

EASA AERODROME TRANSITION



November 2014

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Agenda



- **The transition process**
 - a) **Certification & Operations Basis**
 - b) **Transition procedures**
- **Preparing for transition**
- **Feedback**
- **What's different**
- **The future – oversight (PBO focussed)**
- **Summary and final Q&A**

UK Transition Project

Transition



- **Aerodrome not corporate focus**
- **Compliance documents:**
 - **Application form, Declaration of Compliance, Certification Basis (CB) & Ops Basis (OB), Certificate, Terms of the Certificate**
 - **Transition pack**
- **Pre-transition – ADRs identify non-compliances**

Principles/Assumptions

- **Harmonised where practicable:**
 - **Some UK specifics**
- **UK/CAA AMoC should match (not exceed) EASA AMC**
- **EASA GM – supplemented where appropriate (CAP 1168)**
 - **Certification**
 - **Changes**
 - **RFFS including Emergency Planning**

Principles/Assumptions

- **Operators will declare compliance**
- **Transition involves desk top review & audit/inspection**
- **The transition process will be used for National aerodromes moving into the EASA scheme**
- **National regime will change once transition is routine**
- **EASA and National schemes will aim to become as consistent as reasonably practicable**

Principles/Assumptions

- **In year of transition, oversight activity will be the transition process – to minimise impact**
- **Audit cycle will change:**
 - **6 months post transition, then PBO**
- ***Do not foresee additional audits as result of transition***
- **CAA Priorities:**
 - **EASA transition**
 - **Performance-based oversight**
 - **Continuing oversight**

UK CAA has Standardisation Team



- **Purpose**
 - **To ensure that the EASA aerodromes transition is managed in a standardised way**
- **Activities**
 - **Review submissions to ensure standardisation in interpretation/application & resolve differences**
 - **Act as an information hub**
 - **Act as support team to the aerodrome inspectors**
 - **Review processes and update as required**
 - **Standardise recording of the aerodrome transition**
 - **Ensure decisions are recorded**

Building the Certification Basis (CB)



Why ?

Regulation - Article 6

2. Before the end of the period specified in paragraph (1), the Competent Authority shall issue certificates in accordance with this Regulation for such aerodromes and aerodrome operators, if:

- (a) the **certification basis** has been established using the **certification specifications** issued by the Agency, including any cases of **equivalent level of safety and special conditions** which have been identified and documented; and
- (b) the certificate holder has **demonstrated compliance with the certification specifications** which are different from the national requirements on which the existing certificate was issued; and



EASA Aerodromes Transition Certification Basis (CB)

Name of Aerodrome:

Date of issue:

Version no:

Describe the 'Hardware'

Certification Basis

ADR.AR.C.020 Certification basis

The certification basis is to be notified to an applicant by the Competent Authority and shall consist of:

- (a) the **applicable certification specifications** issued by the Agency, related to the type and operation of the aerodrome and which are effective on the date of application for that certificate, unless:
 - (1) the applicant elects compliance with later effective amendments; or
 - (2) the Competent Authority finds that compliance with such later effective amendments is necessary;
- (b) any provision for which an **equivalent level of safety** has been accepted by the Competent Authority;
- (c) any **special condition** in accordance with ADR.AR.C.025.

Certification Basis

- **CSs are arranged in 19 sections A - U**
 - A. General**
 - B. Runways**
 - C. RESA**
 - D. Taxiways**
 - E. Aprons**
 - F. Isolated Aircraft Parking Positions**
 - G. Etc...etc...etc**

Certification Basis

Chapter B – Runways

- Runways

Runways				
1. Please complete the table below (dimensions in metres).				
Runway Designator	Approach Status	Code No./ Letter	Actual Length	Runway Strip Width
Calculation of Declared Distances				
Please confirm that the details contained on the following form are correct			Choose an item.	
If you have answered 'No', please describe any changes that are required:				

Certification Basis

- Runways



CS ADR-D&N.	Certification Specification (CS)	CS Met Yes / No / N/A
B.015	Number, siting and orientation of runways	Choose an item.
B.020	Choice of maximum permissible crosswind components	N/A
B.025	Data to be Used [intentionally blank]	N/A
B.030	Runway threshold	Choose an item.
B.035	Actual Length of runway and declared distances	Choose an item.
B.040	Runways with stopways or clearways	Choose an item.
B.045	Width of Runways	Choose an item.
B.050	Minimum distance between parallel non-Instrument runways	Choose an item.
B.055	Minimum distance between parallel Instrument runways	Choose an item.
B.060	Longitudinal slopes of runways	Choose an item.
B.065	Longitudinal slope changes on runways	Choose an item.
B.070	Sight distance for slopes on runways	Choose an item.
B.075	Distance between slope changes on runways	Choose an item.
B.080	Transverse slopes on runways	Choose an item.

