

# Advisory Memorandum

(ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

#### 1 INTRODUCTION

#### 1.1 Background

Management of Change is one of the key principles of management systems and fundamental to aviation safety. Occurrence investigation has documented, inadequate or failure to manage change, as one of the most common contributors to accidents and incidents in terms of their likelihood and severity.

Therefore, as part of the overall State Safety Programme, it is crucial that Management of Change is applied rigorously, effectively and in a pragmatic way. This document provides guidance to aerodrome operators who are in receipt of a certificate issued under Regulation (EU) No. 139/2014 with regard to those changes that require prior approval by the Irish Aviation Authority as the Competent Authority and also those changes that do not require prior approval (i.e. notification only).

Details in relation to what an aerodrome operator can expect in relation to both prior approval and notification only processes, and the expectations of the IAA are set out.

This guidance introduces aerodrome operators to the new online Management of Change portal, MySRS – "My Safety Regulator". It is the intention that within the scope of Regulation (EU) No. 139/2014 in Ireland and for those aerodrome operators with a certificate issued under this Regulation, that all Management of Change submissions (prior approval and changes which do not require prior approval) will be managed through this platform in the future. The guidance will therefore highlight the general principles regarding Management of Change and identify where and how within the MySRS submission the aerodrome operator will be expected to address those elements.

#### 1.2 Regulatory Requirements

Prior to the implementation of Regulation (EU) No. 139/2014, Management of Change was identified as a key topic by the International Civil Aviation Organisation (ICAO) and consequently had been incorporated within the existing national licensing framework in Ireland. This was based on the principles outlined in ICAO Annex 19: Safety Management and Doc. 9859: Safety Management Manual. Further guidance has since been published by ICAO in the Procedures for Air Navigation Services: Aerodromes (PANS-AIM), Doc. 9981 in relation to safety assessments for aerodromes. These are important source documents and aerodrome operators should continue to refer to them for additional guidance.

#### 2 REFERENCES

- Regulation (EU) No. 139/2014;
- Regulation (EU) 2018/1139;
- ICAO Annex 14 and Annex 19.



## **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

#### The European Context:

For those aerodrome operators who converted an existing national licence or have made a new application and are now in receipt of a certificate issued under Reg. 139/2014 by the IAA, the key implementing rule is ADR.OR.B.040 – Changes.

#### ADR.OR.B.040 Changes

#### (a) Any change:

- (1) affecting the terms of the certificate, its certification basis and safety-critical aerodrome equipment; or (2) significantly affecting elements of the aerodrome operator's management system as required in ADR.OR.D.005(b) shall require prior approval by the Competent Authority.
- (b) For other changes requiring prior approval in accordance with Regulation (EC) No 216/2008 and its Implementing Rules, the aerodrome operator shall apply for and obtain an approval issued by the Competent Authority.
- (c) The application for a change in accordance with point (a) or (b) shall be submitted before any such change takes place, in order to enable the Competent Authority to determine continued compliance with Regulation (EC) No 216/2008 and its Implementing Rules and to amend, if necessary, the certificate and related terms of the certificate attached to it.
  - The change shall only be implemented upon receipt of formal approval by the Competent Authority in accordance with ADR.AR.C.040.
  - During the changes, the aerodrome operator shall operate under the conditions approved by the Competent Authority.
- (d) Changes not requiring prior approval shall be managed and notified to the Competent Authority as defined in the procedure approved by the Competent Authority in accordance with ADR.AR.C.035(h).
- (e) The aerodrome operator shall provide the Competent Authority with the relevant documentation in accordance with point (f) and ADR.OR.E.005.
- (f) As part of its management system, as defined in ADR.OR.D.005, the aerodrome operator proposing a change to the aerodrome, its operation, its organisation or its management system shall:
  - (1) determine the interdependencies with any affected parties, plan and conduct a safety assessment in coordination with these organisations;
  - (2) align assumptions and mitigations with any affected parties, in a systematic way;
  - (3) ensure a comprehensive assessment of the change including any necessary interactions; and
  - (4) ensure that complete and valid arguments, evidence, and safety criteria are established and documented to support the safety assessment, and that the change supports the improvement of safety whenever reasonably practicable.



# Advisory Memorandum

(ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

#### 3 DETAIL

#### 3.1 - Terms of the Certificate

The most critical areas subject to Management of Change are the Terms of the Certificate.

The certificate issued by the IAA to the aerodrome operator is considered to include the aerodrome's certification basis (CB), the aerodrome manual and if relevant any other operating conditions or limitations prescribed and any Deviation Acceptance and Action Documents (DAADs). The certificate is issued for unlimited duration and outlines the privileges of the activities that the aerodrome operator is approved to conduct, and these are specified in the terms of the certificate.

As the certificate is issued for unlimited duration, it is necessary to amend the certificate to reflect changes to the terms of the certificate. The terms of the certificate include:

- Certificate Reference:
- Aerodrome Name ICAO Location Indicator;
- Conditions to operate;
- Operations on Specially Prepared Winter Runways;
- Runway Declared Distances;
- Type of Approaches;
- Aerodrome reference code;
- Scope of aircraft operations with a higher aerodrome reference letter;
- Provision of apron management services;
- Rescue and Firefighting level of protection.

#### Certificate Reference:

The certificate reference will not usually be amended during the lifetime of the certificate. If, in exceptional circumstances, there is cause to change the reference number, this will be recorded and documentation outlining the rationale for the change maintained and the relationship between the previous certificate reference number and the new number noted.

#### Aerodrome Name - ICAO Location Indicator:

The aerodrome name and the ICAO location indicator will likely remain constant during the lifetime of a certificate. If, in exceptional circumstances, there is cause to change the name of the aerodrome or ICAO location indicator, this will be recorded and documentation outlining the rationale for the change maintained and the relationship between the previous name / location indicator and the new references noted.

