

**EASA workshop**

# **Runway Friction and Aircraft Braking – The way forward –**



**Background and Agenda**

**Werner Kleine-Beek  
Research Project Manager**



## **Background**

---

- **Runway friction characteristics, a multidisciplinary subject**
- **Runway overruns and veer-off: contributing factors ice, snow, slush or standing water patches,**
- **ICAO Annexes and Aerodrome Design and Operations Manuals do not provide exhaustive specifications,**
- **Significant differences occur in the actual application of ICAO provisions in Member States.**



## **Background**

---

- **Controllers' concerns:  
no appropriate and reliable information,**
- **Measurements could be seriously misleading,**
- **AIBs' suggestions for R&D**
- **Joint Winter Programme 96 - 03**
- **EASA recognised the potential of safety improvement of aircraft and aerodrome operation, if fully validated and included in regulation and/or guidance.**



## **Background**

---

- **Research project “RuFAB – Runway Friction Characteristics Measurement and Aircraft Braking”**
- **Identify potential for harmonization and standardization**
- **Contribute to ICAO action plan**
- **Basis for future EASA rulemaking activities**



## **Background**

---

### **Runway friction workshop**

- **Inform about recent activities**
- **Present results of research projects**
- **Receive stakeholder's opinion**
- **Discuss the various aspects and options**

**Expected Outcome:**

**Inputs to a roadmap for the way ahead!**



**European Aviation Safety Agency**

**Day 1**

**Thursday, 11 March 2010**

---

## **Session 1: An evolutionary context**

**09:45 – 10:00**

- **ICAO Perspective**
- **Runway safety occurrences**
- **Large aeroplanes performance data requirements**
- **Airport rulemaking initiatives**



## **Session 2: Recent Initiatives**

**10:30 – 13:00**

- **Results of ICAO Friction Task Force**
- **TALPA ARC Recommendations**
  - ✧ **Determining, reporting, and accounting for contaminated runway surface conditions**
  - ✧ **TALPA ARC validation testing**
- **Research activities in France:**
  - ✧ **DGAC study on operational friction**
  - ✧ **Runway Surfaces: Evaluation of contamination**



**European Aviation Safety Agency**

**Day 1**

**Thursday, 11 March 2010**

---

## **Session 3: EASA research project RuFAB - Runway Friction Characteristics Measurement and Aircraft Braking**

**14:00 – 17:00**

- **Phase 1:**  
**Inventory of research, documents, taxonomy**
- **Phase 2:**  
**Functional friction measurement**
- **Phase 3:**  
**Operational friction measurement /  
assessment**
- **Overall Summary of Conclusions and  
Recommendations**





**European Aviation Safety Agency**

**Day 2**

**Friday, 12 March 2010**

---

## **Session 4: Stakeholder's perspectives**

**08:30 – 13:10**

- **Aviation Administrations**
- **Airport Operators**
- **ASTM Committee E17**
- **Airframe Manufacturer**
- **Scientist's vision: Aircraft braking data link**
- **Airline Operator S**



**European Aviation Safety Agency**

**Day 2**

**Friday, 12 March 2010**

---

## **Session 5: Round table discussion with stakeholders and audience**

**14:15 – 16:00**

- **Summary, Objectives, Priorities and further R&D**
- **Round Table Discussion**
- **Closing remarks**