

CAMBRIDGE INTERNATIONAL AIRPORT		Airside Operations Procedure Low Visibility Operations			Risk Rating	High – Reviewed Annually	
Reference:	CIA-P-AOPS-012	Issue:	D	Owner:	Airside Operations Manager	Department:	AOPS
Issue Date:	09/10/2018	Compliance Date:	01/11/2019		Planned Review Date:	01/10/2020	

1. PURPOSE

Aircraft operations at aerodromes during reduced visibility or low cloud conditions presents additional hazards to aircraft and other aerodrome users. As visibility reduces, the ability of Air Traffic Service staff, pilots, vehicle drivers and other personnel to identify hazards and to take remedial action in a timely manner, becomes limited.

Cambridge Airport (CIA) will implement procedures in low visibility conditions to enable continued safe aircraft and vehicle operations on the aerodrome. The implementation of such procedures will limit air traffic capacity and airfield operations to a level below that achievable in normal operations.

Low Visibility Operations (LVOs) will be instigated by Air Traffic Control (ATC) during periods of low horizontal visibility, and cancelled by ATC when visibility improves sufficiently. Associated procedures will provide additional control measures to prevent the inadvertent incursion by aircraft onto the runway (past a runway holding point) or by vehicles on to the aircraft manoeuvring area ([Alpha, Bravo, Juliet, Lima and Crash Gate 2 Road blocked](#)).

As weather conditions deteriorate, ATC will advise Airport Operations of the need to implement low visibility safeguarding in readiness for low visibility operations. There are several stages of low visibility operations dependent on the specified criteria

2. SCOPE

This procedure applies to all airfield users, including pedestrians, vehicle drivers, airfield tenants and those involved in work in progress on the manoeuvring area.


3. RESPONSIBILITY

ATC are responsible for instigating low visibility safeguarding measures and procedures, with Airport Operations responsible for completion of the necessary safeguarding measures and communications.

4. WEATHER WARNINGS AND COMMUNICATIONS

The meteorological office issues aviation weather warnings via email whenever inclement weather, including periods of low visibility, are expected. Airport Operations receive these emails and promulgate this information to airport stakeholders via an email distribution group.

When airport safeguarding for LVOs is required, ATC will make a phone call to Airport Operations to request safeguarding measures are completed. The Airport Duty Manager (ADM) will then block a number of access points to the runway with barriers, and implement safeguarding by sending an email to all airport departments advising 'Airport

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Safeguarded’, and that operating restrictions will apply. Airport Operations shall broadcast a message on UHF Ch.4 for the benefit of all ramp operations staff.

4.1. Email Notification

Airport Operations will send an email with the following text template to the ‘Low Visibility Safeguarding’ distribution list.

**** AIRPORT SAFEGUARDED FOR LOW VISIBILITY OPERATIONS ****

Cambridge International Airport is now in Low Visibility Operations until further notice. Note that the following restrictions will now apply:

- *All vehicle free-ranging is suspended.*
- *Non-essential vehicles will not be permitted to enter the manoeuvring area. Essential vehicles are considered to be:*
 - *AFS and Airport Operations undertaking safety-related duties*
 - *ATE or AGL personnel undertaking emergency maintenance or repair*
 - *Tugs involved in pushback/towing operations or repositioning of departing aircraft (tugs operated by third parties will require an escort from AFS or Airport Operations)*
- *Non-essential vehicles are advised to delay their activities.*
- *Runway access points not fitted with a stopbar will be blocked with a barrier. These are not to be removed.*
- *Work in progress on or near the manoeuvring area will normally be suspended, however exceptions may apply.*
- *Drivers are to proceed with caution and operate with dipped headlights (and fog lights where fitted).*
- *Drivers should only undertake essential journeys on apron areas.*


A further message will be sent when safeguarding for Low Visibility Operations are cancelled.

4.2. Radio Transmission

Airport Operations will broadcast the following message on UHF Ch.4:

“All Stations, Operations, Airport Safeguarded for Low Visibility Operations”

It is then each department / company’s responsibility to ensure the information is disseminated throughout their staff and that any local procedures are invoked as required.

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5. METEOROLOGICAL CONDITIONS

Several meteorological conditions have been set to define the restrictions needed when the visibility or cloud ceiling falls below different levels. They are as follows:

Normal Operations

Visibility is sufficient for pilots to taxi and avoid collision with other traffic on taxiways and at intersections by visual reference and for ATC personnel to exercise control over all traffic on the basis of visual surveillance. Cloud ceiling <500ft but > 300ft.

