MackayAirport

FOR WORKDAYS AND HOLIDAYS

Mackay Airport Pty Ltd

AIRPORT OPERATIONS MANUAL

Reference No: 9000MKY

Version 6

24 November 2016

ACN 132 228 534

PART 0

SECTION 01 FOREWORD

Mackay Airport Pty Ltd (MAPL) owns and manages Mackay Airport which includes all airside and landside operations, terminals, car parking and associated land holdings.

MAPL is part of the North Queensland Airports (NQA) group. The consortium comprises of IIF Cairns Mackay Investment Ltd (an entity advised by JP Morgan Asset Management), The Private Capital Group's The Infrastructure Fund (TIF) managed by Hastings, Perron Investments and Auckland International Airport Limited (AIAL).

NQA's Managing Responsibly Policy reflects that Mackay Airport strives to conduct safe, incident free operations by ensuring:

- Our management systems are best practice and properly implemented;
- Our people fully understand and meet their responsibilities to enable safe operations;
- System performance in enabling safe operations is recognised and there is zero tolerance of poor practice; and
- Sufficient equipment and skilled people are in place to enable safe operations.

The Mackay Airport *Airport Operations Manual* contains details of the airside operating procedures that we importantly need to adopt to ensure the safety and viability of our airport. The *Airport Operations Manual* also satisfies our legal obligations under the Civil Aviation Safety Regulations (CASR) Part 139, in particular CASR 139.090. Any items under CASR 139.0959(a) that are not applicable to Mackay Airport, are not included within this manual.

MAPL has received written approval from CASA for the *Airport Operations Manual* to consist of more than one document. All separate documents referenced throughout this manual are readily available from MAPL and each staff member is responsible for ensuring that they can access these documents.

The Manager Aviation Operations should be consulted if there is difficulty in complying with any of these procedures so that the necessary document amendments can be made. We should always question why we do the things the way we do and we should always challenge ourselves to see if the intended result can be achieved in a more efficient, safe or reliable way.

The procedures contained in this Manual are directions issued by the Chief Executive Officer, to those persons listed herein to undertake the functions as defined to ensure the safety of aircraft movements and persons using Mackay Airport.

Issued under the Authority of:

Rob Porter
General Manager
Mackay Airport Pty Ltd
ACN 132 228 534
24 November 2016

PART 0	FOREWORD, CONTENTS AND DOCUMENT CONTROL
SECTION 02	CONTENTS

PART 0 FOREWORD, CONTENTS AND INTRODUCTION

PART 1 AERODROME INFORMATION

PART 2 AERODROME ADMINISTRATION AND OPERATING PROCEDURES

PART 3 PARTICULARS OF AERODROME TO BE PUBLISHED IN AIP

NOTES ON PLANS INCLUDED IN THIS MANUAL

Where necessary in order to describe and/or to facilitate the management of specific operating procedures, various plans are included in the relevant sections of this manual.

All such plans carry a title, plan number and revision date. For ease of production and printing, this manual generally contains reduced size copies of these plans. Copies may be obtained upon request.

PART 0	FOREWORD, CONTENTS AND DOCUMENT CONTROL
SECTION 03	DOCUMENT CONTROL

Reference Number	Version	Status	Sponsor	Author
9000MKY	6	Approved	General Manager	Manager Aviation Operations

Amendments				
Version Number	**Revision Date**	**Affected Pages**	**Inserted by**	**Date Inserted**
3	May 2015	Complete review of manual as recommended from an ATI.	AAO	May 2015
4	October 2015	Review of Manual with minor amendments	AAO	October 2015
5	February 2016	Review of Manual with minor amendments	AAO	February 2016
6	November 2016	Review of Manual with minor amendments (namely RWY 05/23 references removed & update of Diagrams.	AAO	November 2016

PART 0 FOREWORD, CONTENTS AND DOCUMENT CONTROL

SECTION 04 CONTROLLED COPY DISTRIBUTION LIST

In accordance with MOS 139.100, Mackay Airport maintain the following copies of the Airport Operations Manual in printed form as a controlled copy:

Copy No.	Holder
1	Manager Aviation Operations
2	Airservices Australia (in accordance with LoA 569) – Mackay Tower – Unit Tower Supervisor
3	Aviation Administration Officer

The Mackay Airport *Airport Operations Manual* is distributed as an uncontrolled document to the following approved organisations. The document is subject to regular review and amendment. Future amendments will also be distributed electronically. Strict management of printed copies within organisations should be considered as inaccuracies and out-of-date information may otherwise result in confusion.

Organisation	Position	
Mackay Airport Pty Ltd	ALL MAPL	Available as a controlled document on SharePoint – NQA Manuals/Mackay/Operations
NQA	Manager Compliance	
CASA In accordance with MOS 3.1.5	Airport Inspector	
Aerocare	Manager - Mackay	

Note: The Mackay Airport *Aerodrome Emergency Plan* (*AEP*) is a separate controlled document, published and distributed independently of the *Airport Operations Manual*.

PART 1	AERODROME INFORMATION
SECTION 01	SITE DETAILS, TITLES AND PLANS

Particulars of Title and Locality Map

Aerodrome Name: Mackay

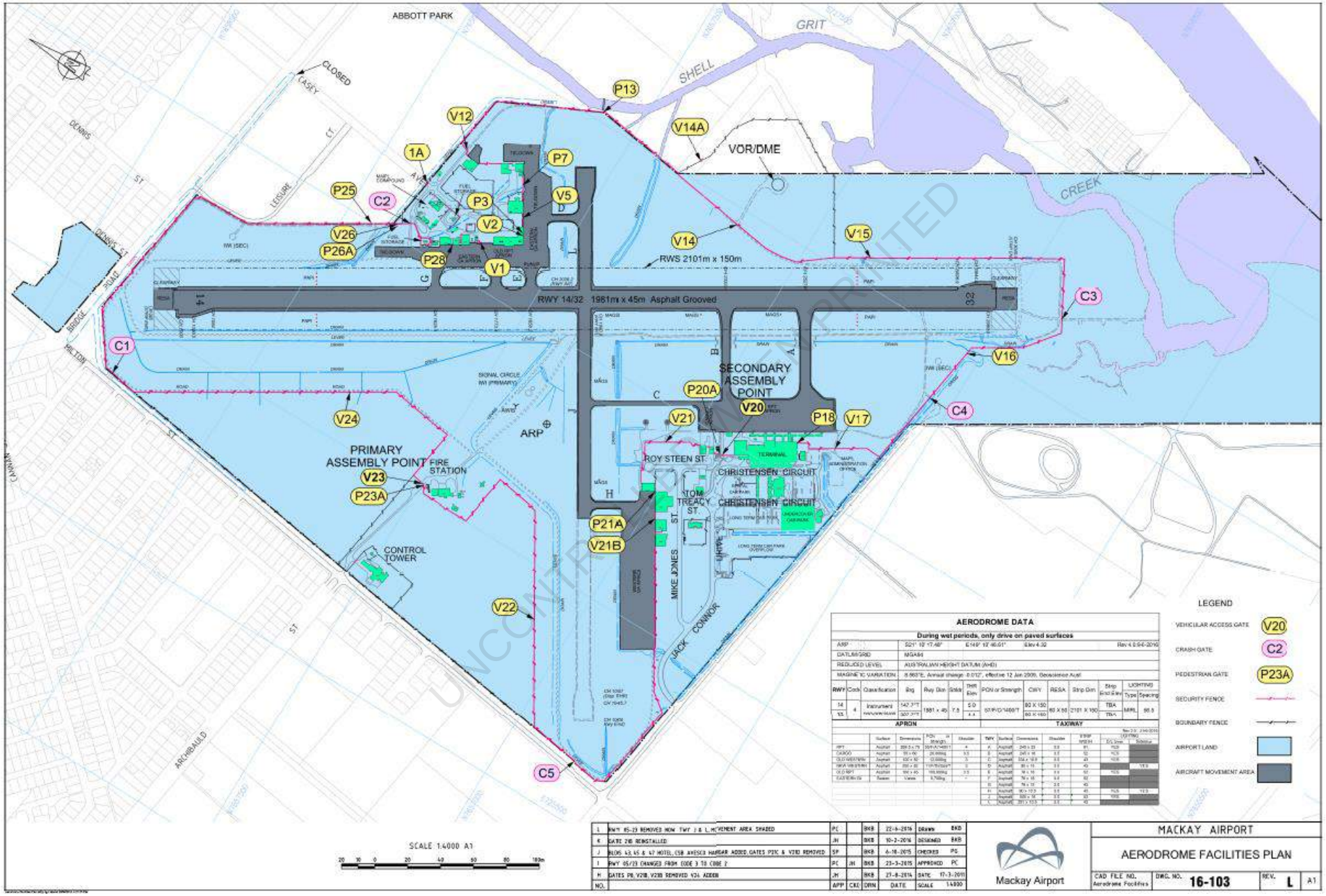
The Real Property Descriptions:

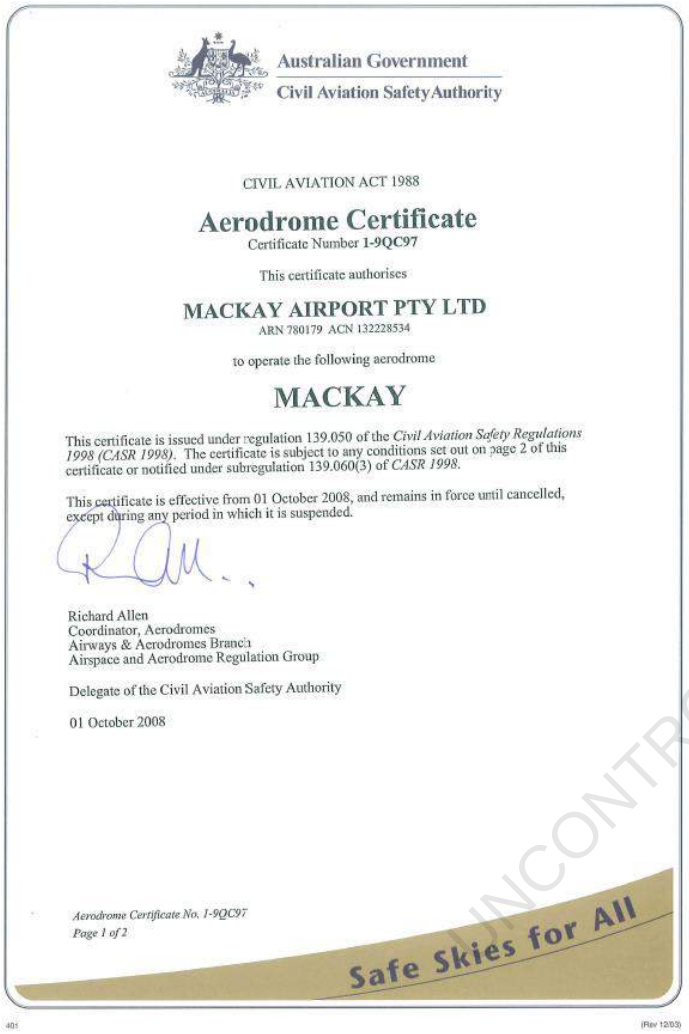
Lot 1 on RP 711078	Lot 3 on RP 723311
Lot 1 on RP 713704	Lot 3 on RP 842090
Lot 1 on RP 723311	Lot 19 on SP 145073
Lot 1 on RP 842090	Lot 381 on RP 711085
Lot 2 on RP 723311	Lot 405 on CP 842088
Lot 2 on RP 842090	Lot 443 on RP 724222

LOCALITY MAP

Mackay Airport is located approximately 3km south of the Mackay CBD.

Aerodrome Facilities Plan





Australian Government
Civil Aviation Safety Authority

CIVIL AVIATION ACT 1988

Aerodrome Certificate

Certificate Number **1-9QC97**

This certificate authorises

MACKAY AIRPORT PTY LTD

ARN 780179 ACN 132228534

to operate the following aerodrome

MACKAY

This certificate is issued under regulation 139.050 of the *Civil Aviation Safety Regulations 1998 (CASR 1998)*. The certificate is subject to any conditions set out on page 2 of this certificate or notified under subregulation 139.060(3) of *CASR 1998*.

This certificate is effective from 01 October 2008, and remains in force until cancelled, except during any period in which it is suspended.