#### Conditions to operate:

Whereby, following the Management of Change process for the aerodrome's operational processes, infrastructure and/or equipment and the requisite issuing of a prior approval to the aerodrome operator by the Aerodromes Division, it may be required to amend the: "Conditions to operate" as part of the terms of the certificate. This will generally relate to the extension or reduction of day or night operations, instrument flight or visual flight rules. Where this is necessitated, the older version of the certificate will be archived, and an amended version of the certificate will be issued to the aerodrome operator.



# Advisory Memorandum

(ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

#### Operations on Specially Prepared Winter Runways:

Only applicable whereby an aerodrome operator would request permission to operate in line with ADR.OPS.B.036 Operations on specially prepared winter runways.

#### Runway - Declared Distances:

Alterations to runway declared distances may be necessitated as the result of aerodrome works on either a temporary or permanent basis. Prior approval is required from the Aerodromes Division before such a change can be implemented at an aerodrome.

#### Type of approaches:

The approach type to an individual runway may be amended over the course of a lifetime of a certificate. Whereby changes to the instrument landing system or any other communication and navigation aids or the flight procedures themselves are proposed necessitating a change to the type of approach, this will be the subject of a prior approval request to the IAA's Air Navigation Services Division (ANSD).

#### Aerodrome reference code:

Dependent upon the development of an aerodrome, the aerodrome reference code may be amended over the course of a lifetime of a certificate. The aerodrome reference code is a function of the reference field length (i.e., the declared distances of the runway) and the critical aircraft greatest wingspan associated with the aerodrome and is detailed in CS ADR-DSN.A.005: Aerodrome reference code.

#### Scope of aircraft with a higher aerodrome reference letter:

Whereby a procedure exists and is approved by the Authority to handle higher code aircraft operations, this is reflected in this portion of the terms of the certificate. In line with the development of the aerodrome, this may be changed with reference to the overall aerodrome reference code. The requirements in this regard are outlined in ADR.OPS.B.090: Use of the aerodrome by higher code letter aircraft.

#### Provision of apron management services:

Only applicable whereby a declaration is received by the Authority with regard to the provision of Apron Management Services as defined and referenced under SUBPART F — APRON MANAGEMENT SERVICE (ADR.OR.F) of EU Reg. 139/2014.

#### Rescue and Firefighting level of protection:

Dependent upon the development of an aerodrome over a period of time, the category of Rescue and Firefighting protection or fire cover required may be upgraded or downgraded over the course of a lifetime of a certificate. The aerodrome category for rescue and firefighting is determined by the critical aircraft overall length and is outlined in ADR.OPS.B.010: Rescue and firefighting services.

All other major changes to the aerodrome, its operation (part ADR.OR, part ADR.OPS) infrastructure and equipment are to be managed in line with the requirements of ADR.OR.B.040: Changes. In this regard, the Aerodromes Division has provided a listing of those changes requiring prior approval and notification only to aerodrome operators.

The aerodrome operator has developed and submitted for approval, a prior approval procedure incorporating



# Advisory Memorandum (ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

those items and changes. This will also be the case for any newly certificated aerodrome in the future.

Consequential changes to a CB, arising from either infrastructural and/or equipment changes at an aerodrome or relating to a new issue of the Agency's Certification Specifications (CS) and the ongoing requirement for an aerodrome operator to demonstrate continuing compliance with those CS, will require the re-completion of the CS Checklist (this is the recorded documentation of the CB, as agreed with the Authority). See extract below.

This will be issued to the aerodrome operator by the Aerodromes Division, post the publication of a new issue of the CS by the Agency or separately identified through the project consultation. Figure 1 below is an extract from the Aerodromes Division CS Checklist.

110+	Form No: ASD.F.114A / Related Procedures No.: ADR.111 / ADR.112  AMDT No.: 5 (Incorporating CS-ADR-DSN Issue No.6)			SAFETY REGULATION DIVISION				
IAA	Issue Date: 4th April 2022 / ASD.F.114A Form Uploaded to SRD SharePoint: 20/09/2022			POLICY AND PROCEDURES				
	Title: Certification Specifications C	hecklist		POLICY AND PROCEDURES				
	Responsibility: Manager - Aerod	romes						
Aerodrome: (Insert Aero	odrome Name, e.g. Dublin / EIDW)							
Statement of co	Statement of compliance with COMMISSION REGULATION (EU) No. 139/2014 laying down requirements and administrative procedures related to aerodromes pursuant to Regulation (EU) No. 2018/1139 of the European Parliament and of the Council.							
	Signed:Date							
	Title For							
	Certification Specification CS	-ADR-DSI	V (Issue 6					
		Applicable? Yes/No	Compliant? - Yes/No	Statement of Compliance				
	Chapter A - Gener	al						
CS	ADR-DSN.A.001 Applicability (ADR-DSN/5)							
CS	ADR-DSN.A.002 Definitions (ADR-DSN/6)							
CS	ADR-DSN.A.005 Aerodrome reference code (ADR-DSN/6)							
CS	ADR-DSN.A.010 Intentionally left blank							
	Chapter B - Runwa	ıys		•				
CS	ADR-DSN.B.015 Number, siting and orientation of runways							
CS	ADR-DSN.B.020 Choice of Maximum permissible crosswind components Intentionally left blank							
CS	ADR-DSN.B.025 Data to be used Intentionally left blank							
CS	ADR-DSN.B.030 Runway threshold (ADR-DSN/5)							
CS	ADR-DSN.B.035 Actual Length of runway and declared distances							
CS or IR	Title	A - Washing Variable	Compliant? - Yes/No	Statement of Compliance				
CS OF IR	ADR-DSN.B.040 Runways with stopways or clearways.	Applicable: Yesino	Compliant? - Yes/No	Statement of Compilance				
CS	ADR-DSN.B.045 Width of Ruways (ADR-DSN/4)							
CS	ADR-DSN.B.050 Minimum distance between parallel non-instrument runways.							
CS	ADR-DSN.B.055 Minimum distance between parallel instrument runways							

Figure 1

#### 3.2 Changes Requiring Prior Approval & Changes Not Requiring Prior Approval:

Aerodrome Operator Prior Approval Procedure - 30 working days:

The Management of Change procedure required by the aerodrome operator under ADR.OR.B.040 – Changes is itself, a prior approval item for submission to the Competent Authority.

