Civil Aviation
Requirements

Procedure for Accepting Non-compliances at Aerodrome

First Edition
1 June, 2013

Department of Civil Aviation
Ministry of Transport, Myanmar

FOREWORD

The Department of Civil Aviation (DCA) is responsible under the Myanmar Aircraft Act, 1934, Section 5(b) (*the licensing, certification, inspection and regulation of aerodromes the conditions under which aerodromes may be maintained and the fees which may be charged thereat, and the prohibition or regulation of the use of unlicensed/uncertified aerodromes*;), for the implementation of the safety and the security of Civil Aviation.

This requirement prescribes the detailed guidelines and procedures used by aerodrome regulatory authority to process for accepting non-compliances with the MCAR Part 139 and aerodrome standards. The procedure for accepting non-compliances at aerodrome is one mechanism that aerodrome regulatory authority uses to evaluate aerodrome operators' application of exemptions for non-compliance at their aerodromes whether it will affect safety of aerodrome and safety of aircraft operation.

The responsibility for matters within this requirement is with the Director, Aerodrome Standards and Safety Division.

Director General
Department of Civil Aviation

TABLE OF CONTENTS

AMENDMENT RECORD

The amendments listed have been incorporated into the following amendments.

Edition	Subject	Contents of Amendments	Signature	Effective Date
1st edition	Procedure for Accepting Non-compliances at Aerodrome			1 June 2013

1.0 INTRODUCTION

1.1 An aerodrome certificate/license holder is expected to comply with the MCAR Part 139, Section 1- Aerodrome Certification and MCAR Part 139, Section 2- Aerodrome Design and Operation Requirements in conjunction with Manual of Aerodrome Standards (MOAS). There may be some circumstances where compliance of requirement have not been followed at an existing aerodrome because of physical constraints and where the facility had been provided earlier and continued to be in operation. Similarly there may be situation where compliance is not possible also for a new aerodrome due to physical constraints. These situations require DCA to have procedures for accepting cases for non-compliance in respect of an aerodrome being issued with a certificate/license.

1.2 This requirement is issued in accordance with the provisions contained in 139.17 and 139.19 of the MCAR Part 139, Section 1- Aerodrome Certification. This requirement stipulates the procedures for application and grant of exemptions for non-compliance of MCAR Part 139 and MOAS and safety management system for aerodrome operators.

2.0 PURPOSE

2.1 The purpose of this requirement is to harmonize the procedure for certification/licensing of aerodromes which do not conform to all the specifications contained in the MCAR Part 139 on Aerodrome Design and Operations Requirement and are required to be complied for certification/licensing of aerodromes.

2.2 When non-compliances are present, the effects on safety needs to be analyzed and compensatory measures and/or limitations on its use to mitigate any non-compliance has to be established. The harmonization of this aspect of the certification/licensing process is therefore important for ensuring safety. The need for an aeronautical study for granting exemptions is recognized by ICAO and contained in Annex 14-Vol 1 as well as in the Safety Management Manual as Safety Assessment Process.

2.3The ultimate goal is to require the non-compliances to be corrected and to deal with the situations where this is not possible, either due to physical constraints like terrain etc.,

3.0 NON-COMPLIANCES

3.1 Non-compliances are primarily related to the following aspects at the aerodrome for which some examples are given below:

Facilities and equipment

- Visual and non-visual aids.
- Obstacles on the strip and the obstacle limitation surfaces i.e. approach, departure and transitional surfaces.

- Strip areas - dimensions and quality. Inadequate runway strip with, inadequate taxiway width and lack of fillets
- Runway end safety areas
- Runway and taxiway shoulders
- Inadequate runway – taxiway separation distances.
- Landing systems.
- Rescue and fire-fighting vehicles and equipment.
- Meteorological equipment.

Services and operational procedures

- Rescue and fire-fighting services
- Meteorological services
- Low visibility procedures

3.2 Categories of Exemptions

Exemptions for non-compliance shall be:

i. **Temporary Exemptions:** where the non-compliance is expected to be removed and inter operability is the predominant aspect of the requirement, such as mandatory signs, availability of runway strip etc.

ii. **Permanent Exemptions:** where non-compliance is not reasonably, be removed and inter operability is not the predominant aspect of the requirement, such as the infringement of high ground into an obstacle limitation surface etc.

4.0 PROCEDURE FOR SEEKING EXEMPTIONS

4.1 The aerodrome certificate/license holder shall submit separate application for each non-compliance in the prescribed proforma for seeking exemption (Appendix 1).

4.2 The application for exemption shall be supported with the reasons for non-compliance, safety assessment reports, means of mitigation and indication as to when compliance can be expected.

