

Part 2 – Aerodrome Administration Operating Procedures

2.16 Low Visibility Procedures

Particulars of the procedures for the management of ground activities at an aerodrome where low visibility procedures are conducted, including details of the following:

- (i) the specific circumstances in which low visibility procedures are to be implemented or terminated;
- (ii) aerodrome procedures and facilities for supporting the desired movement rate;
- (iii) training and authorisation for drivers and other personnel to work airside during the operation of low visibility procedures;
- (iv) control of airside operations by means of vehicles or personnel;
- (v) withdrawal of non-essential vehicles and personnel;
- (vi) suspension of routine maintenance on visual and non-visual aids;
- (vii) securing access and preventing inappropriate or inadvertent entry;
- (viii) adequate provision for alerting airlines and other affected organisations;
- (ix) coordination of procedures and activities with air traffic services;
- (x) physical checking of lighting installations and warning devices such as signage;
- (xi) emergency procedures;
- (xii) the arrangements for measuring visibility along a runway and passing the information to ANS, if required;
- (xiii) assessment procedures to be used by reporting officers;
- (xiv) the arrangements for minimising vehicular traffic within the movement area during periods of low visibility procedures;
- (xv) the arrangements for runway inspections during periods of low visibility procedures;
- (xvi) additional arrangements for low visibility procedures;
- (xvii) the names and roles of the persons who are responsible for managing low visibility procedures, and the telephone numbers for contacting them during and after work hours.

Part 2 – Aerodrome Administration Operating Procedures

2.16.1 The specific circumstances in which LVP are to be implemented or terminated

LVP will commence when;

- (a) the visibility on any part of the aerodrome is insufficient for ANS to exercise control over all traffic on the basis of visual surveillance; or
- (b) the cloud ceiling is less than 200 ft; or
- (c) the visibility on any part of the aerodrome is less than 800 m.

Reference points when viewed in a clockwise pattern from the ANS tower are;

- (a) the fence marker located on the western perimeter fence 100 metres south of Gate 11.
- (b) the fence marker located to the east of the ARFFS training ground
- (c) the Runway 15 PAPI, west side (actual distance equals 740 metres)
- (d) the intersection of Aviation Drive and Canoona Road (the General Aviation Precinct access).

2.16.2 Aerodrome procedures and facilities for supporting the desired movement rate

To ensure safe operations the rate of aircraft movement during LVP will not exceed one aircraft on the manoeuvring area at any time.

The RRC has developed procedures to control vehicle airside access and vehicle movements during LVP. The procedures are detailed in Chapter 2.16.14 of this manual.

Airservices Australia has developed procedures for use in their operations. The MA and the Supervisor for the Rockhampton ANS liaise as required to ensure the procedures are conversant.

To complement the procedures an extensive security fence has been constructed to provide aircraft movement area security for LVP. The aircraft movement area has been marked in accordance with the requirements detailed in the Manual of Standards, Part 139 to provide surface movement guidance for instrument non-precision runway operations on Runway 15/33.

2.16.3 Training and authorisation for drivers and other personnel to work airside during the operation of low visibility procedures

Vehicle movement during LVP is restricted to the RPT Apron, and the minimum vehicles that are required to manage the security of the aircraft manoeuvring areas. The training and authorisation processes for the drivers of the vehicles permitted to operate during LVP are detailed in Chapter 2.10 of this manual.

Part 2 – Aerodrome Administration Operating Procedures

2.16.4 Control of airside operations by means of vehicles or personnel

Rockhampton Aerodrome staff will operate the only vehicles authorised to operate on the aircraft manoeuvring areas during LVP.

Vehicle movements are contained within the limits of the RPT Apron by positioning an authorised Aerodrome Reporting Officer in a vehicle on the apron taxiway.

Details of the control of airside operations are included in Chapter 2.16.14 of this manual.

2.16.5 Withdrawal of non-essential vehicles and personnel, including the suspension of routine maintenance on visual and non-visual aids

The perimeter lock down of the airside area provides the Aerodrome Reporting Officers with the opportunity to visit all airside areas and direct any drivers or personnel on foot, to leave the manoeuvring area. This task is to be completed as early as possible before sight conditions deteriorate.

