



Change Management

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Aerodrome Certification

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Change management

- Documentation of reference
- Introduction
- Requirements established in the European regulation
- Change Management Procedure

Documentation of reference

2.4.4 Management of change

2.4.4.1 As part of their SMS, aerodrome operators should have in place procedures to identify changes and to examine the impact of those changes on aerodrome operations.

Note 1.— Changes on an aerodrome can include changes to procedures, equipment, infrastructures and special operations.

Note 2.— Further guidance on the management of change can be found in Doc 9859 — Safety Management Manual (SMM).

2.4.4.2 A safety assessment will be carried out to identify hazards and propose mitigation actions for all changes that are found to have an impact on the aerodrome operations.

Note 1.— Depending on the scope of the envisaged change as well as the level of the impact on operations, the methodology and level of detail required to carry out the required safety assessment may vary.

Note 2.— The types of changes that have to be assessed are described in 2.4.4.3, and the key principles on safety assessments are available in Chapter 3 — Safety Assessments for Aerodromes.

Documentation of reference

2.4.4.3.2 *Specific changes.* Impact on the safety of aerodrome operations may result from:

- a) changes in the characteristics of infrastructures or the equipment;
- b) changes in the characteristics of the facilities and systems located in the movement area;
- c) changes in runway operations (e.g. type of approach, runway infrastructure, holding positions);
- d) changes to the aerodrome networks (e.g. electrical and telecommunication);
- e) changes that affect conditions as specified in the aerodrome's certificate;
- f) long-term changes related to contracted third parties;
- g) changes to the organizational structure of the aerodrome; and
- h) changes to the operating procedures of the aerodrome.

Change management

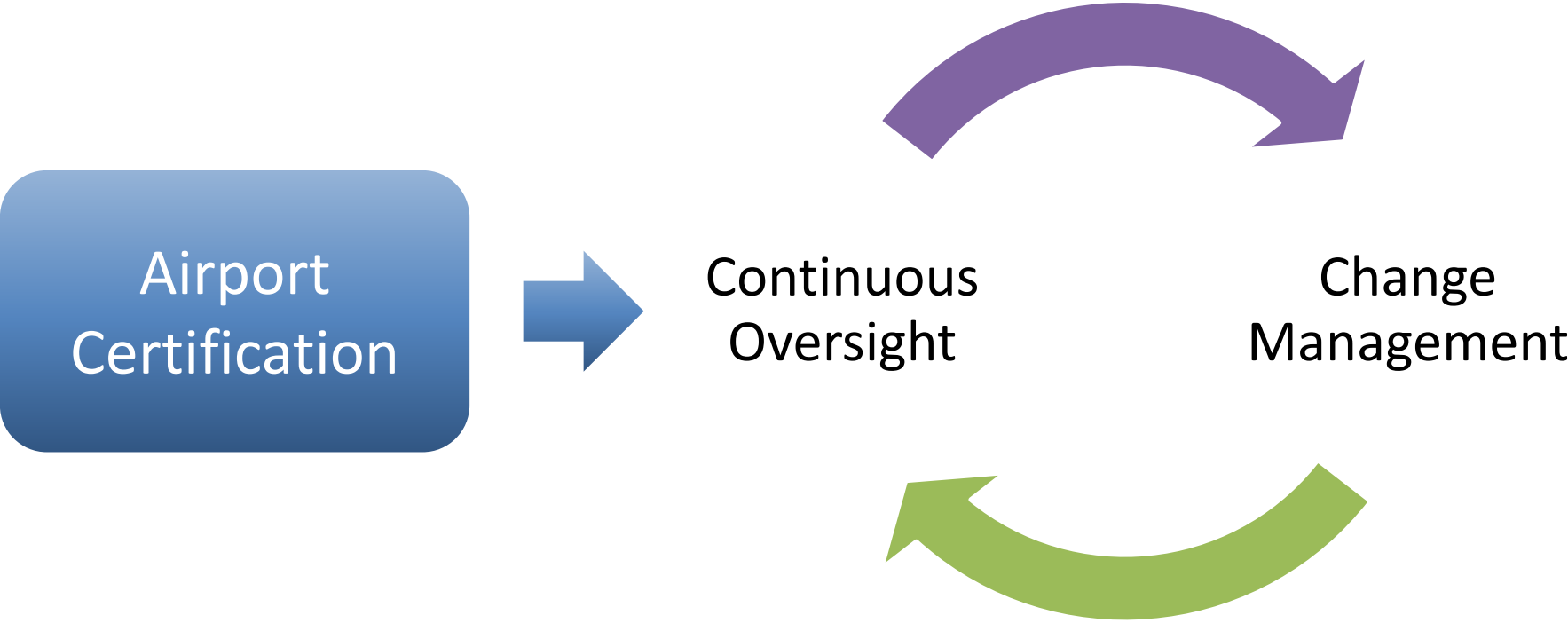
Documentation of reference

- Regulation (EC) No 2018/1139 (basic regulation).
- Regulation (EU) No 139/2014 (implementing rule).

Change management

Introduction

Change management



Requirements established in the European regulation

Change management

Requirements established in the European regulation

Authority requirements

The change management procedure (of the aerodrome operator) must be approved by the Competent Authority.



ADR.AR.C.035 Issuance of certificates

Regulation (EU) No 139/2014

To enable an aerodrome operator to implement changes without prior approval of the Competent Authority in accordance with [ADR.OR.B.040\(d\)](#), the Competent Authority shall approve a procedure defining the scope of such changes and describing how such changes will be managed and notified.