The proposed procedure will be reviewed by the Aerodromes Division to ensure that it is appropriate to the complexity of the aerodrome and type of operations / density of traffic, the frequency and magnitude of expected changes and the organisational resources and effectiveness of the Safety Management System of the aerodrome operator to respond to requests for information and clarification.



# Advisory Memorandum

(ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

Each approval is point in time and individual to the aerodrome operator, the overarching guidance in relation to what items / types of change require prior approval and those changes that require notification only is generic, but the overall effectiveness of the SMS and general safety performance of the aerodrome operator will have a significant bearing on the nature of additional information / clarifications requested.

Additionally, the Management of Change procedure for each aerodrome operator should include guidance for notification only submissions in line with the issued Aerodromes Division's Management of Change listing. This allows the IAA to define the scope of changes that do not require a prior approval and the procedure should describe how such changes will be managed and notified.

In general terms, whether the proposal relates to a prior approval or notification only submission, the aerodrome operator should seek to provide the Aerodromes Division with a minimum of 30 working days' notice of the proposal.

The aerodrome operator should also be conscious and pragmatic with regard to changes affecting third party organisations operating at the aerodrome, that would have a requirement for the submission of assessments such as instrument flight procedures, communications, navigation and surveillance equipment, Met. radar, glint and glare studies or wind turbulence assessments. The timeline for implementation of the change should therefore be conservatively extended. The aerodrome operator is expected to liaise with any other regulated entity (i.e. Air Navigation Service Provider or similar) to ensure that their regulatory timelines and processes are fully respected in the context of any change.

Specific expectations with regard to the materials that should comprise a Management of Change submission for prior approval are set out. At a minimum however, it would be expected that a project description and following materials or sections be provided:

- Demonstration of compliance (Outlining the Terms of the Certificate / Implementing Rules, AMCs / Certification Specifications impacted by the proposed change and how compliance is to be demonstrated / achieved);
- Drawings: Where relevant, appropriate infrastructural drawings in pdf format;
- Risk Assessment: A risk assessment (or more comprehensive aeronautical study where required) should be
  provided. It should be consistent with the format as approved within the organisation's Safety Management
  System Manual and in line with the general principles as outlined in ICAO Annex 19: Safety Management;
  Doc. 9859: Safety Management Manual; & Doc. 9981: Procedures for Air Navigation Services Aerodromes;
- Stakeholder Consultation Evidence: A record of engagement with affected stakeholders and any approvals required from other IAA domains, e.g., Air Navigation Services Division;
- Other Studies: Relevant to the proposed change, e.g., Benchmarking analysis of other similar aerodromes, etc.
- DRAFT Aeronautical Information Publication Materials: DRAFT AIP Supplements / Proposed NOTAMs; Proposed updates to the relevant AD Section(s).

Each individually approved Management of Change procedure may detail further specifics and the references above are only illustrative of the minimum expectation for a major change submission.

The Authority's target working time to process Management of Change submissions is 30 working days.

The time required to assess the change(s) within the minimum 30-working day timeframe is contingent upon the accuracy and completeness of the application submission. Accordingly, a submission which is determined to be incomplete and/or requires further review will inevitably lead to either an immediate rejection of the proposal, a



# Advisory Memorandum

(ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

request to amend the Management of Change documentation or a detailed Comment Response Document (CRD) process. Such steps are likely to extend the 30-working day timeframe.

An aerodrome operator should contact their Focal Point Aerodromes Inspector for guidance in relation to the development of any specific Management of Change proposal in advance of submission, as this can assist in clarification / expectation setting in terms of materials likely to be required.

#### Changes Not Requiring Prior Approval (Notification Only) – 10 working days:

The timeline for a submission of a notification only change should provide a minimum of 10 working days' notice to the Authority. There is a requirement on the IAA to adopt a documented systematic approach, assess the information provided in the notification sent by the aerodrome operator in accordance with ADR.AR.B.040(d) to verify their appropriate management and compliance with the certification specifications (CS) and/or Part ADR.OPS and other appropriate requirements applicable to the change.

The most common notification only type submission would likely be amendments to the Aerodrome or Safety Management System Manuals, and in particular, these would likely relate to names / job titles / contact details / minor content changes approved through an aerodrome operators Safety Committee Structures.

Depending on the maturity of the organisation and the controls in place and where a project approval has been granted, notification only site works procedures (SWP) may also be submitted but only where this has been clearly agreed and documented with the Aerodromes Division.

In all instances, a notification only submission is notification. The Aerodromes Division retains the authority to request that any notification only submission be treated to a prior approval submission and queries / requests for additional documentation may be issued. The form and content of a notification only submission is defined through the individually approved MoC procedure for each aerodrome operator.

The MySRS system will in time provide a new methodology in relation to notification only submissions. This will provide an automatic acknowledgement of receipt and the Aerodrome's Division will then have a 10-working day period to review the submission.

In the absence of further communication, the aerodrome operator may consider the notification only submission as accepted without comment, but subject to ongoing oversight in the normal manner.

Should Aerodromes Division consider that the notification only submission is more appropriately treated as a prior approval submission, this will be directly communicated by the Focal Point Aerodromes Inspector who will engage with the appropriate point(s) of contact as directed in the aerodrome operator's Safety Management System Manual.

The Focal Point Aerodromes Inspector will provide any relevant guidance to the development of the submission at that point as required.



