

Inclement Weather Procedures

Airside Operational Instruction 23

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AOI Owner - Head of Fire & Airfield Operations



AOI 23 'INCLEMENT WEATHER PROCEDURES'

Introduction

Airports are a hazardous environment and the hazards are increased by inclement weather. To ensure the safety of personnel and equipment during periods of inclement weather the following precautions should be taken.

SECTION 1 - 'HIGH WINDS PLAN'

1.1 HIGH WINDS POLICY STATEMENT:

"High winds have the potential to cause damage to aircraft on the ground and/or serious injury to personnel. East Midlands Airport requires airside service partners to maintain and implement their own high wind operating procedures upon receipt of notification that a high wind warning is in force. High wind warnings are issued with a validity period from/to by the Exeter Weather Centre where sustained mean speeds above 15kts or frequent gusts in excess of 20kts are forecast. East Midlands Airport will reduce the risk of damage or injury through educating airside users about the hazards of operating in high winds, informing airside service partners when a high winds warning has been issued by the Exeter Weather Centre and actively enforcing the High Winds Policy".

1.2 DEFINITION OF WIND CONDITIONS

- Strong Wind - Mean speed 24+ kts
- Gale Force Wind - Mean speed 34+ kts
- Severe Gale Force Wind - Mean speed 44+ kts
- Storm Force Wind - Mean speed 52+ kts
- Violent Storm Force Wind - Mean speed 60+ kts

1.3 NOTIFICATION

1.3.1 Exeter Weather Centre issue Strong Wind and Gale Warnings direct to ATC.

1.3.2 Weather warnings with a validity period will be removed from screen displays on expiry.

1.4 RESPONSE ACTIONS

1.4.1 ATC is responsible for:

- Implementing the 'internal' notification procedure by issuing a '*gale and strong wind*' warning on the message bar of CHROMA FUSION to EMA operational departments, airlines and airside tenants / operators.

1.4.2 Airfield Operations are responsible for:

- Instigating inspections to ensure that the possibility of FOD blowing on the movement areas is minimised. All skips or other litter/FOD receptacles should be covered at all times. This should be confirmed when a high wind warning is received.
- Instigating inspections to ensure that apron equipment is secured and parked appropriately in order to minimise the possibility of such equipment blowing on to persons, aircraft or vehicles
- Ensuring that any construction contractors in airside areas take appropriate action to secure equipment and materials, as well as lowering cranes etc when appropriate
- Instigating inspections to ensure aircraft are adequately chocked and/or tied down to prevent weathercocking. Particular attention should be paid to aircraft parked in exposed parts of the airfield, i.e. remote stands.

1.4.3 Handling Agents and other ramp staff are responsible for:

- ULD's to be checked to ensure they are correctly racked with stops' raised. Stowing ULD's on Weldwork Trailers will not normally be acceptable. Where possible towing empty ULD containers should be avoided; if transportation is required, appropriate measures should be taken to ensure they remain secure.
- Steps must be fully lowered and, where possible, turned into wind with stabilisers down and brakes ON.
- Extra care should be taken when operating airside during high winds, and vehicle speeds should be reduced accordingly.
- Ensuring that all covers on trucks and trailers are lashed down
- Extreme caution should be taken when towing (aircraft steps etc.) or operating high sided vehicles especially scissor-lifts (do not raise any lift if the wind speed exceeds the operational limit of the vehicle).
- During periods of high wind continual checks should be undertaken to ensure all equipment is correctly parked and secure.
- Vehicles and equipment should be removed from within the footprint of aircraft and surrounding areas.
- Removing any items of litter or debris that are likely to constitute a FOD Hazard to aircraft.
- Whilst servicing aircraft, extra care should be taken when manoeuvring vehicles or equipment adjacent to aircraft. Brakes should be securely applied, and/or chocks used, at all times when the vehicle is stationary.
- Ensuring traffic cones used around the aircraft delineate the key safety areas and that they are suitably weighted in order to prevent untoward movement in high winds.

1.4.4 The Control Room are responsible for :

- The control room will follow the Adverse Weather and Potential Disruption Notifications procedure

1.4.5 Aircraft Engineers are responsible for:

- Ensuring aircraft are fully chocked and the parking brake reset at regular intervals in accordance with company and aircraft manufacturer requirements.

1.4.6 The Terminal Engineering Manager is responsible for:

- Ensuring that, should the warning also include the possibility of severe rain/flooding, the impact upon water, power, gas supply services and effluent disposal is assessed and likely implications passed to the ADM & AOS.

1.5 NON-STANDARD PARKING OF AIRCRAFT

Parked aircraft may sustain damage to control surfaces or may risk ground-swinging ('weathercocking') in strong wind conditions. It will be for airlines and aircraft engineers to determine whether it is desirable to park any particular aircraft facing into the prevailing wind.

When this is the case the relevant operator must contact Operations/Fire Control on ext. 2973 and make this request. Aircraft must not be re-positioned without approval from the Airfield Operations Supervisor.