Change management

Requirements established in the European regulation

Authority requirements

AMC1 ADR.AR.C.035(h) Issuance of certificates

ED Decision 2014/012/R

APPROVAL OF THE PROCEDURE FOR THE MANAGEMENT AND NOTIFICATION OF CHANGES

The Competent Authority should establish and document its process to be followed by the aerodrome inspectors when assessing the scope of the changes in the procedure proposed by the aerodrome operator to be followed for the management and notification of the changes. Criteria to be used include, but are not limited to:

- (a) frequency of changes;
- (b) magnitude of changes;
- (c) complexity of the aerodrome and type of operations;
- (d) density of traffic at the aerodrome;
- (e) time required to assess the documentation of the changes notified by the aerodrome operator;
- (f) reasonable reaction times in relation to types of changes for the Competent Authority to object to a notification;
- (g) need for the timely publication of the changes and their notification by the AIRAC system;
- (h) previous conduct of the aerodrome operator; and
- (i) effectiveness of the safety management system of the aerodrome operator.

The authority must develop a procedure to assess the changes proposed by the aerodrome operator.



Change management

Requirements established in the European regulation

Changes
requiring prior
approval from CAA

Changes **not**
requiring prior
approval from CAA

Change management

Requirements established in the European regulation

Changes
requiring prior
approval from CAA

Authority requirements

ADR.AR.C.040 Changes

Regulation (EU) No 139/2014

- (a) Upon receiving an application for a change, in accordance with [ADR.OR.B.40](#), that requires prior approval, the Competent Authority shall assess the application and, if relevant, notify the aerodrome operator of:
- (1) the applicable certification specifications issued by the Agency, which are applicable to the proposed change and which are effective on the date of the application, unless:
 - (a) the applicant elects compliance with later effective amendments; or
 - (b) the Competent Authority finds that compliance with such later effective amendments is necessary;
 - (2) any other certification specification issued by the Agency that the Competent Authority finds is directly related to the proposed change;
 - (3) any special condition, and amendment to special conditions, prescribed by the Competent Authority in accordance with point [ADR.AR.C.025](#), the Competent Authority finds is necessary; and
 - (4) the amended certification basis, if affected by the proposed change.

Notifications to the aerodrome operator



Change management

Requirements established in the European regulation

Authority requirements

Changes
requiring prior
approval from CAA

- (b) The Competent Authority shall approve the change when the aerodrome operator has demonstrated, to the satisfaction of the Competent Authority, compliance with the requirements in [ADR.OR.B.040](#) and, if applicable, with [ADR.OR.E.005](#).
- (c) If the approved change affects the terms of the certificate, the Competent Authority shall amend them.
- (d) The Competent Authority shall approve any conditions under which the aerodrome operator shall operate during the change.
- (e) Without prejudice to any additional enforcement measures, when the aerodrome operator implements changes requiring prior approval without having received Competent Authority approval as defined in (a), the Competent Authority shall consider the need to suspend, limit or revoke the certificate.

Update the terms of the certificate?

The conditions under which the aerodrome operator shall operate during the change **must be approved** by the Competent Authority

Change management

Requirements established in the European regulation

Changes **requiring**
prior approval from CAA

Changes **not** requiring
prior approval from CAA

Authority
requirements

Changes

Which certification specifications
shall apply?

AMC1 ADR.AR.C.040(a) Changes

ED Decision 2014/012/R

EFFECTIVE CERTIFICATION SPECIFICATIONS FOR CHANGES

- (a) The certification specifications that the Competent Authority should use to assess the application for or the notification of a change, should be those which were effective on the date of the notification of the change by the aerodrome operator.
- (b) Notwithstanding paragraph (a) above, at any point of the process the aerodrome operator may request to use certification specifications that came into force after the filing of the application for, or notification of a change. In such cases, the Competent Authority should examine if it is necessary to also notify the aerodrome operator of other certification specifications, which also came into effect after the date of the application for, or the notification of the change by the aerodrome operator, and which are, in the opinion of the Competent Authority, directly related to those already identified as being affected by the change.
- (c) Notwithstanding paragraph (a) and (b) above, the Competent Authority may at any time, after the application or notification of a change by the aerodrome operator, decide to notify the aerodrome operator of any certification specifications that it deems necessary for the proposed change.

Issue 1

Issue 2

Notification of
the change

Issue 3

Issue 4

Change management

Requirements established in the European regulation

Authority requirements

Changes requiring prior approval from CAA

Specific requirements for the authority (assessment of the change)



AMC2 ADR.AR.C.040(a) Changes

ED Decision 2014/012/R

CHANGES REQUIRING PRIOR APPROVAL

- (a) Upon receiving an application for a proposed change that requires a prior approval, the Competent Authority should, in due time:
- (1) assess the proposed change in relation to the certification basis, and the applicable requirements of [Part-ADR.OR](#), [Part-ADR.OPS](#), as well as any other applicable requirements;
 - (2) assess if the aerodrome operator has identified all the applicable certification specifications, applicable requirements of [Part-ADR.OR](#), [Part-ADR.OPS](#), or other applicable requirements which are related to or affected by the change, as well as any proposal of the applicant for the demonstration of an equivalent level of safety;
 - (3) assess the actions proposed by the aerodrome operator in order to show compliance with (1) and (2) above;
 - (4) review and assess the content of proposed changes to the aerodrome manual; and
 - (5) evaluate the safety assessment that has been submitted by the aerodrome operator, in accordance with [GM3 ADR.AR.C.035\(a\)](#) and verify its compliance with [ADR.OR.B.040\(f\)](#).

