Low Visibility Operations

Airside Operational Instruction (AOI) 21

BournemouthAirport

Part of Regional & City Airports

DOCUMENT REVIEW HISTORY		
AOI 21	**CURRENT VERSION:-**	**V2.0**
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VERSION	REVIEW	DATE
V1.0		September 2015
	1.1	September 2016
V2.0		December 2017
	2.1	November 2019
	2.2	February 2021
	2.3	June 2022
	2.4	April 2024

❖ AMENDMENTS

This document will be subject to a routine review, over a period not exceeding 36 months. The latest version will be included in the annual reissue of the Aerodrome Manual; interim reviews are carried out as deemed necessary.

Only operational related amendments will prompt the issue of a new Version; pertinent amendments being highlighted in green text & indicated by a green bar in the right margin. Indication of any amendment of an administrative nature will be listed below.

❖ REVIEW / AMENDMENT HISTORY

REVIEW SUMMARY			
VERSION / REVIEW REF:-	1.1	**REVIEW COMPLETED BY:-**	CATHY WILLOUGHBY-CRISP
DATE:-	SEP 16	**ROLE:-**	AIR TRAFFIC & OPERATIONS MANAGER

PARAGRAPH	AMENDMENT
Various	Procedures for "Low Visibility Cloud" combined with those for low visibility

REVIEW SUMMARY			
VERSION / REVIEW REF:-	V2.0	**REVIEW COMPLETED BY:-**	CATHY WILLOUGHBY-CRISP
DATE:-	DEC 17	**ROLE:-**	AIR TRAFFIC & OPERATIONS MANAGER

PARAGRAPH	AMENDMENT
	New ownership

REVIEW SUMMARY			
VERSION / REVIEW REF:-	V2.1	**REVIEW COMPLETED BY:-**	CATHY WILLOUGHBY-CRISP
DATE:-	NOV 19	**ROLE:-**	AIR TRAFFIC & OPERATIONS MANAGER

PARAGRAPH	AMENDMENT
	Nil

REVIEW SUMMARY			
VERSION / REVIEW REF:-	V2.2	REVIEW COMPLETED BY:-	CATHY WILLOUGHBY-CRISP
DATE:-	FEB 21	ROLE:-	AIR TRAFFIC & OPERATIONS MANAGER

PARAGRAPH	AMENDMENT
3.3	Reference to Cobham now Draken

REVIEW SUMMARY			
VERSION / REVIEW REF:-	V2.3	REVIEW COMPLETED BY:-	CATHY WILLOUGHBY-CRISP
DATE:-	JUN 22	ROLE:-	AIRFIELD SERVICES MANAGER

PARAGRAPH	AMENDMENT
Various	Additional detail from AOP 43; Low Visibility Procedures incorporated

REVIEW SUMMARY			
VERSION / REVIEW REF:-	V2.4	REVIEW COMPLETED BY:-	KEITH M JEWITT
DATE:-	APRIL 24	ROLE:-	AIRFIELD SERVICES MANAGER

PARAGRAPH	AMENDMENT
Various	Change of procedure for pedestrian crossing the apron taxi lane

❖ CONTENT

1. INTRODUCTION

1.1 PURPOSE

This AOI details the criteria and processes implemented, to provide effective measures to operate safely, during periods of reduced visibility; whether that be by virtue of low visibility or low cloud conditions

To ensure the safe operation of the Airport whilst Low Visibility Operations are in force, all individuals, airlines, handling agents and Airport users are to ensure that they understand and adhere to the requirements of the published procedures.

1.2 OVERVIEW

To ensure the safety of aircraft during periods of low visibility &/or low cloud, procedures will be implemented that protect and control aircraft operations. These procedures provide additional control measures to prevent the inadvertent incursion by aircraft on to the Runway restricted area and by vehicles on to the Manoeuvring Area.

As weather conditions deteriorate, measures are implemented at stages, depending on certain weather parameters; these generic procedures are referred to as Low Visibility Operations. Specific ATC procedures for CAT III operations, referred to as Low Visibility Procedures, are included in this AOI for reference and detailed fully within the Manual of Air Traffic Services (MATS) Part 2.