The AOS will consider the practicality of non-standard parking and will consult with the Operations Control Room should any possibility of impact on taxiway strips and adjacent stands be suspected.

Permission to park non-standard will be given by the AOS. If necessary the AOS will discuss requirements with the operator's representative. Aircraft will not normally be allowed to park non-standard under their own power but will require to be re-positioned by a tug after arrival and disembarkation. Likewise, aircraft parked non-standard into wind will not normally be permitted to self-manoeuvre off stand due to the hazards posed by jet blast, particularly on pier-served/contact stands.

SECTION 2. THUNDERSTORMS

- 2.1 The Exeter Weather Centre will issue a Thunderstorm Warning when forecast weather conditions present a significant risk of thunderstorm activity in the vicinity of East Midlands Airport. Such warnings may be valid for up to 24 hours although they may give little notice of the arrival of storms.
- 2.2 Air Traffic Control will promulgate the Thunderstorm Warning via the message bar on CHROMA FUSION, Airfield Operations may also contact Ground Handling companies directly via landline.
- 2.3 Thunderstorms represent a hazard to airport operations due to the potential for:
- Lightning bolts striking aircraft, vehicles, buildings or persons
 - Very heavy rain or hail
 - Poor visibility
 - Strong gusty winds
 - Wind shear
 - Airframe and engine icing
 - Interference with radio transmissions and compasses
 - Electrical outages
- 2.4 Owing to the potential hazards highlighted above, certain preventative measures are taken including:
- i. Ground Handling companies avoiding using headsets during pushback, as such ATC will avoid issuing non-standard pushbacks when Thunderstorm Warnings are in force.
 - ii. High winds - as detailed in section 1 of this document.
- 2.5 All companies operating airside should regularly review the risk arising from thunderstorm activity on their operations and ensure that policies, risk assessments and documented procedures are in place. These should be made available to Airfield Operations upon request.

SECTION 3 – RUNWAY WEATHER CONTAMINATION REPORTING PROCEDURES

Wet Runway Surface Conditions Reporting

- 3.1 Wet runway surface inspections will be requested by ATC.
- 3.2 The area in which runway surface conditions are to be assessed should approximate to the central two-thirds of the width of the runway extending lengthways from a point 100m before the aiming point to 100m beyond the aiming point for the reciprocal runway.
- 3.3 The surface condition report shall describe conditions sequentially for each third of the assessed area associated with the runway to be used. An example of such a report would be, “Runway surface is WET, WATER PATCHES, WET” or Runway is “WET, WET, WET”.
- 3.4 A brief plain language description of any water patches greater than 3mm in depth should be appended to the surface condition report.
- 3.5 Similarly, a brief plain language description of any notable quantity of water outside the assessed area (e.g. water collected at the runway edge) should be appended to a runway surface condition report.
- 3.6 The runway surface condition reports should be made in accordance with the descriptions and guidance notes in the table.

REPORTING TERM	Surface conditions
DRY	The surface is not affected by water, slush, snow or ice. <i>NOTE. Reports that the runway is dry are not normally passed to pilots. If no runway surface report is passed, the runway can be assumed to be dry.</i>
DAMP	The surface shows a change of colour due to moisture. <i>NOTE: If there is sufficient moisture to produce a surface film or the surface appears reflective, the runway will be reported as WET</i>
WET	The surface is soaked but no significant patches of standing water are visible. <i>NOTE: Standing water is considered to exist when water on the runway surface is deeper than 3 mm. Patches of standing water covering more than 25% of the assessed area will be reported as WATER PATCHES.</i>
WATER PATCHES	Significant patches of standing water are visible. <i>NOTE. Water patches will be reported when more than 25% of the assessed area is covered by water more than 3 mm deep.</i>
FLOODED	Extensive patches of standing water are visible. <i>NOTE. Flooded will be reported when more than 50% of the assessed area is covered by water more than 3 mm deep.</i>
ICE	Significant patches of Ice are visible.
SNOW/SLEET	Whenever dry snow, wet snow or slush is present, an assessment of the mean depth over each third of the runway should be made to an accuracy of approx. 2cm for dry snow, 1cm for wet snow and 0.3cm for slush.

3.7 The Runway Surface State should be recorded on the following form.

East Midlands Airport	RUNWAY CONTAMINATION RECORD	November 2010							
<p>ASSESSED AREA – as for Wet Runway Reporting (central 2/3 of the runway from 100m before the aiming point to 100m beyond the far aiming point)</p>									
Date:	Time of assessment:	Assessed By:							
RWY	TOUCHDOWN ZONE			MIDPOINT			STOP END		
	% Cover	Type	Depth	% Cover	Type	Depth	% Cover	Type	Depth
09									
27									

NOTES: Form to be used for assessing runway when contaminated by snow, slush or ice
 Form to be used by whoever assesses the runway (eg. Ops, ATC, RFFS etc)
 Form to be retained with other records in a manner to be determined.

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