Change management

Requirements established in the European regulation

Authority requirements

Changes requiring prior approval from CAA



- (b) The Competent Authority should also determine, in due time:
 - (1) if the proposed change is directly related to any other certification specification which had been included in the certification basis. If the Competent Authority finds such a relationship, it should include these related certification specifications amongst those to be notified to the applicant; and
 - (2) if the proposed change is such that a special condition, or an amendment to an existing special condition is required.
- (c) The Competent Authority should document and notify, in writing, the aerodrome operator, in due time, of:
 - (1) the certification specifications that it has identified to be applicable in accordance with the previous paragraphs (a) and (b);
 - (2) any provisions for which the Competent Authority has accepted the applicant to demonstrate an equivalent level of safety; and
 - (3) any special conditions, or amendments to special conditions it finds necessary.

Specific requirements for the authority (assessment of the change)

Change management

Requirements established in the European regulation

Authority requirements

Changes in nominated persons

Assessment of the nominees

Possible interviews

- (a) Changes in nominated persons: The Competent Authority should be informed of any changes to nominated persons (see [ADR.OR.D.015](#)) that may affect the certificate or the terms of approval attached to it. When an aerodrome operator submits the name of a nominee for the nominated persons, the Competent Authority should assess his/her qualifications, and may interview the nominee, or call for additional evidence of his/her suitability. (see [GM1 ADR.AR.C.035\(a\)](#)).



Change management

Requirements established in the European regulation

Authority requirements

Changes requiring prior approval from CAA

Conduct an **audit?**

- (d) For changes requiring prior approval, in order to verify the aerodrome operator's compliance with the applicable requirements, the Competent Authority should consider the need to conduct an audit of the operator, limited to the extent of the changes. If required for verification, the audit should include additional interviews and inspections carried out at the aerodrome operator's facilities.



Change management

Requirements established in the European regulation

Aerodrome requirements

ADR.OR.B.040 Changes

Regulation (EU) No 139/2014

- (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.

**Changes requiring
prior approval from CAA**

Which changes?

**When can they be
implemented?**

Change management

Changes
requiring prior
approval from CAA

Requirements established in the European regulation

Aerodrome requirements

Changes requiring prior approval: list of items which should be granted prior approval

- (a) Use of alternative means of compliance as required by [ADR.OR.A.015](#) Means of Compliance.
- (b) Changes to the management and notification procedure for changes not requiring a prior approval, as required by [ADR.OR.B.015\(b\)\(4\)](#) Application for a certificate.
- (c) Changes to the certification basis, or the terms of the certificate, as required by [ADR.OR.B.040\(a\)\(1\)](#) Changes.
- (d) Changes to safety-critical aerodrome equipment as required by [ADR.OR.B.040\(a\)\(1\)](#) Changes.
- (e) Changes significantly affecting elements of the aerodrome operator's management system as required by [ADR.OR.B.040\(a\)\(2\)](#) Changes.
- (f) Changes to the level of protection of rescue and firefighting services as required by [ADR.OPS.B.010\(a\)\(1\)\(2\)](#) Rescue and firefighting services.
- (g) Changes to low visibility procedures as required by [ADR.OPS.B.045\(b\)](#) Low Visibility Operations.
- (h) Operation of aircraft with higher code letter as required by [ADR.OPS.B.090\(a\)](#) Use of the aerodrome by higher code letter aircraft.



Change management

Requirements established in the European regulation

Aerodrome requirements

Changes requiring prior approval from CAA

Documentation to be provided by the aerodrome operator

The aerodrome operator should ensure that prior to initiating any change to the aerodrome or its operation, which requires prior approval, an application is submitted to the Competent Authority. The applicant should provide documentation containing a description of the proposed change, in which the following are identified:

- (a) the terms of the certificate, and/or the elements of the certification basis, and/or the safety-critical aerodrome equipment and/or aerodrome operator's management system (as required by [ADR.OR.D.005\(b\)](#)), and the parts of aerodrome manual, which are affected by the change, including relevant appropriate detailed design drawings;
- (b) the certification specifications with which the proposed change has been designed to comply with, including the certification specifications for which the applicant proposes to show compliance in a different manner in order to demonstrate an equivalent level of safety (for such cases see [AMC1 ADR.OR.B.015\(b\)\(1\):\(2\):\(3\):\(4\)](#), paragraph (c)(1));
- (c) the requirements of [Part-ADR.OR](#) and [Part-ADR.OPS](#), and any other applicable requirements that have to be complied with as a result of the proposed change, including the way in which compliance is intended to be demonstrated; and
- (d) the safety assessment required under [ADR.OR.B.040\(f\)](#).

Elements affected by the change

CS affected

AM procedures affected

Safety assessment



Change management

Requirements established in the European regulation

Aerodrome requirements

Changes **not** requiring prior approval from CAA

All changes, even the ones that don't require prior approval, have to be notified to the CAA

- (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\(h\)](#).



When?

Change management

Requirements established in the European regulation

Authority requirements

- (f) For changes not requiring prior approval, the Competent Authority shall assess the information provided in the notification sent by the aerodrome operator in accordance with [ADR.OR.B.040\(d\)](#) to verify their appropriate management and verify their compliance with the certification specifications and other appropriate requirements applicable to the change. In case of any non-compliance, the Competent Authority shall:
- (1) notify the aerodrome operator about the non-compliance and request further changes; and
 - (2) in case of level 1 or level 2 findings, act in accordance with point [ADR.AR.C.055](#).

