



# Managing Changes



- Aim and Objectives
- Introduction
- Changes and Regulatory Requirements
- Regulatory approval process
- Summary

## The aims of this session are:

- To provide an overview as to the EASA and National aerodrome requirements and the processes in gaining regulatory approval for changes.
- To provide an overview of the management of safety and control of aerodrome works in progress.

## EASA

### ADR.OR.B.040 Changes

Any change:

1. Affecting the terms of the certificate, its certification basis and safety-critical aerodrome equipment, e.g. infrastructure.
2. Significantly affecting elements of the aerodrome operator's management system
3. Other changes including RFFS Category, Low visibility Procedures.

Shall require prior approval by the Competent Authority.

## National

An aerodrome licence condition requires that changes in the physical characteristics of the aerodrome, including the erection of new buildings and alterations to existing buildings or the visual aids, shall not be made without prior approval of the CAA.

Examples of infrastructure changes that would require approval:

- New runway
- Runway extension
- Runway threshold re-location
- New AGL installation
- New buildings/structures
- Installation of new Nav aids
- A new taxiway or change to an existing taxiway
- A new apron area or increase in size of existing apron
- A new visual control room (ATC tower)

More guidance in CAP 1168 and CAP 791



EASA requires that significant changes to an aerodrome's management systems also require prior approval:

- Changes to the overall airport organisational structure
- Changes to the operating philosophy or safety policy of the airport
- UK CAA does not approve the aerodrome accountable manager but a change should be notified to us

## The Inspecting Officers are responsible for:

- Receiving and reviewing change applications
- Passing change requests to aerodrome inspectors for assessment and approval
- Preparing change approvals for aerodrome inspectors and issuing approvals when signed
- Issuing amended certificates
- Coordinating the process
- Filing the records

## Aerodrome Inspectors are responsible for:

- conducting a technical assessment of change applications
- authorising and signing Change approvals
- deciding if any Special Conditions are required
- authorising the revised Certification Basis document
- authorising the revised Terms of the Certificate document



# Change Management



- Change will impact aerodrome operations and its business
- Typical changes for an organisation include:
  - Organisational change (a new Accountable Manager, organisational restructuring, significant IT projects, mergers, staff redundancies etc)
  - Operational change (a new aircraft type, a new contracted organisation, new systems or equipment)
  - Physical change (a new base, moving office, runway extension or new taxiway layout)
- Needs a documented process to identify changes which may affect established processes and services

# Management of Change



- Formal process to identify changes which may affect established processes and services
- A documented risk assessment
  - Describes the change and arrangements to ensure safety performance before and during implementing changes are maintained ALARP
  - Involves all stakeholders
  - Justified with supporting data
  - Considers all possible hazards
  - Signed off by an appropriate person (accountability)

