



Guidance Material

For

Aerodrome Reporting and Work Safety Officers

2024



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Forward

As a Contracting State to the Convention on International Civil Aviation, Bhutan is obligated to the international community to ensure that its civil aviation activities strictly adhere to the Standards and Recommended Practices outlined in the nineteen Annexes of the Convention, thereby maintaining the necessary aviation standards.

As per BANRs 2021 – section 14, the operator of an aerodrome intended for public use shall be in possession of an Aerodrome Certificate issued by the Bhutan Civil Aviation Authority when:

- a) the aerodrome is used for any international air transportation operation;
- b) the aerodrome is used for any national air transportation operation;
- c) at the request of the aerodrome operator

This Advisory Circular offers guidance to aerodrome operator to help them meet the aforementioned minimum standards and recommended practices.

Aerodrome operator will benefit from this Advisory Circular as it details the training requirements for Aerodrome Reporting Officers and Work Safety Officers.

Additionally, it outlines that aerodrome physical facilities, equipment, and operating procedures must comply with Bhutan Aerodrome Standards.

This guidance material will be updated as necessary, based on amendments to the annex and the complexity of operations.

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Acronyms

ARO – Aerodrome Reporting Officer

MOWP – Method of Working Plan

NOTAM – Notice to Airmen

OLS – Obstacle Limitation Surface

SMS – Safety Management System

WSO – Works Safety Officer

BCAA- Bhutan Civil Aviation Authority



1. Purpose

The purpose of this publication is to inform industry of the minimum level of training deemed to be necessary for Aerodrome Reporting Officers (AROs) and Work Safety Officers (WSOs) to be considered appropriately trained.

2. Definitions

For the purposes of this document:

Aerodrome Reporting Officer: An aerodrome employee who has successfully completed an Aerodrome Operations training course and/or has demonstrated an understanding of and the ability to safely undertake the tasks of an ARO as detailed in this document.

Works Safety Officer: An aerodrome employee who has successfully completed an Aerodrome Operations training course, and/or has demonstrated an understanding of and the ability to safely undertake the tasks of a WSO as detailed in this document.

3. Function of aerodrome reporting and work safety officer

3.1 Persons whose duties are directly related to aerodrome safety include:

- those that carry out the routine serviceability inspections of the aerodrome movement area, aerodrome lights and Obstacle Limitation Surfaces (OLS);
- those that are authorized to make reports of aerodrome reportable changes to the Notice to Airmen (NOTAM) office; and
- those appointed for the purpose of ensuring the safety of aerodrome works.

3.2 Aerodrome Reporting Officer

3.2.1 Serviceability inspections and the reporting of changes in aerodrome conditions are often related functions. For the purpose of this publication, an ARO is deemed to be the person who performs both the inspection and reporting functions.

3.2.2 Serviceability inspections are a core function of the ARO.

3.2.3 Depending on the size of the aerodrome, the serviceability inspection and reporting functions may be assigned to different persons. At a small aerodrome, the same person may have to carry out all the functions. At larger aerodromes, the serviceability inspections and the reporting functions become more complex, often involving more people.



3.2.4 At smaller aerodromes, inspecting, reporting and managing aerodrome works safety (ARO and WSO roles) may be undertaken by the same person and would typically cover:

- an inspection of the movement area to check its surface condition (including for the presence of foreign objects);
- an inspection of aerodrome markers and markings, lighting, wind direction indicators and ground signals;
- an inspection for any obstacles infringing the take-off, approach and transitional surfaces;
- an inspection for any birds or animals on or near the movement area;
- an inspection of any measures to control the inadvertent entry of persons or animals into the movement area (including aerodrome fencing);
- an empirical assessment of the bearing strength of unrated runway pavements;
- an empirical assessment of the runway strip or each runway strip where the runway concerned is not marked and the whole runway strip may be used for aircraft operations;
- a check of the aerodrome's frequency confirmation system (if any);
- a check of whether any NOTAMS for the aerodrome are current and accurate.

3.2.5 Each of these functions will potentially vary in complexity from aerodrome to aerodrome, and not always in direct relationship with aerodrome size and traffic.