Richard Allen
Coordinator, Aerodromes
Airways & Aerodromes Branch
Airspace and Aerodrome Regulation Group

Delegate of the Civil Aviation Safety Authority

01 October 2008

Aerodrome Certificate No. 1-9QC97
Page 1 of 2

Safe Skies for All

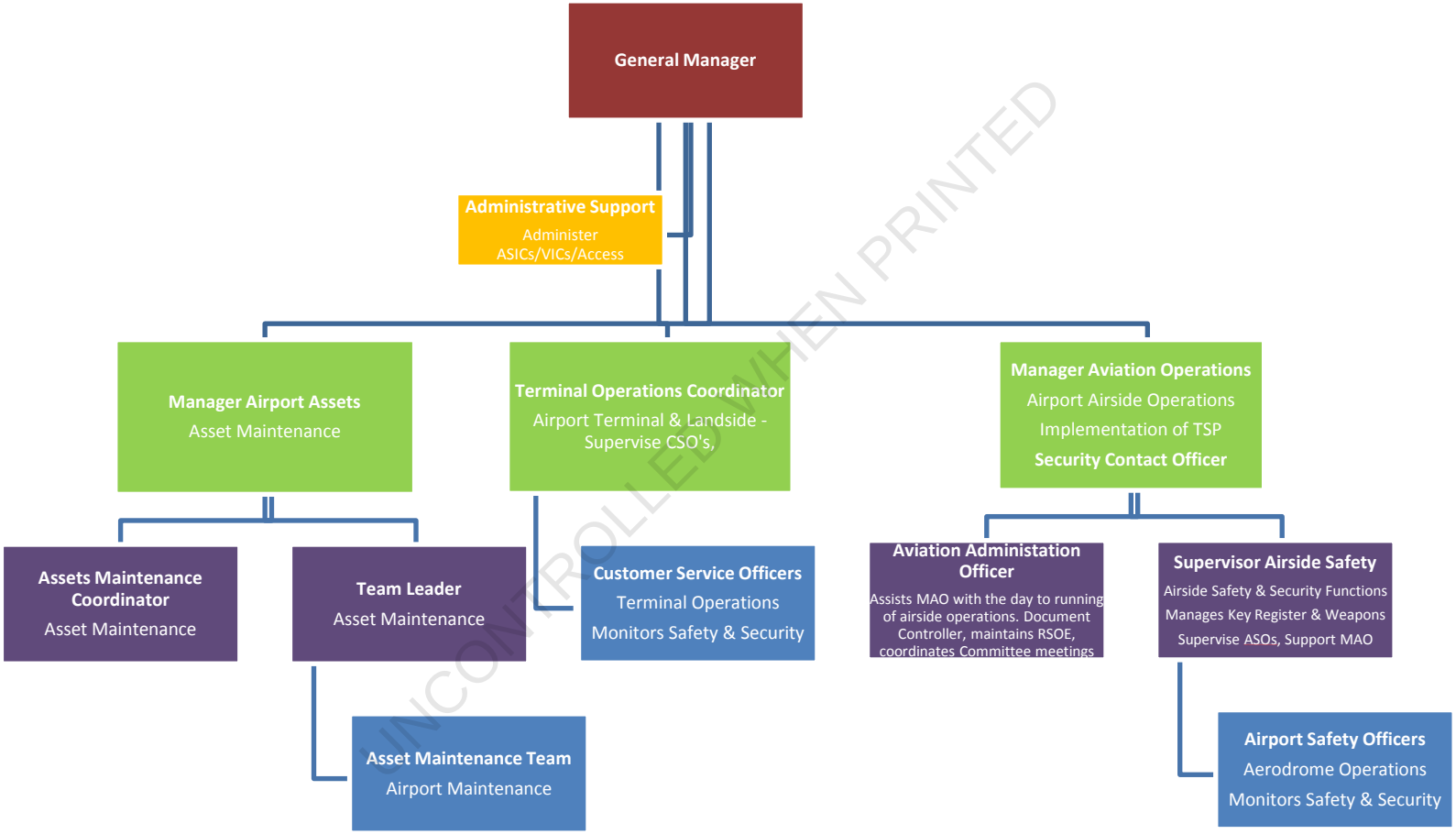
401 (Rev 12/03)

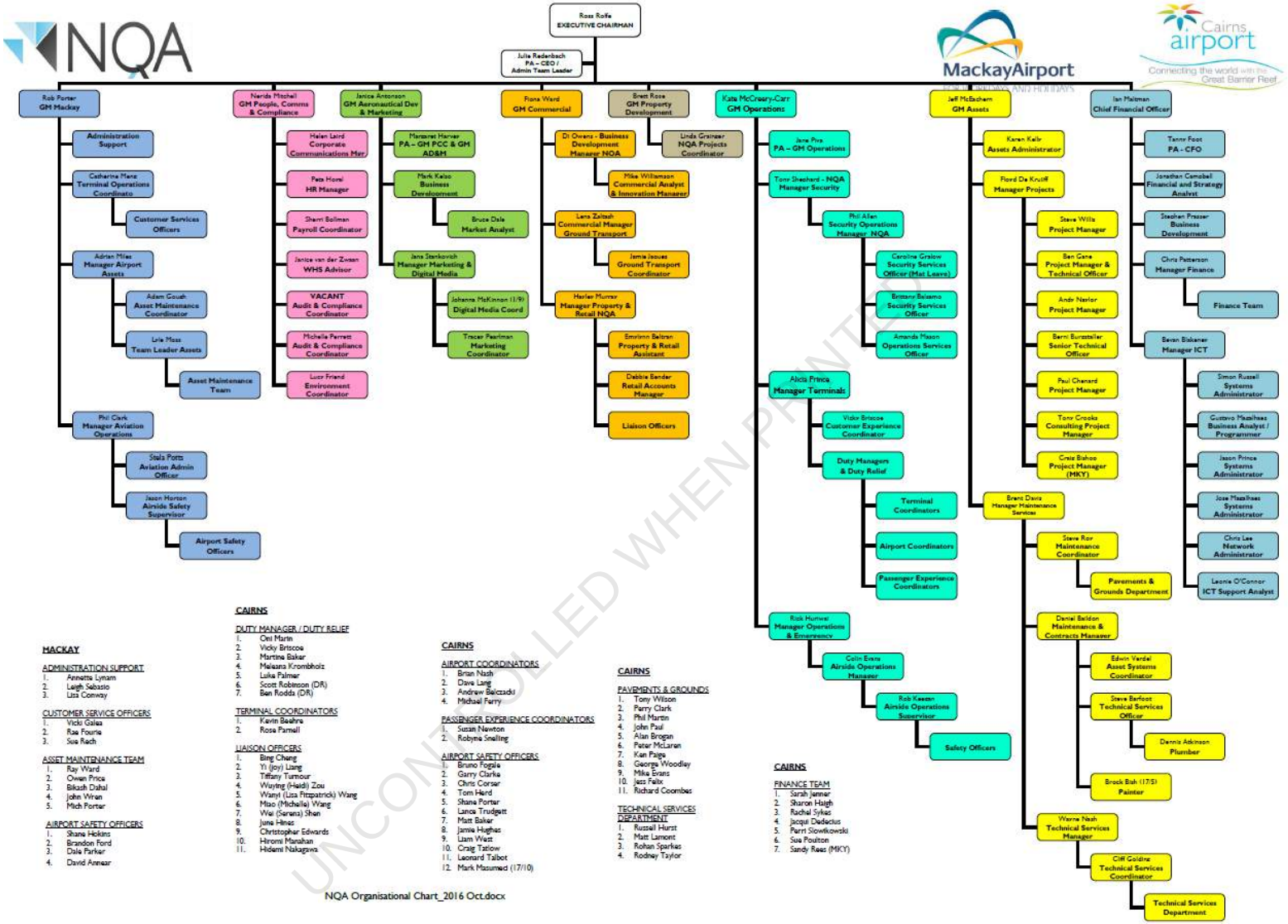
Conditions applicable to Aerodrome Certificate No. 1-9QC97

NIL APPLICABLE

Aerodrome Certificate No. 1-9QC97
Page 2 of 2

1.1 NQA ORGANISATIONAL CHART





1.2 MACKAY AIRPORT – TELEPHONE CONTACT NUMBERS

MACKAY AIRPORT PTY LTD			
POSITION	**NAME**	**CONTACT NUMBER**	**FAX**
General Manager	Rob Porter	07 4957 0222	07 4953 1929
Manager Aviation Operations	**Philip Clark**	**0407 570 208**	07 4953 1929
Manager Airport Assets	Adrian Miles	0401 565 396	07 4953 1929
Supervisor Airside Safety	Jason Horton	0418 570 232	07 4953 1929
Duty Airport Safety Officer		**0418 570 233**	07 4957 0273
Duty Customer Service Officer		**0434 607 658**	07 4953 1929
Maintenance Team Leader	Lyle Moss	0413 153 750	07 4953 1929
Asset Maintenance Coordinator	Adam Gough	0417 062 708	07 4953 1929
Aviation Administration Officer	Stela Potts	0481 446 883	07 4953 1929
Airport Switchboard (Reception)	-	07 4957 0201	07 4953 1929

NQA Corporate Communications Manager	Helen Laird	0418 191 652	07 4080 6704
NQA Environmental Coordinator	Lucy Friend	0400 899 342	07 4080 6704
Emergency Electrical Contractor Revolution Electrical/O'Brien Electrical		0407 788 758 0400 152 976	

AIRSERVICES AUSTRALIA				
AirServices Australia Control Tower	Phone:	07 4951 8430	Fax:	07 4951 8439
ATC Supervisor	Mobile:	0427 113 385		
ATC Brisbane	Phone:	07 3866 3224		
QUEENSLAND POLICE SERVICE				
Emergency	Phone:	000		
Executive Officer - District Disaster Management Group	Phone:	0428 710 795		
Mackay Police Station	Phone:	07 4968 3510		

AIRLINES & GROUND HANDLING AGENCIES				
Aerocare – Virgin Australia	Phone:	07 4952 3661		
	Mobile:	0437 788 213		
Aerocare – Qantas/Jetstar	Phone:	07 4969 3500		
	Mobile:	0429 636 615		
Alliance – Ground Operations and Compliance Manager	Phone:	07 3212 1540		
	Mobile:	0418 880 626		
CQ Rescue – Administration & Asset Maintenance Coordinator	Mobile:	0400 124 379		
QantasLink – Emergency Recovery Coordinator	Phone:	02 9691 0845		
Jetstar – Senior Dispatch Coordinator	Phone:	03 8628 3165		
	Mobile:	0437 400 683		
Virgin Australia – Emergency Planning Manager	Phone:	07 3295 3003		

CALL SIGNS FOR AIRPORT STAFF		
STAFF IDENTITY	**CALLSIGN (VEHICLE ID)**	**CONTACT**
Airport Administration & Maintenance Staff	(Christian name)	UHF
Airport Office	BASE	UHF
Safety Officers' Office	OPERATIONS	UHF
Airport Safety Officer	CAR 1 or 2	124.5MHz/121.7MHz/UHF
Supervisor Airside Safety	CAR (Car 1 or 2)*	124.5MHz/121.7MHz/UHF
Manager Aviation Operations	CAR 8	124.5MHz/121.7MHz/UHF
Team Leader – Asset Maintenance	CAR 4	124.5MHz/121.7MHz/UHF
Electrical Contractor	CAR 3	124.5MHz/121.7MHz/UHF
Asset Maintenance	CAR 7	124.5MHz/121.7MHz/UHF
Asset Maintenance Truck	CAR 9	124.5MHz/121.7MHz/UHF

UHF: A fixed frequency radio for staff inter-communication. UHF Base Station located in the Administration and ASO offices.

* Example: if using Vehicle 2, then call sign CAR 2, if Vehicle 4, then CAR 4.

- **Tower** Frequency is 124.5MHz
- **Ground** Frequency is 121.7MHz
- **Approach** Frequency is 125.65MHz

1.3 OPERATION OF MACKAY AIRPORT

Mackay Airport shall be operated in accordance with procedures contained in the MAPL Airport Operations Manual and in accordance with Civil Aviation Safety Regulations 1998 Part 139 Aerodromes (CASR 139). Mackay Airport is also a Security Controlled Airport regulated under the Aviation Transport Security Act 2004.

Manual of Standards Part 139 Aerodromes (MOS 139) contains the standards and specifications that must be applied at Mackay Airport to enable it to comply with CASR 139.

If a procedure must be deviated from in order to ensure the safety of aircraft, the officer initiating the deviation must advise the MAO at the earliest opportunity.

When advised of a deviation from these procedures, initiated to ensure the safety of aircraft, the MAO or representative must:

- Advise the CASA District Airport Inspector within 30 days of the deviation occurring;
- Review the relevant procedure to determine if an amendment to the procedure is required, or if some other action is required (e.g. training). The deviation may also be a one-off event where no further action is required.

The MAO shall ensure that:

- All persons reporting to the manager are provided with the required training.
- Each person shall be personally responsible for ensuring that the currency of their qualifications is maintained.

1.4 POSITION RESPONSIBILITIES & ROLES

1.4.1 General Manager

- Provide advice to the CEO on the strategic direction of the airport through the development of business plans that contribute to corporate objectives.
- Develop operational performance measures and guide the implementation of industry best practice.
- Ensure the operational integrity of the airport through compliance with all relevant legislative obligations, including compliance with the Airport Operations Manual.
- Provision of funding and resources for the operation of the airport.

1.4.2 Manager Aviation Operations (MAO)

- Is responsible for aerodrome operations, the safety functions and the day-to-day running of the aerodrome.
- Ensures that all personnel are trained in accordance with the standards for training aerodrome personnel set out in MOS 139 Section 10.1.3
- Ensures that the aerodrome facilities and equipment are planned, constructed, installed and maintained in accordance with the MOS 139 Standards.
- Ensure that all airport plans and drawings are kept up to date and that any new updates to Aerodrome Operations Manual plans are provided to the Aerodrome Manual Controller for distribution and notification to all holders.

- Ensures the operational integrity and safety of the airport through compliance with all relevant legislative and corporate obligations including coordination of technical and serviceability inspections.
- Ensures that the operations team members actively contribute to the improvement of the airports operation, safety and maintenance systems.
- Ensures that procedures are in place for the formal commissioning of new or repaired lighting systems as described in MOS 139 Section 9.1.15.
- Coordinates the development, implementation and review of the Mackay Airport Operations Manual to ensure compliance with statutory requirements.
- Responsible for providing timely and accurate aeronautical data and information to AIS providers (AirServices Australia) for publication in the AIP.
- In accordance with MOS 139.110, the MAO will advise CASA in writing of any amendment to the AOM within 30 days after the amendment is made. If a deviation is made to ensure the safety of aircraft operations, the deviation shall be reported to CASA within 30 days of the event causing the deviation.
- Responsible for implementation and enforcement of noise abatement procedures and bird hazard management.
- Ensures pavement evaluations, pavement repairs and airport drainage inspections are undertaken by a suitable qualified person.
- Responsible for provision and revision of all planning documentation, including the OLS, airport facilities, apron parking, electrical and engineering services.

1.4.3 Aviation Administration Officer (AAO)

- Responsible for assisting MAO with, inter alia, administration and ongoing implementation of Aviation Security Regulations, the Mackay Airport Transport Security Program, Wildlife Hazard Management Plan, Airport Operations Manual, Aerodrome Emergency Procedures, Terminal Evacuation Plan, Safety Management System and Airside Driving Authority Program and their associated procedures and forms.
- In accordance with MOS 139.115, performs the role of Document Controller.
- Maintains the Mackay Airport Rolling Schedule of Events.
- Compiles statistics on changes in bird counts, habits, and culling and bird strike data for monthly distribution and prepares bi-annual MAPL report for the Wildlife Hazard Management Committee.
- Coordinates operational committee meetings including the Safety, Security, Wildlife Hazard Management, Aerodrome Emergency, Emergency Planning, Severe Weather and Cyclone and GA Operators Consultative Forum committees and associated documentation.
- Provides stakeholders with a monthly RPT schedule.