Certification Basis

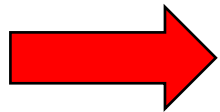
- **Typical CS from Section B - Runways**

CS-ADR-DSN.B.060 — Longitudinal slopes of runways *ICAO*

- (a) The slope computed by dividing the difference between the maximum and minimum elevation along the runway centre line by the runway length should not exceed:
 - (1) 1 % where the code number is 3 or 4; and
 - (2) 2 % where the code number is 1 or 2.
- (b) Along no portion of a runway should the longitudinal slope exceed:
 - (1) 1.25 % where the code number is 4, except that for the first and last quarter of the length of the runway the longitudinal slope should not exceed 0.8 %;
 - (2) 1.5 % where the code number is 3, except that for the first and last quarter of the length of a precision approach runway category II or III the longitudinal slope should not exceed 0.8 %; and
 - (3) 2 % where the code number is 1 or 2.

Certification Basis

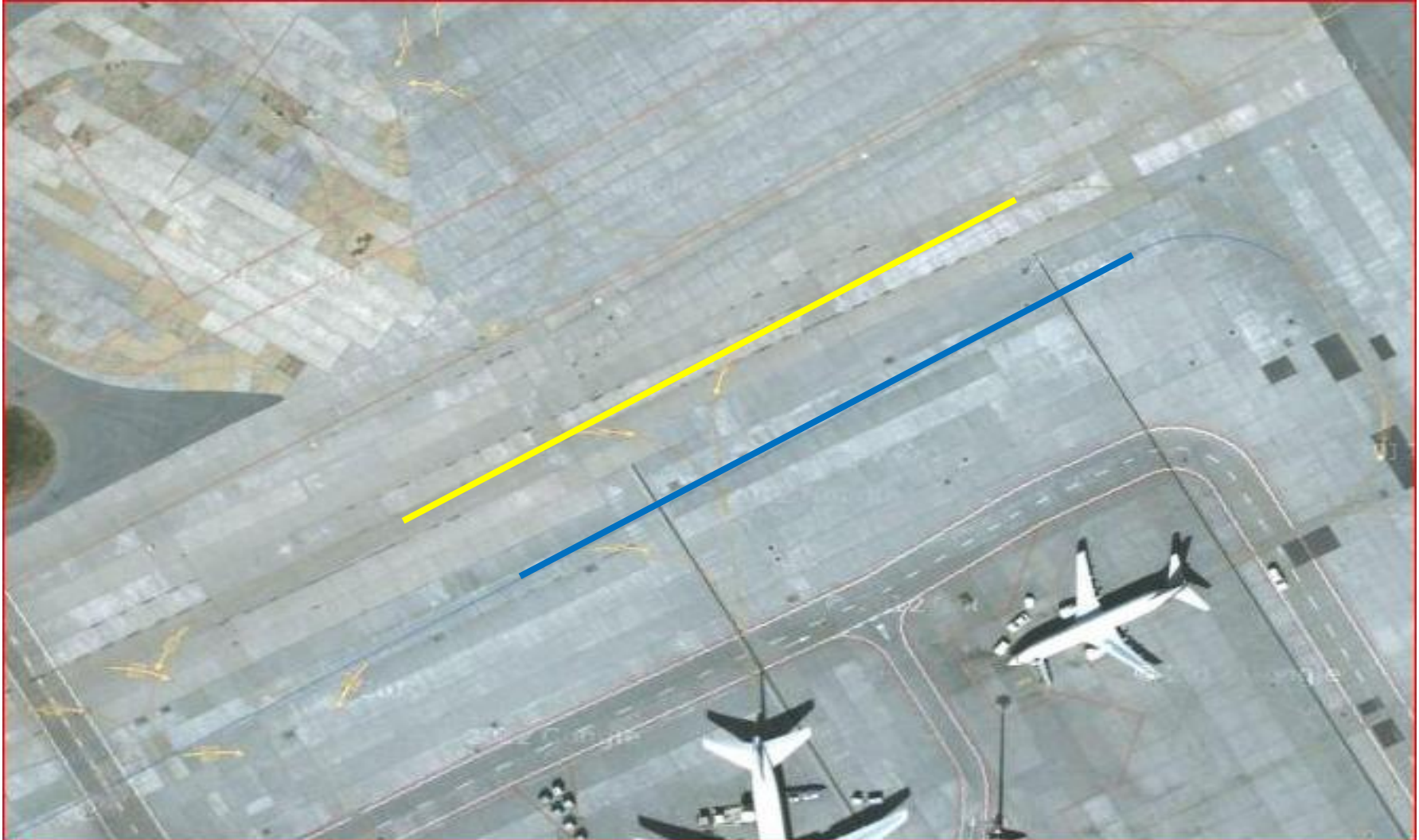
- Runways



E.180	Longitudinal slopes on runway strips	Choose an item.
E.185	Transverse slopes on runway strips	Choose an item.
E.190	Strength of runway strips	Choose an item.
E.195	Clearways	Choose an item.
E.200	Stopways	Choose an item.
E.205	Radio altimeter operating area	Choose an item.
<p>If you have selected 'No' to any of the above, please confirm below which CS cannot be met and what mitigation is applied:</p>		

Dealing with variations and non-compliances

Equivalent Level Of Safety



Equivalent Level Of Safety