# Aeronautical Services Advisory

Memorandum (ASAM)

**Focal Point: ADR** 

ASAM No: 47 Issue 1.0

Date 31.03.23

Title Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) Reg. 139/2014

Infrastructural or Safety Related Equipment	Notification	Prior Approval	Legislative Reference
New airside infrastructure, a significant change of use or removal of existing infrastructure (on a permanent basis)	×	✓	ADR.OR.B.040(a)(1) / All CS
Runway declared distances changes	×	✓	ADR.OR.B.040(a)(1) / ADR.OPS.A.005
Visual and Navigation aid changes	×	✓	ADR.OR.B.040(a)(1) & Certification Specifications: Chapters Visual Aids
Obstacle limitation surfaces / Building Restricted Area / Obstacle Protection surfaces for visual aids / Sightlines from ATC tower	×	✓	ADR.OR.B.040(a)(1) & Certification Specifications: Chapters H & J
Airside Infrastructure Rehabilitation: Dependent on scope of works (emergency repairs do not require notification, although the Aerodromes Division may be informed post completion)	×	✓	ADR.OR.B.040(a)(1)
Airside critical safety function vehicles, e.g. fire tender appliances	(Replacing with same model vehicles)	(New vehicle models)	GM1 ADR.OR.B.040(a);(b) ADR.OPS.B.010
Airside new equipment types e.g. new aeronautical ground lighting	*	✓	ADR.OR.B.040(a)(1) / All CS
Higher Code Aircraft (Permission for operations of aircraft exceeding the operator's certificate approval / critical or design aircraft type)	*	✓	ADR.OPS.B.090
Implementation of aeroplane operations on specially prepared winter runways as required by ADR.OPS.B.036	×	✓	ADR.OPS.B.036
Manuals and Procedures	Notification	Prior Approval	Legislative Reference
Aerodrome Manual / Airport Directions major changes / New Version	×	✓	ADR.OR.B.040(a)(2) / ADR.OR.E.005
Safety Management System manual / New Version	×	<b>√</b>	ADR.OR.B.040(a)(2) / ADR.OR.D.005
Reduced / Low Visibility Procedures	×	<b>√</b>	ADR.OR.B.040(a)(2) / ADR.OPS.B.045
Aerodrome Manual / Airport Directions / Standard Operating Procedure changes (names / job titles / contact details / minor content changes approved through Safety Committee Structures)	<b>✓</b>	×	ADR.OR.B.040(a)(2) / ADR.OR.E.005
Hazard Identification/Risk Assessment Process and Procedures – Significant change to processes / severity / probability / tolerability matrices only	×	~	ADR.OR.B.040(a)(2) / ADR.OR.D.005
Construction / Site Work Procedures (prior to initiation of works, depending on the nature of works)	<b>/</b>	To be advised	ADR.OR.B.040(a)(2) / ADR.OPS.B.070
Operator's Management of Change / Prior Approval Procedure	×	<b>√</b>	GM1 ADR.OR.B.040(a);(b)
Organisational changes and/or restructuring	Notification	Prior Approval	Legislative Reference
Safety Management System nominated person changes (Accountable Manager / Responsible Manager / Safety Manager / Maintenance Manager / Chief Airport Fire Officer / Compliance Manager require notification and approval by IAA)	×	<b>✓</b>	ADR.OR.B.040(a)(2) ADR.OR.D.005 ADR.OR.D.015
Restructuring of key departments: Significant organisational change and/or restructuring leading to the redistribution of key safety responsibilities and functions	×	✓	ADR.OR.B.040(a)(2) / ADR.OR.D.005
Safety committee structures: Changes to the Safety Review Board / Safety Services Office	×	✓	ADR.OR.B.040(a)(2) / ADR.OR.D.005
Aerodrome Certificate / Terms of the Certificate / Alternative Means of Compliance	Notification	Prior Approval	Legislative Reference
Aerodrome EASA Certificate: Change to or termination of an EASA Certificate. Changes to the terms of an EASA Certificate (such as level of rescue and firefighting cover, scope of higher aircraft operation, etc.)	×	✓	ADR.OR.B.040(a)(1)
Certification Basis: Changes to the certification basis, deviation acceptance and action documents or special conditions	×	✓	ADR.OR.B.040(a)(1) / All CS
Alternative means of compliance: Use of any proposed Alternative  Means of Compliance	*	✓	GM1 ADR.OR.B.040(a);(b) / All OR & OPS rules
Service Level Agreements in relation to Aviation Safety	Notification	Prior Approval	Legislative Reference
SLAs with regard to responsibilities laid down in EU 139/2014: i.e. the design of Flight Procedures / Aeronautical Information Services, etc.	×	✓	ADR.OR.B.040(a)(2) / ADR.OR.C.005

**Notification only:** Official written correspondence (email or letter) is forwarded to the Focal Point Aerodromes Inspector (or nominated deputy) informing them as to the nature, timing and content of the proposed change and its effective date along with any other necessary material. Acknowledgement from Aerodromes Division of receipt is required.

**Prior approval:** In advance of any change, official written correspondence (email or letter) is forwarded to Focal Point Aerodromes Inspector (or nominated deputy) informing them as to the nature, timing and content of the proposed change and its proposed effective date along with any relevant materials. Aerodromes Division will then confirm prior approval or issue comments with respect to the change within a reasonable period of time. This change cannot be implemented without the formal approval of Aerodromes Division.



