCAA may grant temporary OJTI authorisation based on a safety analysis presented by the air navigation service provider.
- (b) The temporary OJTI authorisation referred to in point (a) may be issued to holders of a valid OJTI endorsement issued in accordance with ATCO.C.015.
- (c) The temporary OJTI authorisation referred to in point (a) shall be limited to the instruction necessary to cover exceptional situations and its validity shall not exceed one year or the expiration of the validity of the OJTI endorsement issued in accordance with ATCO.C.015, whichever occurs sooner.
- (d) For a new ANSP or a newly certified ANSP, when compliance with requirements provided for in ATCO.C.010(b) and ATCO.C.015(a) and (b) are not possible, the BCAA may grant a onetime temporary

First Edition	Amendment 0	Bhutan Civil Aviation Authority	01/06/2021
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 3	Page: 15

OJTI authorisation based on a safety analysis presented by the air navigation service provider for a period not exceeding the minimum time required to fulfill these requirements.

AMC1 ATCO.C.025(a) Temporary OJTI authorisation

SAFETY ANALYSIS


The safety analysis should specify the reasons for which the relevant unit endorsement requirement provided for in ATCO.C.010(b)(2) cannot be met and how the equivalent level of safety will be ensured by other means.

SECTION 2 - ASSESSORS

ATCO.C.045 Assessors privileges

- (a) A person shall only carry out assessments when he/she holds an assessor endorsement.
- (b) Holders of an assessor endorsement are authorised to carry out assessments:
 - (1) [Reserved]
 - (2) [Reserved]
 - (3) of student air traffic controllers for the issue of a unit endorsement;
 - (4) of air traffic controllers for the issue of a unit endorsement, as well as for revalidation and renewal of a unit endorsement;
 - (5) of applicant OJTI or applicant assessors when compliance with the requirements of point (d)(2) to (4) is ensured.
- (c) Holders of an assessor endorsement shall only exercise the privileges of the endorsement if they have:
 - (1) at least two years' experience in the rating they will assess in; and
 - (2) demonstrated knowledge of current operational practices.
- (d) In addition to the requirements set out in point (c), holders of an assessor endorsement shall only exercise the privileges of the endorsement:
 - (1) for assessments leading to the issue, revalidation and renewal of a unit endorsement, if they also hold the unit endorsement associated with the assessment for an immediately preceding period of at least one year;
 - (2) [Reserved]
 - (3) for assessing the competence of an applicant for the issue, revalidation or renewal of an OJTI endorsement, if they hold an OJTI endorsement and have exercised the privileges of that endorsement for at least three years;
 - (4) for assessing the competence of an applicant for the issue, revalidation or renewal of an assessor endorsement, if they have exercised the privileges of the assessor endorsement for at least three years.

First Edition	Amendment 0	Bhutan Civil Aviation Authority	01/06/2021
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 3	Page: 16

- (e) When assessing for the purpose of issue, revalidation or renewal of a unit endorsement, and for ensuring supervision on the operational working position, the assessor shall also hold an OJTI endorsement, or an OJTI holding the valid unit endorsement associated with the assessment shall be present.

AMC1 ATCO.C.045(c)(2) Assessor privileges

DEMONSTRATION OF KNOWLEDGE OF CURRENT OPERATIONAL PRACTICES

The demonstration of knowledge of current operational practices may be achieved by establishing familiarity with current environment and operational procedures.

ATCO.C.050 Vested interests

Assessors shall not conduct assessments whenever their objectivity may be affected.

ATCO.C.055 Application for assessor endorsement

Applicants for the issue of an assessor endorsement shall:

- (a) have exercised the privileges of an air traffic controller licence for at least two years; and
- (b) within the year preceding the application have successfully completed an assessor course during which the required knowledge and skills are taught using theoretical and practical methods, and have been appropriately assessed.


ATCO.C.060 Validity of assessor endorsement

- (a) The assessor endorsement shall be valid for a period of three years.
- (b) The assessor endorsement may be revalidated by successfully completing refresher training on assessment skills and on current operational practices during its validity period.
- (c) If the assessor endorsement has expired, it may be renewed by:
 - (1) receiving refresher training on assessment skills and on current operational practices; and
 - (2) successfully passing an assessor competence assessment;
 within the year preceding the application for renewal.
- (d) In the case of first issue and renewal the period of validity of the assessor endorsement shall start not later than 30 days from the date on which the assessment has been successfully completed.