- The colour of the Apron taxiway CL marking does not comply with the required CS
- The CL marking on an apron taxiway is in the blue colour to identify TWY centrelines that could be used by different sized aircraft



- The ADR does not comply with the required CS
- The aerodrome operator has undertaken the safety assessment and proposed to CAA an acceptance of the deviation as ELOS
- The information has been provided in the AIP

Special Condition



Special Condition

- Aerodrome Reference Code 3C. Single Parallel Taxiway.
- Taxiway A has a longitudinal slope of 2%
- To meet the required longitudinal slope would incur substantial cost



- Aerodrome does not comply with the required CS
- Aerodrome has developed procedures to:-
 - Increase de-icing operation during winter conditions
 - Installed new warning signage
 - Increase inspections in icing conditions that could lead to closure of portion of taxiway
- AIP advises pilots to take extra care during possible icing conditions

Accepted Deviation



Accepted Deviation

- Taxiway S at this aerodrome has an infringement of the Code E strip by 10.5m
- There is an intention that future development in the area would provide the opportunity to meet the required strip dimensions



- The ADR does not comply with the required CS for the Taxiway Strip
- Aerodrome has assessed the safety concern
- Infringement on a straight portion of taxiway
- AIP advises pilots to take extra care while taxiing past the infringement

Variation



Variation

Situation:

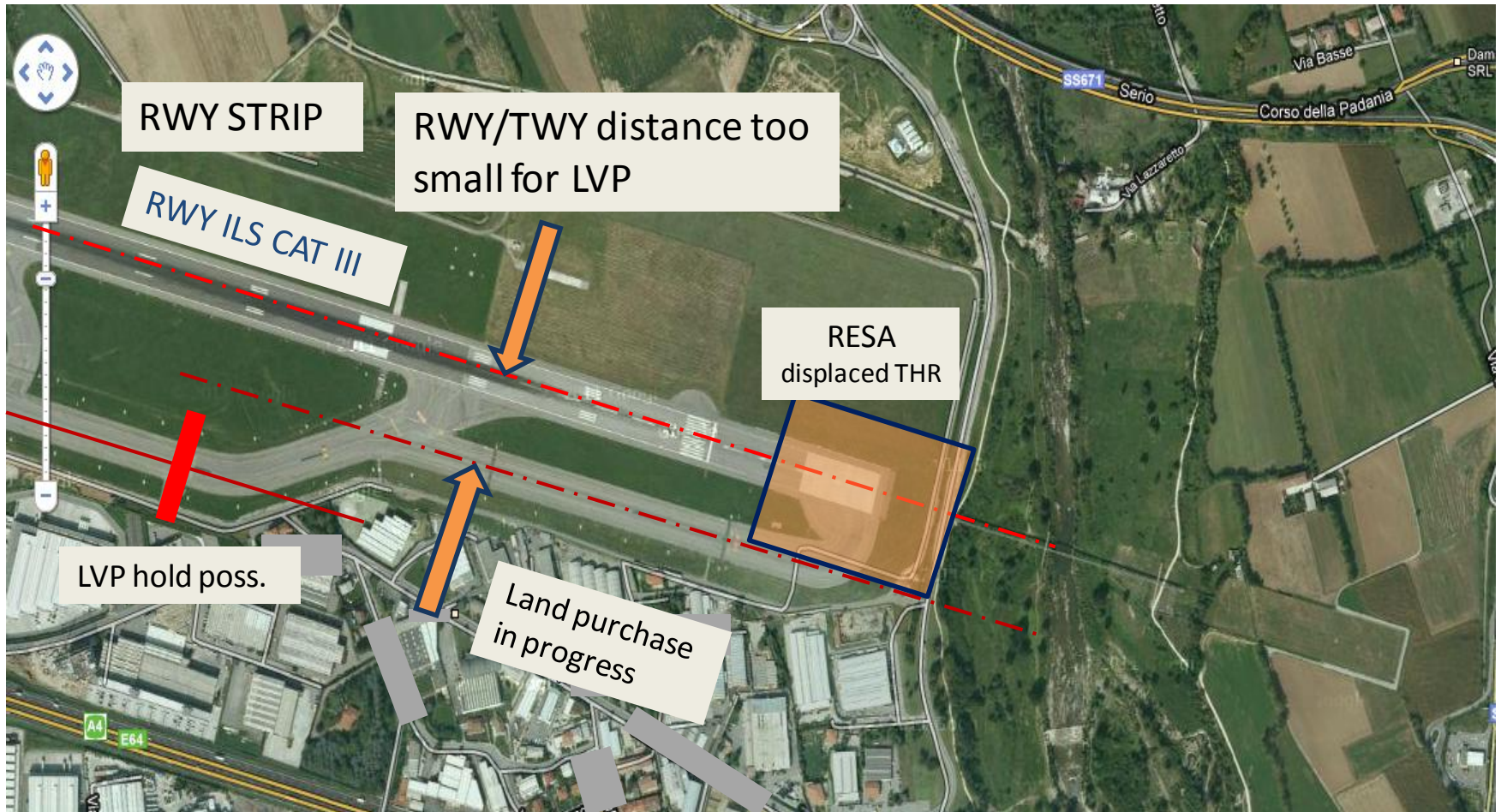
- The width of the RWY strip is reduced to 260 m due to the proximity of the wood/trees
- The RWY strip width does not comply with the required CS, trees and ADR fence are penetrating the Transitional Surface



Solution:

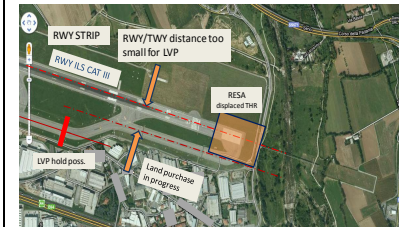
1. The aerodrome has the opportunity to purchase the necessary land to widen the RWY Strip to fulfill the CS requirement **(DAAD until this is the case)**
2. Aerodrome has assessed the safety concern and proposed to NAA an acceptance of this deviation. AIP advises pilots about the situation **(SC)**

Variation



Variation

- Aerodrome is certified for operations in CAT II/III conditions
- Taxiway C is safe to operate in visual conditions
- CAT II/III holding position is installed on taxiway A which has required RWY/TWY centre line distance



- The aerodrome does not comply with the required CS regarding the RWY/TWY separation distance
- The operational restrictions for taxiway C are in place during LVPs
- The aerodrome is in the process of purchasing the land necessary to remove the taxiway C to the required distance from the RWY

Other deviations!



Other deviations!



Other deviations!



Other deviations!



Other deviations!



Other deviations!