1.3 WEATHER WARNINGS

The Met Office issues a Weather Warning whenever inclement weather or periods of low visibility are expected. This information is disseminated to base operators, handling agents and relevant staff via an automated e-mail system.

2. IMPLEMENTATION

2.1 RESPONSIBILITY

ATC is responsible for the instigation and cessation of Low Visibility Operations, with various measures being carried out by the BOH RFFS and Security staff, as directed.

When the Visibility or Cloud Ceiling begins to fall, Low Visibility Procedures (LVPs) are implemented to ensure that all the necessary measures are in place by the time they are required for operations to continue.

Any change to the requirements or implementation of Low Visibility Operations must be co-ordinated with ATC &/or the RFFS, as relevant.

2.2 LVPs; Criteria

LVPs can be deemed necessary by virtue of low Visibility or low Cloud conditions. ATC procedures specify the criteria for when to initiate LVPs; these are fully defined within the MATS Part 2.

- Visibility:-

ATC will initiate LVPs when the Touchdown Instrumented Runway Visual Range (IRVR) or the reported met Visibility indicates between 600m & 1000m; and is likely to continue to deteriorate.

- Cloud:-

ATC will initiate LVPs when the Cloud Ceiling [(1)] falls to 300ft; and is likely to reduce further.

[(1)] Cloud Ceiling refers to more than half the sky obscured by cloud

When either parameters are met, ATC will initiate "LVP Ready" action and contact the RFFS and Security to implement the required action.

2.3 LVPs; Action by RFFS

On receipt of the low visibility message from ATC, the RFFS department will initiate the BOH Low Visibility Blocking Plan; this is detailed in Para 5 below.
In addition to the above, flip over the three signs situated at the ATC building and south side of the fire station to LVPs in Operation.

As each blocking point is secured, the RFFS Safety Operative will advise the Duty ATCO, who will annotate the Blocking Plan Implementation Form accordingly.

The form is available in ATC; completed forms are retained by ATC for 12 months.

2.4 LVPs; Action by Security

On receipt of the low visibility message from ATC, Security staff will implement the protocols for each location and remain in telephone or R/T contact with ATC to ensure an immediate response, should they be required to man their LVP positions in the event of an emergency.

When requested, Sierra Mobile will close off the Taxilane Crossing Points, E-W 3 with the barriers and signage.

3. Control of Vehicles and Pedestrians

3.1 Apron Taxilane Crossing

In conditions when the Visibility is less than 600m, Crossing Points East 3 & West 3 will be closed, leaving Crossing Points 1 & 2 available for vehicle movements across the Apron Taxilane.

As a result of Bournemouth handling relocating to the ATC building there is a need for pedestrians to cross at crossing point East 1 in visibility provided, they:

- Follow the painted red line on the surface (figure 1).
- The crossing lights aren't illuminated.
- Hi viz clothing is worn and fastened.
- LVP in operation signs positioned at the ATC building and the south side of the fire station.
- Refresh the procedure through Elearning and initial Elearning.
- Reminder signs in ATC and the Fire station to wear Hi viz clothing.

Fig 1.

ATC and Fire Station LVP warning signs

The Taxilane crossing points will be operated as follows:-

3.1.1 EAST APRON:-

CROSSING POINT	STATUS DURING LVPS
East 1; North of Stand 1	Operational for access to Control Tower & Fire Station
East 2; South of Stand 2	Operational for access for vehicles only to the West Apron
East 3; South of Stand 6	Closed

3.1.2 WEST APRON:-

CROSSING POINT	STATUS DURING LVPS
West 1; North of the Fire Station Slip Road	Operational for access to Control Point 2
West 2; South of Stand 7	Operational for access for vehicles only to the East Apron & Terminal
West 3; Head of Stand Road, Stand 11	Closed

3.2 APRON CROSSING LIGHTS

Signage will be displayed to indicate that LVPs are in operation, this signage will be located at CP2, the east facing door of the ATC building, the south facing door of the ATC building, and the south east door of the fire station building. (Fig 2) Crossing of the Taxilane, via either of the 2 designated crossing points, is only permitted when the red holding lights are off. Crossings are always to be expedited and individuals are responsible for ensuring they cross in a safe manner.