ATCO.C.065 Temporary assessor endorsement

- (a) When the requirement provided for in ATCO.C.045(d)(1) cannot be met, the BCAA may authorise holders of an assessor endorsement issued in accordance with ATCO.C.055 to carry out assessments referred to in ATCO.C.045(b)(3) and (4) to cover exceptional situations or to ensure the independence of the assessment, provided that the requirements set out in points (b) and (c) are met.

First Edition	Amendment 0	Bhutan Civil Aviation Authority	01/06/2021
---------------	-------------	---------------------------------	------------


	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Licences, Rating and Endorsements	Chapter 3	Page: 17

- (b) For the purpose of covering exceptional situations the holder of the assessor endorsement shall also hold a unit endorsement with the associated rating and, if applicable, rating endorsement, relevant to the assessment for an immediately preceding period of at least one year. The authorisation shall be limited to the assessments necessary to cover exceptional situations and shall not exceed one year or the validity of the assessor endorsement issued in accordance with ATCO.C.055, whichever occurs sooner.
- (c) For the purpose of ensuring the independence of the assessment for reasons of recurrent nature the holder of the assessor endorsement shall also hold a unit endorsement with the associated rating relevant to the assessment for an immediately preceding period of at least one year. The validity of the authorisation shall be determined by the BCAA but shall not exceed the validity of the assessor endorsement issued in accordance with ATCO.C.055.
- (d) For issuing a temporary assessor authorisation for the reasons referred to in points (b), (c) and (e) the BCAA may require a safety analysis to be presented by the air navigation service provider.
- (e) For a new ANSP or a newly certified ANSP, when compliance with requirements provided for in ATCO.C.045(c) and (d), and ATCO.C.055(a) are not possible, the BCAA may grant a onetime temporary assessor authorisation based on a safety analysis presented by the air navigation service provider for a period not exceeding the minimum time required to fulfill these requirements.

AMC1 ATCO.C.065(d) Temporary assessor endorsement

SAFETY ANALYSIS

The safety analysis should specify the reasons for which the relevant requirements cannot be met and how the equivalent level of safety will be ensured by other means.

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Air Traffic Controller Training	Chapter 4	Page: 18

CHAPTER 4 – AIR TRAFFIC CONTROLLER TRAINING

SECTION 1 — GENERAL REQUIREMENTS


ATCO.D.001 Objectives of air traffic training

Air traffic controller training shall cover the entirety of theoretical courses, practical exercises, including simulation, and on-the-job training required in order to acquire and maintain the skills to deliver safe, orderly and expeditious air traffic control services.

ATCO.D.005 Types of air traffic controller training

- (a) Air traffic controller training shall consist of the following types:
- (1) initial training, leading to the issue of a student air traffic controller licence or to the issue of an additional rating providing:
 - (i) ‘basic training’: theoretical and practical training designed to impart fundamental knowledge and practical skills related to basic operational procedures;
 - (ii) ‘rating training’: theoretical and practical training designed to impart knowledge and practical skills related to a specific rating;
 - (2) unit training, leading to the issue of an air traffic controller licence, and/or the issue, revalidation or renewal of a unit endorsement. It comprises the following phases:
 - (i) transitional training phase, designed primarily to impart knowledge and understanding of site-specific operational procedures and task-specific aspects;
 - (ii) on-the-job training phase, which is the final phase of unit training during which previously acquired job-related routines and skills are integrated in practice under the supervision of a qualified on-the-job training instructor in a live traffic situation; and
 - (iii) In addition to points (i) and (ii), for unit endorsement(s) that require the handling of complex and dense traffic situations, a pre-on-the-job training phase is required to enhance the previously acquired rating routines and skills and to prepare for live traffic situations which may be encountered in that unit.
 - (3) continuation training, designed to maintain the validity of the endorsements of the licence, consisting of:
 - (i) refresher training;
 - (ii) conversion training, when relevant.
- (b) In addition to the types of training referred to in point (a), air traffic controllers may undertake the following types:
- (1) OJTI training, leading to the issue, revalidation or renewal of an OJTI endorsement;
 - (2) assessor training, leading to the issue, revalidation or renewal of an assessor endorsement.