Changes **not** requiring
prior approval from CAA



Review:
any non-compliances?

Change management

Requirements established in the European regulation

Changes **requiring**
prior approval from CAA

Changes **not** requiring
prior approval from CAA

Reg 139 does not establish when does the change have to be notified to the CAA
(before?, after?, with how much time in advance?)

Is common Sense that the changes requiring prior approval have to be notified
BEFORE. But, appart from that, the CAA is to decide.

Change Management Procedure

Change management

Change Management Procedure

Prior to the certification processes regarding the European regulation, a similar procedure was already implemented, developed according to Spanish national certification regulation.

During the certification processes that ended in December 2017, all the ***Change management procedures*** of the aerodrome operators were approved.



Specific guidance material for the aerodrome operators was developed:
“Technical instruction for airport change management”

Stablishes:

- ✓ References and acceptable means,
- ✓ Notifications to be made by the aerodrome operators,
- ✓ Deadlines

Change management

Change Management Procedure

OBJETIVE

To describe the methodology to be followed to manage changes at the airport, from their planning to the entry into service, defining its registration and control, and the responsibilities of each player regarding the actions to be performed.



Change management

Change Management Procedure



ANALYSIS OF CHANGE - DEFINITION OF CHANGE

According to the *General Technical Instruction for Airport Change Management*, "**change**" is defined as any **planned action** in the organization, infrastructures or equipment, including the introduction of new procedures and modifications of existing procedures, or the entry into force of new regulations which:

- Affect the safety of the airport (above a minimum level) and
- its management is not established in advance in the day to day operation of the airport operator.

Minor changes ("amendments or corrections") will not be considered changes in this regard.

Change management

Change Management Procedure



TALKING ABOUT CHANGES...

Changes where the final configuration is different from the initial configuration

Changes where the initial and the final configurations are the same, but the works in between require temporary operative conditions which differ from the ones in the certificate



Change management

Change Management Procedure



TALKING ABOUT CHANGES...

Sometimes, the initial and the final configurations are the same, but the works in between **require temporary operative conditions which differ from the ones in the certificate**

... Change on the declared distances
... Change of the type of approaches allowed



Change management

Change Management Procedure

4 types of changes are defined, taking into account:

- If the change requires prior approval from the authority.
- The evaluation of the impact of the change.
- The risk assessment of the change.



Types of changes

Changes that **require** prior approval

Type **1** – Full approval procedure

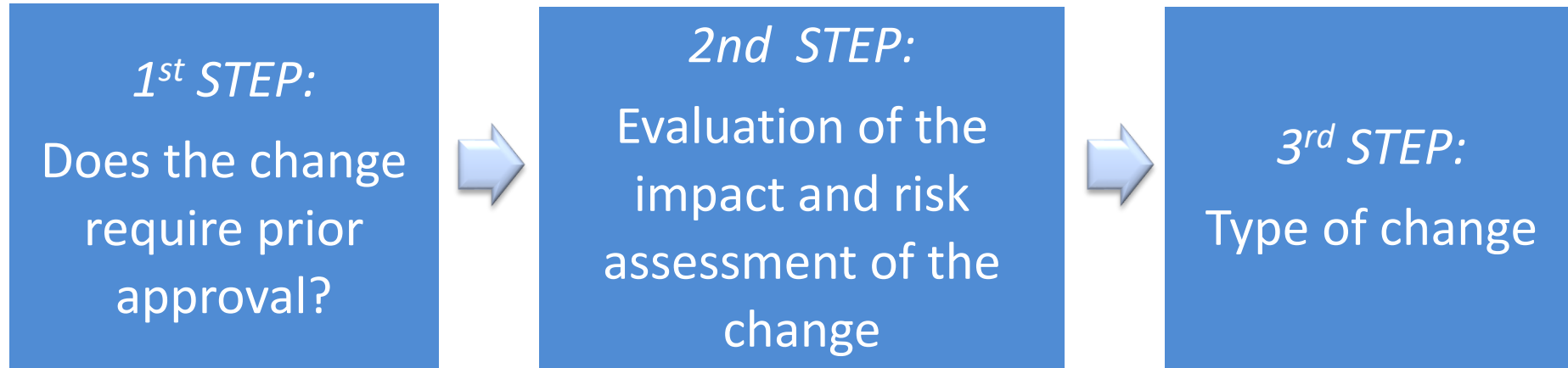
Type **1A** – Abbreviated approval procedure

Changes that **do not require** prior approval

Type **2** – Pre-implementation notification

Type **3** – They don't require notification prior to their implementation. Annual notification.

How is the type of change established?



1st step: does the change require prior approval?

To establish if the change requires prior approval, the “*Technical instruction for airport change management*” provides **forms that the aerodrome operator must check**, in order to assess if the change affects any of the elements that would require prior approval:

- Changes in the terms of the certificate.
- Changes in the certification basis.
- Changes to Safety-Critical Equipment.
- Changes to the SMS elements.



1st step: does the change require prior approval?

To establish if the change requires prior approval, the “*Technical instruction for airport change management*” provides **forms that the aerodrome operator must check**, in order to assess if the change affects any of the elements that would require prior approval:

- Changes to the Low Visibility Procedure.
- Changes in the Aerodrome Emergency Plan.
- Changes in other requirements that require prior approval.