1.4.4 Supervisor Airside Safety (SAS)

- Monitors the safety of the aerodrome by regular safety inspections to identify any breaches or areas of concern, taking remedial action to rectify deficiencies in aerodrome safety standards.
- Conducts regular safety inspections and compile records and reports for the MAO which will satisfy the requirements of the CASA annual audit.
- Maintains liaison with Air Traffic Control, airlines and other aerodrome users in respect of airport works and serviceability.

- Monitors and maintains the safety of the aerodrome Obstacle Limitation Surfaces clearances.
- Maintains and implements an effective wildlife control programme
- Assists the MAO in reviewing, developing and implementing new Airside Driving Licence training and procedures.
- Assists the MAO in monitoring, reviewing, updating and implementing new procedures applicable to the Airport Operations Manual.
- Issues Notices to Airmen (NOTAMS) as required and monitors the currency of NOTAMS.
- Fulfils Reporting Officer functions at Mackay Aerodrome.
- Fulfils the roles required by the Mackay Aerodrome Emergency Plan and the Disabled Aircraft Removal Plan and maintains emergency equipment. This includes but is not limited to assist with preparation and co-ordination of emergency table top and field exercises, debriefs and familiarisations of external emergency response agencies.
- Co-ordinates all functions of aviation ramp safety and security at Mackay Aerodrome to ensure that aviation regulations and requirements are complied with for the safety of airport users.
- Develops safe work procedures in line with industry practice for persons operating on the ramp and baggage make-up areas.
- Ensures compliance by Freight and Ground handling agents with all relevant regulations and airport conditions of use.
- Performs audits of training records, serviceability of ramp vehicles, Workplace Health & Safety, Foreign Object Damage, work procedures and competencies to operate various types of ground service equipment. Fulfils reporting officer functions at Mackay Aerodrome.
- Monitors airport security to ensure compliance with Department of Infrastructure and Regional Development regulations by regular inspections to identify any breaches or areas of concern.
- Takes corrective action where breaches of security occur, or acts on reports from contract security by utilising appropriate and effective communication with offenders or recommendations to security agencies or management.
- Conducts regular competency checks on MAPL staff and contractors performing ASO or WSO functions.

1.4.5 Airport Safety Officer

- Ensures the movement area is safe for aircraft operations by continual inspection of airside facilities, including lighting, and identifies reports and marks any unserviceability affecting aircraft operations.
- Maintains daily logs on all operational matters.
- Identifies dangerous practises or situations before an incident or accident occurs.
- Conducts perimeter security and SRA checks and supervision before and during RPT operations.
- Performs surveillance of operating practices to ensure they are conducted in accordance with relevant standards and regulations.
- Monitors the airports OLS for infringements.
- Implements Bird & Wildlife Management procedures.

1.4.6 Manager Airport Assets

- Responsible for ensuring that the development of all airport works relating to pavements are carried out in accordance with adopted plans.

Manages overall maintenance of airport infrastructure and the airfield.

- Ensure that electrical contractor performs the necessary technical inspections of all Aerodrome Ground Lighting systems as defined Mackay Airport *Electrical Maintenance Manual* and that the results and corrective measures are appropriately recorded.
- Provide advice to General Manager and MAPL internal departments on airport maintenance activities.
- Coordinate all maintenance of Runway, Taxiway and Apron pavements and aerodrome ground lighting and on other projects requested by MAPL internal departments.
- Ensure that mowing strategies advised by Manager Aviation Operations and Environmental Coordinator are carried out.
- Suitably maintain fences, drains, grassed and mangrove areas.
- Ensure that MAPL Assets and Maintenance Staff are trained and competent to perform required duties and refresher training is provided and ensure that period maintenance contractors and other users of MAPL building services facilities are competent in their operation and maintenance.
- Ensure that terminal light and power including standby generating equipment and other building facilities and services are operated and maintained in accordance with prescribed standards.

1.4.7 Team Leader – Asset Maintenance

- Ensures upkeep, repair and safety of airport grounds, pavements, roads, landscaped and grassed areas.
- Ensure that the necessary technical inspections for compliance with standards and maintenance requirements of all aircraft pavements, line marking, grounds, and drainage are carried out and their results and corrective measures are appropriately recorded.
- Monitors all radio communication whilst on movement areas and ensures all directions from Air Traffic Control and Airport Safety Officers are complied with immediately.
- Performs the role of WSO when undertaking Time Limited Works.

1.5 CONDITIONS, EXEMPTIONS, DIRECTIONS AND DEVIATIONS.

1.5.1 Certification Conditions

There are no conditions, current at this time (Certificate attached end of section).

1.5.2 Exemptions

There are no exemptions current at this time.

1.5.3 Directions

There are no directions current at this time.

1.5.4 Deviations

The following table identifies facilities that do not comply with the MOS 139 standards. MOS 139 2.1.2 refers.

Applicable MOS Standard	Facility & Non-Compliance	Date of installation	Interim Safety Measures	Expected date of compliance with current Standards
Section 6.2.18 Runway Strip Width	Runway 14/32 Strip Width Presently 150m in width. , MOS 139 Section 6.6.18.2 for Code 4 RWY requires 300m – Not practicable to achieve desired width. The Standards at the time of construction were Airport Engineering Instructions (APEI) 8.3.4	1970	Future planning and projects based on 300m strip. Surveys completed to 300m. Protection of the 300m strip is written into the Mackay Airport Land Use Plan 2014 also the Mackay Regional Planning Scheme. The Safety Case is being developed for submission to CASA in accordance with 6.2.18.4 in the MoS 139 Version 1.13 2016	Change not planned.
Section 7.1.3.4 Inner Edge	Runway 14/32 approach surface inner edge width for a code 4 aircraft is 300m unless used by aeroplane requiring 30mwide runway 150m strip.	1970	Future planning and projects based on 300m strip. Surveys completed for 150 and 300m.	Change not planned.
Section 9.16.4.4	Eastern GA Apron Floodlighting, 5 lux required at parking positions.	unsure	Relocation aircraft to WGA where possible. Noted in ERSA	Change not yet planned due to review of GA operations on EGA.
Section 9.16.4.4	Western GA Apron Floodlighting, 5 lux required at parking positions.	Early 1990s	Remarked bays to maximise lighting. Noted in ERSA	2022 WGA area identified for development

Applicable MOS Standard	Facility & Non-Compliance	Date of installation	Interim Safety Measures	Expected date of compliance with current Standards
Section 9.13.2	Taxiway and EGA Apron lighting	Early 1990s	Noted in ERSA for pilots to exercise caution	2020 depending on review of GA operations on EGA.
Section 6.5.3	EGA some locations exceed slopes specified in Mos 139. This is to reduce accumulation of water.	1970's	Will be noted in ERSA. Local operators use this area and are aware of level changes.	Change not yet planned due to review of GA operations on EGA.
Section 6.2.25	RESA non-conforming to MOS 139	1990s	Future planning with Mackay Regional Council on road and drainage network in this area	Mackay Regional Council currently in progress of redesigning road network in this area
Section 8.5.20	Keyhole marking. Additional stop bars provided on some bays.		Not all aircraft are marshalled on to positon. The addition of stop bars are to ensure correct stopping position	Change not planned.

PART 2	AERODROME ADMINISTRATION AND OPERATING PROCEDURES
SECTION 02	AERODROME EMERGENCY PLAN

The Mackay Airport *Aerodrome Emergency Plan* (AEP) is a separate, controlled document, published and distributed independently of the Airport Operations Manual.

The Aerodrome Emergency Committee (AEC) has prepared the AEP in compliance with MOS 139 Sections 10.7 and 8.

3.1 GENERAL

This chapter contains information relating to the procedures for the inspection and maintenance of the aerodrome lighting, including obstacle lighting and the supply of stand-by power. MOS 139 Chapter 9, 'Visual Aids Provided by Aerodrome Lighting', provides the basis for all new and existing lighting facilities at Mackay Airport. All lighting systems are planned, installed, commissioned and maintained in accordance with MOS 139 Standards.

MAPL has produced its own *Electrical Maintenance Manual* which is a separate supporting document published independently of the *Airport Operations Manual*. The *Electrical Maintenance Manual* provides details of all lighting systems at Mackay Airport and how they are maintained. Copies are available on request from MAPL.

Records relating to the commissioning of the airport lighting system are maintained in MEX.

3.2 EXISTING LIGHTING FACILITIES

3.2.1 Runway Lighting

Runway 14/32 is fitted with a medium intensity runway lighting (MIRL) system. The system has 3 stages of intensity.

3.2.2 Precision Approach Path Indicator (PAPI) System

Runway 14/32 is fitted with a PAPI system. Each system has 6 stages of brightness. PAPIs are 3.0 degrees at 53.3ft.

3.2.3 Taxiway Lighting and Holding Points

Taxiways A, B, E and are fitted with green and yellow centreline lighting and flush yellow holding point lights.

The activation of Runway 14/32 lighting also activates the lighting on taxiways A, B ,E, H and J.

3.2.4 Illuminated Wind Indicator (IWI)

Three illuminated wind indicators are provided. All wind socks are coloured white.

3.2.5 RPT Apron Floodlighting

High mast floodlighting is provided on all RPT parking positions on the RPT Apron Area. The apron floodlights are activated by way of a photo-electric (PE) cell during hours of darkness or low visibility.

3.2.6 GA Apron Floodlighting

The Eastern and Western GA apron areas are partially lit by floodlights.

3.2.7 Aerodrome Frequency Response Unit (AFRU) + Pilot Activated Lighting (PAL)

An AFRU + PAL system is provided for use when the Control Tower is unmanned. The PAL system activates the following airport lighting facilities:

(a) Runway and Taxiway lighting systems.
(b) PAPI system.
(c) Primary illuminated wind indicator.

(d) Runway 14 RTILs.

3.2.8 Runway Threshold Identification Lights (RTILs)

RTILs consist of two white strobe lights located adjacent to the Runway 14 Threshold and are activated in conjunction with the 14/32 Runway lights. The RTILs have 3 stages of brightness.

3.2.9 Aerodrome Beacon

The aerodrome beacon is owned, maintained and operated by Airservices Australia. It flashes alternating white and green lights over an 8 second period.

3.2.10 Space Movement Area Guidance Signs (MAGS)

Lighting for the illuminated runway designation signs and taxiway location
s signs on RWY 14/32 is controlled by the associated runway lighting system.

3.3 LIGHTING INSPECTIONS

3.3.1 Inspection Schedule

Inspections completed by the MAPL Electrical Contractor are at various intervals for different facilities, i.e. fortnightly, monthly and annual inspections. A detailed lighting inspection schedule for the MAPL Electrical Contractor is included within the Mackay Airport *Electrical Maintenance Manual*.

3.3.2 Notification of Works and Unserviceability's

Before maintenance or rectification work takes place on Aerodrome Lighting Systems, the Works Supervisor or Electrical Contractor shall advise ATC:

- The time maintenance or rectification work is to take place;
- Expected duration of works;
- Recall times for facilities to be removed from service, if applicable.

During inspections if faults are found in lighting facilities that will render equipment unserviceable ATC shall be notified of:

- The nature of the fault
- Expected unserviceability times
- When the facility is returned to service.

NOTAMS shall be actioned as required by the ASO.

3.3.3 Daily Lighting Serviceability Inspections

Lighting serviceability inspections are conducted by the ASO on commencement of each AM shift and at last light on each PM shift. These inspections incorporate a visual check of all the aerodrome lighting facilities in accordance with the Daily Serviceability Inspection Checklist referred to under Chapter 6.

The time of each inspection shall be recorded in the ASO logbook, together with any unserviceability.

Unserviceability's found on the aerodrome shall additionally be handled as follows:

1. A Faults and Services Request shall be raised electronically by the ASO for each unserviceability; except that unserviceability's of the same type may be grouped on the one request (e.g. four U/S runway edge lights may be grouped on the one Faults and Services Request).

2. Advise MAO or SAS to engage Electrical Contractor.

3. When the Electrical Contractor has repaired the unserviceability, they will confirm the outcome with the ASO. Once rectified, the ASO shall close the fault.

The ASO shall advise ATC of any unserviceability that may affect their operations and shall raise NOTAMS as necessary.

3.3.4 Electrical Technical Inspections

An Electrical Technical Inspection is an inspection of aerodrome facilities to ensure that any deterioration that could make a facility unsafe for aircraft operations is detected. These inspections are carried out by the MAPL Electrical Contractor at various intervals as stipulated in the Mackay Airport *Electrical Maintenance Manual*.

Should any corrective action, as a result of a routine inspection, not be able to be completed, the Electrical Contractor shall report this to the ASO. The inspection at CASR 139.230 must include:

a) An inspection and testing of the aerodrome lighting and electrical reticulation systems, including the PAPI system;

Details of corrective action taken during all inspections is recorded on the appropriate form within the *Electrical Maintenance Manual* and kept on file by the Manager Airport Assets. However, where corrective action on an unserviceable item cannot be taken and the unserviceability would require a NOTAM to be raised, the SAS or ASO shall be advised immediately to enable them to raise a Faults and Services Request and to issue an appropriate NOTAM.

3.4 ELECTRICAL MAINTENANCE

3.4.1 Routine Maintenance

Routine maintenance can be carried out during all inspections.

Details of repairs made during routine maintenance are recorded on the applicable form within the *Electrical Maintenance Manual* and kept on file by the Manager Airport Assets.

The operating manuals for the MAPL terminal emergency stand by generator, PAL and AFRU systems are kept in the MAPL Office.

The operating manuals for the main Airservices Australia Generator are located in the Airservices Australia office.

3.4.2 Emergency Maintenance

Emergency Maintenance is required when a lighting system is deemed unserviceable, as detailed in the Electrical Maintenance Manual. When required, the Electrical Contractor will be notified of urgent electrical failures by telephone (Electrical Contractor available 24/7). Telephone advice will be followed up with a Faults and Services Request at the earliest opportunity and actioned as per standard procedures.

If faults are found that will render equipment unserviceable, the ASO shall raise an appropriate NOTAM and if ATC is active, advise them accordingly.

3.5 LIGHTING OPERATION

3.5.1 Lighting Activation

Airport lighting may be activated by the following means:

(a) By ATC from the Control Tower.