First Edition	Amendment 0	Bhutan Civil Aviation Authority	01/06/2021
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Air Traffic Controller Training	Chapter 4	Page: 19

AMC1 ATCO.D.005(a)(2) Types of air traffic controller training

UNIT TRAINING

Unit training should be undertaken by holders of student air traffic controllers' licence or holders of air traffic controllers' licence, as appropriate, for:

- (a) the issue of an air traffic controller licence with a unit endorsement;
- (b) the addition of a unit endorsement in an air traffic controller licence;
- (c) the validation of a rating in an existing licence;
- (d) the addition of rating in an existing licence; and
- (e) the renewal of an expired, suspended or revoked unit endorsement, where applicable.

SECTION 2 — INITIAL TRAINING REQUIREMENT

ATCO.D.010 Composition of initial training

- (a) The applicant for a student air traffic controller licence shall have demonstrated a level of knowledge appropriate to the holder of an air traffic controller licence, in at least the following subjects:

Air law

- (i) rules and regulations relevant to the air traffic controller;

Air traffic control equipment

- (ii) principles, use and limitations of equipment used in air traffic control;

General knowledge

- (iii) principles of flight; principles of operation and functioning of aircraft and RPAS, engines and systems; aircraft performance relevant to air traffic control operations;

Human performance

- (iv) human performance including principles of TEM;

Meteorology


- (v) aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry;

Navigation

- (vi) principles of air navigation; principle, limitation and accuracy of navigation systems and visual aids; and

Operational procedures

First Edition	Amendment 1	Bhutan Civil Aviation Authority	05/01/2024
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Air Traffic Controller Training	Chapter 4	Page: 20

- (vii) 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) The applicant for issuance of a ratings shall have demonstrated a level of knowledge appropriate to the privileges granted, in at least the following subjects in so far as they affect the area of responsibility:

(1) aerodrome control rating:

- (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; and
- (ix) emergency and search and rescue plans;


(2) 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; and
- (viii) emergency and search and rescue plans; and

(3) approach control surveillance, approach precision radar control and area control surveillance ratings: The applicant shall meet the requirements specified in b) 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

First Edition	Amendment 1	Bhutan Civil Aviation Authority	05/01/2024
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Air Traffic Controller Training	Chapter 4	Page: 21

- (ii) procedures for the provision of ATS surveillance service, as appropriate, including procedures to ensure appropriate terrain clearance.

(4) rating training, comprising the subjects, topics and subtopics of at least one of the following:

- (i) Aerodrome Control Rating — ADV and ADI ratings;
 - (ii) Approach Control Procedural Rating— APP rating;
 - (iii) Area Control Procedural Rating — ACP rating;
 - (iv) Approach Control Surveillance Rating — APS rating;
 - (v) Area Control Surveillance Rating — ACS rating;
 - (vi) Approach Precision Radar Control Rating – APRCS.
- (c) Training intended for an additional rating shall consist of the subjects, topics and subtopics applicable to at least one of the ratings established in point (b)(4).
- (d) Training intended for the reactivation of a rating following a not successful assessment of previous competence according to ATCO.B.010(b) shall be tailored according to the result of that assessment.

SECTION 3 — UNIT TRAINING REQUIREMENT

ATCO.D.045 Composition of unit training


- (a) Unit training shall consist of training course(s) for each unit endorsement established at the ATC unit as defined in the unit training plan.
- (b) The unit endorsement course(s) shall be developed and provided by ANSP according to ATCO.D.060 and approved by the BCAA.
- (c) Unit training shall include training in:
 - (1) operational procedures;
 - (2) task-specific aspects;
 - (3) abnormal and emergency situations; and
 - (4) human factors.

AMC1 ATCO.D.045(c)(3) Composition of unit training

ABNORMAL AND EMERGENCY SITUATIONS

- (a) Training for all identified abnormal and emergency situations should primarily take place on synthetic training devices.
- (b) The ANSP should develop performance objectives for the abnormal and emergency situation training.