Airfield Weather Safeguarding

When: Runway Visual Range (RVR) Between 1500m and 1000m or cloud ceiling ≤300ft but > 200ft.

Entering the safeguarding phase at this RVR provides time to prepare the aerodrome and in particular the manoeuvring area, in readiness for Low Visibility Operations. The safeguarding measures will ensure that at the point when LVOs are declared to be in force, all actions to protect aircraft operations have been put in place.

Visibility Condition 1 – Low Visibility Operations

When: Runway Visual Range (RVR) < 1000m but greater than 400m or cloud ceiling ≤200ft

Visibility is sufficient for pilots to taxi and avoid collision with other traffic on taxiways and at intersections by visual reference, but potentially insufficient for ATC to exercise control over all traffic on the basis of visual surveillance.

Visibility Condition 2 – Airfield closed, no movements


When: RVR < 400m

Visibility sufficient for the pilot to taxi but insufficient for the pilot to avoid collision with other traffic on taxiways and at intersections by visual reference, and insufficient for ATC to exercise control over all traffic on the basis of visual surveillance. For taxiing, this is normally taken as visibilities equivalent to an RVR of less than 400m but more than 75m.

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6. SUMMARY OF LOW VISIBILITY SAFEGUARDING ACTIONS

Visibility Condition	RVR/Cloud ceiling	Safeguarding Actions	Aircraft	Vehicles	Personnel
Normal Operations	<2000m >1500m Or Cloud ceiling <500ft but > 300ft (and expected to reduce further)	ATC will issue IRVR's and advise Airport Operations of the likelihood of safeguarding required. No further actions required	Normal operations	Normal operations	Normal operations
Airfield Weather Safeguarding	<1500 >1000 Or cloud ceiling ≤300ft but > 200ft	<ul style="list-style-type: none"> Routine maintenance on navigation aids to be suspended. ILS critical areas to be cleared of all obstructions. Suspend the use of Hotel 1 and Hotel 2 and all helicopter training areas Suspend the use of RWY 05-23 grass All non-essential vehicles and personnel are to vacate the manoeuvring area. Taxiways A, B, J and L to be blocked at the holding points with markers and lights provided. The blocks that are permanently placed on the perimeter track just to the east of crash gate 2 are to prevent access to the south side of the runway. A visual check must be carried out to ensure they are in place. Suspend airside work in progress in accordance with individual works permits. 	Normal operations	Normal Operations	Use of pedestrian walkways permitted


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LVO 1	< 1000m >400m or cloud ceiling ≤200ft	<ul style="list-style-type: none"> • Authorised vehicle carries out runway inspection prior to aircraft departure or landing. • APP- shall not permit an aircraft to leave the IAF and commence an instrument approach until any previous arriving aircraft has landed and is continuously visible to ADI or has reported on stand, or until a departing aircraft has reported, or is observed to be, airborne. Direct or self-positioned approaches avoiding the IAFs are not permitted. • APS -shall not permit an aircraft making an instrument approach to establish at less than 8 track miles from touchdown until any previous arrival has landed and is continuously visible to ADI or has reported on stand or until a departing aircraft has reported or is observed to be airborne • ATC will switch on the standby generator when the RVR reaches 800m. • ATC shall implement a weather standby for all movements. • All vehicle 'free ranging' suspended. • Use of the compass base suspended. 	One aircraft ground movement at a time, 'follow-me vehicle at ATC discretion	Free-ranging suspended	Use of pedestrian walkways permitted
LVO 2	< 400m	<ul style="list-style-type: none"> • No arrivals or departures. 	N/A	Free-ranging suspended	Use of pedestrian walkways crossing the manoeuvring area is restricted

* Note: The UK AIP EGSC AD.2.20 para 6 (a) states "Departure restriction – No departures permitted below 400m RVR"

7. AIRFIELD WEATHER SAFEGUARDING

The airport safeguarding process is designed to begin early before visibility conditions or the cloud ceiling worsen to a point where ATC can no longer exercise visual control over the manoeuvring area. It is a series of actions to provide extra protection at entrances to runways and taxiways, such that if or when visibility reduces to a much lower value, the risk of a runway or taxiway incursion is not increased. By protecting the

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manoeuvring area in this manner, it should be possible to exclude unauthorised personnel who will not be aware of ATC procedures.