Variation Selection Criteria and Flowchart



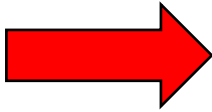
Microsoft Office
Word Document

Managing Non-Compliances

Competent authorities and airport operators should be aware that Equivalent Level of Safety (ELOS) and Special Conditions (SC), although included in the Certification Basis (CB):

- Must be reviewed when operations change (e.g. new a/c)
- Must be reviewed when the infrastructure changes (e.g. new taxiway)
- Must be reviewed when the Agency's CS change (i.e. possibly containing new obligation)
- Must be reviewed where there were incident or accidents
- Are subject to the general change management principles of ADR.OR.B.040

Certification Basis



Aerodrome declaration

I hereby confirm that the details provided within this Certification Basis are correct:

Signed:

Print:

For and on Behalf of:
(Name of Aerodrome and Operator)

FALSE REPRESENTATION STATEMENT

It is an offence under Article 231 of the Air Navigation Order 2009 to make, with intent to deceive, any false representation for the purpose of procuring the grant, issue, renewal or variation of any certificate, licence, approval, permission or other document. This offence is punishable on summary conviction by a fine up to £5000, and on conviction on indictment with an unlimited fine or up to two years imprisonment or both.

CAA use only

Documentation received:

Reviewed by:

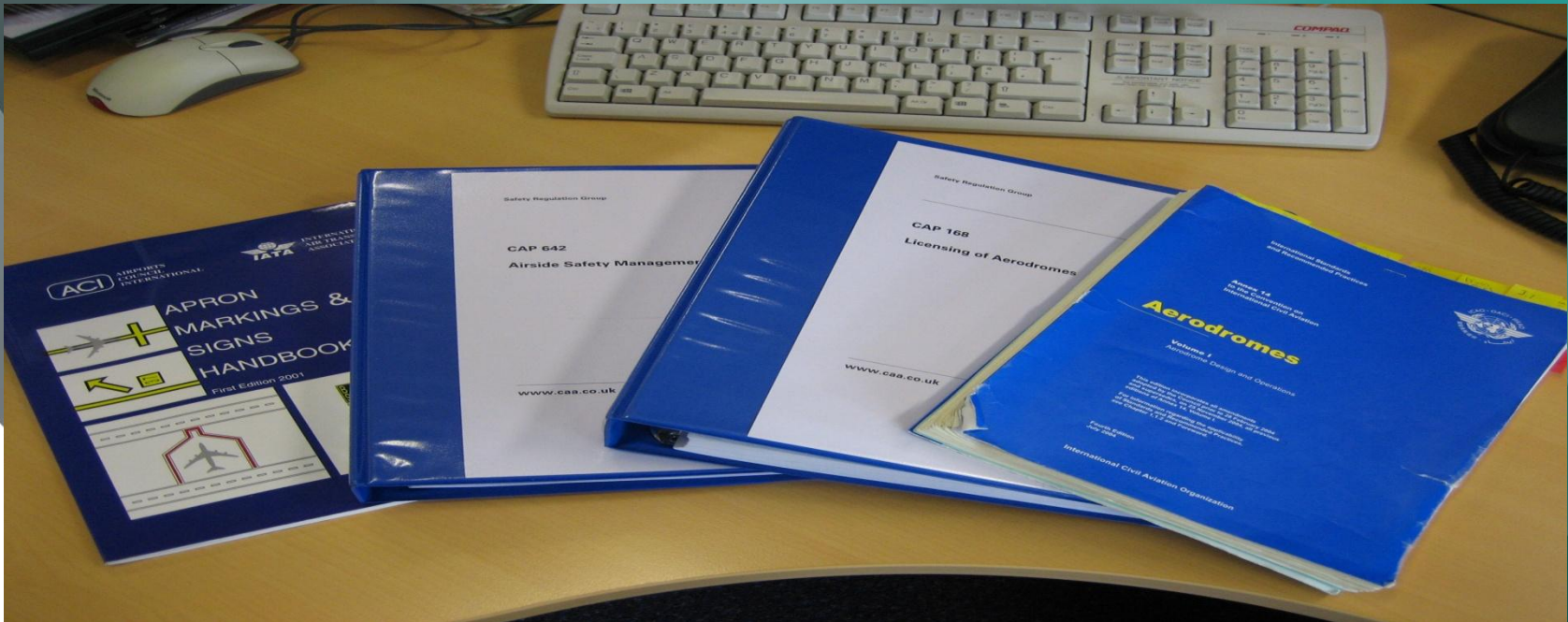
Print:

Approved by:

Print:

Date:

Building the Operator & Operations Basis (OB)



Why ?