First Edition	Amendment 1	Bhutan Civil Aviation Authority	05/01/2024
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Air Traffic Controller Training	Chapter 4	Page: 22

- (c) Where a low safety risk for the ATC service provision has been identified and agreed by the BCAA, training in abnormal and emergency situations may take place by means other than synthetic training devices.
- (d) If the pre-on-the-job training phase is not provided, the abnormal and emergency situation training should be scenario-based and as realistic as possible while maintaining operational safety.
- (e) Checklists for abnormal and emergency situations used in operations should be made available to the applicant and be available at all times during scenario training.

AMC1 ATCO.D.045(c)(4) Composition of unit training

HUMAN FACTORS

- (a) The ANSP should train the applicant during on-the-job training in fatigue management and stress management.
- (b) [Reserved]
- (c) [Reserved]
- (d) Training organisations should develop training objectives for fatigue management and stress management training.

ATCO.D.050 Prerequisites of unit training

Unit training may only be started by persons who are holders of:


- (a) a student air traffic controller licence with the appropriate rating; or
- (b) an air traffic controller licence with the appropriate rating;

provided that the requirements set out in ATCO.B.001(d) and ATCO.B.010(b) are met.

ATCO.D.055 Unit training plan

- (a) A unit training plan shall be established by the ANSP for each ATC unit and shall be approved by the BCAA.
- (b) The unit training plan shall contain at least:
 - (1) ratings for which the training is conducted;
 - (2) the structure of the unit training;
 - (3) the list of unit endorsement course(s) according to ATCO.D.060;
 - (4) the process for the conduct of a unit endorsement course;
 - (5) the training methods;
 - (6) the minimum duration of the unit endorsement course(s);

First Edition	Amendment 1	Bhutan Civil Aviation Authority	05/01/2024
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Air Traffic Controller Training	Chapter 4	Page: 23

- (7) process for adapting the unit endorsement course(s) to take due account of the acquired ratings and experience of applicants, when relevant;
- (8) processes for demonstrating theoretical knowledge and understanding according to ATCO.D.065, including the number, frequency and type of, as well as pass marks for examinations, which shall be a minimum of 75% of the marks allocated to these examinations;
- (9) processes for the assessment according to ATCO.D.070, including the number and frequency of assessments;
- (10) training personnel qualifications, roles and responsibilities;
- (11) process for early termination of training;
- (12) the appeal process;
- (13) identification of records to be kept specific to the unit training;
- (14) a list of identified abnormal and emergency situations specific for each unit endorsement;
- (15) process and reasons for reviewing and amending the unit training plan and its submission to the BCAA. The review of the unit training plan shall take place at least once every three years.

AMC1 ATCO.D.055(b)(14) Unit training plan

DESIRABLE BEHAVIOURS FOR ABNORMAL AND EMERGENCY SITUATIONS

- (a) ANSP should establish desirable behaviours for the identified abnormal and emergency situations and associate them with established procedures.
- (b) Desirable behaviours of the applicants in case of abnormal or emergency situations may be of technical or non-technical nature.


ATCO.D.060 Unit endorsement course

- (a) A unit endorsement course shall be the combination of the relevant unit training phases for the issue or renewal of a unit endorsement in the licence. Each course shall contain:
 - (1) a transitional training phase;
 - (2) an on-the-job training phase.

A pre-on-the-job training phase shall be included, if required, according to ATCO.D.005(a)(2).

- (b) The unit training phases referred to in paragraph (a) shall be provided separately or in an integrated manner.
- (c) Unit endorsement courses shall define the syllabus and the performance objectives in accordance with ATCO.D.045(c) and shall be conducted in accordance with the unit training plan.
- (d) The on-the-job training phase of a unit endorsement course shall include providing, under the supervision of an on-the-job training instructor (OJTI), one or more of the following:

First Edition	Amendment 1	Bhutan Civil Aviation Authority	05/01/2024
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Air Traffic Controller Training	Chapter 4	Page: 24

- (1) *aerodrome control rating*: an aerodrome control service, for a period of not less than 90 hours or one month, whichever is greater, at the unit for which the rating is sought;
- (2) *approach control procedural, approach control surveillance, area control procedural or area control surveillance rating*: the control service for which the rating is sought, for a period of not less than 180 hours or three months, whichever is greater, at the unit for which the rating is sought; and
- (3) *approach precision radar control rating*: not less than 200 precision approaches of which not more than 100 shall have been carried out on a radar simulator approved for that purpose by the Licensing Authority. Not less than 50 of those precision approaches shall have been carried out at the unit and on the equipment for which the rating is sought.