4.3 An application for a standard exemption includes:

4.3.1 the applicant’s name and address. Name of aerodrome where exemption is being sought. (Aerodrome certificate/license number to be quoted if already issued)

4.3.2 the relevant provisions of Civil Aviation Requirements for which the exemption is sought.

4.3.3 In case of exemption sort for non-compliance with the national legislation, regulation, standards and procedures, then an investigation report including the cost benefit

analysis must be attached to the application for exemption. The investigation report should include safety assessment report prepared in accordance with MCAR-Safety Management System for aerodrome operators .

4.3.4 whether the exemption will affect a particular kind of operation, the details thereof.

4.3.5 the category under which exemption sought (temporary/ permanent) and justifiable reasons why the applicant needs the exemption. The reasons provided should be detailed and self-explanatory.

4.3.6 the period for which the exemption is required.

4.3.7 The action plan for rectification and review of non-compliance for temporary exemption, including the mitigation measures adopted for ensuring the safety during the exemption period.

4.3.8 In case of permanent exemption is sought, the applicant has to indicate the mitigation measures adopted to reduce the risk arising due to non-compliance after carrying out a safety assessment.

4.3.9 undertaking by the certificate/license holder that he shall annually review the conditions or mitigation measures and any other resultant non-compliance in particular when any significant changes in the activity or aerodrome development is proposed

4.4 The applicant should provide adequate information in the prescribed proforma for consideration for granting exemptions with supporting documents. Failure to provide adequate information may delay processing / refusal of the application.

4.5 The DCA after examining the applications for exemptions may exempt, in writing, an aerodrome operator from complying with specific provisions of the MCAR and may impose conditions for such exemptions to ensure the safety and regularity of aircraft operation.

4.6 On approval of the exemption, it shall be included in the aerodrome manual and in AIP.

4.7 On removal of the exemption the certificate/license holder shall notify the same to the DCA and after approval of DCA, the same shall be deleted from Aerodrome manual and AIP.

4.8 The exemption granted shall be reviewed during renewal of the certificate/license.

Appendix - 1

APPLICATION FOR SEEKING EXEMPTION (In duplicate)

1. 1. **DETAILS OF APPLICANT**

1.1 Name of Aerodrome:

1.3 Aerodrome Certificate Number:

1.4 Full name of applicant (in capital letters):

2. DETAILS OF EXEMPTION SOUGHT

2.1 Relevant provisions of National Regulations, MCAR and Aerodrome Standards for which exemption is sought:

2.2 The category under which exemption sought (TEMPORARY/ PERMANENT):

2.2.1 Reasons why the exemption is needed *(The reasons provided should be detailed and self explanatory):*

2.3 Period for which exemption is required:

2.4 If the exemption will affect a particular kind of operation, the details thereof:

2.5 For temporary exemption, the action plan for rectification and review of non-compliance, including the mitigation measures adopted for ensuring the safety during the exemption period:

2.6 For permanent exemption, the mitigation measures adopted to ensure safety of aircraft operation. Complete ***safety assessment report*** shall be enclosed:

I hereby certify that the forgoing information is correct in every respect and no relevant information has been withheld. I also undertake the responsibility for annually reviewing the conditions or mitigation measures and any other resultant non-compliance in particular when any significant changes in the aerodrome activity and development are proposed.

SIGNATURE OF APPLICANT

DATE……..

NAME……..……..

(in capital letters)

POSITION HELD……

(with official seal)

Note:

i) It is an offence to make any false representation with the intent to deceive, for the purpose of procuring exemption.

ii) Application not completed in all respect and not accompanied with relevant enclosures is likely to be rejected.

Appendix - 2

RISK ASSESSMENT AND MITIGATION PROCESS

1.0 Introduction

1.1 Risk assessment and mitigation is a structured and systematic process for the identification of hazards and the assessment of the risk associated with each hazard, or group of hazards. The acceptability of the risks is determined by comparing the assessed level of risk to the predetermined safety assessment criteria shown in Table 1, 2, 3 & 4, or Safety Objectives.

1.2 ICAO Annex 11 Air Traffic Services (paragraph 2.26.5) requires that any significant safety-related change to the ATC system shall only be implemented after a safety assessment has demonstrated that an acceptable level of safety will be maintained. Therefore, any new system or any change to an existing system should be assessed through a structured risk assessment and mitigation process.

1.3 ICAO Annex 14 Aerodromes (paragraph 1.4) places a similar requirement on Certification of Aerodromes.

1.4 ICAO published an Information Paper (No.9) for the ICAO 11th Air Navigation Conference containing a draft of 'The Manual on Safety Management for Air Traffic Services'. This was subsequently updated and published as ICAO Doc. 9859.