**Advisory Memorandum** 

(ASAM)

**Focal Point: ADR** 

**ASAM No: 47** 

Issue 1.0

Date 31.03.23

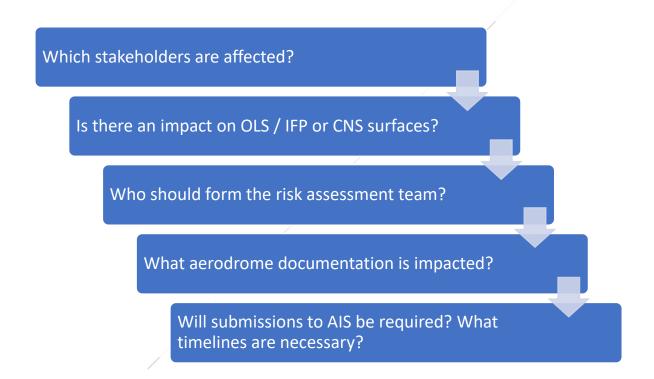
**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

#### 4 MANAGEMENT OF CHANGE PROCESS FLOW



However, in general terms, the aerodrome operator should consider:





## **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

**ASAM No: 47** 

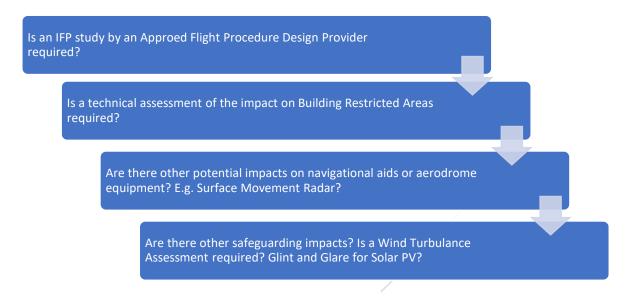
Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

Risk assessment is key but other studies may be required to appropriately inform the hazard identification and the risk assessment.



Once the basic project materials are developed and have been reviewed in line with the aerodrome operator's Safety Management System and project management processes, the next step is for the aerodrome operator to ensure their IAA approved Management of Change procedure is followed.

As identified heretofore, the first step is to consider whether the proposed change(s) fit into the full Management of Change / prior approval process or notification only. If the aerodrome operator is unclear, contact should be made with their Focal Point Aerodromes Inspector for advice and/or clarification.



<u>Notification Only:</u> Proceed as described in the approved Management of Change procedure. Official written correspondence (email or letter) is forwarded to Focal Point Aerodromes Inspector (or nominated deputy) informing them as to the nature, timing and content of the proposed change and its effective date along with any other necessary material. Acknowledgement from Aerodromes Division of receipt is required.



#### **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

**ASAM No: 47** 

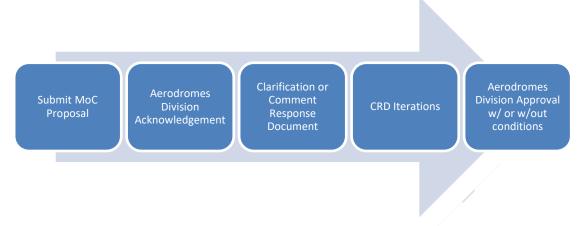
Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

Management of Change / Prior Approval Required:



**Note:** The aerodrome operator should ensure that the submission is coordinated with the Air Navigation Service Provider (ANSP) / Aviation Security functions locally and determine whether any other regulatory approvals are required:

- Notification of change to IAA's Air Navigation Services Division;
  - o Air Traffic Control Services;
  - Engineering;
  - Airspace.
- Aviation security changes.

#### 5 RISK ASSESSMENT

Risk assessment, sometimes also referred to as hazard identification, should be undertaken in line with the approved SMS Manual of the aerodrome operator.

As previously referenced, a risk assessment should be carried out with consideration of the general principles as outlined in ICAO Annex 19: Safety Management; Doc. 9859: Safety Management Manual; & Doc. 9981: Procedures for Air Navigation Services – Aerodromes.

The risk assessment should be facilitated by the Safety Manager or other suitable nominated person with appropriate training in risk assessment. Persons participating in the risk assessment process, should be subject matter experts in their area or have appropriate experience / training relating to risk assessment or the risk being assessed. This is particularly important for multi-stakeholder risk assessments.

The formal risk assessment and mitigation process should be developed and maintained to ensure analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability), and control (in terms of mitigation) of risks.



## **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

The levels of management who have the authority to make decisions regarding the tolerability of safety risks should also be specified in the SMS Manual.

Risk assessment is the analysis of the risks of the consequences of the hazard(s) that have been determined. Risk analysis breaks down the risks into two components — the probability of occurrence of a damaging event or condition, and the severity of the event or condition, should it occur. Risk decision making, and acceptance should be specified through a risk tolerability matrix. The definition and final construction of the matrix is left to the operator to design but it must be documented in the Aerodrome / SMS Manual (where applicable) and is subject to approval by the IAA.

ICAO Annex 19: Safety Management and Doc. 9859: Safety Management Manual are useful reference materials for the construction of an appropriate risk tolerability matrix to be employed for risk assessment.

At a high level, a risk assessment for a change should include:

- (1) identification of the scope of the change;
- (2) identification of hazards;
- (3) determination of the safety criteria applicable to the change;
- (4) risk analysis in relation to the harmful effects of the change;
- (5) risk evaluation and, if required, risk mitigation for the change to meet the applicable safety criteria:
- (6) verification that the change conforms to the scope that was subject to risk assessment, and meets the safety criteria, before the change is put into operation; and
- (7) the specification of the monitoring requirements necessary to ensure that the aerodrome and its operation will continue to meet the safety criteria after the change has taken place.

Some important concepts which should always form the basis of an assessment are:

Risk Probability: The likelihood that an unsafe event or condition might occur.

**Risk Severity:** The possible consequences of an unsafe event or condition, taking as reference, the worst foreseeable situation.

A sample risk probability, risk severity and the ICAO Annex 19 / Doc. 9859 risk tolerability matrix are included on the next pages. The aerodrome operator may choose to establish their own probability / severity and tolerability matrices, this will however require justification and is always subject to review by the IAA for appropriateness.



