



# State Initiatives and pre-implementation testing

Andrew Badham  
Policy Lead Aerodromes  
UK CAA

ICAO/ACI Symposium  
IMPLEMENTATION of the GLOBAL REPORTING FORMAT  
26-28 March 2019

# What this panel will cover

- What lessons have States learned
- What preparations are States making



# Munich Air Disaster 1958



# Runway contaminant and aircraft performance



# Runway excursions



# Air Navigation Commission JOB CARD

## AP001 – PROBLEM STATEMENT



Runway surface conditions have contributed to many safety events and investigations have revealed **shortfalls in the accuracy and timeliness of assessment and reporting methods** currently provided for in ICAO provisions and guidance material.

# UK CAA procedure development



Civil Aviation Authority

**SAFETY NOTICE SEPT 2011**

**OPERATIONS ON CONTAMINATED RUNWAYS**



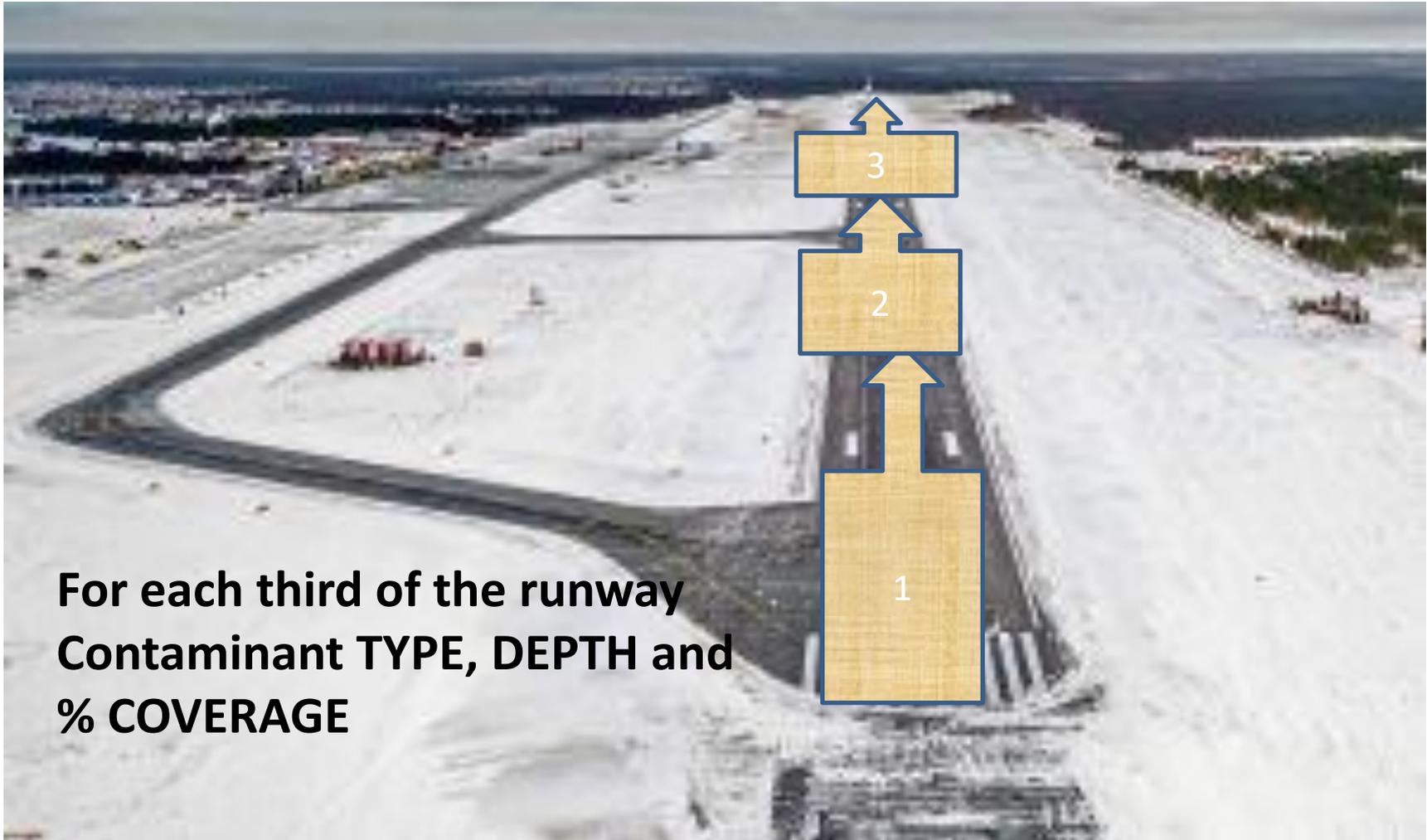
Civil Aviation Authority

**Information Notice Sept 2016**

**Winter Operations on Licensed/Certificated  
Aerodromes**

**From 2016 UK procedures mirrored that developed by the ICAO friction task Force  
Based on the TALPA ARC methodology**

# Runway Assessment



**For each third of the runway  
Contaminant TYPE, DEPTH and  
% COVERAGE**

# UK trialled procedure

- **UKGM3 ADR.OPS.B.035 Operations in winter conditions  
RUNWAY CONTAMINATION REPORT**
- During adverse weather, any significant change in runway state should be observed, assessed and promulgated without delay.
- The runway surface condition should be assessed and reported, giving details of the type, depth and extent of contamination for each third of the runway using the following reporting format,

Format:

Touchdown Zone - % coverage, type, depth

Mid Point - % coverage, type, depth

Stop End - % coverage, type, depth

# Runway Condition Assessment Matrix (RCAM)

Runway Condition Assessment Matrix (RCAM)			
Assessment Criteria		Downgrade Assessment Criteria	
Runway Condition Code	Runway Surface Description	Aeroplane Deceleration Or Directional Control Observation	Pilot Braking Action Advisory Report
6	<ul style="list-style-type: none"> <li>• DRY</li> </ul>	---	---