(b) By the PAL system using Local or Remote activation

(c) By Airport Electrical Contractor using local control from airport lighting equipment cubicle for maintenance purposes. (Agreement shall be arranged with ATC before any local controls are used).

3.5.2 PAL Activation

There are two means of activating the PAL:

REMOTE – from the air or ground, and LOCAL – a control switch on the ground.

REMOTE Select Tower/CTAF frequency 124.5 MHz, press the "Press to Talk" button 3 times (3 one second pulses within a 5 second period). The PAL will activate on receipt of this code.

LOCAL The system can be manually activated by:

1. a push button switch mounted on the wall airside on the old terminal building in the Eastern GA area;

2. A manual switch located in the airport lighting room.

Once activated by PAL, lights will operate for 30 minutes then switch off. During an operating cycle, the operation by remote or local methods will reactivate the PAL for another period of 30 minutes. When 10 minutes remain during an activation cycle, the primary IWI will start flashing and the AFRU will provide verbal advice that there is 10 minutes remaining.

During CTAF hours, the AFRU is activated by both voice modulation and PAL activation.

Lighting intensities during PAL activation are as follows:

Mackay Airport PAALC - Lighting Intensities										
Setting	Circuit	State		Intensity						
		On	Off	1	2	3	4	5	6	
Daylight	Runway 14/32 Circuit A									
	Runway 14/32 Circuit B									
	Taxiway Lights									
	14 PAPIs									
	32 PAPIs									
	Aerodrome Beacon									
	Primary IWDI									
Twilight	Runway 14/32 Circuit A									
	Runway 14/32 Circuit B									
	Taxiway Lights									
	14 PAPIs									
	32 PAPIs									
	Aerodrome Beacon									
	Primary IWDI									
Night	Runway 14/32 Circuit A									
	Runway 14/32 Circuit B									
	Taxiway Lights									
	14 PAPIs									
	32 PAPIs									
	Aerodrome Beacon									
	Primary IWDI									

3.6 STANDBY POWER SUPPLY

3.6.1 Main Airservices Australia Generator

All airport lighting facilities except apron floodlights and the Runway 14 and 32 WDI receives its electrical power (and is controlled) by way of an Airport Lighting Equipment Room (ALER) located in the Air Services Control Tower complex. This is provided with stand-by power from the emergency stand by generator located within the control tower complex. The standby, diesel powered generator is fully automatic and will assume full load within 10-15 seconds of primary power failure. The generator is owned, operated and maintained by Airservices Australia. If the stand by generator becomes unserviceable, Airservices Australia shall advise MAPL and raise the appropriate NOTAMS.

3.6.2 MAPL Terminal Stand By Generator

The MAPL terminal stand by generator provides stand by power to the passenger terminal building facilities, the RPT apron flood lights and the Runway 32 WDI. The Runway 14 WDI is not provided with standby power from any source.

This generator is located adjacent to the baggage conveyor systems. It is fully automatic and will assume full load within 10-15 seconds of primary power failure. This generator is owned and operated by MAPL but maintained by a Contractor as arranged by MAPL.

3.6.3 PAL Failure

Whenever the PAL system fails:

1. If failure detected by Airservices Australia, ASO to be advised;
2. If failure detected by Electrical Contractor, ASO to be advised;
3. If failure detected by ASO, Electrical Contractor and Airservices to be advised;
4. The ASO shall raise a Faults and Services Request;
5. The ASO shall advise Airservices Australia;
6. The ASO shall arrange for a NOTAM if repair is not expected before nightfall.

3.7 LIGHTING COMMISSIONING

All lighting systems will be commissioned as defined in the Manual of Standards Chapter 9, Section 9.1.15 ‘Commissioning of Lighting Systems’. Copies of commissioning test reports are held by the Manager Aviation Operations and the Manager Airport Assets.

3.8 OBSTACLE LIGHTING

Permanent obstacles significant to Mackay Airport are:

1. Floodlight adjacent Gate 12 lit by red medium intensity obstacle light (red MIOL) – located adjacent to HLS. Does not infringe the OLS.	
2. Floodlight adjacent Freight Apron lit by red medium intensity obstacle light (red MIOL) – located north of RPT Apron (does not infringe the OLS).	
3. Mt Oscar, Sea-Com Mast, lit by red MIOL - located on left base Runway 14, infringes Conical Surface. Details: height 123.31m (405ft) AMSL, bearing 351° 35' 8", 3.33NM from ARP. Latitude S21° 7' 5.14" Longitude E149° 10' 8.6". It is owned, operated & maintained by Telstra. The mast has twin functioning independent systems that are activated by light sensor, and is also on standby emergency generator power. The operation is checked by Telstra on a weekly basis.	**Cris Reinke** on 0427 642 031
4. Racecourse Mill Smoke Stack, lit by red MIOL - located on right base runway 14, infringes Conical Surface. Details: height 74.52m (245ft) AMSL bearing 281° 37' 27", 2.57NM from ARP. Latitude 21° 9' 53.87" Longitude 149° 8' 0.35"	**Nick Harry (Factory Manager)** on 0417 186 422/07 4953 8553
5. Ergon Tower – lit at Ergon Compound Communication Tower. Details: height 51.39, (169ft) AMSL 1 metre below transitional surface. 2430m from Runway 14 Threshold. Brg: 309. Latitude: 21°08'48.49" Longitude: 149°09'40.95"	**Jackii Cole (Ergon)** On 07 4957 1338

The MIOLs are checked daily by the ASO as per the Aerodrome Daily Inspection checklist in Annex B Chapter 6. If a MIOL is not functioning the ASO shall:

- contact the Electrical Contractor to effect repair for the on-aerodrome MIOL, or
- report the unserviceability to the persons nominated above for off-aerodrome MIOLs
- During ATC hours, inform ATC who should issue a NOTAM for off-aerodrome unserviceability's.
- During CTAF hours, raise a NOTAM for off-aerodrome unserviceability's.

3.9 KEY PERSONNEL – ROLES AND RESPONSIBILITIES

General Manager – responsible for:

- The planning, installation, operation and maintenance of all aerodrome lighting and electrical facilities on the airport in accordance with CASR.

MAO: – responsible for:

- Ensuring that aerodrome lighting systems are planned, installed and maintained in accordance with the MOS 139 as required by CASR 139.190 & 195.
- Ensuring that daily, technical inspections are carried out and their results appropriately recorded and arranging for any necessary remedial work to be undertaken without undue delay.
- Ensuring that procedures are in place for the formal commissioning of new or repaired lighting systems as described in MOS 139 Section 9.1.15.
- Ensuring that electrical contractors working on the aerodrome are appropriately qualified and suitably experienced in aerodrome operational lighting facilities and installations.

SAS – responsible for:

- Identifying the operational situations that require the issue of a NOTAM and initiating same.
- Ensuring that at the completion of works on the runway lighting system, the ASO carries out a functional check of the system prior to releasing it into service.
- Assistance and supervision of ASOs with the formulation of NOTAMS.
- Overseeing unserviceability's and repairs through the Faults and Services Request system.
- Liaise with electrical contractor to identify appropriate times for routine and emergency maintenance.

Electrical Contractor – responsible for:

- On request from MAPL, maintain airport lighting facilities by undertaking appropriate checks through routine and emergency maintenance and technical inspections as per the *Electrical Maintenance Manual.*
- Advise the ASO of the results of all routine and emergency maintenance carried out.
- Recording the results of all technical inspections associated with the Mackay Airport Lighting facilities on the appropriate form and provide to Manager Airport Assets.
- Undertaking repairs to airport lighting facilities as a result of routine or technical inspections.
- Undertaking emergency maintenance works when necessary as requested by MAPL.
- Notifying ATC prior to any maintenance works as per section 3.3.2.

ASO – responsible for:

- Carrying out, and recording the results of daily visual inspections of aerodrome lighting facilities including obstacle lighting in order to monitor serviceability.
- Recording details of any lighting/electrical unserviceability's in the aerodrome logbook and raising a Faults and Services Request;
- Identifying the operational and/or emergency situations that require the issue of a NOTAM and initiating same. Issue and filing of NOTAM and appropriate paperwork in NOTAM folder in ASO office.
- Advise MAO or SAS and ATC of any identified unserviceability of the Airfield Lighting System.
- On confirmation from the electrical contractor on completion of works on the Airfield Lighting System, carrying out a functional check of the system prior to releasing it into service and cancel associated NOTAMs and close the fault in the Faults and Services Request system.

Manager Airport Assets –responsible for:

- Reviewing and amending the Mackay Airport *Electrical Maintenance Manual*.
- Administer the Electrical Maintenance Manual by checking and filing information recorded by the Electrical Contractor after performing technical inspections.
- Arranging for the Electrical Contractor to conduct works in accordance with the schedule outlined in the *Electrical Maintenance Manual* and ensuring works are complete.
- Ensuring that Airservices Australia carries out routine maintenance on the emergency stand by generator located in the tower complex.
- Ensuring that the nominated contractor carries out routine maintenance on the Terminal Emergency Stand by Generator.
- Undertake any follow up actions required as the result of routine inspections.

Airservices Australia – responsible for:

- Carrying out routine maintenance on the emergency stand by generator and providing inspection and maintenance records to MAPL.

3.10 CONTACTS

The names and telephone numbers of the General Manager, MAO, SAS, ASO, MAA, Electrical Contractor and Airservices Australia personnel are found in the Telephone Contact List at Part 2 of this Manual.

For **call out requirements on critical faults**, the following contacts are identified:

Mackay Airport Pty Ltd (In Order)

1.	SAS or	0418 570 232 (Mobile)
	MAO	0407 570 208 (Mobile)
2.	Electrical Contractor	0407 788 758/0400 152 976

4.1 GENERAL

Aerodrome Reporting is the notification of changes to the published aerodrome information or any other occurrence or emergency affecting the availability of the aerodrome and safety of aircraft using the aerodrome. This chapter deals with the arrangements for reporting any changes that may affect aircraft operations to the Aeronautical Information Service (AIS), the Australian NOTAM Office and local air traffic control.

4.2 CHANGES/OCCURRENCES TO BE REPORTED

4.2.1 Temporary Changes

Temporary changes plus planned works that may affect the safety of aircraft operations will normally be detected during the Daily Aerodrome Serviceability Inspection or they may result from an incident.

During ATC hours, the ASO shall advise ATC immediately of such changes and must be reported to the NOTAM office.

During CTAF hours, the ASO shall either raise a NOTAM or request the Australian NOTAM Office (NOF) to issue a NOTAM. ATC shall be notified as soon as practicable.

NOTAMS raised by ATC or the NOF after verbal advice must be checked for accuracy and amended if necessary.

The occurrences that must be reported are listed in MOS 139 Section 10 paragraph 10.3.2.2.

NOTAM Office Contact:
Telephone: 02 6268 5063, Fax: 02 6268 5044
Email: nof@airservicesaustralia.com

The formulation of more complex NOTAMS such as alterations to declared distances shall be carried out by the MAO or SAS.

Action taken for temporary changes shall be fully detailed in the ASO Logbook.

4.2.2 Permanent Changes

The MAO or his delegate is responsible for arranging changes when any operational information published in the AIP is or will be incorrect. When the changes will not have an immediate effect on aircraft safety**,** advice will be sent to Airservices Australia AIS at the following address:

Airservices Australia
Attention: Aeronautical Information Service
GPO Box 367
Canberra ACT 2601
Telephone: 1300 301 120
Facsimile: 02 6268 5693.
Email: docs.amend@airservicesaustralia.com
AIS should be advised whether or not you have notified the change to the NOTAM Office.

For permanent changes that will affect aircraft safety, raise a NOTAM as per normal procedures and send a copy to AIS with advice that the NOTAM has also been sent to the NOTAM Office.

Copies of any amendments and NOTAMS issued shall be forwarded to:

Civil Aviation Safety Authority
Attention: Aerodrome Inspector
GPO Box 2005
Canberra ACT 2601

The *Airport Operations Manual* Part 3 shall be amended, if necessary, to reflect any changes.

Where CASA approval is required prior to bringing a new facility into public use, it is the responsibility of the Mackay MAO to obtain such approval and to then arrange for the issue of a permanent NOTAM to commission the relevant facility, as per MOS 139 Section 10.3.4 (Permanent NOTAM).

4.3 ORIGINATING AND DISPATCH OF A NOTAM

4.3.1 General

The originating and dispatching of NOTAMS is described in MOS 139 Sections 10.3 to 10.5.

4.3.2 Originator

The following personnel may originate and dispatch a NOTAM for the Mackay Airport as per the information provided to the NOTAM office:

Name	Position	Contact
Philip Clark	Manager Aviation Operations	0407 570 208
Jason Horton	Supervisor Airside Safety	0418 570 232
Shane Hokins Brandon Ford Dale Parker David Annear	Airside Safety Officers	0418 570 233
Rick Huriwai	Manager Operations (Cairns)	0412 314 116
Colin Evans	Airside Operations Manager (Cairns)	0400 508 097

4.3.3 Initiating a NOTAM

NOTAMS will be raised by using the Airservices Australia NOTAM Request Form located at http://www.airservicesaustralia.com/wp-content/uploads/NOTAM-Request-Form.pdf NOTAMS are to be raised in accordance with MOS 139 Section 10.3 *'Initiating a NOTAM'*.

4.3.4 NOTAM Follow-up

Whenever a NOTAM is raised, the ASO is to check the NOTAM currency prior to the expiration time and when necessary review or cancel the NOTAM as appropriate.

When changes to an issued NOTAM are made the ASO is to inform the SAS.

4.3.5 Complex NOTAMS

Texts for complex NOTAMS (e.g. those containing revised declared distances and gradient information) will be prepared by the MAO or SAS and details will be checked by these officers respectively. Calculations will be checked by a person other than the NOTAM originator to confirm their accuracy. Upon verifying the integrity of the text, the NOTAM will be submitted via email or fax. Copies of the NOTAM and relevant confirmation details will be kept on file in the ASO office. The NOTAM will be checked again following issue.

NOTAM texts for inclusion in a MOWP are similarly checked and undergo additional checks by operations staff to ensure verification of the calculations of the declared distances.