# Questions to Ask



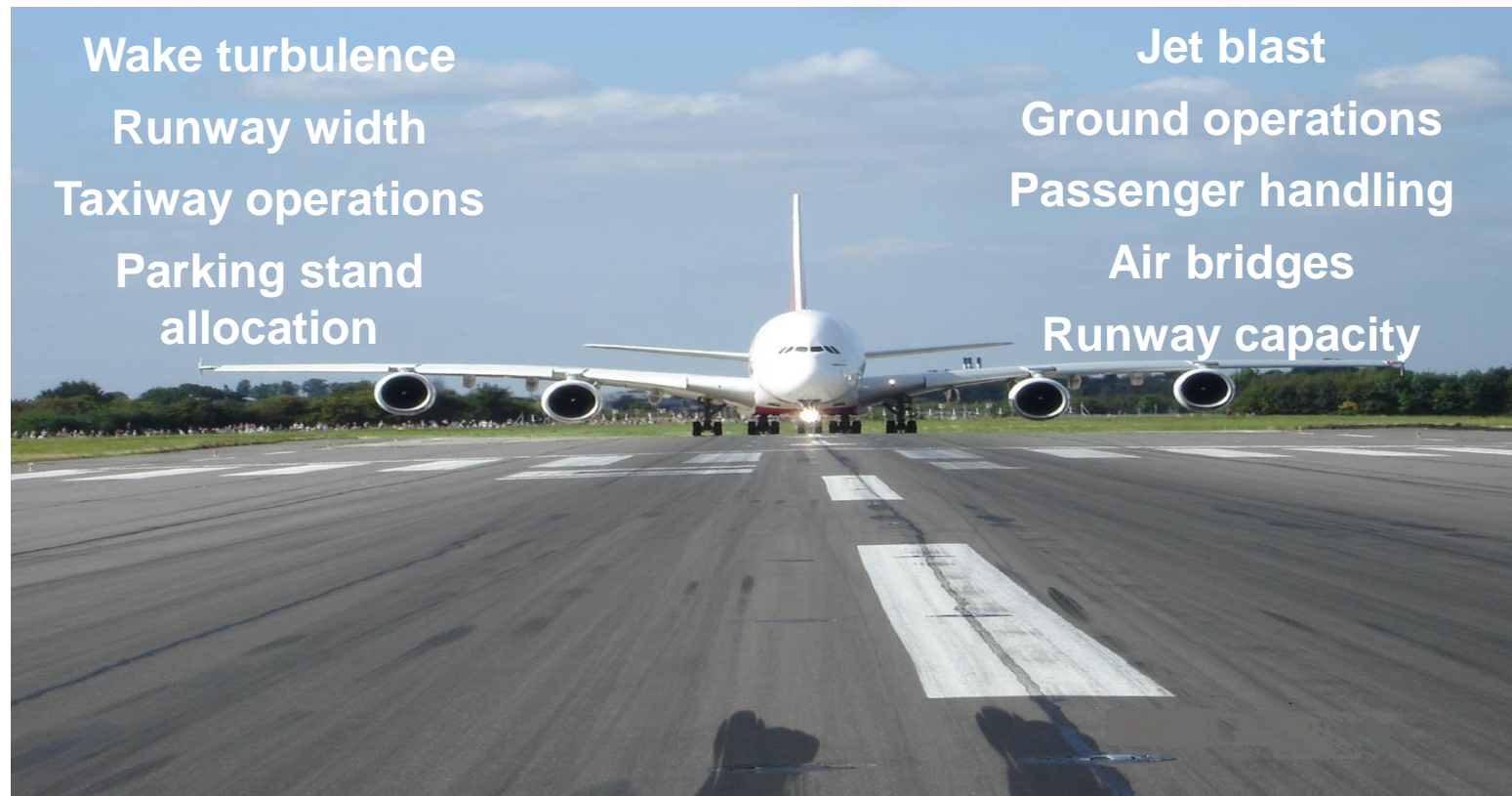
- Is what the scope of the change is?
- What is the impact of the change?
- Have the hazards been identified and risk assessed?
- Who has ownership of the risk assessment?
- Is the language, risk matrix and process appropriate?
- Who has taken part/ contributed to the risk assessment – devil's advocate?
- Is the risk assessment objective?
- Have assumptions been made?
- Does the risk assessment have a conclusion and been signed off by the appropriate stakeholders?
- ....Is it reasonable?

# Change Management



- Action Plan: what, by whom and by when
- What follow up action is needed? (assurance)
- Is the Change safe to implement? (sign off)
- ....Is it reasonable?
- A380 risk assessment

# Airbus A380 Operations



# Assessing Change Management



- Is a change management process in place?
- Check its use for major changes:
  - Operational, organisational, key personnel
- Are all stakeholders involved in the change?
- Have hazards and risk assessments been reviewed?
- For operational and organisational changes:
  - Safety accountabilities, authorities and responsibilities should be reviewed as part of the change
- How does the entity verify the success of the change?
- Need to use the safety risk management system to assess changes

# Assessment of Changes



## The Aerodrome Inspector will:

- Assess the information provided on the application form and decide if the proposed change is within the scope defined within the legislation for changes that require prior approval
- Review the submitted Safety Assessment and other supporting documentation and consider the impact of the change.



