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Can Technology Revolutionise Winter Operation of Airports

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Winter Operation



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- » Winter Operation is Characterised by
 - › Freezing Temperatures
 - › Snow
 - › Ice of all types
 - › Surface Water at Low Temperatures
 - › Slush
 - › Low visibility and Lighting Conditions
 - › Rapidly Changing Conditions
- » Degradation of Aircraft Performance
- » Reduced Availability and Closures of Airports

What Can Technology Provide



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- » Adequate Runway Conditions without undue Disruption of Services
 - › Snow and Ice Removal
 - › Prevention of Ice Build-Up
 - › Water Control
 - › Removal of Contaminants of all Types
- » Accurate Assessment and Forecasting of Runway Conditions
- » Evaluation of Impact on Aircraft Performance
- » Timely Dissemination of Actual and Forecast Runway Conditions

Removal of Contaminants



Status:

- » Highly Developed Technology
- » Fierce Competition

Problems:

- » High Cost of Ownership and Operation
- » Power Intensive

Assessment of Runway Conditions and Impact on A/C Performance



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- » Has been Identified by FAA/EASA as being less than adequate
 - › TALPA Group in US
 - › EASA Working Group
 - › Measurements of Surface Friction vs. Assessment of Surface Conditions
 - › Correlation with Aircraft Performance
- » Friction Task Force at ICAO
- » Work is on-going

Can Technology Revolutionise Winter Operation of Airports ?



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- » Runway Surface Treatment Technology is highly developed
- » Assessment and Reporting of Runway Conditions can be greatly Improved
 - › Available Sensor and Processing Technology
 - › Improved Forecasting
- » Correlation of Runway Conditions and Aircraft Performance must be Improved
 - › On-line Computer Modelling

Concluding Remarks



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There is no Substitute for:

- » Provision of Necessary Airport Resources
 - › Equipment and Systems
 - › Trained Workforce
- » Good Contingency Planning

Thank you for your attention!