4.4 Training Of Aerodrome Reporting Officers

The Airport Safety Officers are trained as Aerodrome Reporting Officers.

The SAS shall arrange for the ASOs to be trained in accordance with MOS 139 Section 10.1.3 to enable them to meet the qualifications described in MOS 139 Section 10.6.2.

The SAS shall arrange for all trained ASOs to participate in an assessment of their duties at least once per year.

4.5 Record Keeping

4.5.1 NOTAMS

4.5.1.1 NOTAMS Register

NOTAMS raised by authorised MAPL staff and the NOTAM confirmation shall be filed in the NOTAMS Register located in the ASO office.

4.5.1.2 NOF NOTAMS Register

At the start of each morning shift, the ASO shall access the Airservices Australia website and print out the list of NOTAMS current for Mackay Airport. These printouts shall be filed in the NOF NOTAMS Register located in the ASO office.

4.5.2 AIS Amendments File

All amendments sent to AIS shall be filed electronically on SharePoint.

4.5.3 Aerodrome Reporting Officer Register

The NQA Training Register shows details of the relevant certificates, training and general information of the trained ASOs for the aerodrome. Copies of certificates are kept in personnel files.

4.6 KEY PERSONNEL – ROLES AND RESPONSIBILITIES

MAO – responsible for:

- Ensuring that appropriate procedures are in place to report both permanent and temporary changes to published aerodrome information;
- Checking more complex NOTAMS with the SAS;
- Providing training for Reporting Officers;
- Approving, sending and recording permanent changes of aeronautical information.

SAS - responsible for:

- On-going training of Reporting Officers;
- Ensuring all registers located in the ASO office are actioned correctly;
- Ensuring the data filed in registers by ASOs has been correctly compiled;
- Checking complex NOTAMS with MAO assistance before submission.
- Preparing changes to aeronautical information for MAO.

ASO –responsible for:

- Reporting changes to aerodrome conditions that will impact on the safety of aircraft;
- Entering details of changes to aerodrome conditions in the ASO Logbook and actions taken;
- Initiating NOTAM action as required through the NOF;
- Initiating work related NOTAMS where the text has been included in a formal Method of Working Plan (MOWP).

4.7 CONTACTS

The Telephone Contact Details for the MAO, SAS and ASO's are found in the Telephone Contact List at the beginning of this Manual.

PART 2 AERODROME ADMINISTRATION AND OPERATING PROCEDURES

SECTION 05 UNAUTHORISED ENTRY TO AERODROME

5.1 GENERAL

Mackay Airport is classified as a Category 3, Security Controlled Airport. Therefore, the airport is operated in accordance with the Mackay Airport *Transport Security Program* (TSP), approved by the Department of Infrastructure and Regional Development. The TSP is a separate, controlled, security sensitive document, distributed independently from the *Airport Operations Manual*.

As a Security Controlled Airport, MAPL is subject to audits by the Department of Infrastructure and Regional Development.

5.2 Responsibility of Aircraft Operators & Airport Tenants

Aircraft operators and airport tenants are responsible for controlling access of their passengers to and from aircraft.

5.3 KEY PERSONNEL – ROLES AND RESPONSIBILITIES

General Manager – responsible for:

- Ensuring that appropriate controls are in place to prevent the unauthorised entry to the airfield by persons, vehicles, plant/equipment and animals.

ASO –responsible for:

- maintaining surveillance activities and, as necessary:
- Detect and arrange the removal of unauthorised persons, associated vehicles, plant or equipment from the aerodrome;
- Harass, hunt down, corral, or capture any animal found on the movement area;
- Undertake routine inspections of the aerodrome boundary fence including access gates.

5.5 CONTACTS

The contact details of personnel responsible for unauthorized entry to the Aerodrome are detailed in the TSP.

6.1 GENERAL

This section deals with the importance of timely and disciplined aerodrome serviceability inspections and it provides guidance on how such inspections may be undertaken effectively in accordance with CASR 139.220 and MOS 139 Section 10.2.

6.2 ASO COMPETENCY

MAPL ASOs are authorised to carry out aerodrome serviceability inspections. ASO's must be proficient in the competencies detailed in MOS 139 Section 10.1.3.2 and will be suitably trained to perform the duties of Aerodrome Reporting Officers.

ASOs shall have an Aeronautical Radio Operators Certificate to enable them to communicate with ATC during tower hours and with aircraft during CTAF hours and they will have achieved approximately 3 months on-the-job training before being certified as an ASO. The timing for ASO certification is at the discretion of the SAS or approved delegate.

The SAS shall conduct competency checks on ASOs at intervals not to exceed 12 months or following any periods of extended leave.

6.3 AERODROME SERVICEABILITY INSPECTION SCHEDULE

The MAO through the SAS shall arrange for aerodrome serviceability inspections to be carried out each day by the ASO in accordance with the *Aerodrome Serviceability Guidelines* (Annex A) and the *Daily Aerodrome Serviceability Checklist* (Annex B) is available in SharePoint.

Daily serviceability inspections should be carried out:

- At least 30 minutes before the first daily scheduled RPT movement;
- At first light if initial inspection was carried out during hours of darkness;
- At last light;
- After severe wind or rain storms;
- After an aircraft incident or accident on a runway;
- After a report of foreign objects on or damage to a runway;
- After a reported bird or animal strike;
- After cessation of works on a runway;
- On request from ATC or CASA.

Additionally, the ASO should perform an inspection of the runway immediately prior to periods of RPT jet landings. These inspections shall target FOD on the runway and bird dispersal.

Preferred Inspection Procedure

The procedure that should be employed for major runway inspections is to include a slow drive down one side of the runway, between the centreline and one runway edge, followed by a slow drive in the reverse direction down the other side of the runway, to ensure that pavement coverage is maximized.

6.4 LOGBOOKS

6.4.1 Inspection Register

After completion of the daily aerodrome inspection conducted at last light, the ASO shall file the Daily Aerodrome Inspection Checklist in the Inspection Register located in the ASO office. *Daily Inspection Checklists* shall be retained for at least 2 years.

6.4.2 ASO Logbook

The ASO shall sign on and off in the ASO Logbook at the start and end of each shift respectively. The ASO shall record the time and total detail of each significant aerodrome event that takes place during the period of each shift. These events include as a minimum:

- Routine and additional inspections carried out;
- Routine and additional tasks performed throughout the shift;
- Significant FOD found including evidence of bird strike on runway;
- Reported bird and animal strikes;
- Unserviceability's;
- Any instruction, advice or information passed that is relevant to the ASO duties;
- Parking approval requests.

The ASO Logbook shall be carried in the ASO vehicle so that events can be recorded at the time they occur. The logbook shall be made available for inspection by the SAS, MAO or other authorised persons on request.

Completed log books are retained for a minimum period of 2 years.

6.5 REPORTING AND FOLLOW-UP

A Faults and Service Request (FSR) shall be raised for any unserviceability found during the period of an ASO shift. The ASO shall refer the Faults and Services Request to the appropriate department.

Refer to Section 4 for unserviceability's that require a NOTAM to be raised.

As a result of any reported unserviceability, the MAO after consultation with SAS, may require a technical inspection to determine the extent of the unserviceability and the actions required to rectify the unserviceability.

6.6 KEY PERSONNEL – ROLES AND RESPONSIBILITIES

MAO – responsible for:

- Ensuring that the inspections required by CASRs are undertaken and that they are conducted in an appropriate manner at the required frequencies, and by suitably qualified staff;
- Arranging technical inspections as required;
- Ensuring specific engineering inspections are carried out on a scheduled basis.

SAS - responsible for:

- Initial and on-going competency assessment of ASOs;
- Overseeing the ASO serviceability inspections;
- Monitoring Faults and Services Requests to ensure unserviceability's have been actioned correctly and that follow up action is undertaken promptly.

ASO –responsible for:

- Conducting the aerodrome serviceability inspections in accordance with this manual;
- Logging the results of the inspection in the ASO Logbook.
- Filing the completed *Aerodrome Daily Inspection Checklist* sheets in the Inspections Register;
- Raising Faults and Services Requests as required for unserviceability's and closing them once repaired or rectified;
- Raising NOTAMS as required for unserviceability's;
- Keeping the SAS advised of events considered unusual or significant.

6.7 CONTACT DETAILS

The MAO, SAS and ASO contact details are found in the Telephone Contact List at the beginning of this Manual.

Serviceability Inspection Guidelines

Type of Inspection	When to Look	What to look at/for
Movement Area (Status)	Start of Shift	Current NOTAMs for the airport
		Current MOWPs and works permits issued for the movmenet area.
		Matters highlighted in the log book or on the serviceability inspection checklist from the previous shift.
		Daily Parking Requests
		Crane Notification Applications
Runways	As soon as poosible after first light (at least 30 minutes before the 1st RPT movement where possible), before last light, before periods of RPT movements, following an incident and on specific request	Debris on the runway
		Fuel or oil spillages
		Markings are correct
		Pavement deterioration
		Lights are functioning
		No obstructions on clearways or runway end safety areas
		Bearing strength and riding quality
		Obstacle Limitation Surfaces
Runway Strip	Daily	Undue roughness
		Obstructions
		Grass height
		Boundary Markers
		Visual Aids not obscured by grass
Taxiways & Taxiway Strips	Daily	Debris on taxiways
		Pavement deterioration
		Shoulder erosion
		Grass height
		Markings are correct
		Lights are functioning
		Obstructions, pot holes, open trenches etc.
Aprons	Daily	Debris, loose stones
		Fuel or oil spillages
		Pavement deterioration
		Markings are correct
		Lights are functioning
		Aircraft and ground handling equipment parked correctly
		Refuelling operations
		Vehicle control/conduct
Perimeter Fence	As soon as poosible after first light, before last light	Signs of unauthorised entry
		Kites or balloons etc. being flown
		Any open or unsecured gates
		Crash gates are not obstructed or blocked
Obstacle Limitation Surfaces	Daily	Approach/take off climb surfaces are clear
		Transitional surfaces are clear
		Obstructions are marked and lit
Bird & Wildlife Hazard	Daily	Presence of any animals on airfield
		Bird movements in the vicinity of the airport
		Bird dispersal/harassment
Aircraft tie-downs	Daily	Section of tie down restraints to be inspected on a daily basis to encompass all tie downs in one week

ANNEX B – DAILY AERODROME INSPECTION CHECKLIST

Mackay Airport
Daily Aerodrome Inspection Checklist

Date					
AM Inspected By Name:		Time:		Signature:	
PM Inspected By Name:		Time:		Signature:	
Weather Conditions AM:					
Weather Conditions PM:					

SERVICEABILITY INSPECTION	*AM*	*PM*	*SERVICEABILITY INSPECTION*	*AM*	*PM*
RUNWAY & RUNWAY STRIP SURFACES			RUNWAY & TAXIWAY LIGHTING		
Are all pavements clean and tidy?			Any runway lights or lenses unserviceable?		
Any surface softness or excessive grass height?			Any broken fittings or cracked lenses?		
Any rutting, scouring or drainage problems?			All threshold lights show GREEN		
Are all pavement markings in good condition?			All runway end lights show RED		
Are all cones and/or gables in good condition?			All taxiway edge & centre lights show BLUE		
Is any grass obscuring markers?			All apron edge lights show BLUE		
Is RWY 14/32 serviceable?			All taxiway lead lights show GREEN		
			All taxiway centre line lights show GREEN		
			All holding point lights show ORANGE		
WIND INDICATORS & SIGNAL CIRCLE			All runway edge lights show WHITE		
Are all the socks in a serviceable condition?			Are lenses/filters clean & free of water inside?		
Do wind socks swing freely?			Are any lights obscured by grass growth?		
Are circle backgrounds dark & free of weeds?					
Correctly marked & all cones in good order?			Are illuminated MAG Signs operable?		
TAXIWAY & APRON AREAS			ILLUMINATED WIND SOCK & APRON LIGHTS		
Are all pavements clean & clear?			Primary windsock lights come on with runway lights?		
Are pavement markings & cones in good condition?			Are all the windsock lamps in working order?		
Any broken lights or lenses observed?			Are apron lights in good condition & operational?		
Any drainage problems observed?					
			AFRU/PAL		
APPROACH & TRANSITIONAL SURFACES			Is the ARFU/PAL system serviceable? (124.5)		
Any new obstructions/infringements observed?			ARFU responds correctly to radio transmissions?		
			Lights active 30 mins, then off, IWI flash last 10 minutes?		
BIRD & ANIMAL HAZARDS					
Is there any unusual number of birds present?			PAPI		
Any kangaroos, pigs or other animals observed?			Is the PAPI system serviceable?		
UNSERVICEABLE MOVEMENT AREAS			RUNWAY THRESHOLD IDENTIFICATION LIGHTS		
Are there any unserviceable areas?			Do both lights strobe in unison and show white?		
			HAZARD LIGHTS & BEACONS		
ACFT EMERGENCY/ACCIDENT/INCIDENT?			Are all hazard lights & beacons in working order?		
PERIMETRE FENCE					
Any breaks in fence or parts of fence collapsing?					
Any gaps under fence which permit animal/human entry?					
Any open gates?					
NOTAMS – any to be raised/reviewed?					
FSR Raised (if yes, number noted ->)					

COMMENTS/NOTES/ACTIONS: Please ensure an FSR is raised for any unserviceabilities. **MAO & SAS** to be notified also.

✓ Indicates **Yes** answer ✖ Indicates **No** answer

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PART 2 AERODROME ADMINISTRATION AND OPERATING PROCEDURES

SECTION 7 AERODROME TECHNICAL INSPECTIONS

7.1 GENERAL

Mackay Airport Aerodrome Technical Inspections are a diagnostic inspection of aerodrome facilities to ensure that any deterioration that could make a facility unsafe for aircraft operations is detected, as required under CASR 139.230.

7.2 WHEN TO INSPECT

Aerodrome Technical Inspections must be carried out at intervals of not more than 12 months and when required as a result of the findings of the aerodrome serviceability inspections. Parts of the technical inspection may be carried out at different times from the other parts. Each part of the technical inspection must be carried out at intervals of not more than 12 months.

Further technical inspections may be necessary as a result of a serviceability inspection. This is when a particular aerodrome facility requires further or more detailed assessment.