Procedure		Safety and Airspace Regulation Group
ADR-0V-PR-009		EASA Aerodrome Changes Requiring Prior Approval
Drafted/Modified by: Tony Hoag		Issue No: 1
Approved by: Iain Barber		Date: 23 January 2017

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# Regulatory Approval Process



The process for gaining regulatory approval for both EASA certificated and National licensed aerodromes is detailed in Civil Aviation Publication CAP791. It is a three stage process:

- Part 1: Compliance
- Part 2: Control
- Part 3: Completion

For EASA aerodromes Form SRG2011 and for National Form SRG2006 should be submitted together with supporting documentation



# Regulatory Approval Process



## **SRG2011 EU (UK) 139/2014 Certificated**

<https://www.caa.co.uk/publication/download/15254>

## **SRG2006 National Licensed**

[SRG2006Issue03 \(caa.co.uk\)](https://www.caa.co.uk/publication/download/15254)

- For the Part 1 process (compliance) submissions should be supported with outline plans and detailed design drawings in order for CAA teams to evaluate and assess the compliance of the development/change.
- For the Part 2 process (control), method statements/works instructions etc should be provided in order to demonstrate that the works will be managed safely
- For the Part 3, on completion of the change, the aerodrome operator should confirm to the CAA that it meets the agreed design criteria and is fit for purpose

# Works in Progress – Control and Safety Management



## EASA Requirement

### ADR.OPS.B.070 Aerodrome works safety.

The aerodrome operator shall establish and implement procedures to ensure that:

- aircraft safety is not affected by aerodrome works; and
- aerodrome works safety is not affected by aerodrome operational activities.

# Management Works in Progress – Control and Safety Management



## Issues to consider:

- A clear statement of the supervisory structure for the safety management and monitoring of works.
- Who has overall accountability for the project.
- Airfield Operating Procedures during the development, including contingencies such as effect on emergency procedures and impact of low visibility or adverse weather.
- Arrangements for liaison meetings/briefings between the aerodrome management and the contractors.
- Communications procedures between the aerodrome operating units (e.g. ATC, Airfield Operations) and works teams
- Work timings (day or night) and procedures following completion of each session.
- Access to the site and control measures if crossing a taxiway or runway.
- Lighting and marking.
- FOD control.
- Notification of the works to stakeholders: Safety Instructions, Notams, AIP amendments etc

# Works in Progress – Control and Safety Management



## Communication – Internal and external examples



### MAN OpsAdvice Notice

manchester airport		OPERATIONAL ADVICE NOTICE (OAN)	
<b>OAN 24 / 2017 – TAXIWAY JULIET PAVEMENT MAINTENANCE REQUIRING RUNWAY 09L-23R NIGHT CLOSURES</b>			
OAN REF:-	24/2017	DATE OF ISSUE:-	28/03/17
		EFFECTIVE DATE:-	02/04/17
MANUAL REFERENCE(S):-	N/A	EXPIRY DATE:-	04/05/17
PLEASE ENSURE THIS INFORMATION IS PROMULGATED TO ALL STAFF			
<b>1.0 SUMMARY</b>			
An eighteen week programme of night-time works involving the full depth reconstruction of Taxiway Juliet between Runway holding Position (RHP) J1 and the junction with Runway 05L-23R northern shoulder. The works will require the concurrent overnight closure of Runway 05L-23R with flight operations continuing from Runway 09L-23R. An attached drawing depicts the below location of works and overall operational implications.			
<b>2.0 PROGRAMME</b>			
2.1 Overall, 22:30hrs, Sunday, 1 <sup>st</sup> April to 06:00hrs, Friday, 4 <sup>th</sup> August 2017. During this period work will take place Sunday to Thursday nights inclusive and during the following local times: <ul style="list-style-type: none"><li>April: 22:30 – 06:00hrs</li><li>May &amp; June: 23:00 – 06:00hrs</li><li>July &amp; August: 23:30 – 06:00hrs</li></ul>			
2.2 Due to forthcoming UK public bank holidays and other operational needs, no work will take place during the following periods: <ul style="list-style-type: none"><li>Work ends at 06:00hrs, Wednesday, 12<sup>th</sup> and resumes at 22:30hrs, Tuesday, 18<sup>th</sup> April</li><li>Work ends at 06:00hrs, Friday, 28<sup>th</sup> April and resumes at 23:00hrs, Tuesday, 2<sup>nd</sup> May</li><li>Work ends at 06:00hrs, Friday, 28<sup>th</sup> and resumes at 23:00hrs, Tuesday, 30<sup>th</sup> May</li></ul>			
<b>3.0 SCOPE &amp; LOCATION OF WORKS</b>			
3.1 In summary, the scope of works entails the full depth reconstruction of Taxiway Juliet between RHP J1 and Juliet's junction with the northern shoulder of Runway 05L-23R. The new pavement will be of a Pavement Quality Concrete (PQC) type replacing existing areas of concrete and a composite asphalt wearing course.			
<b>VISION ZERØ</b>		<b>JUST CULTURE</b>	
OAN 24/2017		PAGE 1 OF 4	