2. Before the end of the period specified in paragraph (1), the Competent Authority shall issue certificates in accordance with this Regulation for such aerodromes and aerodrome operators, if:
 - (a) the **certification basis** has been established using the **certification specifications** issued by the Agency, including any cases of **equivalent level of safety and special conditions** which have been identified and documented; and
 - (b) the certificate holder has **demonstrated compliance with the certification specifications** which are different from the national requirements on which the existing certificate was issued; and
 - (c) **the certificate holder has demonstrated compliance with those requirements of Regulation (EC) No 216/2008 and its Implementing Rules** which are applicable to its organisation and its operation and which are different from the national requirements on which the existing certificate was issued.

EASA Aerodromes Transition

Operations Basis (OB)

Name of Aerodrome:

Date of issue:

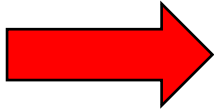
Version no:

Describe the 'Software' & 'Firmware'

Operator & Operations Basis

Annex IV – Sub Part B – aerodrome operational services, equipment and installations

ADR.OR.	Implementing Rule	Rule met?	ALL EASA Acceptable Means of Compliance Used?	Reference (ie Aerodrome Manual)
B.001	Provision of services	Choose an item.	Choose an item.	
If 'no' please specify which part of the AMC has not been used and why, together with details of proposed Alternative Means of Compliance				
B.005	Aerodrome emergency planning	Choose an item.	Choose an item.	
If 'no' please specify which part of the AMC has not been used and why, together with details of proposed Alternative Means of Compliance				
B.010	Rescue and firefighting services	Choose an item.	Choose an item.	
If 'no' please specify which part of the AMC has not been used and why, together with details of proposed Alternative Means of Compliance				
B.015	Monitoring and inspection of movement area and related facilities	Choose an item.	Choose an item.	
If 'no' please specify which part of the AMC has not been used and why, together with details of proposed Alternative Means of Compliance				
B.020	Wildlife strike hazard reduction	Choose an item.	Choose an item.	
If 'no' please specify which part of the AMC has not been used and why, together with details of proposed Alternative Means of Compliance				
B.025	Operation vehicles	Choose an item.	Choose an item.	
If 'no' please specify which part of the AMC has not been used and why, together with details of proposed Alternative Means of Compliance				
B.030	Surface movement guidance and control system	Choose an item.	Choose an item.	
If 'no' please specify which part of the AMC has not been used and why, together with details of proposed Alternative Means of Compliance				



Operator & Operations Basis

- **Typical IR from Subpart B – Aerodrome Operational Services, Equipment and Installations**

ADR-OPS.B.010 Rescue and fire-fighting services

- (a) The aerodrome operator shall ensure that:
 - (1) aerodrome rescue and fire-fighting, facilities, equipment and services are provided;
 - (2) adequate equipment, fire extinguishing agents and sufficient personnel are available for immediate response;
 - (3) rescue and fire-fighting personnel are properly trained, equipped and qualified to operate in the aerodrome environment;
 - (4) rescue and fire-fighting personnel potentially required to act in aviation emergencies demonstrate their medical fitness to execute their functions satisfactorily, taking into account the type of activity.
- (b) Temporary reduction of the level of protection of the aerodrome rescue and fire-fighting services, due to unforeseen circumstances, shall not require a prior approval by the competent authority.

Operator & Operations Basis

- **Typical AMC from Subpart B – Aerodrome Operational Services, Equipment and Installations**

AMC6-ADR-OPS.B.010 – Personnel

(a) The aerodrome operator should ensure that:

- (1) During flight operations, sufficient trained personnel is detailed and readily available to ride the rescue and fire-fighting vehicles and to operate the equipment at maximum capacity;
- (2) Personnel is deployed in a way that ensures the minimum response times can be achieved and continuous agent application at the appropriate rate can be fully maintained considering also the use of hand lines, ladders and other rescue and fire-fighting equipment normally associated with aircraft rescue and fire-fighting operations;
- (3) All responding rescue and fire-fighting personnel are provided with protective clothing and respiratory equipment to enable them to perform their duties in an effective manner.