Method of Working Plan (MOWP) documents contain direction for work sites to be vacated when LVP commences. Works Safety Officers and airside workers are instructed on LVP requirements during MOWP inductions.

2.16.6 Securing access and preventing inappropriate or inadvertent entry

The airside area is secured to control vehicle access to the aircraft manoeuvring area. Gates normally accessible to authorised drivers (other than RRC Aerodrome staff) are locked out with a padlock unique to LVP, and portable warnings signs are placed across other access points.

At all times access to the airside area is maintained in accordance with Aviation Transport Security legislation. Aviation Security Identification Card (ASIC) holders, and their authorised, and escorted visitors are the only personnel permitted to access the secure area at any time. This access is in accordance with a lawful need.

2.16.7 Provision for alerting airlines and other affected organisations

When LVP commences ANS will update the information currently broadcast on the Automatic Terminal Information Service (ATIS). The broadcast message will advise pilots of the changed operating conditions.

The ARO will place a portable warning sign at the RPT Apron access from the baggage make-up area. The information on the sign will provide clear instruction of the change in operating conditions.

Part 2 – Aerodrome Administration Operating Procedures

2.16.8 Coordination of procedures and activities with air traffic services

The procedures for LVP have been developed following consultation between ANS and the MA. Any procedural deficiencies are addressed by ongoing consultation between ANS and the MA, and reporting via the Aerodrome Safety Management System.

During LVP the ARO will use frequency 118.1 to advise ANS of intended actions, and to seek approval to access runway strip areas.

During CTAF operations the ARO will call Brisbane ANS centre to advise them of the requirement for LVP and monitor frequency 123.75.

2.16.9 Physical checking of lighting installations and warning devices such as signage

Prior to each aircraft movement the ARO will complete an inspection of the portion of movement area to be used. All manoeuvring area markers, lights and signs will be checked during these inspections.

2.16.10 Emergency procedures

In the situation of an aircraft crash during LVP the aerodrome will close.

There is potential for difficulty to be experienced by emergency services responding to an aircraft crash site during LVP. To address and minimise delays in response times the ARFFS use infrared imagery as an integral part of their LVP response plan.

In any condition of visibility it is the responsibility for the AROs to assist off-site emergency response agencies to arrive at a crash scene. The transport time of the off aerodrome emergency service vehicles is not as critical as the response time of the ARFFS. Drivers on aerodrome during an LVP emergency response must proceed with caution and allow the ARFFS to achieve their critical response times.

In the event of an occurrence of unlawful interference with aviation during LVP the aerodrome will close. The MA or delegate will advise ANS that an unlawful event has occurred and that aircraft movements should cease due to an uncertain operating environment. The only aircraft movement that would be acceptable under these circumstances is the relocation of an aircraft to the remote parking locations at the Taxiway Juliet holding point or the 04 Threshold.

2.16.11 The arrangements for measuring visibility along a runway and passing the information to air traffic control, if required

RRC employees do not perform Runway Visual Range (RVR) assessments. When visibility is reduced due to fog, smoke or other atmospheric conditions, the ARO may transport pilots to the applicable runway to enable them to determine the runway visual range. The ARO must complete the procedures for minimising vehicular traffic within the movement area during periods of low visibility procedures prior to transporting pilots to any runways.

Part 2 – Aerodrome Administration Operating Procedures

Diagrams to assist pilots to determine the RVR with the aid of visible runway lights, are available at the appendices of Part 2, Section 16. The relevant appendices are;

- Appendix 'B' – Runway 15
- Appendix 'C' – Runway 33

To establish the commencement of Low Visibility Procedures;

- (a) ANS will observe the capacity to see the Doppler very high frequency omni-directional radar (DVOR) facility to the west of RWY 15/33, or;
- (b) when ANS is not on duty the ARO will park their vehicle on the apron in front of the Tower and observe the capacity to see the Doppler very high frequency omni-directional radar (DVOR) facility to the west of RWY 15/33.