7.3 WHO CAN INSPECT

Technical inspections shall be carried out only by persons who meet the requirements of CASR 139.240.

The MAO shall arrange and brief suitable qualified persons to carry out the Annual Technical Inspections on Mackay Airport.

7.4 DETAILS OF THE INSPECTION

The Technical Inspection shall include all areas specified in CASR 139.230 and include:

a) an instrument survey of the approach, take-off and transitional surfaces;

b) an inspection of records relating to the testing of the aerodrome lighting and electrical reticulation systems, including the visual approach slope indicator;

c) an inspection of records relating to electrical testing of any earth points at the aerodrome;

d) an inspection and assessment of the movement area pavements and drainage;

e) an inspection of signs on the movement area;

f) an inspection of aerodrome procedures used for any of the following:

   i. aerodrome emergencies;

   ii. the handling of hazardous materials;

   iii. birds and animal hazard management;

   iv. stand-by and emergency aerodrome lighting,

   v. airside vehicle control arrangements (if any);

g) a check of the currency and accuracy of:

   i. aerodrome information published in AIP; and

   ii. Aerodrome operating procedures specified in the *Airport Operations Manual* for the aerodrome.

The inspection must comply with all applicable standards for Aerodrome Technical Inspections set out in the Manual of Standards 139.

Details of Electrical Technical Inspections are described within the MAPL *Electrical Maintenance Manual*.

MAPL will ensure that any persons appointed to undertake technical inspections hold the appropriate license or qualification and are competent in undertaking the inspection.

7.5 RECORD KEEPING

Annual Technical Inspection Reports are kept in SharePoint. The reports must be kept for at least 3 years after an inspection and must be made available to CASA Officers for audit purposes and to persons conducting the Annual Technical Inspections.

7.6 FOLLOW-UP ACTIONS

The MAO is responsible for drawing up a Corrective Action Plan to show CASA how MAPL intends to action recommendations resulting from a technical inspection. The Corrective Action Plan will be filed and cross-referenced to the applicable Technical Report.

7.7 KEY PERSONNEL – ROLES AND RESPONSIBILITIES

The MAO is responsible for ensuring that Annual Technical Inspections required for items detailed under CASR 139.230 are undertaken in a timely manner by persons having the qualifications detailed in CASR 139.240.

7.8 CONTACT DETAILS

The contact details of the MAO are found in the Telephone Contact List at the beginning of this Manual

8.1 GENERAL

This chapter identifies the procedures for planning and safely carrying out aerodrome works including those works that may have to be carried out at short notice. The procedures are governed by specific conditions stipulated in MOS 139 Chapter 10.10 and regulated in CASR 139.245.

8.2 AERODROME WORKS

All works shall be conducted under the supervision and control of a Works Safety Officer whose functions are detailed in MOS 139 Section 10.12.

Aerodrome works may be conducted in a number of ways, depending on the characteristics and magnitude of the works and/or the circumstances that demand the work to be carried out. For these reasons, aerodrome works may be categorized as:

a) Planned works, comprising:
   - Time limited works (during which there are no disruptions to normal aircraft operations).
   - Works subject to a Method of Working Plan (MOWP), during which works will disrupt aircraft operations;
   - Unrestricted works (during which the aerodrome is closed to aircraft operations).

b) Unscheduled emergency works (i.e. unplanned works), made necessary at short notice in order to:
   - Re-instate an unserviceable portion of the movement area, or
   - Remove (or compensate for the presence of) an unplanned temporary obstacle.

The MAO shall take all reasonable measures to ensure that the works organisation carries out aerodrome works in a manner that will ensure the safety of aircraft operations, and shall ensure that persons, vehicles, plant and equipment required for carrying out aerodrome works are not permitted to enter the movement area or remain on it, except for the purposes of carrying out those works. All work areas will be identified by the appropriate markings.

8.3 TIME-LIMITED WORKS ARRANGEMENTS

Aerodrome Works may be carried out as time-limited works if normal aircraft operations are not disrupted, the movement area can be restored to normal safety standards and any obstacle created by those works removed in not more than 30 minutes.

A dedicated WSO is not required for time limited works, if one of the persons carrying out the works is trained and qualified to perform the functions of a WSO.

Time-limited works include the following:

a) Maintenance of markings and lights;

b) Grass mowing;

c) Rolling surfaces;

d) Sweeping pavements;

e) Minor repairs to pavements; and

f) Surveys and inspections

As requested by CASA, and unless otherwise agreed by ATC, the MAPL will conduct time limited works subject to the following conditions:

a) Works at night (or when visibility is less than 5 km) shall take place only if normal safety standards can be restored to permit aircraft operations to take place without delay.

b) Works that need more than 10 minutes in which to restore normal safety standards will be notified by NOTAM at least 24 hours before works commence.

c) Works shall cease and normal safety standards restored when necessary to allow an aircraft to operate at least 5 minutes before the scheduled or notified time of operation.

d) Works that have ceased to permit aircraft operations to take place shall be resumed:

- Immediately after the aircraft arrival (inbound aircraft)
- 15 minutes after the aircraft departure.
- 30 minutes after the time scheduled or notified for the arrival (when a new ETA is established.

ATC may, at the request of MAPL, vary these time limits subject to conditions).

All Time-limited works shall be co-coordinated through the SAS or ASO, who will consult with ATC, Works Safety Officer, work organizations and issue NOTAMS as required.

8.4 WORKS WITHIN RUNWAY STRIPS

Under specific conditions, works may be undertaken within a runway strip while the runway remains available to normal operations. Such works are normally confined to runway lighting or PAPI maintenance.

MAPL shall ensure works within runway strips are in accordance with MOS 139 Section 10.10.12:

- Works shall take place at any one time only on one side of the runway;
- Plant and vehicles shall vacate the runway strip when aircraft are operating on the runway;
- Loose material likely to be affected by propeller or jet blast shall be removed;
- Other materials that have to be left within the runway strip (e.g. soil, gravel, signs, lights etc.) shall not exceed a height of:
- 1 metre if within 23 metres of the runway shoulder
- 2 metres if further than 23 metres from the runway shoulder
- Machine cut trenches shall not be wider than 100mm or longer than 280 metres;
- In the case of other than machine cut trenches, the works area at any one time shall not exceed:-
- 9 square metres if within 23 metres of the runway shoulder
- 18 square metres if further than 23 metres from the runway shoulder.

These procedures permit men with hand tools to work up to the runway shoulder and remain there during aircraft operations. The following additional conditions shall be adhered to:

Zone 1 within 23 metres of the runway shoulder:

- work will be under control of a dedicated Works Safety Officer who is in continuous radio contact with ATC
- work will not take place during operations by wide-bodied aircraft
- work will not take place if the mean cross wind component is greater than 10 or 15 knots

- work will not take place in conditions of low cloud or visibility (cloud base less than 900ft, visibility less than 4000m)
- work will not take place if the runway is wet.

Zone 2 23m from runway shoulder to outer edge of graded runway strip:

- as for Zone 1, except the Works Safety Officer may be a member of the works party

All works within the runway strips including men and hand tools shall be coordinated through the SAS, who will consult with ATC, ASO's and works organizations and arrange issue of NOTAMS as required.

8.5 METHOD OF WORKING PLAN (MOWP)

A Method of Working Plan (MOWP) is a document that provides formal advice to the aviation industry (and other interested agencies) regarding the planned arrangements for conducting aerodrome works, other than time limited works, that will affect normal aircraft operations. In particular, a MOWP advises of restrictions placed on aircraft operations and on the organizations carrying out the works.

The MAO or delegate is authorised to sign off on MAPL MOWPs. Only the approved MOWP Template is to be used for compiling MOWPs, located on SharePoint.

8.5.1 MOWP Preparation

When MAPL is contemplating works requiring a MOWP, the MAO, SAS and the Project Manager will discuss the nature of the works and determine desirable options (if any) for the conduct of the works. The MAO, SAS and Project Manager will then consult with all organisations that may be affected by the proposed work as required.

Once the in-principle agreement has been reached between MAPL and the airport users, the MAO, SAS or Project Manager shall prepare a draft MOWP for comment from relevant stakeholders. The MOWP shall incorporate all the requirements stipulated in MOS 139 Section 10.11.

8.5.2 MOWP Approval

The MOWP shall be approved by the MAO or delegate prior to any works commencing.

8.5.3 MOWP Distribution

MAPL should issue the MOWP at least 14 days before the work is to commence. If this target is not met, other formal notification of the MOWP contents shall be provided to the relevant parties. MOWPs are issued on a case by case basis where required.

The MAO is responsible for the distribution of the final MOWP to relevant parties. Contact details are provided in Annex A to this section.

8.6 UNRESTRICTED WORKS

The MOWP is not required if the aerodrome is closed to aircraft operations while major works are being carried out.

Such an option will not normally be considered at Mackay Airport unless the impact of such a closure could be justified on the basis of overall benefit to the airlines and/or other operators.

8.7 UNSCHEDULED EMERGENCY WORKS

An MOWP is not required for the conduct of emergency aerodrome works.

Emergency works could include:

- Repairs to unforeseen damage to the movement area surfaces
- The removal of an obstacle that was erected without MAPL prior knowledge or approval.

8.8 AERODROME WORKS SAFETY OFFICER (WSO)

All ASOs who meet the competency requirements of MOS 139 Section 10.1.3.2 and who are suitably trained and competent as MAPL ASO's also meet the competency requirements for carrying out WSO duties. The MAO or delegate shall appoint WSOs from its pool of ASOs or arrange for other suitably trained and competent persons to undertake WSO duties.

The SAS shall conduct competency checks on WSOs at intervals of approximately 12 months or as required.

The WSO shall perform the functions detailed in MOS 139 Section 10.12 'Functions of a Works Safety Officer'. Each MOWP will detail the duties of the WSO relevant to a specific project.

8.9 WORKS RELATED NOTAM TEXT

As detailed in Paragraph 4.3.5, text for more complex NOTAMS including NOTAM text included in MOWPs, are prepared by either the MAO or the SAS. The wording, is the relevant revised declared distances and any other data is then checked and signed off by the other officer before details are promulgated.

For planned works requiring a MOWP, the NOTAM text shall be included in the MOWP.

8.10 COMMUNICATION WITH ATC

During the conduct of aerodrome works, MAPL WSO shall be in continuous radio contact with Mackay ATC via 121.7MHz or 124.5MHz or outside ATC hours on the CTAF frequency 124.5MHz.

The WSO shall:

- At the commencement of works each day or night, notify ATC of the start time and duration of works and confirm that the conditions of the relevant NOTAM are being invoked.
- Obtain from ATC the necessary clearances to enter the portions of the movement area to be closed for the works in order to:
  - lay out the appropriate markers/lighting, and
  - permit entry of works organization personnel
- Notify ATC of recall times (if applicable) and of any change in the status of the works
- Obtain from ATC details of any anticipated early aircraft arrival times in order to ensure timely and appropriate restoration of and clearance from affected areas.
- If outside ATC hours, broadcast these calls on CTAF.

In respect of aerodrome works whose timing is critical (whether conducted under a MOWP or not), the WSO or SAS shall brief ATC (when active) beforehand to ensure that the duty air traffic controllers have a thorough understanding of the nature of the works.

MAPL recognizes the importance of working closely with ATC staff in order to achieve safe and effective progress of aerodrome works.

8.11 PERMIT TO COMMENCE WORKS (PERCOW)

MAPL has in place a management system in relation to all works that take place on the airport in order general to:

- Ensure an appropriate approval process is in place, and
- Stipulate specific conditions for the works.

This system requires all works (whether they are defined aerodrome works or not) to be approved by the relevant MAPL Manager by way of a Permit to Commence Work (PERCOW). The PERCOW system is a MAPL management tool to ensure that no work may commence upon Mackay Airport without a PERCOW being issued. For aerodrome works involving an MOWP, a PERCOW may not be issued until a MOWP has been issued.

8.12 KEY PERSONNEL – ROLES AND RESPONSIBILITIES

MAO – responsible for ensuring that:

- Aerodrome works are classified correctly (i.e., time-limited. MOWP, unscheduled, emergency, runway strip);
- Correct works procedures are implemented according to the works classification;
- MOWPs are approved for issue;
- MOWPs and associated NOTAMS are compiled correctly.

SAS - responsible for the implementation and oversight of aerodrome works in accordance with these procedures and shall:

- Co-ordinate Time-limited works and consult with ATC, ASO, WSO, work organizations and issue NOTAMS as required;
- Ensure that persons, vehicles, plant and equipment required for carrying out aerodrome works, must not be permitted to enter the movement area or remain on it, except for the purposes of carrying out those works;
- Ensure that any necessary MOWP is prepared and distributed according to the current Distribution List;
- Ensure that the MOWP distribution list is current and relevant;
- Ensure that appropriately qualified WSOs (or persons able to carry out WSO functions in the case of Time-limited works) are allocated to the works; and
- Audit works safety to ensure it is meeting its obligations.

Works Project Managers –shall:

- Ensure that the works are planned so as to not create a hazard to aircraft operations or cause confusion to pilots, and that any impact on aircraft operations is minimized;
- Ensure that a MOWP is prepared, if required and that any amendments are issued in a timely manner;
- Ensure that the MAO is advised of daily works plans to ensure that appropriate WSO resources can be made available;
- Ensure that any contractors are fully briefed on their responsibilities and restrictions when working on the movement area of the aerodrome;
- Ensure that the works are carried out in a manner that does not endanger the safety of aircraft operations.

WSO – responsible for ensuring the safe conduct of aerodrome works. The WSO shall also ensure that relevant NOTAM action has been taken in relation to aerodrome works.

8.13 CONTACT DETAILS

The MAO, SAS and ASO contact details are found in the Telephone Contact List at the beginning of this Manual.