## **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

Risk Probabi	lity Table	
Likelihood	Value	
Frequent	Likely to occur many times (has occurred frequently) i.e. Weekly to Monthly event	5
Occasional	Likely to occur sometimes (has occurred infrequently) i.e. Quarterly	4
Remote	Unlikely to occur, but possible (has occurred rarely) i.e. Annual event	3
Improbable	Very unlikely to occur (not known to have occurred) i.e. 1 in 5 year event	2
Extremely Improbable	Almost inconceivable that the event will occur i.e. 1 in 10 year event	1

Risk Severity Table				
Severity	Meaning	Value		
Catastrophic	<ul><li>Equipment destroyed;</li><li>Multiple deaths.</li></ul>	Α		
Hazardous	<ul> <li>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;</li> <li>Serious injury;</li> <li>Major equipment damage.</li> </ul>	В		
Major	<ul> <li>A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of an increase in workload or as a result of conditions impairing their efficiency;</li> <li>Serious incident;</li> <li>Injury to persons.</li> </ul>	С		
Minor	Nuisance;     Operating limitations;     Use of emergency procedures;     Minor incident.	D		
Negligible	• Few consequences.	E		



# Aeronautical Services Advisory Memorandum (ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

The colouring in the table below indicates the general: "tolerability" of a risk. Red is intolerable: 5A -> 3A; Amber is tolerable with mitigations: 5D -> 1A and finally, Green indicates tolerable, and no further mitigation required if all risks have been reduced to a level that is as low as reasonably practicable (ALARP).

		Risk Severity					
Risk Probability	Catastrophic	Hazardous	Major	Minor	Negligible		
	A	В	С	C D			
5 – Frequent	5A	5B	5C	5D	5E		
4 – Occasional	1 – Occasional 4A		4C	4D	4E		
3 – Remote	3A	3B	3C	3D	3E		
2 - Improbable	2A	2B	2C	2D	2E		
1 – Extremely Improbable	1A	1B	1C	1D	1E		



# Advisory Memorandum

(ASAM)

**Focal Point: ADR** 

**ASAM No: 47** 

Issue 1.0

Date 31.03.23

Title

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

Risk Tolerability	Risk Assessment Index	Description
Intolerable Region	5A, 5B, 5C, 4A, 4B, 3A	Unacceptable under the existing circumstances. Event or associated activities must be cancelled.
Tolerable Region	5D, 5E, 4C, 4D, 4E, 3B, 3C, 3D, 2A, 2B, 2C, 1A	Acceptable based on risk mitigation / It may require management decision / risk assessment required
Acceptable Region	3E, 2D, 2E, 1B, 1C, 1D, 1E	Acceptable – No immediate action required

The last two important concepts to bear in mind when undertaking a risk assessment are the inherent nature of the risk and its residual risk post mitigation(s).

Inherent risk is effectively the level of risk without mitigation and reflects the type of risk that exists in relation to aviation generally and the operation of the movement area, e.g. the potential of a wildlife strike. This is an inherent risk, it cannot be fully mitigated and will always exist.

The risk that can be mitigated, e.g. the likelihood of a severe wildlife strike involving a heavy, non-responsive flocking bird can be reduced through good wildlife habitat management practices, e.g. wildlife patrols, bird scaring, long grass policy and sundry other measures. The inherent risk remains but potentially the likelihood of a severe event is driven down. Ultimately, the consequences of the risk remains catastrophic or hazardous but may, dependent on the mitigations employed, drive the likelihood down from occasional to remote, etc.

Ultimately, a risk assessment is somewhat subjective and that is why it is important that a risk assessment is undertaken by a team with an appropriately trained facilitator to ensure that a wide range of views are considered. These views should be provided by experts in their field where possible or the most appropriately qualified / experienced personnel and the history of occurrences at the aerodrome and nationally should be reviewed and international benchmarking considered where appropriate and available in relation to establishing appropriate



# **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

estimations of severity and likelihood of any particular risk emerging.

A sample table for assessing inherent and residual risk, inserting severity and likelihood and for undertaking risk assessment generally is depicted in Figure 2.

Type of operation or activity	Hazards	Mitigations	Responsible Person	Probability	Severity	Risk Level	Further action to reduce risk(s) and resulting risk index	Probability	Severity	Risk Level
Aircraft manoeuvring / parking on Stand 4	Aircraft / Aircraft collision;     Aircraft / vehicle / GSE collision;      Jet blast;     FOD damage;	Line markings; Hammerhead     Appropriate stand clearances;     Procedural restrictions.     Training.	Airside Operations Manager	4	c	4C	Pavement rehabilitation (to remove FOD risk); Refresh / enhance line markings; Apron floodlighting; Lead in line lighting / visual docking guidance system; Publish restrictions for Apron Service Roadway usage during aircraft manoeuvring.	3	С	3C
			Overall P	otential Risk F	actor: 4C	Overall R	esidual Risk Fac	tor: 3C		

Figure 2

#### 5.1 Safety Assessment

The scope of the safety assessment should include the following elements and their interaction:

- (1) the aerodrome, its operation, management, and human elements being changed;
- (2) interfaces and interactions between the elements being changed and the remainder of the system;
- (3) interfaces and interactions between the elements being changed and the environment in which it is intended to operate; and
- (4) the full lifecycle of the change from definition to operations.

The safety criteria used should be defined in accordance with the procedures for the Management of Change contained in the aerodrome manual.

The safety criteria used should, depending on the availability of data, be specified with reference to explicit quantitative acceptable safety risk levels, recognised standards, and/or codes of practice, the safety performance of the existing system, or a similar system.

Particular attention should be given to changes which may have an effect on runway safety. This includes the introduction of, or changes to noise mitigation or noise abatement procedures.



## **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

**ASAM No: 47** 

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

#### 6 MySRS

This section is under review and will be finalised when MySRS completes User Acceptance Testing and enters full: "Go Live".

