

22nd November 2024

ASWeather_OSI_054

Version 3.0

Operational Safety Instruction

Adverse Weather

It is the responsibility of all employers to ensure that relevant OSIs are brought to the attention of their staff. However, individuals remain responsible for their own actions and those who are in any doubt should consult their Supervisor or Manager.

1. Introduction

- 1.1 This Instruction sets out the precautions to be taken by members of the Airside community before, and during, adverse weather conditions. The aim of these measures is to ensure the safety and protection of passengers, colleagues, equipment, infrastructure and aircraft.
- 1.2 It is expected that all operating companies will produce their own procedures in support of this Instruction.
- 1.3 This Instruction covers the following weather conditions:
 - 1.3.1 Strong winds,
 - 1.3.2 Heavy rain / Thunderstorms and lightning,
 - 1.3.3 Extremes of temperature (High / Low temperatures).
- 1.4 This OSI should be read in conjunction with the following:
 - 1.4.1 ASWeather_OSI_053 Winter Hazards and the Aerodrome Snow Plan
 - 1.4.2 ASEnv_OSI_057 De-icing Fluid Management Reporting Procedures
 - 1.4.3 ASWeather_OSI_052 Low Visibility Operations
- 1.5 All current OSIs can be found via the link [here](#) or via the Quick-response (QR) code below.



- 1.6** Red bars have been added to the side of the document to draw the reader's attention to where changes have been made.
- 1.7** ASWeather_OSI_054 v2.0 is hereby cancelled.

2. Definitions

| Abbreviation | Description |
|--------------|----------------------------------------|
| AOP | Airport Operating Plan (Formerly ACDM) |
| AOU | Aircraft Operations Unit |
| FOD | Foreign Object Debris |
| HAL | Heathrow Airport Limited |
| ULD | Unit Loading Device |

3. Safety Procedure

3.1 Communication of Weather Warnings

3.1.1 A weather warning will be issued when the conditions are, or are expected to be:

- 3.1.1.1** Strong Winds – mean wind speed of 20kts and/or gusts of 28kts.
- 3.1.1.2** Gale – mean wind speed of 34kts and/or gusts of 43kts.
- 3.1.1.3** Ground and Air Frost – surface and air temperatures of zero or lower, and appropriate air conditions for frost formation.
- 3.1.1.4** Thunderstorm Warning Level MODERATE – when thunderstorms are occurring within a 20 nautical mile radius of Heathrow Airport.
- 3.1.1.5** Thunderstorm Warning Level HIGH – when thunderstorms are expected to affect the airport within 5 nautical mile radius of Heathrow Airport within the next 15 minutes.

3.1.2 Heathrow will communicate weather warnings to the Airside community via the following methods:

- 3.1.2.1** A message will be placed on the AOP by the AOU (Aircraft Operations Unit), detailing the weather warning(s) and the times of validity.
- 3.1.2.2** The Heathrow Met Office will present weather warnings, when forecast, on the Heathrow Operational Conference Calls, chaired by the Aircraft Operations Duty Manager (AODM), at 0900 and 1330.
- 3.1.2.3** A message will be published on the Airport Community App.



3.2 Strong Winds

- | **3.2.1** Strong winds can cause unsecured items to be displaced in an uncontrolled manner. This can lead to the possibility of significant damage being caused to aircraft or injuries to individuals on the manoeuvring area, road or stand.
- | **3.2.2** Loose items also present a serious engine ingestion risk during strong wind conditions. The potential impact on an aircraft, particularly during critical phases of flight (take-off and landing) is highly significant.
- | **3.2.3** When a strong wind warning has been issued, or when strong wind conditions are experienced, the following actions must be taken by Airside users:
 - | **3.2.3.1** Extra vigilance must be exercised to prevent accumulations of FOD. This means that all loose items must be removed and/or safely stowed. Plastic bags and sheeting are a particular threat to engines and must have particular attention paid to them.
 - | **3.2.3.2** All covers must be closed on waste containers. Any containers which are full and at risk of losing materials must not be used and reported to Airfield Operations on 020 8745 6024 without delay.
 - | **3.2.3.3** All ground equipment and vehicles that are not in immediate use must be parked in designated areas. Ensure parking brakes are engaged, stabilizers are lowered where applicable and secure all non-motorized ramp ground service equipment with additional measures if needed.
 - | **3.2.3.4** All ULD's must be secured and must not be left on the ground.
 - | **3.2.3.5** All loose items in construction work sites must be secured or removed. Light stored materials must be relocated into sheltered storage on exposed worksites.
 - | **3.2.3.6** Colleagues observing any obstruction, loose materials, or equipment moving in the wind that could cause disruption and/or damage to aircraft or infrastructure, must report this without delay to Airfield Operations on 020 8745 6024, irrespective of ownership. If safe, and possible to do so, staff must also take action to secure it.
 - | **3.2.3.7** Ground operators should take extra care when towing aircraft and should refer to the operating company's respective operations manual for more specific guidance.