MOWP DISTRIBUTION LIST

MAPL MOWP's are distributed via email on most occasions. Records are kept on SharePoint. The MAPL Distribution List for MOWPs may include the following organisations:

Mackay Airport Pty Ltd

- General Manager
- Manager Aviation Operations
- Manager Airport Assets
- Supervisor Airside Safety
- Airport Safety Officers
- Project Manager (if not already listed above)
- Works Safety Officer (if not already listed above)
- Works Organiser (if not already listed above)

Aerocare

Advance Aviation

Airservices Australia (Mackay Airport)
Air Traffic Control
Technical Services Division
Aviation Rescue & Fire Fighting Service
NOTAM Office

Alliance Airlines

Aviation Refuellers Pty Ltd (until 15/12/16)

Australasian Jet

Australian NOTAM Office

CASA (Airport Inspector)

ChrisAir Maintenance

Cobham Aviation

CQ Rescue

Flyon Pty Ltd

Horizon Airways

Hunt Family Trust/Roylen Holdings

LifeFlight

Mackay Helicopters

Island Air Taxis

Jetstar

OzNorth Services Pty. Ltd (commences 15/12/16)

Pel-Air Aviation

QantasLink

Qantas Freight

Queensland Police Air Wing

Royal Flying Doctor Service

Toll Aviation

Virgin Australia

Virgin Australia Tech

Whitsunday Helicopters

PART 2 AERODROME ADMINISTRATION AND OPERATING PROCEDURES

SECTION 9 AIRCRAFT PARKING CONTROL

9.1 GENERAL

This chapter identifies the responsibilities and procedures for the control of aircraft parking at Mackay Airport.

9.2 APRON MANAGEMENT

Apron marking design changes that will impact on aircraft parking arrangements shall not be implemented without advice to the affected aircraft operators, and the approval of the MAO.

The provision of plans for any changes to aircraft parking positions on the airport is the responsibility of the MAO who shall engage specialist design consultants if necessary. Approval of these plans and their introduction and operation on the aprons remains the responsibility of the MAO.

An Apron Marking Plan has been established to allocate parking positions on the RPT apron areas (see plans in Annex A).

9.2.1 Line Marking Design on a Movement Area – Approval

MAPL has a procedure and approval process for any significance change to line marking design on a movement area. The process is as follows:

- Once design is completed forward pdf version to MAO for approval;
- MAO approves the drawing in writing and returns to the originator to finalise.
- A new pdf with the electronic signature included is created and is forwarded to the MAO who then requests the Assets department to install the markings. No work should commence by Assets without the MAO signature on the drawing.
- The 'As Constructed Signoff' is to be completed by the relevant departments as works take place and once completed and checked, a copy is sent back to the originator to add to the drawing base plan.

9.3 AIRCRAFT PARKING LOCATIONS

9.3.1 RPT Apron

The RPT Apron is a Security Restricted Area that is located directly in front of the main terminal building. Its dimensions including the taxi lane are approximately 294m x 75m.

All parking positions are free moving. The types of aircraft that may use the available parking positions and the limitations on their usage are detailed on the plan at Annex A. The RPT apron parking layout has been designed to accommodate A320, E190/E170, B737 or Dash 8 on Bays1 to 5, C17, B767 on Bay 1A, Dash 8-300 on Bay 1B, Dash 8-400 on Bay 1 and Dash 8-300 on Bay 5A.

Scheduled operators include Qantaslink, Jetstar and Virgin Australia.

Bays 4, 5 and 5A are within the Security Restricted Area. Notwithstanding this, the ASO may use discretion in allocating these bays to itinerant aircraft if the Cargo Apron is not available or is unsuitable for such aircraft. Refer to Cargo Apron below.

9.3.2 Cargo Apron

The Cargo Apron, with a weight limitation of 20,000kg, abuts the RPT Apron.

The apron is used for non-scheduled aircraft that require access to the main terminal area whilst Qantas Freight regularly uses it for loading and unloading cargo.

9.3.3 Western GA Apron

The Western GA apron, with a weight limitation of 12,000kg on the old section and 18,000kg on the new section, is located on the western side of the primary runway, east of Runway 05. The apron is used by mainly by CQ Rescue Helicopters and operators using aircraft up to 24 metre wingspan. The apron may also be used by other aircraft requiring access to the main terminal area.

9.3.4 Eastern GA Apron

The Eastern GA apron is located on the eastern side of the primary runway. The area has a high strength apron capable of handling RPT jets to B738 size plus other areas that are restricted to aircraft below 5,700kg.

The area comprises the old terminal building, old RPT apron and other areas, but it is now used solely by resident fixed base operators and commercial light aircraft operators who operate aircraft generally below 5,700kg. Apron areas leased to commercial organisations are marked by green leased area lines. Shell operates an AVGAS dispensing bowsers at the northern end of the apron.

The apron abuts the flight strip of Runway 14/32, and consequently the runway-holding position markings on the three adjoining taxiways, E, F and G are marked along the edge of the apron.

Tie-down facilities are provided at a number of parking areas.

9.3.5 Aircraft without Air Worthiness Certificate

Aircraft without an Air Worthiness Certificate are generally not to be parked at Mackay Airport. The MAO shall instruct the owner to remove such aircraft from the airport.

9.4 AIRCRAFT PARKING PROCEDURES

9.4.1 Allocation of RPT Parking Positions

The MAO is responsible for the allocation of aircraft parking positions but will delegate this duty to ASOs for day to day operations.

Generally the RPT apron parking is self-managed based on commercial agreements and preferences detailed at Annex B to this section. Should a conflict be anticipated due to RPT apron works or other aircraft, parking allocation will be determined by the MAO or delegate.

Paragraph 5.7 of the ATS Interface Agreement between Mackay Airport Pty Ltd and Airservices Australia in respect of Mackay Aerodrome (Letter of Agreement 569) details the arrangements for the movement area control.

9.4.2 Parking Approval Request Form

ASOs shall use the Parking Approval Request form to control and approve parking on the Cargo Apron and the adjacent RPT bays. They may, however, issue verbal approvals when time does not permit the Parking Approval Request proforma to be actioned in the normal manner. ASOs shall fill in pertinent details on a Parking Approval Request proforma when a verbal approval has been issued.

Refer to the *MAPL RPT Apron Parking Plan* for allocation of Bays on the RPT Apron.

9.4.3 Entry to/Exit from RPT Parking Positions

RPT jet aircraft are marshalled into position by their appointed ground handlers whilst other aircraft self-park. All aircraft exit their parking position under their own power.

9.4.4 Visual Docking Guidance Systems

Mackay Airport does not have a Visual Docking Guidance System.

9.4.5 Engine Start

Engine start is at pilot discretion.

9.4.6 Marshalling

MAPL does not provide a marshalling service. Marshalling for RPT jets is provided by airline appointed ground handlers.

9.4.7 Follow-Me Service

A Follow-Me Service is not normally provided, but the ASO will on request from ATC or a pilot, provide a Follow-Me for pilots requiring guidance to a particular area of the airport. This service will generally be provided during tower hours. As required, the ASO will escort aircraft to designated parking areas by vehicle, whilst keeping in radio contact with the pilot and/or ATC.

9.5 KEY PERSONNEL – ROLES AND RESPONSIBILITIES

MAO – responsible for:

- Implementing and maintaining aircraft parking control procedures at the airport;
- Approving the design and amendment of aircraft parking positions & areas;
- Arranging for apron plan production and amendments;
- Monitoring the overall co-ordination of parking position allocations.

SAS – responsible for:

- Managing the Airport Safety Officers;
- Monitoring and reporting on the efficiency and safety of all apron activities.

ASO – responsible for:-

- Reporting any unsafe or potentially unsafe circumstance to the MAO;
- Providing a Follow-Me Service when requested by ATC or pilots for pilots that are unfamiliar with the airport layout.

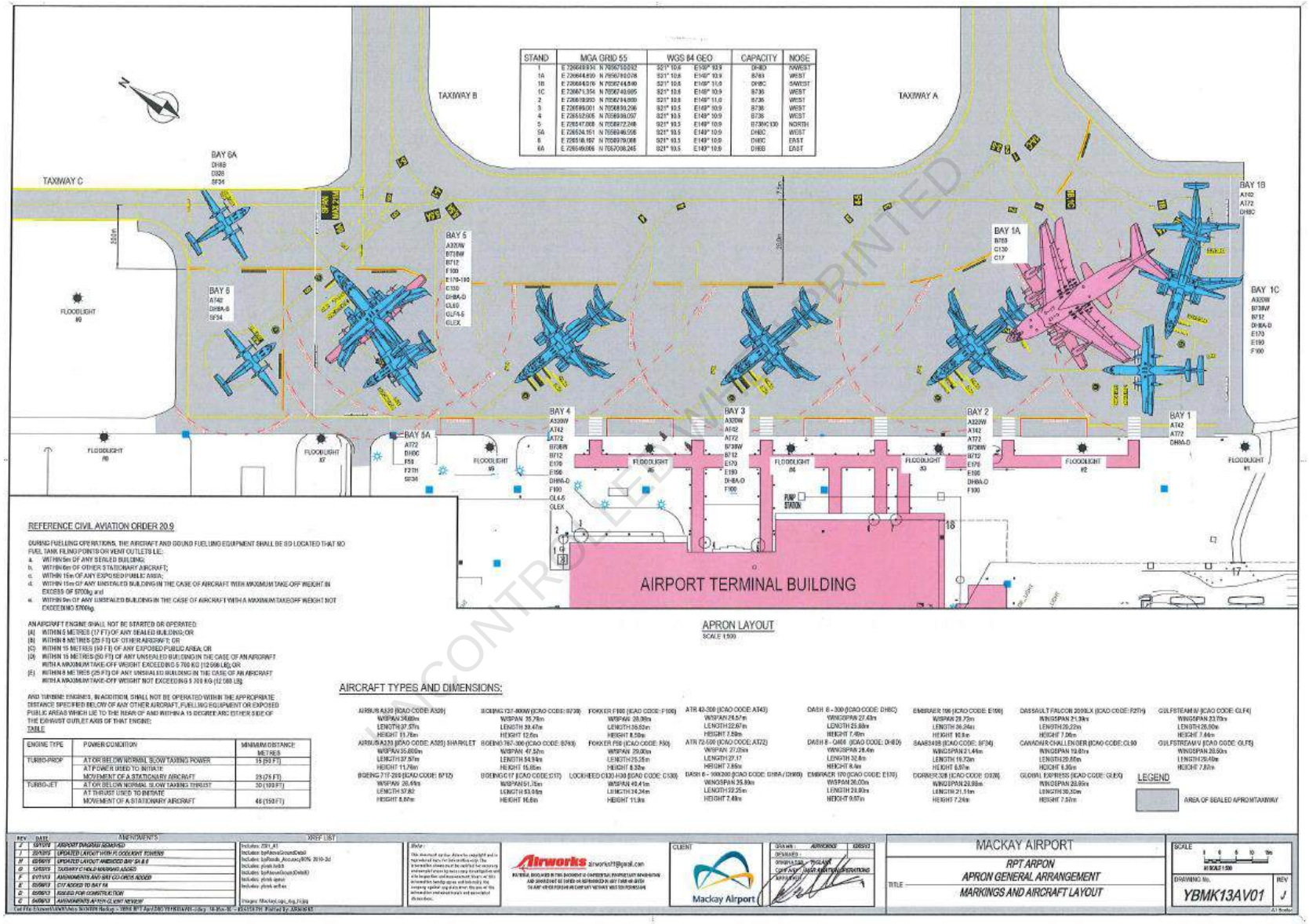
The MAO, SAS and ASO are the key persons involved in respect to Aerodrome Parking Control.

9.6 CONTACT DETAILS

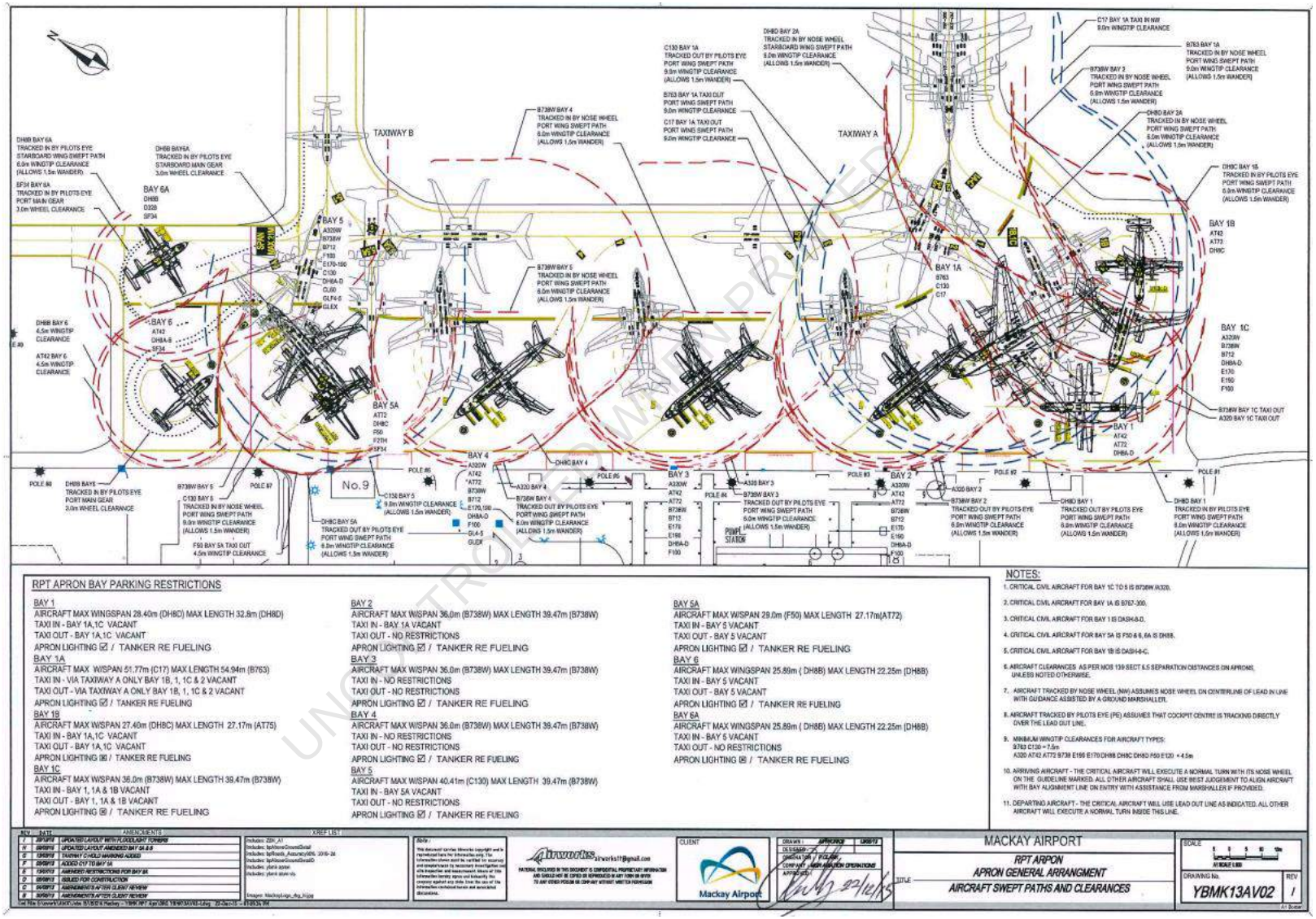
Contact details for the MAO, SAS and Duty ASO are found in the Telephone Contact List at the beginning of this manual.