5	<ul style="list-style-type: none"> <li>• FROST</li> <li>• WET (The runway surface is covered by any visible dampness or water less than 3 mm deep)</li> </ul> <p><i>Less than 3 mm depth:</i></p> <ul style="list-style-type: none"> <li>• SLUSH</li> <li>• DRY SNOW</li> <li>• WET SNOW</li> </ul>	Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	GOOD
4	<p><i>-15°C and Lower outside air temperature:</i></p> <ul style="list-style-type: none"> <li>• COMPACTED SNOW</li> </ul>	Braking deceleration OR directional control is between Good and Medium.	GOOD TO MEDIUM
3	<ul style="list-style-type: none"> <li>• WET ("Slippery wet" runway)</li> <li>• DRY SNOW or WET SNOW (Any depth) ON TOP OF COMPACTED SNOW</li> </ul> <p><i>3 mm and more depth:-</i></p> <ul style="list-style-type: none"> <li>• DRY SNOW</li> <li>• WET SNOW</li> </ul> <p><i>Higher than -15°C outside air temperature<sup>1</sup>:</i></p> <ul style="list-style-type: none"> <li>• COMPACTED SNOW</li> </ul>	Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced.	MEDIUM
2	<p><i>3 mm and more depth of water or slush:</i></p> <ul style="list-style-type: none"> <li>• STANDING WATER</li> <li>• SLUSH</li> </ul>	Braking deceleration OR directional control is between Medium and Poor.	MEDIUM TO POOR
1	<ul style="list-style-type: none"> <li>• ICE <sup>2</sup></li> </ul>	Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced.	POOR
0	<ul style="list-style-type: none"> <li>• WET ICE <sup>2</sup></li> <li>• WATER ON TOP OF COMPACTED SNOW <sup>2</sup></li> <li>• DRY SNOW or WET SNOW ON TOP OF ICE <sup>2</sup></li> </ul>	Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain.	LESS THAN POOR

# UK CAA role out plan

- **UK CAA have been part of the ICAO FTF since its inception**
- **March 26-28 ICAO Montreal GRF Symposium. We have assisted in the preparation of the Symposium.**
- **Work with ICAO Global Regional Offices will provide more details and training material in 2019/2020. Paris European Regional Office 10-11 July 2019.**
- **Work with EASA who are expected to carry out seminars/symposia across Europe.**
- **UK CAA/AOA – plans to provide regional briefing sessions at airports + inspector briefings 2019/20**

# PANS ADR ICAO Doc 9981

## 2nd Edition Nov 2016

- PART II – AERODROME OPERATIONAL MANAGEMENT Chapter 1 (applicable on 5 November 2020)
- REPORTING FORMAT USING STANDARD RUNWAY CONDITION REPORT
- RUNWAY SURFACE CONDITION ASSESSMENT AND REPORTING
- 20 pages of material that you can already use