2nd step: evaluation of the impact and risk assessment of the change.

Once it is established if the change requires or not prior approval, how it is defined the type of the change (1, 1A, 2 or 3)?

The aerodrome operator must carry on, in addition to the assessment of the need of approval, the following tasks:

- The **evaluation of the impact of the change.**
- The **risk assessment of the change.**

Change management

2nd step:

- The **evaluation of the impact of the change.**



OUTPUT: Numerical value (**N**)



Forms to evaluate the
impact
(Σ)

Evaluation of the impact of the
change

Low

$N < N1$

Middle

$N1 < N < N2$

High

$N > N2$

Change management

Change Management Procedure

2nd step:

The evaluation of the impact of the change.


Stablising N1 and N2

N1 and N2 were approved during the certification processes.

Those values were defined based on the experience acquired during the certification processes under the national regulation.

Example

Ops \ Complexity	Ops > 100.000	100.000 > Ops > 15.000	Ops < 15.000
Complex configuration	AD1	AD2	AD3
Simple configuration	AD2	AD3	AD3
Basic configuration	AD2	AD3	AD3



AD1	N1 = 13; N2 = 27
AD3	N1 = 11; N2 = 25

2nd step:

- The **risk assessment of the change** (According to the risk management procedure of the airport SMS).

The assessment must have into consideration both the implementation of the change (including the transition period while the works related to the change are being carried out, and the afterwards adaptation period until the regular operation is reached) and the regular operation once the change has been implemented.

2nd step: The risk assessment of the change

- Area 1: Acceptable Risk with Low Severity (minor, insignificant)
- Area 2: Tolerable Risk with Low Severity
- Area 3: Acceptable Risk with Medium-High Severity (Important, Dangerous)
- Area 4: Tolerable Risk with Medium-High Severity

PROBABILITY	EXTREMELY IMPROBABLE (1)	IMPROBABLE (2)	REMOTE (3)	OCCASIONAL (4)	FREQUENT (5)
SEVERITY					
CATASTROPHIC (A)	TOLERABLE (1A)	UNACCEPTABLE (2A)	UNACCEPTABLE (3A)	UNACCEPTABLE (4A)	UNACCEPTABLE (5A)
DANGEROUS (B)	ACCEPTABLE (1B)	TOLERABLE (2B)	UNACCEPTABLE (3B)	UNACCEPTABLE (4B)	UNACCEPTABLE (5B)
IMPORTANT / MAJOR (C)	ACCEPTABLE (1C)	ACCEPTABLE (2C)	TOLERABLE (3C)	UNACCEPTABLE (4C)	UNACCEPTABLE (5C)
NOT IMPORTANT / MINOR (D)	ACCEPTABLE (1D)	ACCEPTABLE (2D)	ACCEPTABLE (3D)	TOLERABLE (4D)	TOLERABLE (5D)
INSIGNIFICANT (E)	ACCEPTABLE (1E)	ACCEPTABLE (2E)	ACCEPTABLE (3E)	ACCEPTABLE (4E)	ACCEPTABLE (5E)

4 areas are defined

PROBABILITY	EXTREMELY IMPROBABLE	IMPROBABLE	REMOTE	OCCASIONAL	FREQUENT
SEVERITY					
CATASTROPHIC	Area 4				
DANGEROUS	Area 3	Area 4			
IMPORTANT / MAJOR	Area 3	Area 3	Area 4		
NOT IMPORTANT / MINOR	Area 1	Area 1	Area 1	Area 2	Area 2
INSIGNIFICANT	Area 1	Area 1	Area 1	Area 1	Area 1

2nd step: The risk assessment of the change

The risk assessment must take into consideration each of the phases of the change:

Transition period for the implementation



Adjustment period, after the entry in service of the change



Final estate, with the change already implemented



Change management

2nd step: evaluation of the impact and risk assessment of the change.

Change Management Procedure

Evaluation of the change

Evaluation of the impact of the change

Low	$N < N1$
Middle	$N1 < N < N2$
High	$N > N2$

Risk assessment of the change

PROBABILITY	EXTREMELY IMPROBABLE	IMPROBABLE	REMOTE	OCCASIONAL	FREQUENT
SEVERITY					
CATASTROPHIC	Area 4				
DANGEROUS	Area 3	Area 4			
IMPORTANT / MAJOR	Area 3	Area 3	Area 4		
NOT IMPORTANT / MINOR	Area 1	Area 1	Area 1	Area 2	Area 2
INSIGNIFICANT	Area 1	Area 1	Area 1	Area 1	Area 1



Impact Assessment	Area 1	Area 2	Area 3	Area 4
LOW	NEGLECTIBLE	NEGLECTIBLE	MODERATE	MODERATE
MIDDLE	NEGLECTIBLE	MODERATE	MODERATE	SIGNIFICANT
HIGH	MODERATE	MODERATE	SIGNIFICANT	SIGNIFICANT

OUTPUT:

Negligible (non significant), Moderate or Significant change

Change management

Change Management Procedure

3rd step: type of change

1st step

Requires prior approval?
YES / NO



2nd step

Negligible, Moderate or Significant

Impact Assessment	Area 1	Area 2	Area 3	Area 4
LOW	NEGLIGIBLE	NEGLIGIBLE	MODERATE	MODERATE
MIDDLE	NEGLIGIBLE	MODERATE	MODERATE	SIGNIFICANT
HIGH	MODERATE	MODERATE	SIGNIFICANT	SIGNIFICANT

	NO PRIOR APPROVAL REQUIRED	REQUIRES PRIOR APPROVAL
NEGLIGIBLE / NON SIGNIFICANT	TYPE 3	TYPE 1A
MODERATE	TYPE 2	TYPE 1
SIGNIFICANT		

Change management

Change Management Procedure

1st STEP:

Does the change require prior approval?