My Safety Regulator (MySRS) will be a digital platform for the management of all aspects associated with a regulatory approval (i.e. a certificate or licence) issued by the IAA.

The regulated entity's oversight, renewal or amendment of a regulatory approval and changes associated with their certification or operations basis will be managed through the portal.

From an aerodromes' perspective, a bespoke Management of Change portal has been developed based on the Prior Approval / Notification Only listing guidance previously provided. The latest version of the Implementing Rules (IR) and the CS will be kept live on the portal and nominated persons, on behalf of the aerodrome operator and in line with their agreed Management of Change procedure, will be able to make submissions directly through the portal to their Focal Point Aerodromes Inspector.

The CRD will be managed through the portal and the approval letter, with or without conditions, will be issued through the portal with a digital electronic signature.

This will provide both the IAA and the aerodrome operator with one factual record of the submission, the associated materials and the approval. It will also allow for easy tracking of how many submissions have been lodged and what their status is at any point in time without the need to search through emails and other correspondence.

At the time of the writing, the portal remains under development. When user acceptance testing is completed, all aerodrome operators will be advised, and training videos / other onboard training will be provided.

The principles outlined throughout this document and the requirements of the aerodrome operator's approved Safety Management System / Management of Change procedure will all however remain. The portal will replace the requirement to email the submission and the associated documents.

A notification only submission option will also be available, this will provide the aerodrome operator with an acknowledgement that the submission has been received. The aerodrome operator will then be advised whether the notification only change is accepted within the 10 working days period. If no further correspondence is received, the notification only acceptance may be considered as accepted without comment.



#### **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

ASAM No: 47

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

#### 7 COMMENT RESPONSE DOCUMENT (CRD)

This section outlines the structure and use of the: 'Comment Response Document' (CRD) depicted in Figure 3 which is used by the Aerodromes Division to provide regulatory reviews to aerodrome operators certificated in accordance with Regulation (EU) No. 139/2014.

The CRD document has universal use and is intended to record comments corresponding to regulatory oversight review activities, which are performed on document(s) provided by an aerodrome operator in their various submissions to the Aerodromes Division. Most particularly, those changes related to a Management of Change application which will likely result in the issuing of a CRD document, include:

- Infrastructural or Safety Related Equipment;
- Manuals and Procedures;
- Organisational changes and/or restructuring;
- Changes to the Aerodrome Certificate / Terms of the Certificate / Alternative Means of Compliance;
- Service Level Agreements in relation to Aviation Safety, i.e. that have significance from an EU Regulation No. 139/2014 perspective.

The CRD document is intended, through the different issues, to report the comments corresponding to the review activities performed on the documents corresponding to the prior approval Management of Change request submitted by the aerodrome operator.

Comments are classified according to the following 4 categories:

- Major, the Review Team considers that the issue impacts the acceptability of the document (e.g. a non-conformity to applicable requirements, or an important problem that should be resolved by the organisation).
- Minor, other issues not affecting directly the compliance demonstration, but the review team considers that improvements and clarifications to the document are necessary;
- Editorial: covering suggestions for editorial improvements;
- Question: The question may be associated to an issue that requires further clarification and it does not correspond to a Major or Minor issue.

Additionally, it is necessary to take into account the following aspects:

- The individual open "Major" comments should drive the document/change acceptability;
- A large number of "Minor" comments on a document may be considered as equivalent to a "Major" comment;
- Minor issues related to unclear or non-existent information may be reclassified as "Major" once the information is clarified;
- Questions may result in a major/minor comment after the provision of this clarification.

Comments may have the following status:

• OPEN: Open, new remark is raised, or the answer is considered unsatisfactory by the review team;



# **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

**ASAM No: 47** 

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

• CLOSED: Closed, when the comment is closed without any action or when evidence is provided that the agreed action has been performed.

The sale	Aerodromes Organisations Approval: Changes to Functional	COMMENT FILE
<b>VIAA</b>		Ref: Date:

<b>†</b>									
	N°	Doc.	Chapter	Aerodromes Comment/Observation/Question	Classification	Airport Response	Status		
	R1.								
	R2.								
	R3.								
	R4.								
	R5.								
	R6.								

Figure 3

When the CRD process is completed, the CRD document is reported as CLOSED by the Aerodromes Division and the process moves to the conclusion and formal approval.



#### **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

**ASAM No: 47** 

Issue 1.0

Date 31.03.23

Title

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

#### 8 APPROVAL & APPROVAL WITH CONDITIONS

An approval letter will be provided to the aerodrome operator when the Management of Change / CRD process has been completed. It will advise that the IAA's Aerodromes Division, as the Competent Authority under Regulation (EU) 2018/1139 and Regulation (EU) No. 139/2014, has completed its review of the submission.

Approval conditions may be included. The following are examples of some of the most likely generic conditions:

- SITE WORK PROCEDURES CONDITION Please forward the Site Work Procedures for this project for:
   <prior approval / notification only>;
- RISK ASSESSMENT CONDITION Please ensure that all mitigations identified within the risk assessments are implemented in full and regularly monitored; and
- AERODROME DATA / AIP CONDITION
- GENERAL PROJECT CONDITION

It is the responsibility of the aerodrome operator to ensure that all conditions imposed are appropriately discharged and evidence, if required, submitted to the Aerodromes Division. Any approval issued can and will form part of the ongoing and continuous oversight monitoring, associated with the aerodrome operator's certificate.

#### 8.1 Site Work Procedures

Dependent on the complexity and type of operations at an aerodrome and the maturity of the organisation and the controls in place and where a project approval has been granted, notification only Site Works Procedures (SWP) may also be submitted but only where this has been clearly agreed and documented with the Aerodromes Division.