ATC are responsible for the instigation and cessation of LVOs. ATC procedures are contained within MATS Part 2. Airside operators will be informed when ‘airport safeguarding’ for low visibility operations has commenced, and again when the safeguarding has ceased. Safeguarding will result in ATC and Airport Operations implementing extra control measures to ensure the safety of aircraft and vehicle movements during low visibility conditions.

7.1 Actions by Air Traffic Control

The following safeguarding actions will be completed or initiated by ATC:

- Phone Airport Operations to request initiation of safeguarding actions.
- Withdraw H1, H2 and all other helicopter training areas from use.
- Withdraw the use of 05/23 Grass Runway.
- Withdraw all vehicles and personnel involved in construction, maintenance and other non-essential activities on, or in the immediate vicinity of the **manoeuvring area** (subject to further safety risk assessment and permit to work instructions).
- Suspend routine maintenance on visual and non-visual aids.


When advised by Airport Operations that all safeguarding actions are complete, broadcast to all stations on UHF Ch.1 “Airport Safeguarded”.

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7.2 Actions by Airport Operations

The following safeguarding actions will be completed by Airport Operations:

- Distribute an email to the low visibility safeguarding distribution list when the airport enters low visibility operations.
- Phone call to the Airport Fire Service (AFS), fuel department, FBO and facilities to advise them of low visibility safeguarding.
- Block off the following vehicle or aircraft routes, in the following order (see map at Appendix C);
 - Holding point Alpha, with cones and lights
 - Holding point Bravo, with cones and lights
 - Holding point Juliet, with cones
 - Holding point Lima with cones
 - Crash gate 2 runway access road with cones
- Suspend airside work in progress in accordance with the permit restrictions.
- Ensure staff are available to complete additional airfield surface and lighting inspections at the request of ATC.
- Ensure staff are available to provide a follow-me service at the request of ATC.
- Advise ATC when the above safeguarding actions are complete.

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8. FURTHER RESTRICTIONS VISIBILITY CONDITION 1

- The AFS will go on weather standby at the Fire Station for aircraft movements as requested by ATC.
- Airport Operations will complete a runway inspection prior to an aircraft movement at the request of ATC.
- ATC to restrict aircraft movements in accordance with Section 0 and MATS Part 2.
- Airport Operations will provide a follow-me / leader escort at ATC request in accordance with Table 6
- Free Ranging suspended

9. FURTHER RESTRICTIONS VISIBILITY CONDITION 2

- No aircraft departures will be permitted when RVR falls below 400m.
- Airport Operations to contact FBO and flight training organisations, to advise use of the pedestrian walkways crossing taxiway Alpha is not permitted.

10. RESTRICTIONS

10.1 Work in Progress

Shall be in accordance with the issued work permit.
 ATC shall be kept informed of decisions made and control measures put in place.


Considerations should include the proximity to the runway, other weather conditions, light levels, the meteorological condition and the need to provide a continuous escort who can liaise with ATC.

10.2 Wildlife Control

As congregations of birds are difficult for both ATC and pilots to observe in low visibility conditions, wildlife control operations need not be suspended or reduced during low visibility operations. Wildlife control staff are the eyes of ATC on the ground and shall report any hazardous bird activity to ATC, so that they can take appropriate action.

11. AIRPORT FIRE SERVICE ACCIDENT SEARCH PROCEDURES DURING LOW VISIBILITY

The airfield is divided into six geographically defined areas, designated by letters A - F. A systematic search of each of these areas will be carried out by the AFS as shown on the airfield map below at Appendix A.

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If the accident site is not visible to ATC, the ATC Watch Supervisor will direct the AFS to the most likely area as detailed in the Airport Emergency Plan.

12. CANCELLATION OF LOW VISIBILITY OPERATIONS

Restrictions and safeguarding for LVOs will be removed by ATC when the RVR or meteorological visibility is 1500m and the forecast indicates that the figure will continue rising. ATC will advise Airport Operations by phone that 'Airport Safeguarding' is cancelled, so that all barriers and other safeguarding measures can be removed. Once complete, Airport Operations will send a cancellation message to all departments by email, and phone the AFS, fuel department, FBO and facilities. Airport Operations will make another broadcast on UHF Ch.4.


Email cancellation message:

****AIRPORT SAFEGUARDING FOR LOW VISIBILITY OPERATIONS CANCELLED****

Cambridge International Airport is no longer in Low Visibility Operations. Associated operating restrictions no longer apply.

Radio broadcast cancellation message:

"All Stations, Operations, Airport Safeguarding for Low Visibility Operations cancelled"

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APPENDIX A LOW VISIBILITY SEARCH MAP

