



GM 14-42

CIVIL AVIATION AUTHORITY OF BANGLADESH

Guidance Manual

Standards for the Competence of Operational and Maintenance Personnel



Version 2.0
21 August 2024

AERODROME STANDARD DIVISION

GM 14-42



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**Guidance Manual
on**

**Standards for the Competence of Operational and
Maintenance Personnel.**

Version:2.0

21 August 2024

Aerodrome Standard Division

RECORD OF AMENDMENTS

Version / Revision Numbers	Chapter Changed	Pages Replaced	Signature	Date

REVISION HISTORY

Revision / Version	Date	Chapter / Section	Details
1.0	19 June 2011	All	Manual on Standards for the Competence of Operational and Maintenance Personnel employed by certified Aerodrome Operators
2.0	2024	All	Manual on Standards for the Competence of Operational and Maintenance Personnel employed by certified Aerodrome Operators

TABLE OF CONTENTS

Foreword	5
1. Purpose	6
2. Scope and Application	6
3. Operational Personnel	6
4. Civil Engineering Personnel	6
4.2 Electromechanical Engineering personnel.....	7
5. ARFF personnel.....	7
6. ATC Personnel.....	8
7. Maintenance personnel	10
8. Civil Engineering personnel	10
8.2 Electromechanical Engineering personnel.....	11
9. Effectivity	12

Foreword

In exercise of powers conferred by delegation of Chairman, the Director (Aerodrome Standard) of Civil Aviation Authority of Bangladesh (CAAB) is pleased to issue this Guidance Manual (GM 14-42) as a Manual on Standards for the Competence of Operational and Maintenance Personnel employed by certified Aerodrome Operators.

An Aerodrome certificate holder is expected to comply with the Rule 260C (4) laid down in the Civil Aviation Rules 1984 and Specifications of the Manual of Aerodrome Standards Bangladesh. There may be circumstances where compliance of requirement has not been followed at an existing aerodrome because of constraints of training facilities and/or administrative formalities. These situations require CAAB to establish procedures to develop ANO on Standards for the Competence of Operational and Maintenance Personnel employed by certified Aerodrome Operators.

This GM is issued under the provisions contained in Rule 260C (4) of CAR 84 of CAAB and the CAAB Service Rules, 1988, published vide Bangladesh Gazette, Registered No. DA-1, Dated, 22 December 1988.

The responsibility for the technical matters with this GM is the responsibility of the Aerodrome Standard Division of CAAB.

This GM is issued and amended under the authority of the Director (Aerodrome Standard) of Civil Aviation Authority of Bangladesh (CAAB) and will replace ANO (AD) A6 from the date of its approval.



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(Superintending Engineer)

Director (Aerodrome Standard)

Aerodrome Standard Division

Civil Aviation Authority of Bangladesh

1. Purpose

This Guidance Manual provides guidance to assess standards for the competence of Operational and Maintenance personnel employed by Certified Aerodrome Operators in Bangladesh to elaborate the requirement of CAR rule 260C (4).

2. Scope and Application

This Guidance Manual shall be applicable to evaluate the qualification/training and experience of the Aerodrome personnel (operational and maintenance) in order to assess their competence to perform all the critical activities for Aerodrome operations and maintenance.

3. Operational Personnel

There are 4 (four) categories of personnel involved in Aerodrome Operation: -

- 1) Civil
- 2) E/M
- 3) ARFF personnel,
- 4) Air Traffic Controller (ATCO),

4. Civil Engineering Personnel:

4.1.1 Educational Qualification:

- a) **Assistant Engineer:** Bachelor in Engineering (Civil) from any recognized University.
- b) **Sub- Assistant Engineer:** Diploma in Engineering (Civil) from any recognized University.
- c) **Foreman (Civil):** H.S.C (Vocational) in Building Construction and Maintenance or drafting in Civil Trade.

4.1.2 Institutional Training:

There is no mandatory requirement for Basic Institutional training.