2.16.12 Assessment procedures to be used by Reporting Officers

RRC employees do not perform RVR assessments.

2.16.13 The arrangements for minimising vehicular traffic within the movement area during periods of low visibility procedures

When ANS advises the ARO that visibility has reduced to, or is likely to reduce to, 800 metres or less the ARO will seek assistance from other available RRC AROs and /or the ARFFS to commence a check of the perimeter of the airside area. The following procedure will be followed;

1. To expedite the perimeter check, 2 vehicles should depart from an agreed point and travel in opposite directions to check the integrity of the perimeter fence and to ensure that vehicular access points to the airside area have been secured. There is no requirement to wait for a second vehicle and driver to commence the perimeter check.

The ARO will provide the driver of the second perimeter check vehicle with a key to the Low Visibility control padlocks.

2. During the perimeter check low visibility control padlocks are to be placed on the vehicle gates: 1, 20, 21, 23, 26, 28, 29 and 30. Table 1.1 describes the location of these gates. The correct number of padlocks will be stored on a metal disc/bar that has been drilled to accommodate the exact number of locks.

Part 2 – Aerodrome Administration Operating Procedures

As a check to ensure completion of the locking process, all locks will be removed from the disc/bar upon completion of the perimeter check. A warning sign will also be placed/uncovered on all vehicle access gates so that personnel approaching the gate are warned not to proceed through the gate.

A pyramid shaped warning sign is placed at each of the following locations to warn lessees not to operate vehicles on taxiways or runways;

- (i) Blocking the entrance at the Fire Station (Gate 3).
- (ii) Just off the apron at the Capricorn Helicopter Rescue Service near the aircraft trolley rails.
- (iii) On the GA Apron facing the Gorman Hangar, the Rose Aircraft Engineers Hangar, the McDonald Hangar, the JMK Hangar, the RFDS Hangar and the Peace Ministries Hangar.

A pyramid shaped sign is placed at the apron entrance from the baggage make-up area, and Gates 6 and 7, to warn RPT Apron users to confine their access to the RPT Apron. Refer to Appendix 'A' of Part 2, Section 16 for the LVP Access Control Plan.

Note: That Airside Driver Authorisation may be cancelled for individuals who ignore the directions of the Low Visibility Procedure signs, or directions of RRC or ARFFS personnel who are preparing the airside area for Low Visibility Procedures.

3. After completion of the perimeter checks at least one vehicle will be placed on the RPT Apron to ensure that no vehicles enter the taxiways or runways from the RPT or RAAF Apron (the RPT Apron Guard).
4. Should the RPT Apron guard consider that visibility has reduced to the extent that a second guard is required, the ARO is to be advised. The ARO will then seek assistance to provide a second person to guard the RPT Apron to ensure that no unauthorised vehicles access the runways and taxiways. The apron guard will be provided by the RRC and /or the ARFFS.
5. Upon completion of the perimeter check the ARO will contact RRC and ARFFS officers assisting in Low Visibility Procedures to ensure that the perimeter is secure and that no vehicles have been observed on, or entering the taxiways or runways.

The ARO will also retrieve the key to the Low Visibility control padlocks from the driver of the second perimeter check vehicle. At this time only the ARO will hold all keys to the Low Visibility control padlocks.

6. When Low Visibility Procedures cease, the ARO will ensure that all Low Visibility control padlocks and low visibility signs have been removed and that the aerodrome is returned to normal operational conditions.

Note: Should a pilot decide to commence taxiing an aircraft on an apron prior to securing the aerodrome, the ARO will advise ANS (on the tower frequency) that the Aerodrome has **not** been fully prepared for low visibility procedures. Alternately outside of ANS operational hours, the ARO will make a CTAF announcement that the Aerodrome has not been fully prepared for low visibility procedures.

Part 2 – Aerodrome Administration Operating Procedures

2.16.14 The arrangements for runway inspections during periods of low visibility procedures

When the ARO is certain that the airside perimeter and access to the taxiways and runways is secure, he/she will request permission from ANS, or observe CTAF radio protocol, to commence the serviceability inspection of the runways and taxiways required for Low Visibility Procedures.