2.0 When Risk Assessment and Mitigation is Required

2.1 Although it is not possible to produce an exhaustive list detailing every circumstance requiring risk assessment the following are some typical examples where such an assessment would be required:

a) Implementation of new, or changes to, communications, surveillance or other safety-significant systems and equipment, including those providing new functionality and/or capabilities.

b) Physical changes to the layout of runways and/or taxiways at an aerodrome.

c) Physical changes to apron road schemes.

d) Introduction of a new aircraft type or class to an aerodrome.

e) Development or modifications of aerodrome procedures, including new procedures to operate at the aerodrome premises, changes to fire and rescue procedures etc.

f) Changes/Establishment of training or re-training of operational and technical staff.

g) A change to separation minimum to be applied within an airspace or at an aerodrome.

h) New operating procedures, including departure and arrival procedures, to be applied within an airspace or at an aerodrome.

i) A reorganisation of the ATS route structure.

j) A resectorisation of the airspace.

k) Introduction of a new Safety Management System (SMS) for an organisation, where the SMS requires Risk Assessment of the systems that it covers.

2.2 Confidence in safety is required before any changes to a system are put into service; the risk assessment and mitigation process should therefore start early in the lifecycle of a new system. For a large and complex project, there will be several phases of Risk Assessment and mitigation, each becoming more detailed as the design and development of the system progresses. The final pre-implementation Risk Assessment then forms the basis for the periodic safety reviews of the operational system, which should continue throughout its lifecycle until decomissioning.

3.0 Seven Steps of Safety Assessment

3.1 Risk assessment and mitigation requires a systematic approach. The complete process can be divided into seven steps. These are:

Step 1 - System description.

Step 2 - Hazard and consequence identification.

Step 3 - Estimation of the severity of the consequences of the hazard occurring.

Step 4 - Estimation/assessment of the likelihood of the hazard consequences occurring.

Step 5 - Evaluation of the risk.

Step 6 - Risk mitigation and safety requirements.

Step 7 - Claims, arguments and evidence that the safety requirements have been met and documenting this in a safety case.

3.2 Figure 1 illustrates the risk assessment and mitigation process. The process is iterative and there may be a need to perform a number of cycles throughout the project lifecycle in order to assess proposed risk mitigation measures for their effectiveness and impact.

