

Winter Operations / Surface Contamination

Time

Two hour e-learning interactive module

Lesson Contents

Extreme Cold Temperatures

- Fuel temperature
- Oil temperature
- Aircraft stock
- Cold temperature altitude correction chart

Contaminated Runways

- When runways become an ice rink
- FAR Part 25 aircraft certification
- SAFO 06012 – Landing Performance Assessments
- Canadian runway friction index
- Crosswind limits
- SAFO 09004 – Operational Considerations for Airport Winter Operations
- Ramp operations
- SAFO 09015 – Maximum Performance Landings on Contaminated Runways
- Taxi operations
- Braking action reports
- MU values
- Flaps
- Carbon brakes

Inflight Icing

- Icing accidents
- Where icing occurs
- Ram air temperature
- Icing penalty
- Severe icing conditions
- Freezing rain
- Freezing drizzle
- SLD icing
- Factors that affect icing
- Use of boots
- Flight planning
- Icing near warm and cold fronts
- Aviation digital data service
- PIREPs
- SIGMETs

Ground Icing Conditions

- Clean Aircraft Concept
 - Icing case study
 - Clean aircraft concept
 - Small amounts of contamination
 - Deicing
 - Use of hangars

Fluids

- Fluid types
- Takeoff speed corrections
- SAFO 01011 - Elevator control
- Ground support personnel briefing

Holdover Times

- Holdover time charts
- Snowfall intensity
- Holdover time start
- Holdover range of times

Deice Process

- Where to start deice process
- Windshield
- Pre-takeoff contamination check
- Obscured window
- Tactile inspection
- Fluid breakdown

Assessment

Demonstrate knowledge by successful test completion with a minimum score of 80% corrected to 100%.