Upon completion of the runway and taxiway serviceability inspection the ARO will advise ANS (or pilot during CTAF operations) of the outcome of the inspection. Runway and taxiway unserviceability must be addressed by following the usual procedure for that unserviceability.

Where practicable, the ARO will perform a runway inspection prior to each landing or takeoff of an aircraft under low visibility conditions.

Particular caution must be taken for all access to runway strips. Radio communications in particular must be clear and fully understood. The only mobile phone communications permitted within the manoeuvring area are to be directly between ANS and the ARO Officer.

2.16.15 Additional arrangements for low visibility procedures

- The standby generator for the runway and taxiway lighting circuits will be started and will operate continuously for the duration of the low visibility procedures. The ARO will ensure that the generator is started prior to aircraft movements during low visibility procedures. Continuous operation of the standby generator is required to ensure two sources of power are available at all times during LVP. The power supply will change from the standby generator to the normal reticulated supply in one second or less in the event of failure of the standby generator.

Note: The ARO must ensure that there are no aircraft attempting to land or take-off prior to starting the generator, and if ANS is on duty they must be warned for loss of power to the runway lights. Manual start of the generator will shift the power supply for the lights directly to the generator. An 8 second delay will occur for the power supply to the runway lights.

- When ANS is notified of an emergency operation by the Royal Flying Doctor Service or the Capricorn Helicopter Rescue Service, the ARO will assist the emergency operation under the direction of ANS. Alternatively when the Tower is closed the ARO will, within the scope of the AROs training and normal work duties, assist with the emergency operation.

In particular the ARO will travel to the relevant hangar and ensure that ambulance vehicles do not enter the runways and taxiways.

- Emergency operations will take preference over RPT services.
- A register of keys issued will be kept by Aerodrome Management. Two keys only will be issued. The keys will be stored in the RRC Operation Supervisor's Office key cabinet.

Part 2 – Aerodrome Administration Operating Procedures

- The correct number of pyramid shaped warning signs will be stored in the RRC storage locker at the RPT Terminal. The correct number of signs is 9 “No Entry” signs and 3 “Apron Access Only” signs.
- It is permissible for an ARO to supervise the loading or unloading of freight from an aircraft on the GA Apron during low visibility procedures. The ARO will need to unlock the applicable gate. Opening the gate will be of a low priority for the ARO during low visibility procedures.
- Due to the erratic nature of morning fog at Rockhampton and in particular, the capacity for visibility to deteriorate despite earlier improvements, the low visibility procedures will continue until the windsock at the RWY 04 threshold is clearly visible from the vicinity of the Tower (approximately 1400 metres).

TABLE 2.16.1 Gates to be locked with a Low Visibility Control Lock.

Gate No.	Gate Name / Location
1	Canoona Road compound gate
20	The ARFFS workshop gate
21	The GA access road gate
23	Shell bowser gate
26	The gate beside the RFDS hangar
28	The Rose Aircraft Engineers gate
29	The gate beside the Gorman Hangar
30	The gate adjacent to the PIQ office.

During low visibility procedures the ARO will liaise with ANS to ensure:

- 1) non-essential vehicles and pedestrians are not permitted on the movement area;
- 2) other than for the ARO, ANS will not provide clearances for any vehicle or pedestrian to enter or cross an operational runway or taxiway, unless that vehicle is escorted by the ARO. ARFFS vehicles responding to an emergency are exempt from this requirement;
- 3) non-essential works on the movement area will be suspended and work areas will be vacated.

Part 2 – Aerodrome Administration Operating Procedures

2.16.16 The names and roles of the persons who are responsible for managing low visibility procedures, and the telephone numbers for contacting them during and after work hours

The MA in conjunction with Airservices Australia / ANS (Rockhampton Tower) is responsible for managing low visibility procedures at Rockhampton Aerodrome.

The MA will ensure that all AROs are trained in low visibility procedures for Rockhampton Aerodrome. The OS's will train the AROs

The MA will liaise with the Rockhampton Unit Tower Supervisor to ensure that low visibility procedures are conducted safely and that procedures are reviewed to meet any changes in operational conditions.