4.1.3 On-the-Job Training (OJT) / Familiarization:

After being posted to Airport Engineering division, Engineers/Staffs shall get familiarization with the real time job and eventually acquire competence for the job. They shall acquire sufficient knowledge about:

- i) All Aerodrome facilities, installations & Nav. aids on and around the aerodrome;
- ii) Concerned works safety procedures;

- iii) Aerodrome design & capital expenditure maintenance programme;
- iv) Regular maintenance programme;
- v) ICAO Annex 14, CAR 84, ANO-14 Vol-I and Vol-II & Aerodrome SMS CAAB,
- vi) Human factor & Wildlife hazard management;
- vii) Aerodrome certification & Inspection;
- viii) Air side driving & phraseology.

4.2 Electromechanical Engineering personnel:

4.2.1 Educational Qualification:

- a) **Assistant Engineer:** Bachelor in Engineering (E/M) from any recognized University.
- b) **Sub- Assistant Engineer:** Diploma in Engineering (E/M) from any recognized University.
- c) **Foreman (E/M):** H.S.C (Vocational) electrical works and maintenance trade.

4.2.2 Institutional Training:

There is no mandatory requirement for Basic Institutional training.

4.2.3 On-the-Job Training (OJT) / Familiarization:

After being posted to Airport Engineering division Engineers/Staffs shall get familiarization with the real time job and eventually acquire competence for the job. They shall acquire sufficient knowledge about:

- i) All Aerodrome facilities & installations, Aerodrome lighting system, Boarding bridge and Nav. aids on and around the aerodrome;
- ii) Concerned works safety procedures;
- iii) Aerodrome design & capital expenditure maintenance programme;
- iv) Regular maintenance programme;
- v) ICAO Annex 14, CAR 84, ANO-14 Vol-I and Vol-II & Aerodrome SMS CAAB,
- v) Human factor & Wildlife hazard management;
- vi) Aerodrome certification & Inspection;
- vii) Air side driving & phraseology.

5. ARFF personnel.

5.1.1 Educational Qualification.

3.3.1(a) for ARFF Officers:

Master/Bachelor Degree in Chemistry from any recognized University.

3.3.1(b) for ARFF Crew:

H.S.C or equivalent qualification from any Education Board

5.1.2 Institutional Training:

3.3.2(a) for ARFF Officers:

Successful completion of Basic CFR Course from Civil Aviation Training Center (CATC), Dhaka, or any other ICAO approved Training Institute.

3.3.2(b) for ARFF Crews:

Successful completion of Elementary CFR Course for AFO, Basic FOD course for FOD's and Basic FAC course for FAC's, from Civil Aviation Training Center (CATC), Dhaka, or any other ICAO approved Training Institute.

5.1.3 On-the-job Training (OJT)

5.1.3(a) for ARFF Officers:

During Institutional Training the ARFF Officers shall perform sufficient practice on driving /operation of the CFR vehicles, and acquire sufficient knowledge on the Airport Movement Area and Layout of the surrounding area, and shall attain competence for real time job.

- i) ICAO Annex 14, CAR 84, ANO-14 Vol-I and Vol-II & Aerodrome SMS CAAB,
- ii) Human factor & Wildlife hazard management;
- iii) Aerodrome Certification & Inspection;
- iv) Air side driving & phraseology

5.1.3(b) for ARFF Crews:

During Institutional Training the FOD and AFO's shall perform sufficient practice on driving /operation of the CFR vehicles, and acquire sufficient knowledge on the Airport Movement Area and Layout of the surrounding area, and shall attain competence for real time job.

- i) ICAO Annex 14, CAR 84, ANO-14 Vol-I and Vol-II & Aerodrome SMS CAAB,
- ii) Human factor & Wildlife hazard management;
- iii) Aerodrome Certification & Inspection;
- iv) Air side driving & phraseology

6. ATC Personnel:

6.1.1 Educational Qualification:

- a) **Assistant Director (Aerodromes):** 7 years job experience as Senior Aerodrome

Offices/Senior Communication Officer/Aerodrome Officer/Communication Officer/Aerodrome Officer (ATM)/ Aerodrome Officer (ATM: ATCO)/Instructor (ATM)

- b) Aerodrome Officer (ATM):** Bachelor in Physics/Mathematics from any recognized University.
- c) Aerodrome Officer (ATM: ATCO):** Bachelor in Physics/Mathematics from any recognized University.
- d) Aerodrome Assistant:** Bachelor in Physics/Mathematics from any recognized University.