ATCO.D.065 Demonstration of theoretical knowledge and understanding

Theoretical knowledge and understanding shall be demonstrated by examinations.

ATCO.D.070 Assessment during unit endorsement course

- (a) The applicant's assessment shall be conducted in the operational environment under normal operational conditions at least once at the end of the on-the-job training.
- (b) When the unit endorsement course contains a pre-on-the-job training phase, the applicant's skills shall be assessed on a synthetic training device at least at the end of this phase.
- (c) Notwithstanding point (a), a synthetic training device may be used during a unit endorsement assessment to demonstrate the application of trained procedures not encountered in the operational environment during the assessment.

SECTION 4 — CONTINUATION TRAINING REQUIREMENT


ATCO.D.075 Continuation training

Continuation training shall consist of refresher and conversion training courses and shall be provided according to the requirements contained in the unit competence scheme according to ATCO.B.025.

ATCO.D.080 Refresher training

- (a) Refresher training course(s) shall be developed and provided the ANSP and approved by the BCAA.
- (b) Refresher training shall be designed to review, reinforce or enhance the existing knowledge and skills of air traffic controllers to provide a safe, orderly and expeditious flow of air traffic and shall contain at least:
 - (1) standard practices and procedures training, using approved phraseology and effective communication;
 - (2) abnormal and emergency situations training, using approved phraseology and effective communication; and
 - (3) human factors training.

First Edition	Amendment 1	Bhutan Civil Aviation Authority	05/01/2024
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Air Traffic Controller Training	Chapter 4	Page: 25

- (c) A syllabus for the refresher training course shall be defined, and where a subject refreshes skills of air traffic controllers, performance objectives shall also be developed.

AMC1 ATCO.D.080 Refresher training

EXAMINATIONS AND ASSESSMENTS

Refresher topics should be examined or assessed using the processes described in the unit competence scheme.

AMC1 ATCO.D.080 (b)(1);(2) Refresher training

PHRASEOLOGY TRAINING

ANSP should develop objectives for phraseology.

AMC2 ATCO.D.080 (b)(2) Refresher training

ABNORMAL SITUATION AND EMERGENCY TRAINING

Abnormal situation and emergency training should be designed to expose air traffic controllers to circumstances and situations which they do not habitually or commonly experience.

The essential difference from an emergency situation is that the element of danger or serious risk is not necessarily present in an abnormal situation.

AMC1 ATCO.D.080 (b)(3) Refresher training


HUMAN FACTORS

- (a) ANSP should train air traffic controllers at least in fatigue management and stress management.
- (b) [Reserved]

ATCO.D.085 Conversion training

- (a) Conversion training course(s) shall be developed and provided by the ANSP and approved by the BCAA.
- (b) Conversion training shall be designed to provide knowledge and skills appropriate to a change in the operational environment and shall be provided by ANSP when the safety assessment of the change concludes the need for such training.
- (c) Conversion training courses shall include the determination of:
- (1) the appropriate training method for and duration of the course, taking into account the nature and extent of the change; and
 - (2) the examination and/or assessment methods for the conversion training.
- (d) Conversion training shall be provided before air traffic controllers exercise the privileges of their licence in the changed operational environment.

First Edition	Amendment 0	Bhutan Civil Aviation Authority	01/06/2021
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Air Traffic Controller Training	Chapter 4	Page: 26

SECTION 5 — TRAINING OF INSTRUCTORS AND ASSESSORS

ATCO.D.090 Training of practical instructors

- (a) Training of OJT instructors shall be developed and provided by the ANSP and shall consist of:
 - (1) a practical instructional techniques course for OJTI, including an assessment;
 - (2) a refresher training course on practical instructional skills;
 - (3) a method(s) for assessing the competence of OJT instructors.
- (b) The training courses and assessment methods referred to in point (a) shall be approved by the BCAA.