In the event of a failure of the red crossing lights, all vehicle movements must be under ATC instruction. Drivers will be required to contact ATC by telephone or radio Channel 2; or escorted by Sierra Mobile. Security personnel at CP2 will be advised of the light failure & the potential need for escorts to be arranged.

3.3 TAXIWAY NOVEMBER; UNMANNED CROSSING

The unmanned crossing at Draken is controlled by a set of traffic lights operated by ATC. These lights are activated during Low Visibility Operations and at night, whenever this portion of the Taxiway is in use by aircraft. In the event of a traffic light failure, that portion of Taxiway November, between the Draken hangers and the intersection with Taxiway

Tango will not be available for use by aircraft until alternative procedures have been arranged.

4. POWER SUPPLY

4.1 STANDBY GENERATOR

Upon initiation of LVPs by ATC, two standby generators will become the primary source of power to ATC systems; they will run for all CAT III arrivals and remain on for a period of at least 30 minutes.

Each generator is supported by a fuel reservoir and can operate on full load conditions for between 12 to 24 hours, before a Low Fuel Warning alert is triggered [(2)]. Refuelling will be undertaken by BOH Engineering, who will be advised of the requirement via a call-out system initiated by ATC.

[(2)] Each generator will run for a further 4 hours from the time the alert is triggered

5. SAFEGUARDING PROCESS

5.1 BLOCKING PLAN

LVPs employ a block system for the movement of aircraft and vehicles on the Operational Area. Each block is defined by switchable, illuminated Stop-Bars at the CAT III Holding Points &/or barriers and Ned lights at all other access points to the Runway.

In preparation for operating LVPs, “LVP Ready” action will be notified by ATC.

Safety 1 will deploy blocker boards at the entrance to the Jets Apron and at Holding Points:- M; D; E; N; J; A & C to facilitate the block system as follows:-

BLOCK DESIGNATOR	BOUNDARIES DEFINED BY HOLDING POINTS
Runway	R, T, B1 & G4 Barriers at all other Runway Access Points
Apron	B2 & G4
Bravo / Romeo	R, B1 & B2
North-side	T; Barriers at:- J, M, D, E & N

Whenever possible, 2 vehicles will be deployed by the RFFS for implementing the Blocking Plan; one operating to the south of the Runway, the other to the north. All blocking points, for the correct positioning of the barriers, are clearly marked on the edge of the Taxiway

Blocking Plan Chart shown at Appendix 1

Only 2 mobile barriers are to be towed at a time; Meta lights lights are to be placed on the barrier wheel axle, facing the Taxiway.

The preferred Blocking Plan deployment route is detailed in Appendix 2.
As each barrier is put in the place, the operative will advise such to the Duty ATCO, who will annotate the Blocking Plan Implementation Form accordingly; this form is retained in ATC.

5.2 LIMITATIONS

No aircraft is permitted to take-off or land, before the Blocking Plan has been confirmed as being fully implemented, if either of the following applies:-

- Touchdown IRVR or Met Visibility <600m
- Cloud Ceiling < 200ft

If the Controller cannot maintain visual contact with the relevant vehicle / aircraft, vehicles not directly connected with the LVPs will:-

- Only be permitted move if no aircraft is in, or been cleared to enter the Runway Block
- Not be permitted to be in the same Block as any aircraft
- Will not be permitted to free-roam on the Manoeuvring Area; point-to-point clearances and arrival at destination reports will be required

5.3 ADDITIONAL MEASURES

During Low Visibility Operations, the Duty Controller will monitor the weather conditions and will deploy additional measures, as appropriate, should conditions deteriorate significantly or deemed necessary for any reason.

Additional measures will include:-

- Aircraft and vehicle movements on the Manoeuvring Area restricted to avoid confliction
- WIP suspended, unless specifically approved by the Airport Authority
- The Cobham unmanned crossing lights activated when Taxiway November is in use
- Weather Standby initiated for aircraft arrivals
- Use of Follow-Me implemented when appropriate or requested by pilot

6. CANCELLATION OF LVPS

6.1 CRITERIA

LVPs will be terminated when:-

- Touchdown IRVR and Met Visibility >1000m *and*
- Cloud Ceiling 300ft and expected to rise

6.2 PROCESS

On receiving permission from the Duty ATCO that LVPs are to be cancelled, the RFFS operative will go to each of the designated Taxiway Blocking Points and remove the mobile barriers and Ned lights, returning these to the designated storage areas.