### LHR AIP Supplement

AIP SUPPLEMENT 011/2017 UNITED KINGDOM	
<b>NATS</b> UK Aeronautical Information Service NATS Swindon, Room 3115 Southold Way Swindon, SN21 7AY aeronautical@nats.co.uk Heliwave en-rg.uk 07764500467 Contact - Aids Operations 07761-203 2526 (Distribution - Communications UK)	<b>Date of Publication</b> 13 April 2017 <b>Notes</b> (a) All times are UTC. (b) References are to the UK AIP. (c) Information, where applicable, should also be used to amend appropriate charts.
<b>LONDON HEATHROW AIRPORT - REHABILITATION OF RUNWAY TURN ON/OFF N2E (05R/27L)</b>	
<b>1 Introduction</b>	
1.1 A planned reconstruction is to take place of N2E/N2SE (hereafter referred to as N2E).	
1.2 The work will see a full-depth reconstruction of the airfield over an estimated period of 3 months.	
1.3 As a result, N2E will be closed. This supplement provides more details about the works.	
<b>2 Closure of N2E</b>	
2.1 N2E is expected to close on the night of 3 May 2017, and remain closed until 21 September 2017.	
2.2 These dates are subject to change. The activation and cancellation of the supplement will be via NOTAM.	
2.3 The taxiway closure will be between AEG, AWD and N2SE. This area will remain closed for the duration of the works.	
<b>3 Working Procedure</b>	
3.1 The project team will work within the enclosed site at N2E either when Runway 27L is the designated arrival runway, or when Runway 09R is in use for other departures or arrivals.	
3.2 Runway entry/exit points V1081 and N204R/220 will remain available for departures from Runway 27L.	
3.3 In order to facilitate access to the site, when the project team are working (see par 3.1 above), the following additional taxiway closures will be in place: <ul style="list-style-type: none"><li>(a) LWS 28 between stand 131 and N81.</li><li>(b) LWS 41 between stand 431 and TULLA.</li></ul>	
3.4 As a result, when Runway 09R is used for arrivals, N1 will not be available for aircraft exiting the runway.	
3.5 During Low Visibility Procedures, no work will take place between the Cat 101 bar at N2E and the Cat 1 bar at N2SE, and all plant will be withdrawn from the area.	
<b>4 Questions</b>	
4.1 Any questions on the content of this supplement should be directed to the Aids Development Assurance Team on +44(0)7766-800513 (office hours) or the Aids Duty Manager (24/7) on +44(0)2047 48 1737.	
CIVIL AVIATION AUTHORITY	SUP 011/2017-1

# Aerodrome Operations Regulatory Approval Process



## Oversight Visits

For major infrastructure changes such as runway works, taxiway and/or apron extensions the CAA may carry out additional oversight visits to the aerodrome to verify that the design and safety management of the works is in accordance with the approvals given.

Any non-compliances or safety issues identified from these visits will be communicated to the accountable manager in the form of an audit report detailing the Findings or Observations at the time of the visit.

# Managing Changes - Summary



- Infrastructure developments require CAA approval in accordance with National and EASA regulatory requirements.
- Process for gaining CAA approval is detailed in CAP791 and is in three Parts:
  1. Compliance
  2. Control
  3. Completion
- Many issues to consider in the planning process and controlling the works
- Communicating the details internally and externally
- Appropriate works site markings/lighting
- Additional oversight visits may be carried out



UK  
Civil Aviation  
Authority  
International

# Any Questions?