AMC1 ATCO.D.090 (a)(1) Training of practical instructors

SYNTHETIC TRAINING DEVICES USED FOR OJTI TRAINING

For the training of on-the-job training instructors, a part-task trainer or a simulator should be used.

If the synthetic training environment does not correspond to the rating of the intended instructional environment, the applicant should practise the instructional skills in those procedures in which it is intended to provide instruction for at least one day before being assessed.


AMC2 ATCO.D.090 (a)(1) Training of practical instructors

ASSESSMENT OF INSTRUCTIONAL TECHNIQUES FOR PRACTICAL INSTRUCTORS

A successful assessment of instructional techniques for practical instructors should establish competence at least in the following areas:

- (a) regulatory impact on air traffic controller training;
- (b) human factors impact on air traffic controller training;
- (c) determination of the background and experience of the person undertaking training;
- (d) determination of the current level of ability of the person undertaking training;
- (e) conduct of a pre-session briefing;
- (f) planning and conduct of the training session;
- (g) demonstration and explanation of the tasks;
- (h) monitoring of the training session;
- (i) management of interventions correctly, including error correction;
- (j) evaluation of the performance of the person undertaking training;
- (k) debrief of the person undertaking training;

First Edition	Amendment 0	Bhutan Civil Aviation Authority	01/06/2021
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Air Traffic Controller Training	Chapter 4	Page: 27

- (l) furnishing of written reports on the performance of the person undertaking training;
- (m) taking appropriate follow-up action towards resolving training problems;
- (n) techniques of pausing clocks; and
- (o) knowledge of technical facilities/environment.

AMC1 ATCO.D.090 (a)(2) Training of practical instructors

REFRESHER TRAINING IN PRACTICAL INSTRUCTIONAL SKILLS

Refresher training in practical instructional skills should prevent knowledge and skills erosion.

AMC1 ATCO.D.090 (a)(3) Training of practical instructors

PRACTICAL INSTRUCTOR COMPETENCE ASSESSMENT

The practical instructor competence assessment for an OJTI may be undertaken either in live operations or on a synthetic training device.

ATCO.D.095 Training of assessor

- (a) Training of assessors shall be developed and provided by the ANSP and shall consist of:
 - (1) an assessor training course, including an assessment;
 - (2) a refresher training course on assessment skills;
 - (3) a method(s) for assessing the competence of assessors.
- (b) The training courses and the assessment method referred to in point (a) shall be approved by the BCAA.


AMC1 ATCO.D.095(a)(1) Training of assessor

ASSESSOR TRAINING COURSE

A successful assessment for the purpose of the assessor training course should establish competence at least in the following areas of assessment knowledge and techniques:

- (a) regulatory environment and legal obligations;
- (b) types of assessment and their application;
- (c) performance objectives constituting air traffic controller competence;
- (d) conditions of assessments to create reliable results;
- (e) processing of assessments and administrative procedures;

First Edition	Amendment 0	Bhutan Civil Aviation Authority	01/06/2021
---------------	-------------	---------------------------------	------------

	Air Traffic Controller - Personnel Licensing	BCAR-ATCO-PEL	
	Air Traffic Controller Training	Chapter 4	Page: 28

- (f) giving verbal feedback and writing assessment reports;
- (g) vested interests and code of conduct;
- (h) accurately assessing competence against the performance objectives;
- (i) developing a good questioning technique and designing questions appropriate to the assessment.

AMC2 ATCO.D.095(a)(1) Training of assessor

ASSESSMENT OF ASSESSOR COMPETENCE

The assessment of assessor competence should focus on the application of the skills of an assessor. The skills should represent at least a subset of the competences taught during the assessor training course.

AMC1 ATCO.D.095(a)(2) Training of assessor

REFRESHER TRAINING IN ASSESSMENT SKILLS

Refresher training in assessment skills should prevent knowledge and skills erosion and it should be designed to maintain skills in assessment techniques and awareness of the regulatory environment.