6.1.2 Institutional Training:

SN	ATC Unit	Training Requirement
I	Aerodrome/Approach Control	Successful completion of Basic ATC Course from Civil Aviation Training Center (CATC), Dhaka, or any other ICAO approved Training Institute.
Ii	Area Control Center (Non-Radar)	Successful completion of Area Control (Non- Radar) course from any other ICAO approved Training Institute.
Iii	Approach Control (Radar)	Successful completion of Approach Control (Radar) course from any ICAO approved Training Institute.
Iv	Area Control Center (Radar)	Successful completion of Area Control (Radar) course from any ICAO approved Training Institute.

6.1.3 On-the-Job Training (OJT):

Completion of required duration of OJT, as prescribed by Chairman, CAAB, under a qualified On-the-job Training Instructor (OJTI), in the concerned ATC Unit shall be required.

- i) ICAO Annex 14, CAR 84, ANO-14 Vol-I and Vol-II & Aerodrome SMS CAAB,
- ii) Human factor & Wildlife hazard management;
- iii) Aerodrome Certification & Inspection;
- iv) Air side driving & phraseology

6.1.4 Competence check/Solo check:

After completion of the prescribed duration of OJT by the Trainee ATCO, and when the OJTI is satisfied with his performance, the OJTI shall recommend him/her for solo check. After that the trainee shall be check by a Board formed by Chairman CAAB, and on getting a satisfactory recommendation by the solo check Board Chairman CAAB will issue Certificate for solo duty in favour of that ATCO in that ATC unit. (Ref: ATSI 1/1984 & 1/2004).

7. Maintenance personnel:

The following categories of personnel are involved in the Aerodrome maintenance:

1. Civil Engineering personnel;
2. Electrical/Mechanical Engineering personnel;

8. Civil Engineering personnel:

8.1.1 Educational Qualification:

- a) **Assistant Engineer:** Bachelor in Engineering (Civil) from any recognized University.
- b) **Sub- Assistant Engineer:** Diploma in Engineering (Civil) from any recognized University.
- c) **Foreman (Civil):** H.S.C (Vocational) in Building Construction and Maintenance or drafting in Civil Trade.

8.1.2 Institutional Training:

There is no mandatory requirement for Basic Institutional training.

8.1.3 On-the-Job Training (OJT) / Familiarization:

After being posted to Airport Engineering division, Engineers shall get familiarization with the real time job and eventually acquire competence for the job. They shall acquire sufficient knowledge about:

- All Aerodrome facilities, installations & Nav. aids on and around the aerodrome;
- Concerned works safety procedures;
- Aerodrome design & capital expenditure maintenance programme;
- Regular maintenance programme;
- ICAO Annex 14, CAR 84, ANO-14 Vol-I and Vol-II & Aerodrome SMS,
- Human factor & Wildlife hazard management;
- Aerodrome certification & Inspection;
- Air side driving & phraseology.

8.2 Electromechanical Engineering personnel:

8.2.1 Educational Qualification:

- a) **Assistant Engineer:** Bachelor in Engineering (E/M) from any recognized University.
- b) **Sub- Assistant Engineer:** Diploma in Engineering (E/M) from any recognized University.
- c) **Foreman (E/M):** H.S.C (Vocational) electrical works and maintenance trade.

8.2.2 Institutional Training:

There is no mandatory requirement for Basic Institutional training.

8.2.3 On-the-Job Training (OJT) / Familiarization:

After being posted to Airport Engineering division Engineers shall get familiarization with the real time job and eventually acquire competence for the job. They shall acquire sufficient knowledge about:

- a) All Aerodrome facilities & installations, Aerodrome lighting system, Boarding bridge and Nav. aids on and around the aerodrome;
- b) Concerned works safety procedures;
- c) aerodrome design & capital expenditure maintenance programme.
- d) Regular maintenance programme;
- e) ICAO Annex 14, CAR 84, ANO-14 Vol-I and Vol-II & Aerodrome SMS CAAB,
- f) Human factor & Wildlife hazard management;
- g) Aerodrome certification & Inspection;
- h) Air side driving & phraseology.

9. Effectivity

This ANO comes into effect on August 2024. Aerodrome Operators are advised to establish their Training Facilities, prepare their Training Programme, forward them for approval by Chairman, CAAB, and implement

the training programme as per approval.