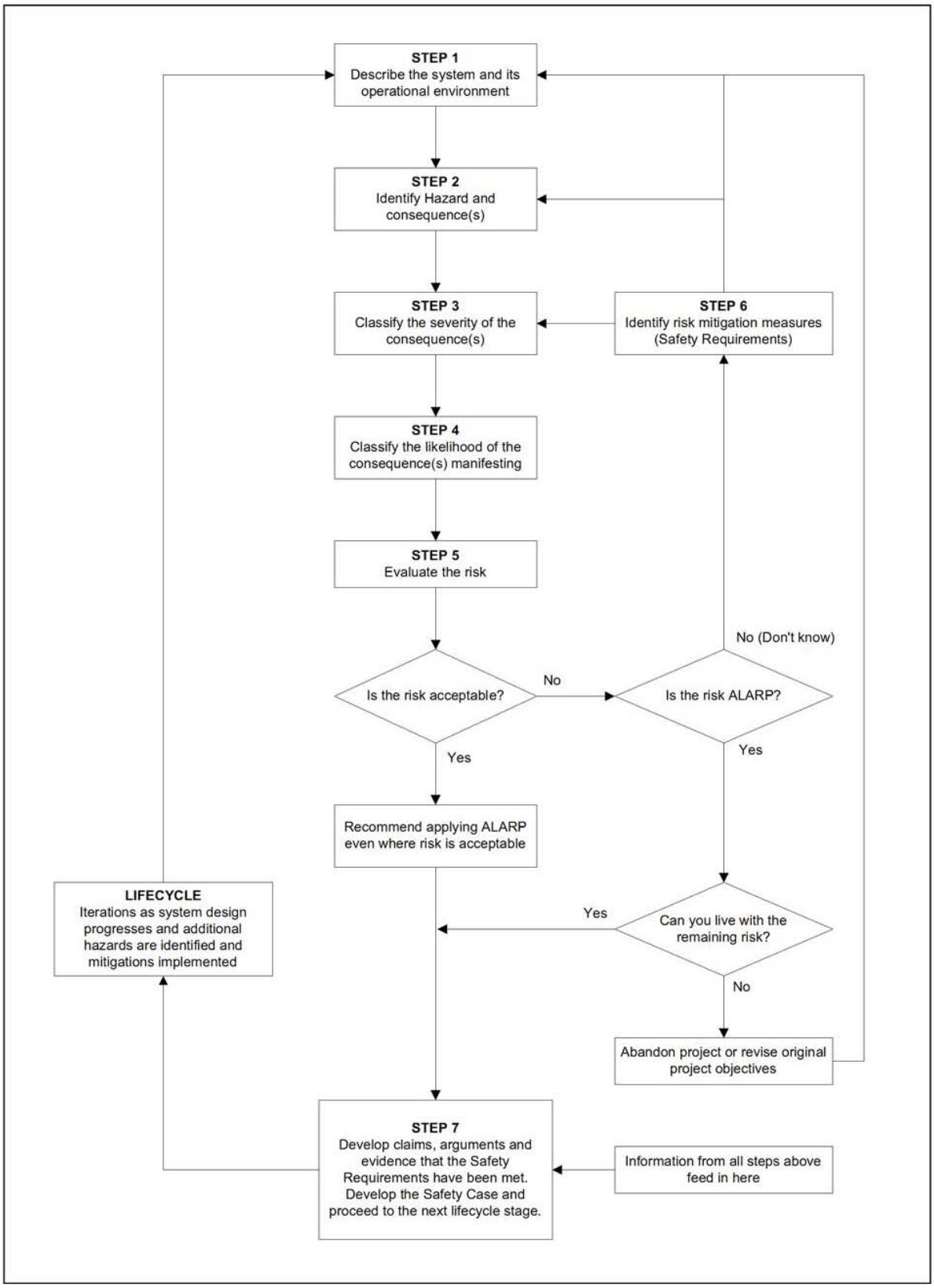

Figure 1 The Seven- Step Approach

Table 1: Safety Risk Probability Table

Probability of occurrence		
Qualitative definition	**Meaning (example)**	**Value**
Frequent	Likely to occur many times (has occurred frequently)	**5**
Occasional	Likely to occur some times (has occurred infrequently)	**4**
Remote	Unlikely, but possible to occur (has occurred rarely)	**3**
Improbable	Very unlikely to occur (not known to have occurred)	**2**
Extremely improbable	Almost inconceivable that the event will occur	**1**

Table 2: Safety Risk Severity Table

Severity of occurrences		
Aviation definition	**Meaning**	**Value**
Catastrophic	• Equipment destroyed • Multiple deaths	**A**
Hazardous	• A large reduction in safety margins, physical distress or a workload such that the operators cannot be relied upon to perform their tasks accurately or completely. • Serious injury or death to a number of people. • Major equipment damage	**B**
Major	• A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of increase in workload, or as a result of conditions impairing their efficiency. • Serious incident. • Injury to persons.	**C**
Minor	• Nuisance. • Operating limitations. • Use of alternate procedures. • Minor incident.	**D**
Negligible	• Little consequences	**E**

Table 3: Safety Risk Index Matrix

Risk probability	Risk severity				
	Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
Frequent 5	5A	5B	5C	5D	5E
Occasional 4	4A	4B	4C	4D	4E
Remote 3	3A	3B	3C	3D	3E
Improbable 2	2A	2B	2C	2D	2E
Extremely improbable 1	1A	1B	1C	1D	1E

Table 4: Safety Risk Tolerability/Acceptability Matrix

Risk Index	Acceptability/Action Required
5A, 5B, 5C, 4A, 4B, 3A	STOP: Unacceptable under the existing circumstances. Do not permit any operation until sufficient control measures have been implemented to reduce risk to an acceptable level.
5D, 5E, 4C, 3B, 3C, 2A, 2B	Management attention and approval of risk control/ mitigation actions required.
4D, 4E, 3D, 2C, 1A, 1B	Acceptable after review of the operation
3E, 2D, 2E, 1C, 1D, 1E	Acceptable

Table 5: Safety Risk Assessment Example

Risk Issue	Risk Level	Mitigation Measures	Actions
Aircraft crash incidents	As low as reasonably practicable	Emergency Plans	1. Review and update Airport emergency plans.
Bird strike	As low as reasonably practicable	Bird and Animal Hazard Management Strategy	1. Review and update Airport bird management strategy . 2. Develop bird management strategy for reclamation and construction activities.
Hazards posed to infrastructure and surrounding areas	As low as reasonably practicable	Emergency Plans	1.Review and update Airport emergency plans
General operational and construction hazards	Acceptable	Appropriate management plans for the construction phase. Diligent implementation of the normal level of risk management principles expected of modern construction and industrial activities can be expected to provide a broadly acceptable level of risk in managing general operational and construction hazards.	1. Review and upgrade Airport security plans for the large construction phase. 2. Environment Management Framework for the construction phase. 3. Review and update Airport emergency plans, including traffic access issues for emergency services.