The Rockhampton Unit Tower Supervisor will ensure that appropriately trained and approved Air Traffic Controllers are available to coordinate low visibility procedures. The Rockhampton Unit Tower Supervisor will also liaise with the MA to ensure that low visibility procedures are conducted safely and that procedures are reviewed to meet any changes in operational conditions.

The MA is supported in these functions by the CAO.

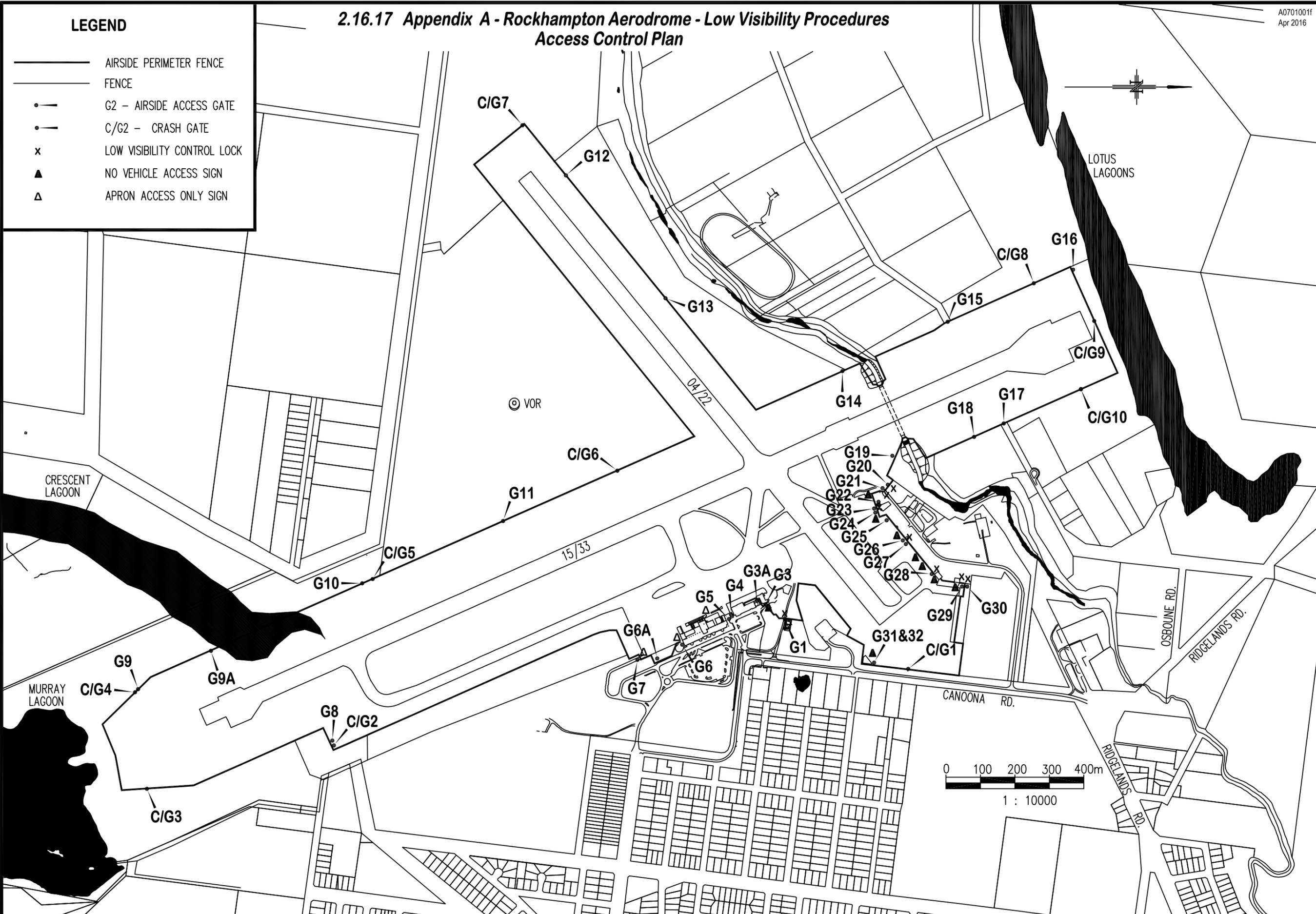
The names and contact numbers for the MA, CAO and Rockhampton Unit Tower Supervisor can be found in the Telephone Contact List of this manual.