If deployed, Sierra Mobile will be requested to remove the barriers & signage from the Taxilane Crossing Points East 3 & West 3.

Once confirmed that all barriers have been removed, normal operations will be resumed.

7. VEHICLE OPERATIONS DURING LOW VISIBILITY

7.1 GENERAL GUIDANCE

During Low Visibility operations, drivers are to observe the following additional precautions:-

- Proceed with extreme caution, operating with dipped headlights; and fog lights, where fitted
- Only essential journeys on the Aprons should be undertaken
- All staff should be alert to the sudden appearance of an aircraft entering a Stand and be prepared to give way accordingly

7.2 VEHICLE RESTRICTIONS

During periods of Low Visibility Operations, by virtue of low Visibility, vehicles movements on the Manoeuvring Area will be restricted to essential activity only.

This includes but is not restricted to:-

- Safety critical repairs to Navigational Aids, Radar and Airfield Visual Aids
- Runway / Taxiway surface inspections
- Bird Control
- RFFS in an emergency
- Follow-Me vehicles

Free roaming will not be permitted; point-to-point instructions will be issued & arrival at destination confirmation requested, when deemed necessary.

During periods of Low Visibility Operations, by virtue of low Cloud, vehicle movements on the Manoeuvring Area will continue at the discretion of the Duty ATCO; additional measures or restrictions being implemented as appropriate.

7.3 CONTROL OF AIRSIDE ACCESS

In poor visibility, additional control measures are necessary to regulate movements and to minimise the risk of any vehicle or person from straying onto the Airside or Manoeuvring Areas undetected.

Airside access points are always controlled by Security Staff by means of Control Point 2 (CP 2) or Security controlled Airside access gates.

Warning signs that there is an "Aircraft Movement Area ahead" are displayed at the CP2 Airside access point and at the road access to the Aprons from other Airside areas.

Drivers not fully familiar with the Airfield layout can easily become disorientated and therefore, only persons holding a valid Manoeuvring Area Driving Permit and who are engaged in operations may enter the Manoeuvring Area in periods of restricted visibility.

All vehicles operating on the Manoeuvring Area are to be equipped with an Airfield chart showing the Runway, Taxiways and Holding Points. Information should also be available in regard to the action to be taken when Low Visibility Operations come into force and actions in the event of breakdown, RT loss or the driver becoming unsure of their position.

7.3.1 RADIO FAILURE:-

In the event of a radio failure, whilst on the Manoeuvring Area, the driver is to:-

- Establish a safe position
- If able, inform ATC using mobile phone

Establishing a safe location will depend on the circumstances. If communication is lost while within the Runway Strip, Aircraft Movement Area or ILS Critical or Sensitive Area, operators should continue to the last position for which the ATC clearance was issued and then wait for assistance; do not move any further than the position cleared by ATC.

If in possession of a mobile phone, contact ATC on 01202-364150 / 152 and advise the problem; an escort vehicle will be dispatched to resolve the situation.

7.3.2 VEHICLE BREAKDOWN:-

In the event of vehicle breakdown, report location and the nature of the breakdown to ATC by R/T or mobile phone (01202 364150) and await instructions; do not leave the vehicle unattended.

7.3.3 UNSURE OF POSITION:-

In the event of becoming unsure of your position during Low Visibility Operations, report to ATC by R/T or mobile phone (01202 364150) that you are unsure of your current location and await instructions.