Alternative Means of Compliance



Based on ADR.OR.A.015

MAY BE USED by the Aerodrome Operator

AltMOC

Operator & Operations Basis

Aerodrome Operator Declaration

I hereby confirm that the details provided within this Operations Basis are correct:

Signed:

Print:

For and on behalf of:

(Name of Aerodrome and Operator)

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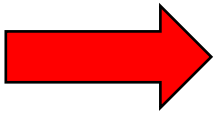
Reviewed by:

Print:

Approved by:

Print:

Date:



Transition Pack



- **Certification Basis Form (CB)**
- **DAAD Form**
- **Operators and Operations Basis Form (OB)**
- **Aerodrome Manual checklist**
- **Declaration of Compliance**
- **Supporting/guidance material**



EASA Aerodromes Transition Aerodrome Manual Checklist

Name of Aerodrome:

Date of issue:

Version no:

AERODROME MANUAL CHECKLIST

Part A – General

Administration and control of the aerodrome manual including the following: Ref: ADR.OR.E.005 and ADR.OR.E.010	Choose an item.	Page:
Introduction	Choose an item.	Page:
Statement signed by the accountable manager that the aerodrome manual complies with all applicable requirements and with the terms of the certificate	Choose an item.	Page:
Statement signed by the accountable manager that the aerodrome manual contains operational instructions that are to be complied with by the relevant personnel	Choose an item.	Page:
Explanations, abbreviations and definitions of terms needed for the use of the manual	Choose an item.	Page:
<i>If you have selected 'No' for any of the above, please provide comments:</i>		
System of amendment and revision	Choose an item.	Page:
Details of the person(s) responsible for the issuance and insertion of amendments and revisions	Choose an item.	Page:
A record of amendments and revisions with insertion dates and effective dates	Choose an item.	Page:
A statement that handwritten amendments and revisions are not permitted, except in situations requiring immediate amendment or revision in the interest of safety	Choose an item.	Page:
A description of the system for the annotation of pages or paragraphs and their effective dates	Choose an item.	Page:
A list of effective pages or paragraphs	Choose an item.	Page:
Annotation of changes (in the text and, as far as practicable, on charts and diagrams)	Choose an item.	Page:
Temporary revisions	Choose an item.	Page:
Description of the distribution system and a distribution list for the aerodrome manual, its amendments and revisions	Choose an item.	Page:
<i>If you have selected 'No' for any of the above, please provide comments:</i>		

Aerodrome Manual



SUBPART E - AERODROME MANUAL AND DOCUMENTATION (ADR.OR.E)

ADR.OR.E.005 Aerodrome manual

- (a) The aerodrome operator shall establish and maintain an aerodrome manual.
- (b) The content of the aerodrome manual shall reflect the **certification basis and the requirements** set out in this Part and Part-ADR.OPS, as applicable, and shall not contravene the terms of the certificate. The aerodrome manual shall contain or refer to all necessary information for the safe use, operation and maintenance of the aerodrome, its equipment, as well as its obstacle limitation and protection surfaces and other areas associated with the aerodrome.
- (c) The aerodrome manual may be issued in separate parts.
- (d)

Aerodrome Manual



SUBPART E — AERODROME MANUAL AND DOCUMENTATION (ADR.OR.E)

ADR.OR.E.005 Aerodrome manual

(k).....

- (l) The content of the aerodrome manual shall be as follows:
 - (1) General;
 - (2) Aerodrome management system, qualification and training requirements;
 - (3) Particulars of the aerodrome site;
 - (4) Particulars of the aerodrome required to be reported to the Aeronautical Information Service; and
 - (5) Particulars of the operating procedures of the aerodrome, its equipment and safety measures.