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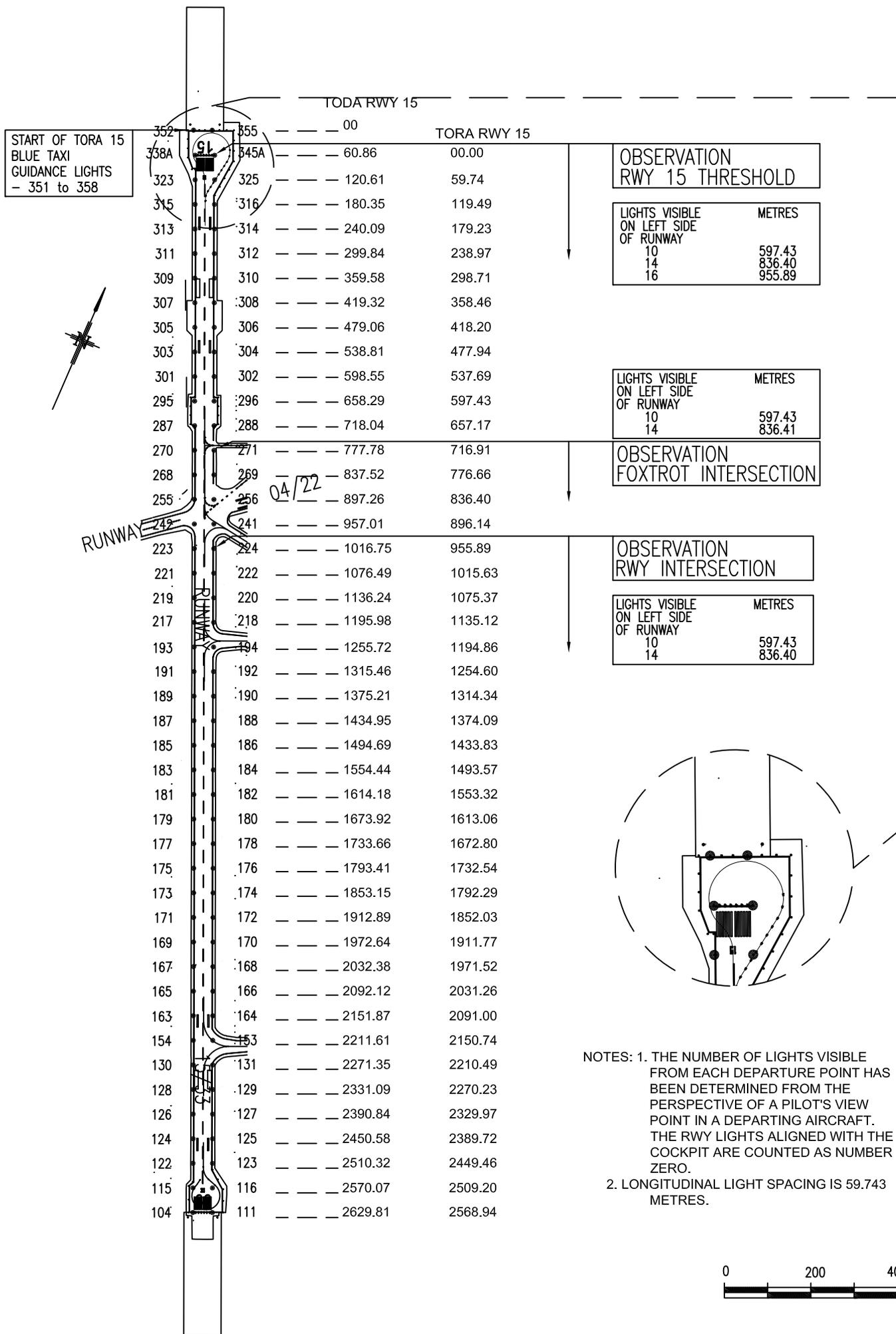
2.16.17 Appendix A - Rockhampton Aerodrome - Low Visibility Procedures Access Control Plan