2nd STEP:

Evaluation of the impact and risk assessment of the change



3rd STEP:

Type of change

Forms



OUTPUT:
YES / NO

Evaluation of the impact

Low
Middle
High

Risk assessment of the change

PROBABILITY	Extremely Low	Low	Moderate	High	Very High
Systemic	Area 4				
Component	Area 3	Area 4			
Elemental / Minor	Area 3	Area 3	Area 4		
Not hazardous / Minor	Area 1	Area 1	Area 1	Area 2	Area 2
Insignificant	Area 1	Area 1	Area 1	Area 1	Area 1

Impact Assessment	Area 1	Area 2	Area 3	Area 4
LOW	NEGLIGIBLE	NEGLIGIBLE	MODERATE	MODERATE
MIDDLE	NEGLIGIBLE	MODERATE	MODERATE	SIGNIFICANT
HIGH	MODERATE	MODERATE	SIGNIFICANT	SIGNIFICANT

OUTPUT: NON SIGNIFICANT,
MODERATE, SIGNIFICANT CHANGE

	NO PRIOR APPROVAL REQUIRED	REQUIRES PRIOR APPROVAL
NEGLIGIBLE / NON SIGNIFICANT	TYPE 3	TYPE 1A
MODERATE	TYPE 2	TYPE 1
SIGNIFICANT		



OUTPUT:
TYPE 1, 1A, 2 or 3 CHANGE

Change management

Change Management Procedure

The aerodrome operator must notify...

Changes that require prior approval	Type 1 Full approval procedure	3 months prior to implementation
	Type 1A Abbreviated approval procedure	30 days prior to implementation

Changes that do not require prior approval	Type 2 Pre-implementation notification	30 days prior to implementation
	Type 3 They don't require notification prior their implementation. Annual notification.	Once per year (1 st trimester of each year)

Change Rescue and firefighting level of protection

Change management

Example

1st step: does the change require prior approval?



Form:

Changes in the terms of the certificate.

APLICACIÓN DEL PGS-01/ITS-03 GESTIÓN DEL CAMBIO

- AUMENTO DEL NIVEL DE PROTECCIÓN SEI
- CAMBIO DE ESPUMÓGENO DE EFICACIA C
- CAMBIO DEL HORARIO OPERATIVO

F-GC-AP-TC-LEBG-V2.0 CAMBIOS EN LOS TÉRMINOS DEL CERTIFICADO

CAMBIOS EN LOS TÉRMINOS DEL CERTIFICADO AEROPUERTO DE BURGOS		F-GC-AP-TC-LEBG-V2.0
CÓDIGO DEL CAMBIO	2018 / 02.01	
TÉRMINOS DE CERTIFICADO	CAMBIA (SI/NO)	DESCRIPCIÓN (Incluir descripción e indicar documento asociado si es necesario)
Nombre del Aeropuerto / Código OACI	SI <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Condiciones de operación (VRF/IFR, día/noche)	SI <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Pista — distancias declaradas	SI <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Tipos de pistas y aproximaciones que se proporcionan	SI <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Clave de referencia de aeródromo	SI <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Ámbito de las operaciones de las aeronaves con la clave de referencia de aeródromo de mayor categoría ¹	SI <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Restricción de operación de dirección de pista ²	SI <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Nivel de protección en cuanto a salvamento y extinción de incendios ²	SI <input checked="" type="checkbox"/> No <input type="checkbox"/>	Varianción del nivel de protección de incendios OACI-SEI a 7.
Operación de helicópteros ³	SI <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Restricciones a la operación	SI <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Otros (especificar)	SI <input type="checkbox"/> No <input checked="" type="checkbox"/>	



Yes

Change management

Example

2nd step:
evaluation of the
impact



Forms to evaluate
the impact

F-GC-EPI-RGS-LEBG-V2.0 FORMULARIO DE EVALUACIÓN DEL IMPACTO DEL CAMBIO

EVALUACIÓN DEL IMPACTO DEL CAMBIO AEROPUERTO DE BURGOS		F-GC-EPI-RGS-LEBG-v2.0	
CÓDIGO DEL CAMBIO		2018/02/01	
CRITERIO	DESCRIPCIÓN	VALOR	
1.	Novedad	Se ha realizado en al menos una ocasión un cambio de similares características	2
2.	Zonas afectadas	Afecta a pista	2
3.	Colectivos implicados, del GA	Afecta a dos colectivos del GA	2
4.	Otros Colectivos aeroportuarios	No afecta a terceros	2
5.	Afección al ANSP/AFIS/SDP	No afecta	2
6.	Afección a la actuación de operadores aéreos	No afecta	2
7.	Impacto sobre la organización del GA	No se modifica la organización ni el personal clave	0
8.	Afección a Dictamen	No supone cambios	1
9.	Afección a AIP en la implantación	No precisa notificación alguna	0
10.	Afección a AIP tras el cambio	Se cambiará mediante enmienda REGULAR	1
11.	Afección a responsabilidades y/o al desarrollo /activación de Procedimientos de operación	Modifica estos aspectos de forma significativa en más de tres documentos del Manual o procedimientos de menor nivel.	2
12.	Formación necesaria previa a la entrada en servicio	Las horas de formación / persona a formar es inferior a 10 h	1
13.	Análisis de la fase de adaptación al cambio	La fase de adaptación puede desarrollarse en paralelo a la operación sin afectar a la misma, y estar probada antes de la entrada en servicio	0
14.	Afección a la regularidad de las operaciones después de la transición	El cambio no afectará a la regularidad de la operación	0
15.	Tipo de operaciones	En el aeropuerto se llevan a cabo operaciones de vuelo instrumental, pero no dispone de un procedimiento de visibilidad reducida.	1
RESULTADO DE LA EVALUACIÓN (UMA) y El: (INDICAR BAJO; MEDIO ALTO)		MEDIO	18