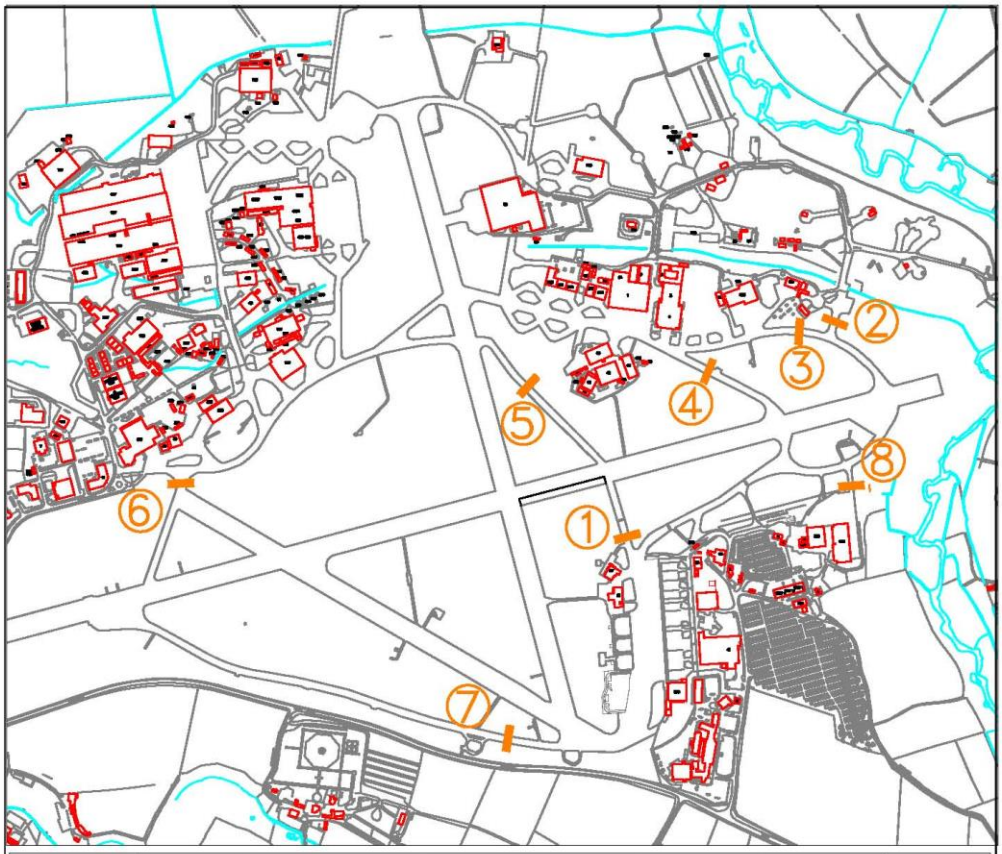
7.3.4 RFFS PROCEDURES:-

When notified of Low Visibility Operations, an announcement will be made over the RFFS PA system to inform all personnel that a heightened response is in place for Low Visibility.

During LVOs, the RFFS response to First Aid calls must be assessed by the Station Manager to determine the importance of the call, against the aircraft movements taking place at that time.

Procedures for locating missing aircraft during LVOs are contained in BOH RFFS Operating Procedure 33.

APPENDIX 1 BLOCKING PLAN LOCATIONS



REF	LOCATION	LOCATION	MOBILE BARRIERS	NEDLIGHTS
1.	DELTA SOUTH	50m South of DELTA 1	2	2
2.	TAXIWAY JULIET	At the Juliet 1 holding point	2	2
3.	NOVEMBER 1	At the November 1 holding point	2	2
4.	TAXIWAY ECHO	100m North of Echo 1	2	2
5.	TAXIWAY DELTA NORTH	50m North of Delta 2	2	2
6.	TAXIWAY MIKE	100m North of Mike 1	2	2
7.	TAXIWAY ALPHA	Eastern entrance to Taxiway Alpha	2	2
8.	TAXIWAY GOLF ACCESS	Entrance Hangar 600 Apron Area	2	2

BOURNEMOUTH AIRPORT
LOW VISIBILITY
TAXIWAY BLOCKING PLAN

bournemouth airport

PAUL KNIGHT
GENERAL MANAGER

MICHAEL TWOMEY
HEAD of
TECHNICAL SERVICES

DRAWN	*ASW*
SCALE	*NTS*
CAD PLOT	*AutoCAD*

DRAWING NUMBER
E12–127 B

APPENDIX 2 BLOCKING PLAN DEPLOYMENT