Focus areas for safe and efficient winter operations at Oslo Airport since 1998

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Where are we?

Reykjavik

OSLO
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Oslo Airport (OSL) facts

Two parallel runways systems

Eastern runway 2950 m (01R, 19L)

Western runway 3600 m (01L, 19R)

59 stands, 34 airbridges

Rwy capacity 75 – 80 movements per hour

Passenger capacity 23 million per year (approx. 20 million passengers 2011), increasing to 28 million passengers in 2017
Winter climate at OSL

Winter season duration: 15.10 – 15.04
Up to 270 cm snow, accumulated
Up to 40 cm snow in one day
Approx. 80 days with snow clearing
Approx. 180 days with aircraft deicing for a total of ~12000 aircraft
Up to 40 days of difficult weather conditions such as freezing fog, freezing drizzle or rain conditions
On average 700 instances of runway closure for rwy preparation

Winter season 2010-2011:

87 days with > 150 cm accumulated snow
780 instances of runway closure for rwy-preparation

Winter operation - objectives

Preparation will start if friction measurements show an average of less than 0.40 for runway and 0.35 for taxiway

Main goal: Maximum 15 minutes closure per runway for snow clearance operations
Resources

Personnel:

- 40 OSL employees
- 95 seasonal employees
- 60 contractors

Equipment:

- 20 runway sweepers with plough, brush and blower
- Snow blowers – self-propelled units for clearing large amounts of snow
- 10 wheel loaders
- 10 vehicles for spreading sand and chemicals
- 3 runway friction measurement units
Focus areas

Planning:
- Evaluation of previous season
- Equipment maintenance and preparation, April - September
- Follow-up procedures and need for corrections
- Recruitment of 94 extra personnel for the winter season
- Training of all personnel September/October

Operations:
- Good weather forecasting
- Morning readiness. Both runways clear at start of morning peak (06.30 AM)
- Anticipation of weather change. Special follow-up on temperature change when temperatures are around 0°C
- Good coordination with Air Traffic Control (ATC) both in planning and operation
Lessons learned

OSL had very bad performance on winter operations in the start-up winter of 1998/99. We underestimated the need for personnel, equipment, procedures and deicing capacity.

Based on the experience from the first winter season we made improvements in all aspects of winter operations. We implemented standardized snow clearance procedures for different weather conditions.

In close coordination with ATC, priority was given to snow clearance operations. It is important to plan the timing of runway closure for snow clearance well in advance and to stick to the agreed plan.

Ask for continuous feedback from all relevant parties using the airport. Based on this, improved operation can be achieved for all relevant aspects. Special follow-up on friction measurements on runways and rwy-exits (not standard ICAO)
Lessons learned

If you have had a bad day of operation (we all have – especially the first winter day) take immediate action to make it better the next day.

Never be satisfied with your performance. There will always be something you can improve for better safety and efficiency.

Thank you for your attention!