Feedback from the Transition Trials

Transition trials

- **Purpose:**
 - **To test and evolve CAA and aerodrome procedures**
 - **To ensure that the transition process works**
 - **To ensure that participants understand it**
 - **To ensure the correct documentation and procedures are provided**
- **Bristol, Aberdeen, Norwich**

Transition trials



Transition trials



Transition trials



Trial Feedback

- **Key elements - CB, safety assurance & ADR Manual**
 - **Allow 4-6 months, so start early & be disciplined**
 - **Expect more non-compliances than you think**
- **EASA documents:**
 - **CS relate to the CB; AMC to the OB**
 - **Format of CB is portrait and OB is landscape**
 - **AMC has GM with it, CS has two books:**
 - **Expect to cross refer between books (CS)**

Trial Feedback

- **CB & OB:**
 - **CB very detailed – need to read CS & check onsite**
 - **Important to gather the data – takes time**
 - **Baseline & uncover historical non-compliances**
 - **OB linked to ADR Manual – references allowed**
- **Process:**
 - **Teamwork – with regular checks**
 - **Focus on gathering evidence - Declaration of Compliance**

Standardisation Feedback





Read the Rules!

Don't assume the content from the title

Standardisation Feedback

- **CB:**
 - **Use the latest template – it will keep changing**
 - **We will not check the accuracy of the answer during transition.**
 - **Regular misunderstandings are;**
 - **F.370 Isolated aircraft parking positions**
 - **L.540 Aiming point marking**
 - **M.670 Runway threshold identification lights**
 - **S.880 Electrical power supply systems for visual aids**

Standardisation Feedback

- **OB:**
 - **Use the latest template – it will keep changing**
 - **We will not check the accuracy of the answer during transition.**
 - **Regular misunderstandings are;**
 - **You can only say Yes or N/A in the Rule Met? column**
 - **We need the aerodrome manual reference in the last column not a reference to the source material**
 - **We need to know whether you have used ALL the AMCs and where not indicate which one is not used . Either it is not applicable or you are proposing an alternative.**

So what's different? (1)

- **Requirements for Member States (Regulation), Authorities (AR), Operators (OR) & Operations (OPS)**
- **Management system – focus on responsibilities:**
 - **Personnel requirements, including training**
 - **Compliance monitoring and record keeping**
- **Adoption of ICAO SARPs - fewer UK differences**
- **Terms of approval**
- **CAA power to impose conditions on certificate:**
 - **Revoke, suspend or limit in whole or in part**

So what's different? (2)

- **Management of change (ADR.OR.B.040):**
- **Approval is required for many changes:**
 - **Terms of certificate, CB, safety-critical equipment, management system, OB approvals**
 - **Use of AltMoC**
 - **Permanent changes to RFFS Category**
 - **Obstacles & developments (safety issue)**
 - **Aircraft with higher reference code**
 - **Self-approval procedure**



Microsoft Office
Word Document

So what's different? (3)

- **Future oversight**
 - **First audit 6 months after transition**
 - **Performance-based oversight:**
 - **Initially, routine audit but based on EASA rules**
 - **Focus on what's new**
 - **Change management – process for change not requiring prior approval**
 - **Aerodrome Manual – References to 168**
 - **Compliance monitoring**
 - **Accountable Manager meeting 2 months later**
- **Apron management services**

Key Messages

- **EASA drafts rules - States/industry implement**
- **Transition is dynamic – things will change but not too much**
- **Transition is our highest priority**
- **CAA will promote flexibility to reduce UK non-compliances**
 - **Some SARPS are inconsistent - hence UK changes/additions**
- **Compliance with CAP 168 remains - until certificate issued**
- **EASA rules and certification scheme are manageable**
- **Project involves CAA and aerodromes working together**

.and finally

- **We are here to help, were on this road together!**
- **Read the rules:**
 - **WYSIWYG**
 - **Follow the rules**



...and finally finally finally

The lighthouse is mentioned in CS ADR-DSN.Q.840

‘Objects to be marked and/or lighted’

(b) A fixed obstacle that extends above a take-off climb, approach or transitional surface within 3 000 m of the inner edge of the take-off climb or approach surface should be marked and if the runway is used at night, lighted, except that:

.....

(4) the lighting may be omitted where the obstacle is a **lighthouse** and an safety assessment indicates the lighthouse light to be sufficient.



THANK YOU - QUESTIONS?