Middle

Change management

2nd step: risk assessment of the change

Example

Análisis de Riesgos según RGS-PGS-01

Riesgo	Probabilidad	Severidad	Tolerabilidad
R1. Aumento de la carga de trabajo	Remoto	Menor	Riesgo Bajo 3D
RF2.- Aumento del tiempo de respuesta en la atención de la emergencia	Extremadamente Remoto	Mayor	Riesgo Bajo 2C
RF3.- Inadecuada atención de la emergencia por descoordinación	Extremadamente Remoto	Mayor	Riesgo Bajo 2C

Matriz de zonas de tolerabilidad del cambio

PROBABILIDAD	EXTREMAD. IMPROBABLE	EXTREMAD. REMOTO	REMOTO	RAZONABLEM. PROBABLE	FRECIENTE
SEVERO					
CATASTRÓFICO					
PELIGROSO					
Mayor	Zona 3	Zona 3	Zona 1	Zona 2	Zona 1
Menor	Zona 1	Zona 1	Zona 1	Zona 1	Zona 1
NINGÚN EFECTO	Zona 1	Zona 1	Zona 1	Zona 1	Zona 1

Area 3

Middle impact

(Assessed according to the risk management procedure of the airport SMS)

EVALUACIÓN	BAJO	LEVE	LEVE	MODERADO	MODERADO
BAJO				ZONA 2	ZONA 3
MEDIO				ZONA 2	ZONA 3
ALTO				MODERADO	MODERADO
				SIGNIFICATIVO	SIGNIFICATIVO

Moderate change

Change management

Example

3rd step: type of change

Requires prior approval



Moderate change

CATEGORÍA DE CAMBIO	NO REQUIERE APROBACIÓN PREVIA	REQUIERE APROBACIÓN PREVIA
LEVE	CLASE 3	CLASE 1A
MODERADO	CLASE 2	CLASE 1
SIGNIFICATIVO		



Type 1 change

Change management

Statistics

Notified changes : 91
(January 2018 – march 2019)

Changes that require prior approval	Type 1 Full approval procedure	11
	Type 1A Abbreviated approval procedure	20
Changes that do not require prior approval	Type 2 Pre-implementation notification	60
	Type 3 They don't require notification prior their implementation. Annual notification.	



Change management

Change Management Procedure

CHANGE LOG

1. General record of a change
2. Individual record of change
3. Application for approval (Type 1 / 1A)
4. Previous notification of changes not submitted for approval (Type 2)
5. Periodic reporting for changes that do not require prior approval or notification (Type 3)
6. Executive summary of the description of change

Change management

Change Management Procedure

PROCESSING OF CHANGES

- Documentation required for processing the change.
- Deadlines for sending the change documentation (if applies) to AESA.
- The Airport Operator must have all the supporting documentation associated with the change and generated in the management process of it.



Change management

Change Management Procedure

PROCESSING CHANGES TYPE 1

- The **communication to AESA** must be made at least **3 months before** the starting date of the change.
- For changes that require modification of the certificate, if after completing the forms and Risk Assessment it results of Type 1A, it will be processed with the information required for Type 1A changes, but must be communicated with the required deadline for Type 1 changes.
- Type 1 changes or those changes that require modification of the certificate, must be requested for approval by submitting the following documentation (next slide).

Change management

Change Management Procedure

TYPE 1 CHANGES	
DOCUMENTATION TO SUBMIT	PRESENTATION MODE
Application for approval	F-GC-SAP-CÓDIGO OACI-v2014.1
General change register	F-GC-RGS-01-CÓDIGO OACI-v2014.1
Individual change record	F-GC-RGS-02-CÓDIGO OACI-v2014.1
Executive summary of change description	
Evaluation of the impact Form	F-GC-EPI-CÓDIGO OACI-v2014.1
Forms of prior approval need:	
• Changes to the terms of the certificate	F-GC-AP-TC-CÓDIGO OACI-v2014.1
• Changes in regulatory requirements	F-GC-AP-BC-CÓDIGO OACI-v2014.1
• Changes in safety critical equipment	F-GC-AP-ECS-CÓDIGO OACI-v2014.1
• Changes to the SMS elements	F-GC-AP-SMS-CÓDIGO OACI-v2014.1
• Changes in other requirements that require approval	F-GC-AP-IR-CÓDIGO OACI-v2014.1
Registration of key personnel training	As needed. Records of identified training needs.
About Change Risk Management:	
• Risk Management / ASS	According to procedure PGS-01 Risk management system.
• Records of evidence of implementation of defences, mitigation measures, monitoring, etc. Available at the time of delivery of the documentation, indicating the records to be provided in advance to the entry into force	Risk Management Results Paper Documentary evidence of the implementation of mitigation measures and their monitoring until the implementation of the change
• Minutes of the committee or expert meeting	Minutes of meeting or expert meeting Record of attendees to the expert session
• Registration of participants in the risk analysis session (or corresponding safety committee)	
Other associated SMS records, available at the time of delivery of the documentation, indicating the records to be provided in advance to the entry into force of the change.	SMS own records, as applicable.
Other supporting documentation	Optional
Changes in the Manual:	
• Registration of amendments to the Manual.	Change Sheet of the Airport Manual.
• Amendments to the Manual.	Documentation of the Airport Manual affected by the change.
In the case it is determined by the Airport that it may be necessary to modify the certificate.	As per art. 19 from RD 862/09, of May the 14th