LEGEND

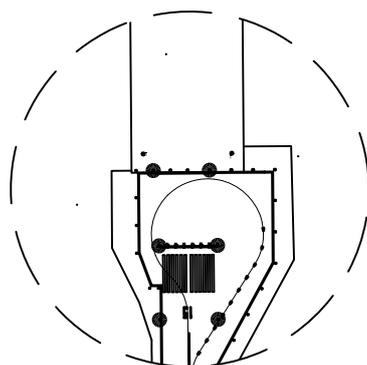
-  AIRSIDE PERIMETER FENCE
-  FENCE
-  G2 - AIRSIDE ACCESS GATE
-  C/G2 - CRASH GATE
-  LOW VISIBILITY CONTROL LOCK
-  NO VEHICLE ACCESS SIGN
-  APRON ACCESS ONLY SIGN



2.16.18 Appendix B - RVR 15



2.16.19 Appendix B - RVR 33



**OBSERVATION
RWY INTERSECTION**

LIGHTS VISIBLE ON LEFT SIDE OF RUNWAY	METRES
10	597.43
14	836.40
16	955.89

NOTES: 1. THE NUMBER OF LIGHTS VISIBLE FROM EACH DEPARTURE POINT HAS BEEN DETERMINED FROM THE PERSPECTIVE OF A PILOT'S VIEW POINT IN A DEPARTING AIRCRAFT. THE RWY LIGHTS ALIGNED WITH THE COCKPIT ARE COUNTED AS NUMBER ZERO.

**OBSERVATION
JULIET INTERSECTION**

LIGHTS VISIBLE ON LEFT SIDE OF RUNWAY	METRES
10	597.43
14	836.40

**OBSERVATION
RWY 33 THRESHOLD**

LIGHTS VISIBLE ON LEFT SIDE OF RUNWAY	METRES
10	597.43
14	836.40

2568.94	2509.20	---	252	---	255
2509.20	2449.46	---	338A	---	345A
2449.46	2389.72	---	323	---	325
2389.72	2329.97	---	315	---	316
2329.97	2270.23	---	313	---	314
2270.23	2210.49	---	311	---	312
2210.49	2150.74	---	309	---	310
2150.74	2091.00	---	307	---	308
2091.00	2031.26	---	305	---	306
2031.26	1971.52	---	303	---	304
1971.52	1911.77	---	301	---	302
1911.77	1852.03	---	295	---	296
1852.03	1792.29	---	287	---	288
1792.29	1732.54	---	270	---	271
1732.54	1672.80	---	268	---	269
1672.80	1613.06	---	255	---	256
1613.06	1553.32	---	242	---	241
1553.32	1493.57	---	223	---	224
1493.57	1433.83	---	221	---	222
1433.83	1374.09	---	219	---	220
1374.09	1314.34	---	217	---	218
1314.34	1254.60	---	193	---	194
1254.60	1194.86	---	191	---	192
1194.86	1135.12	---	189	---	190
1135.12	1075.37	---	187	---	188
1075.37	1015.63	---	185	---	186
1015.63	955.89	---	183	---	184
955.89	896.14	---	181	---	182
896.14	836.40	---	179	---	180
836.40	776.66	---	177	---	178
776.66	716.91	---	175	---	176
716.91	657.17	---	173	---	174
657.17	597.43	---	171	---	172
597.43	537.69	---	169	---	170
537.69	477.94	---	167	---	168
477.94	418.20	---	165	---	166
418.20	358.46	---	163	---	164
358.46	298.71	---	154	---	153
298.71	238.97	---	130	---	131
238.97	179.23	---	128	---	129
179.23	119.49	---	126	---	127
119.49	59.74	---	124	---	125
59.74	0.00	---	122	---	123
0.00		---	115	---	116
		---	104	---	111

