

# **Runway Friction Characteristics Measurement and Aircraft Braking**

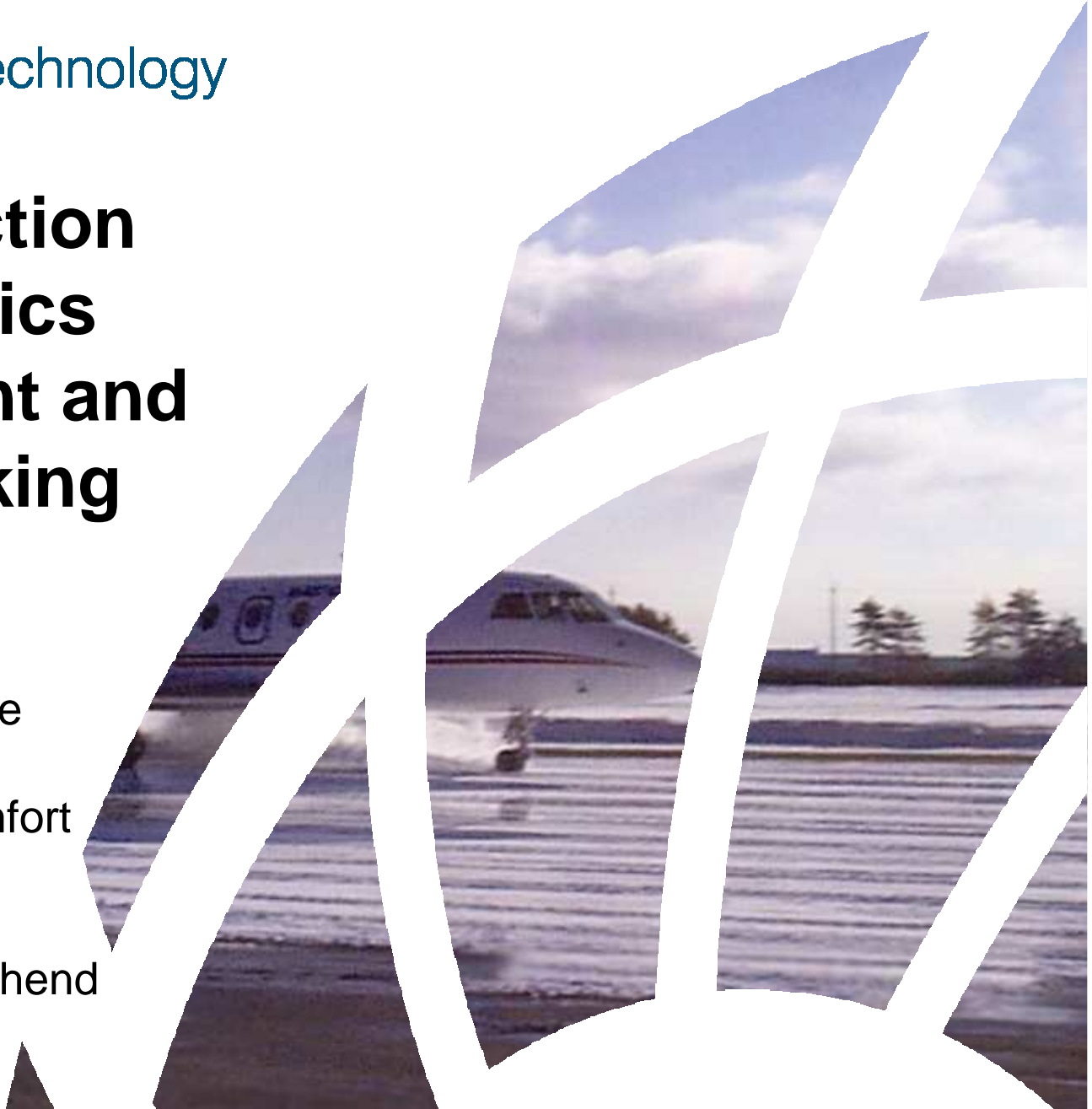
Sponsor: EASA

Location: Paris, France

By BMT FTL:

- George Comfort
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# Runway Friction Characteristics Measurement and Aircraft Braking – Project EASA.2008.C46

## Project Steering Committee

- Werner Kleine-Beek (EASA – Project Officer)
- Jean Baril, EASA;
- Rachel Daeschler, EASA;
- Xavier Vergez, EASA;
- Chris Gash and also Paul Fraser-Bennison, CAA-UK;
- John Matthews, EASA;
- Herbert Meyer, EASA;
- Ivan-David Nicolas, EASA;
- Armann Norheim, Avinor (Norway);
- Jerry Ostronic, FAA (USA);
- Vincenzo Pennetta, EASA;
- Francis Richards, Eurocontrol;
- Maria Algar Ruiz, EASA;
- Filippo Tomasello, EASA; and
- François Watrin, DGAC-France.

# Agenda for Afternoon – Project EASA.2008.C46

- Introduction & Summary of Findings & Conclusions
- Functional Friction and Harmonization
  - Friction-Measuring Devices
  - Alternative Methods
  - Summary and Conclusions
- Coffee Break
- Operational Friction
  - Runway Condition Reporting
  - Friction Measurements for Operational Applications
  - Runway Surface Condition Observation and Reporting
- Wrap-Up & Discussion/Questions

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## Background and Events Leading Up to This Project

- Contaminated runways are a significant safety concern
- Large amount of information available but it is scattered and a consensus has not been reached on many key topics
  - wide range of practices currently in use
- Several initiatives ongoing or recently completed
  - Joint Winter Runway Friction Measurement Program
  - UK CAA (Modified Mu-Meter; Accident investigations at Bristol)
  - French DGAC undertaking work
  - ICAO FTF
  - FAA's TALPA ARC
- EASA tasked with rule-making for its member states

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## Project Objectives

- Overall: Provide information and recommendations as input into a plan for European rulemaking (by EASA)
- Functional friction characteristics (runway pavement maintenance)
  - design objectives; planning for maintenance actions; and actions for pavement restoration
- Operational friction characteristics (aircraft operations)
  - runway surface condition reporting
  - runway friction measurements for operational purposes
  - procedures, and content of information delivered to ATS and pilots
- Overlap Between Functional and Operational Applications
  - “Slippery When Wet”

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## General Scope – Three Main Parts:

- 1 – Taxonomies and Definitions - Terminologies, What is Reported, etc:
  - Information-Gathering – Questionnaires, References & Documents
  - Other Initiatives (ICAO FTF; FAA TALPA ARC, French DGAC Study)
  - Compared Definitions – Identified Similarities and Differences
  - Feasibility for Harmonization Regarding the Taxonomies
- 2 – Functional Friction Assessments
  - Reviewed Past Attempts at Harmonization
  - Alternative Methods for Assessing Functional Friction
  - Stepwise Procedure for Harmonization
  - Updating the ICAO Device Equivalency Table
- 3 – Operational Friction Assessments & Runway Condition Reporting
  - Friction Measurements
  - Runway Condition Observations