- 3.2.3.8** Aircraft rubbish and equipment which tends to be unsecured, such as bagged cabin waste, headsets and blankets, must be taken immediately from the aircraft to its final destination (bin/vehicle) and not placed on the ground.
- 3.2.3.9** All aircraft must be chocked as appropriate to the wind conditions and in accordance with the operating company's procedures, but as a minimum, in line with manufacturer's recommendations.
- 3.2.3.10** Propeller aircraft must have their propellers strapped.
- 3.2.3.11** All safety cones must be removed from the aircraft and returned to the designated area. For more details, please refer to ASGrOps_OSI_093 Aircraft Arrival, Turnaround and Departure Procedures on Stand.
- 3.2.3.12** Due to the operating limits of Heathrow's airbridges, some or all may be withdrawn from service during strong winds (limits vary between 41 knots or 75 km/h and 54 knots or 100 km/h). Heathrow's Engineering Team will carry out the task of lowering the Passenger Boarding Bridge(s) and turning the cab away from the direction of the wind. If airbridge operations are not available, a message will be placed on the AOP by the AOU to this effect. For more details, please refer to ASDRVE_OSI_011 Passenger Boarding Bridge Operations & Operator Permit Training Requirements.
- 3.2.3.13** Pre-conditioned air equipment may not be used during strong wind warning. For more information, please refer to ASEnv_OSI_055 Pre-conditioned Air Rules and Procedures.
- 3.2.3.14** Drivers of large or high sided vehicles are reminded to take particular care when driving on exposed airside roads.



3.3 Heavy Rain/Thunderstorms and lightning

3.3.1 Thunderstorms can cause significant disruption to operating schedules, and represent a hazard to airport operations due to the potential for:

- 3.3.1.1** Lightning bolts striking aircraft, vehicles, buildings or persons,
- 3.3.1.2** Very heavy rain or hail,
- 3.3.1.3** Poor visibility,
- 3.3.1.4** Strong, gusty winds,
- 3.3.1.5** Interference with radio transmissions or compasses.

3.3.2 When a thunderstorm warning is issued, the following actions must be taken by Airside users:

3.3.2.1 Consideration should be given to the strong wind warning requirements in section 3.2 above.

3.3.2.2 Operators can expect interruptions to ground handling activities and refuelling operations whenever lightning is in the vicinity of the airfield.

3.3.2.3 During or immediately after heavy rain, drivers should be aware that longer braking distances will be required, the road may become slippery and paint markings may not be as visible.

3.3.2.4 Colleagues observing any hazards such as flooding or damage to infrastructure must report this to the Airfield Operations on 020 8745 6024 without delay.



3.4 Extremes of Temperature

3.4.1 Winter weather brings extra hazards. During extreme cold periods where ice or snow is a risk, the following actions must be taken by Airside users:

3.4.1.1 Pedestrians and drivers should be aware that areas which have been treated with anti-icing or de-icing products will be more slippery than usual initially, particularly on painted areas. Extra care must be taken with an expectation that journey times may be increased.

3.4.1.2 Slippery areas must be addressed immediately using the 'self-help' facilities at the head of stand. For more information about the 'self-help' facilities, please refer to ASWeather_OSI_053 Winter Hazards and the Aerodrome Snow Plan.

3.4.1.3 If the 'self-help' facilities do not suffice or are found to be spent, contact Airfield Operations on 020 8745 6024.

3.4.1.4 Staff should pay particular attention to vehicle pre-use inspections during cold weather. Check the operation of lights, battery and top up anti-freeze as per manufacturers recommendations.

3.4.1.5 Do not leave vehicles unattended with engines running.

3.4.1.6 Take extra care when driving, especially at junctions and approach ramps to tunnels. Bear in mind that vehicles are at risk of skidding and may require more braking distance in which to slow down and stop.

3.4.1.7 Operators of water-carrying vehicles should ensure that spillages are prevented.

3.4.1.8 Airside users must be familiar with the Aerodrome Snow Plan and its requirements which can be found [here](#).

3.4.1.9 During a snow event or any winter weather (e.g. when snow is falling or is imminent), any hazards which colleagues cannot treat themselves must be reported to Airfield Operations on 020 8745 6024.

3.4.1.10 Hot weather also brings extra hazards. Staff should be aware that when driving vehicles, particularly heavy vehicles, asphalt surfaces may soften. Report any surface faults to Airfield Operations on 020 8745 6024.



3.5 Enforcement

- 3.5.1** Heathrow Airfield Operations will carry out extra patrols during adverse weather. Failure to comply with the requirements of this instruction, or failure to rectify (within a reasonable timescale) an unsafe condition when requested to do so by Airfield Operations, will lead to penalties being issued under the Penalty Point Scheme as per ASDRVE_OSI_087 Management of Airside Safety Offences.
- 3.5.2** All companies must ensure that their risk assessments for operating in adverse weather are fit-for-purpose. These must be made available to Airfield Operations upon request.
- 3.5.3** HAL reserves the right to suspend parts of or all ground operations at Heathrow during adverse weather events in extreme circumstances.

4. Enquiries

- 4.1** All enquiries on this notice should be directed to the Heathrow AfDM on 020 8745 7373, airfield.duty.manager@heathrow.com.

5. References

ASWeather_OSI_052 Low Visibility Operations
ASWeather_OSI_053 Winter Hazards and the Aerodrome Snow Plan
ASEnv_OSI_057 De-icing Fluid Management Reporting Procedures
ASDRVE_OSI_011 Passenger Boarding Bridge Operations & Operator Permit Training Requirements
ASEnv_OSI_055 Pre-conditioned Air Rules and Procedures
ASGrOps_OSI_093 Aircraft Arrival, Turnaround and Departure Procedures on Stand
ASDRVE_OSI_087 Management of Airside Safety Offences
CAP 642 Airside Safety Management
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Document History

| Revision | Description of Change | Date |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| v1.0 | Transferred to new template | 07 th July 2017 |
| v2.0 | Updated contact to Airside Operations | 17 th January 2020 |
| v3.0 | Full document review, updated communication methods regarding weather warnings, updated and clarified procedures on airbridges, cones, 'self-help' facilities, pre-conditioned air, driving in adverse weather and Heathrow's enforcement. Added new procedure regarding propeller aircraft and updated job roles and contact details. | 22 nd November 2024 |