3.3 Works Safety Officer

3.3.1 An important requirement is that a WSO must be present "at all times" whilst the aerodrome is open to aircraft operations. The functions of a WSO include (but are not limited to):

- having sound knowledge of the MOWP and ensuring that the works are conducted in accordance with the MOWP;
- where applicable, ensuring timely issue of NOTAM as set out in the MOWP;
- where applicable, liaising with air traffic and ground control personnel on a regular basis when work is in progress;
- liaising with the works organization, on a regular basis, regarding any matters necessary to ensure the safety of aircraft operations and aerodrome personnel;
- ensuring unserviceable areas, temporary obstructions and the limits of the works area are correctly marked and lit in accordance with the applicable MOWP;
- ensuring that vehicles, plant and equipment are properly marked and lit;
- ensuring that access routes to works areas as set out in the MOWP are clearly marked and lit



- ensuring that excavation is carried out in accordance with the MOWP, and in particular, so as to avoid damage or loss of calibration to any underground power or control cable associated with a precision approach and landing system or navigation aid;
- immediately reporting to the NOTAM Office any incident or damage to facilities likely to affect the safety of aircraft;
- ensuring that the movement area is safe for normal aircraft operations following removal of vehicles, plant equipment and personnel from the works area; and
- Ensuring that floodlighting or any other lighting required for carrying out the works is shielded so as not to present a hazard to aircraft operations.

3.3.2 It is important to note that on large sites where two or more work areas are established, there needs to be a WSO appointed to each site. It is generally not possible, or safe, for a WSO to supervise two or more sites when those sites may be kilometers apart on an operational aerodrome.

3.3.3 Where proposed aerodrome works exceed the experience of the local WSO, the aerodrome operator should consider a temporary closure of the aerodrome, or the employment of a more experienced WSO for the duration of the works to assist the local WSO.

3.3.4 The above is not an exhaustive list of responsibilities, but it does illustrate the wide range of competencies required of a person appointed as a WSO.

4. Aerodrome operator's safety role

In accordance with BANRs – 2021-section 14, the aerodrome operator shall establish a safety management system for the aerodrome describing the structure of the organization and the duties, powers and responsibilities of the officials in the organizational structure, with a view to ensuring that operations are carried out in a demonstrably controlled way and are improved where necessary.

The aerodrome operator shall oblige all the users of the aerodrome including aircraft operator and which perform activities independently at the aerodrome in relation to flight or aircraft handling, to comply with the requirements laid down by the aerodrome operator with regard to safety and order at the aerodrome, and shall monitor such compliance.

The aerodrome operator shall oblige all the users of the aerodrome including aircraft operator and organizations to cooperate in the programme to promote safety and order at, and the safe use of, the aerodrome by immediately informing it of the accidents, incidents, defects and faults which have bearing on safety.



The aerodrome operator shall arrange for an audit of the safety management system including an inspection of the aerodrome facilities and equipment. The audit shall cover the aerodrome operator's own functions including operations related to the International and domestic aerodromes.

5. Training for aerodrome reporting and work safety officers

- It is important that a person(s) viz *aerodrome reporting and work safety officers* appointed to carry out a particular function on an aerodromes possesses the competency and skills that are commensurate with, and appropriate to, the complexity of the function that the person is required to perform.

6. Competency standard for aerodrome reporting and work safety officers

6.1 The aerodrome operator shall employ adequate numbers of qualified and skilled personnel for performing all critical activities in the aerodrome operation and maintenance processes.

6.2 The aerodrome operator shall implement a programme to upgrade the competency of the aerodrome reporting and work safety officers through training them.

7. Work planning of the aerodrome reporting and work safety officers

Particulars of the procedures for planning and carrying out construction and maintenance work safely including work that may have to be carried out at short notice on or in the vicinity of the movement area which may extend above an obstacle limitation surface, including the following:

7.1 Arrangements for communicating with the aerodrome air traffic control during the progress of such work.

7.2 The names, telephone numbers and roles of the persons and organizations responsible for planning and carrying out the work, and arrangements for contacting those persons and organizations at all times;

7.3 The names and telephone numbers, during and after working hours of the aerodrome fixed-based operators, ground handling agents and aircraft operators who are to be notified of the work.

7.4 A distribution list for work plans, if required.

7.5 Procedure to return a runway to operational status after pavement overlay

7.6 For safety and visibility, all machinery should carry flags, and workers must wear reflector jackets at the aerodromes.