Logs

Prior approval logs

Risk management of the Change

CS compliance, when applies

Changes in the AM

Change management

Change Management Procedure

PROCESSING CHANGES TYPE 1A

- The communication of the change to AESA shall be made at least 1 month before the scheduled date of the entry into service of the change.
- Type 1A changes, must be requested for approval by submitting the following documentation (next slide).

Change management

Change Management Procedure

TYPE 1A CHANGES	
DOCUMENTATION TO SUBMIT	PRESENTATION MODE
Application for approval	F-GC-SAP-CÓDIGO OACI-v2014.1
General change register	F-GC-RGS-01-CÓDIGO OACI-v2014.1
Individual change record	F-GC-RGS-02-CÓDIGO OACI-v2014.1
Executive summary of change description	
Evaluation of the impact Form	F-GC-EPI-CÓDIGO OACI-v2014.1
Forms of prior approval need:	
• Changes in regulatory requirements	F-GC-AP-BC-CÓDIGO OACI-v2014.1
• Changes in safety critical equipment	F-GC-AP-ECS-CÓDIGO OACI-v2014.1
• Changes to the SMS elements	F-GC-AP-SMS-CÓDIGO OACI-v2014.1
• Changes in other requirements that require approval	F-GC-AP-IR-CÓDIGO OACI-v2014.1
About Change Risk Management:	
• Risk Management / ASS	According to procedure PGS-01 Risk management system
• Minutes of the committee or expert meeting	Risk Management Results Paper
• Registration of participants in the risk analysis session (or corresponding safety committee)	Minutes of meeting or expert meeting Record of attendees to the expert session
Changes in the Manual:	Change Sheet of the Airport Manual.
• Registration of amendments to the Manual.	
• Amendments to the Manual.	Documentation of the Airport Manual affected by the change.
Other supporting documentation	Optional
In the case it is determined by the Airport that it may be necessary to modify the certificate	As per art. 19 from RD 862/09, of May the 14th

Logs

Prior approval logs

Risk management of the Change

Changes in the AM

CS compliance, when applies

Change management

Change Management Procedure

PROCESSING CHANGES TYPE 2

- The communication to AESA will be made at least 1 month before the starting date of the change.
- The implementation of the change can be started on the scheduled date after 30 days from the date of the arrival of the request to AESA by formal means, unless during that period, an AESA's is received with some type of requirement that could condition the date of entry into service of the change.
- Type 2 changes, which do not require prior approval, must be notified to AESA prior to the implementation of the change by submitting the following documentation (next slide).

Change management

Change Management Procedure

TYPE 2 CHANGES	
DOCUMENTATION TO SUBMIT	PRESENTATION MODE
Prior notification	F-GC-NOT-CÓDIGO OACI-v2014.1
General change register	F-GC-RGS-01-CÓDIGO OACI-v2014.1
Individual change record	F-GC-RGS-02-CÓDIGO OACI-v2014.1
Executive summary of change description	
Evaluation of the impact Form	F-GC-EPI-CÓDIGO OACI-v2014.1
About Change Risk Management:	According to procedure PGS-01 Risk management system
<ul style="list-style-type: none"> Risk Management / ASS 	Risk Management Results Paper
<ul style="list-style-type: none"> Minutes of the committee or expert meeting 	Minutes of meeting or expert meeting
<ul style="list-style-type: none"> Registration of participants in the risk analysis session (or corresponding safety committee) 	Record of attendees to the expert session
Changes in the Manual:	Change Sheet of the Airport Manual.
<ul style="list-style-type: none"> Registration of amendments to the Manual. 	Documentation of the Airport Manual affected by the change.
<ul style="list-style-type: none"> Amendments to the Manual. 	
Other supporting documentation	Optional

Change management

Change Management Procedure

PROCESSING OF TYPE 3 CHANGES

Type 3 changes that, based on the low impact on safety, do not need to be notified in advance of their implementation, nor do they require prior approval, will be notified by submitting the following documentation:

TYPE 3 CHANGES	
DOCUMENTATION TO SUBMIT	PRESENTATION MODE
Periodic communication	F-GC-COM-CÓDIGO OACI-v2014.1
General change register	F-GC-RGS-01-CÓDIGO OACI-v2014.1
Individual change record	F-GC-RGS-02-CÓDIGO OACI-v2014.1

Change management

Change Management Procedure

IMPLEMENTATION OF CHANGE

- Type 1 / 1A changes may not be brought into service until the Aerodrome Operator does not receive communication of approval from AESA.
- Type 2 changes may be implemented on the scheduled date, provided that after 30 days from the date of reception in AESA, if no express notification of AESA is received with any type of requirement that could condition the date of entry into service of the change.
- Type 3 changes may be implemented in accordance with the Aerodrome Operator change management procedure.

Change management

Change Management Procedure



Change Management

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