Irrespective of the requirement to submit SWP either on a notification only or prior approval basis, the aerodrome operator should develop SWP specific to each project that takes place on the movement area. This should be undertaken with particular reference to ADR.OPS.B.070 Aerodrome works safety and the aerodrome operator's own promulgated aerodrome works procedure.

A prior approval of a project will indicate, through a condition, whether it is expected that a separate SWP submission will be made. In some instances, particularly with projects of long duration and with complex phasing, an SWP strategy may be requested. This should outline the key project phases, the various mitigations and controls to be employed and from that point forward, the SWPs should be submitted on a notification only with the higher level strategy approved.

In all of the instances above, the requirement for the aerodrome operator to develop SWPs remains. As such, the list below sets out topics and issues that are to be expected to be incorporated within any SWP template or bespoke SWP document. The listing is not exhaustive and the aerodrome operator may choose to augment the SWP with any further relevant information it believes is necessary for the safety of operations.

- High Level Project Description;
- Project Contact Details;
- Proposed dates / hours of work and any information promulgation required (i.e. NOTAMing of operational restrictions);
- Airside Site Safety Information particular to the project (i.e. whether working on the manoeuvring area, etc.);



## **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

**ASAM No: 47** 

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

- Vehicle operations, specific to operating in an airside environment and escorting arrangements / access and egress;
- OLS / IFP / NAVAIDs: Identify if any implications on flight procedures / communication, navigation and surveillance equipment and obstacle limitation surfaces (i.e. crane ops) and whether any technical assessments are required / have been assessed;
- Low Visibility Operations: Indicate whether works are to be undertaken whilst low visibility procedures are in
  operation. This will require a separate prior approval from the Aerodromes Division; Note: This is only
  applicable to apron areas.
- Any site set up requirements (delineation, jet blast fencing, etc.) and any phasing required for the project (movement of site delineation). Reference the aerodrome operator's local Aerodrome Works Permit / Work Site Checklist requirements as appropriate.

#### 8.2 Construction Validation

Post project completion, there will be a range of commissioning and construction validation reports that may be required.

These requirements for the safe integration of any new facility or infrastructure onto the movement area should be fully considered and scoped by the aerodrome operator at the outset of the project.

Typical items will likely include but are not limited to:

- Friction testing;
- Photometric testing;
- Flight checking;
- Pavement Classification Number Destructive / Non-destructive testing or a technical report; (Note: ACR/PCR methodology to be employed from November 2024)
- Surveying of coordinates, length and width of pavements associated with runways/taxiways/apron taxiways/apron/stands, etc.

Other checks or reports may be necessitated. The aerodrome operator should liaise with their Focal Point Aerodromes Inspector at project concept stage to fully determine the likely requirements.

Evidence of construction validation will be sought, dependent on the nature and complexity of the project to satisfy the conditions outlined in the prior approval letter.

#### 8.3 Aeronautical Information Promulgation

Dependent on the nature of the project, there may be a requirement to promulgate aeronautical information. This will be undertaken by the aerodrome operator through submissions to, and coordination with the State's Aeronautical Information Service (AIS) and in line with any service level agreement in place.

Post project completion and in line with the availability of any new facility or infrastructure, provided regulatory



#### **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

**ASAM No: 47** 

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

approval has been granted, the aerodrome operator will be expected to amend its Aerodrome Entry in the Aeronautical Information Publication (AIP) to reflect the infrastructure in place and available on the ground as soon as practicable and respecting the Aeronautical Information Regulation and Control Cycle (AIRAC).

In order to achieve the above and to work in accordance with appropriate timelines, the aerodrome operator should familiarise themselves with the contents of the following Aeronautical Services Advisory Memoranda (ASAM):

- No.006: Guidance Material on AIP Change Request;
- No.012: Guidance Material on Aeronautical Chart Validation;
- No.013: Guidance Material on eTOD;
- No.021: Guidance Material on Aeronautical Data Collection;
- No.023: Guidance Material on Obstruction Surveys.

Further information in relation to approved Aeronautical Data and Chart Providers is available here:

https://www.iaa.ie/commercial-aviation/airspace/aeronautical-data

https://www.iaa.ie/commercial-aviation/airspace/aeronautical-charts



## **Advisory Memorandum**

(ASAM)

**Focal Point: ADR** 

**ASAM No: 47** 

Issue 1.0

Date 31.03.23

**Title** 

Management of Change Guidance for Aerodrome Operators Certificated under Regulation (EU) No. 139/2014

#### 9 SUMMARY

This Aeronautical Services Advisory Memorandum has sought to explain the requirements as contained within Regulation (EU) No.139/2014 and particularly, ADR.OR.B.040 – Changes and how those requirements impact the aerodrome operator and their way of managing such a change(s).

The aerodrome operator should manage safety risks related to a change. The Management of Change is a documented process to identify external and internal change that may have an adverse effect on the safety of operations at an aerodrome.

It should make use of the aerodrome operator's existing hazard identification, risk assessment, and mitigation processes.

Change can introduce new hazards, impact the appropriateness and/or effectiveness of existing safety risk mitigation strategies. Changes may be external to the organisation, or internal.

The formal process for the Management of Change should consider the following:

- 1) criticality of systems and activities;
- 2) stability of systems and operational environments; and
- 3) past performance.

Particular attention should be given to changes which may impact runway safety. This includes the introduction of, or changes to noise mitigation or noise abatement procedures.

The key fundamental is to ensure that the change is appropriately risk assessed. The team that undertakes the risk assessment / consideration of the change is multi-disciplinary and as expert as possible and there is an appropriate facilitator with the relevant training to document the outcome of the risk assessment.

At that point, the aerodrome operator's safety management system and the approved Management of Change procedure should provide appropriate guidance. An aerodrome operator should contact their Focal Point Aerodromes Inspector for additional context if necessary and for specific questions/points of clarification.

Comments, questions or suggestions in relation to this guidance material document are always welcome and can be submitted to: aerodromes@iaa.ie