ANNEX A – APRON MARKING PLANS

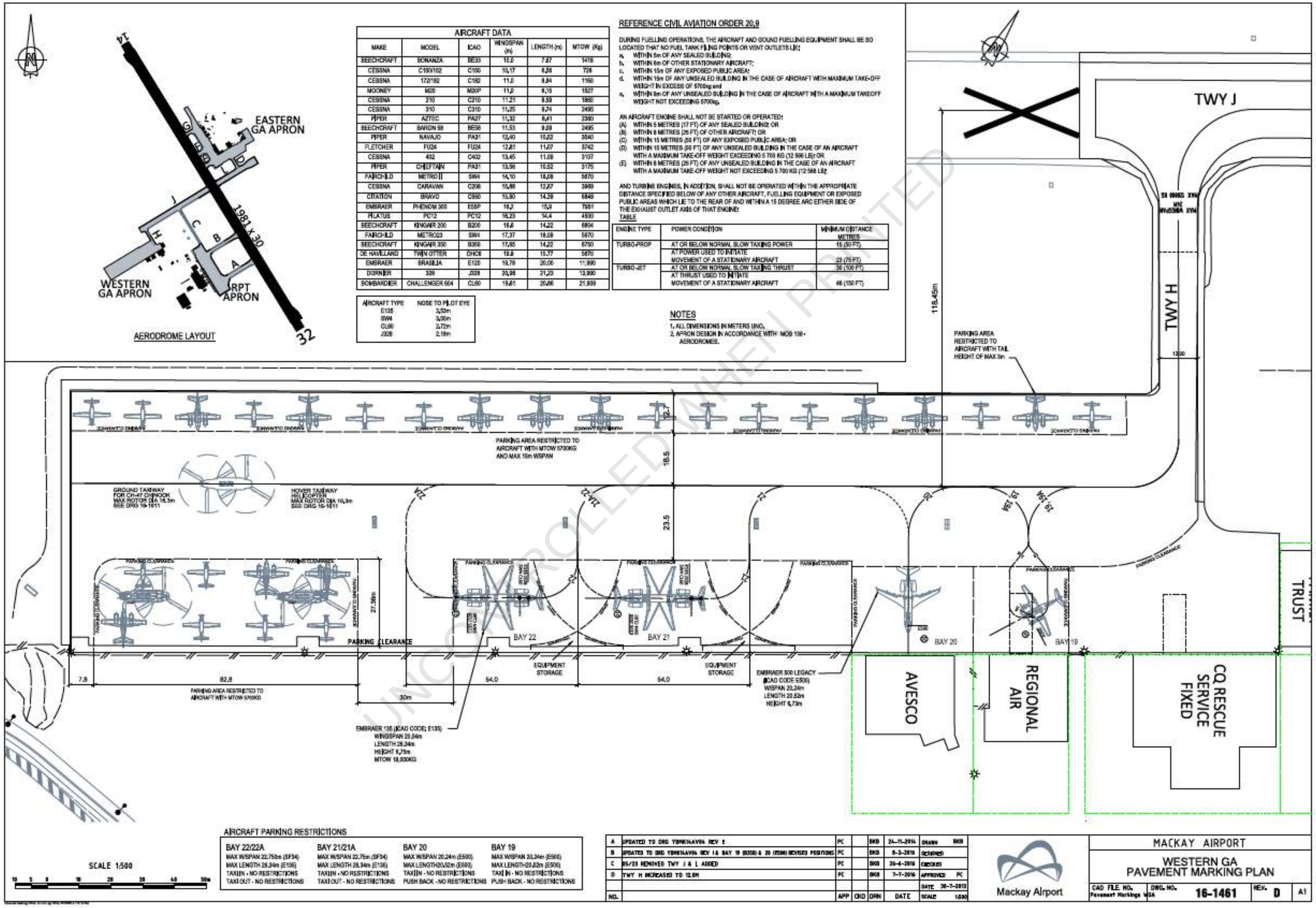
RPT APRON PARKING PLAN



RPT APRON PARKING PLAN WITH WINGTIP CLEARANCES



WESTERN GA APRON PARKING PLAN



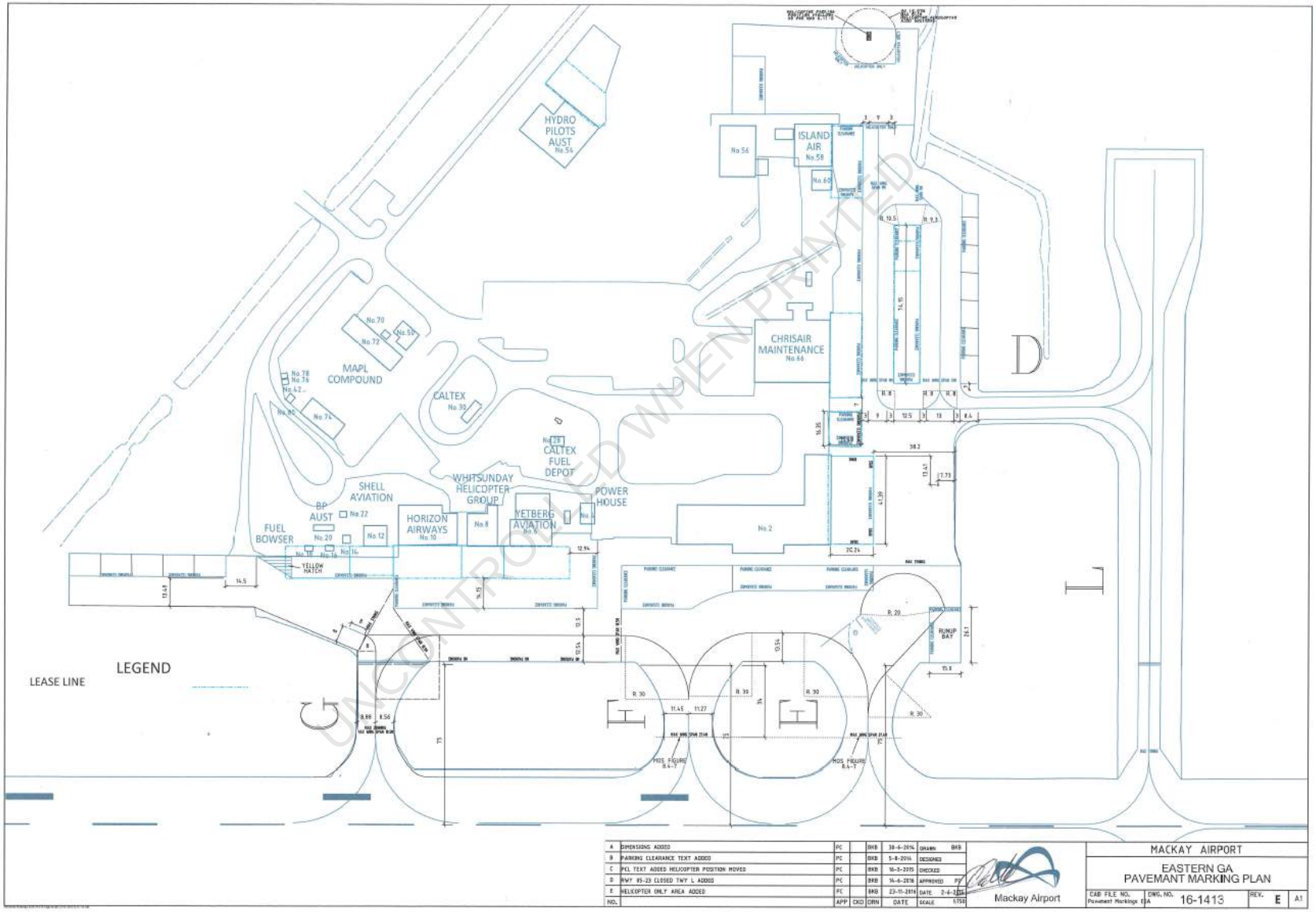
AIRCRAFT DATA					
MAKE	MODEL	ICAO	WINGSPAN (m)	LENGTH (m)	MTOW (Kg)
BEECHCRAFT	BONANZA	BE33	10.0	7.67	1418
CESSNA	C150/152	C150	10.17	6.58	726
CESSNA	172/182	C182	11.0	8.84	1160
MOONEY	M20	M20P	11.0	8.15	1527
CESSNA	210	C210	11.21	8.59	1860
CESSNA	310	C310	11.25	9.74	2495
PIPER	AZTEC	PA27	11.32	6.41	2360
BEECHCRAFT	BARON 58	BE58	11.53	9.09	2495
PIPER	NAVAJO	PA31	12.40	10.52	3540
FLETCHER	FU24	FU24	12.81	11.07	3742
CESSNA	402	C402	13.45	11.09	3107
PIPER	CHIEFTAIN	PA31	13.56	10.52	3175
FAIRCHILD	METRO II	SW4	14.10	18.09	5670
CESSNA	CARAVAN	C208	15.88	12.67	3969
CITATION	BRAVO	C550	15.90	14.39	6849
EMBRAER	PHENOM 300	E55P	16.2	15.9	7981
PILATUS	PC12	PC12	16.23	14.4	4500
BEECHCRAFT	KINGAIR 200	B200	16.6	14.22	6804
FAIRCHILD	METRO23	SW4	17.37	18.09	5670
BEECHCRAFT	KINGAIR 350	B350	17.65	14.22	6750
DE HAVILLAND	TWIN OTTER	DHC6	19.8	15.77	5670
EMBRAER	BRASILIA	E120	19.78	20.00	11,990
DORNIER	328	J328	20.98	21.23	13,990
BOMBARDIER	CHALLENGER 604	CL60	19.61	20.86	21,909

AIRCRAFT TYPE	NOSE TO PILOT EYE
E135	3.53m
SW4	3.56m
CL60	2.72m
J328	2.18m

ENGINE TYPE	POWER CONDITION	MINIMUM DISTANCE METRES
TURBO-PROP	AT OR BELOW NORMAL SLOW TAXIING POWER	15 (50 FT)
	AT POWER USED TO INITIATE MOVEMENT OF A STATIONARY AIRCRAFT	23 (75 FT)
TURBO-JET	AT OR BELOW NORMAL SLOW TAXIING THRUST	30 (100 FT)
	AT THRUST USED TO INITIATE MOVEMENT OF A STATIONARY AIRCRAFT	46 (150 FT)

NO.		APP	CKD	DRN	DATE
A	UPDATED TO DRG YBMK14AV04 REV E	PC		BKB	24-11-2014
B	UPDATED TO DRG YBMK14AV04 REV I & BAY 19 (B350) & 20 (E500) REVISED POSITIONS	PC		BKB	8-2-2016
C	05/23 REMOVED TWY J & L ADDED	PC		BKB	26-4-2016
D	TWY H INCREASED TO 12.0M	PC		BKB	7-7-2016

EASTERN GA PAVEMENT MARKING PLAN



ANNEX B – MACKAY AIRPORT RESOURCE PREFERENCES AND DEFAULTS

Stand	Aircraft	Airline Stand Preference	Default Arrival Gate (to Stand)	Available Arrival Gates	Default Boarding Gate (to Stand)	Avail. Board. Gates	Airline Gate Preference	Gate Usage Separation	Notes
1	AT4,AT7,DH1-4	QF1	6	1,2,3,4,5,6,20A	2 *	1,2,3,4,5,20A	QF1,JQ2	25 mins	If an allocated stand is changed, the corresponding arrival and/or departure gate may need to be changed.
1A	763,C130,C17		6	1,2,3,4,5,6,20A	2 *	1,2,3,4,5,20A		25 mins	
1B	AT4,AT7,DH3		6	1,2,3,4,5,6,20A	2 *	1,2,3,4,5,20A		25 mins	
1C	32W,738,712,DH1-4,170,190,100	QF2	6	1,2,3,4,5,6,20A	2 *	1,2,3,4,5,20A	QF2	25 mins	
2	32W,AT4,AT7,738,712,170,190,DH1-4,100	JQ1,QF4,VA2,	6	1,2,3,4,5,6,20A	1 *	1,2,3,4,5,20A	JQ1	25 mins	**1 *, 2 *, 4* , 5 *, Default to Match QF, JQ, VA, Preferred gate. Applies to any carrier on that stand (Direct Stand to gate relationship)**
3	32W,AT4,AT7,738,712,170,190,DH1-4,100	VA1, JQ4,	6	1,2,3,4,5,6,20A	3 *	1,2,3,4,5,20A	VA1	25 mins	
4	32W,AT4,AT7,738,712,170,190,DH1-4,100,GL4,GL5,GLEX	QF5,VA3	6	1,2,3,4,5,6,20A	5 *	1,2,3,4,5,20A	VA2	25 mins	
5	32W,738,712,100,170,190,130,DH1-4,CL60,GL4-5,GLEX	QF3	6	1,2,3,4,5,6,20A	5	1,2,3,4,5,20A		25 mins	
5A	AT7,DH3,F50,F2TH,SF34		6	1,2,3,4,5,6,20A	5	1,2,3,4,5,20A		25 mins	
6	AT7,AT4,DH1-3,SF34		20	1,2,3,4,5,6,20A	5/20	1,2,3,4,5,20A		25 mins	
6A	DH2,D328,SF34		20	1,2,3,4,5,6,20A	5/20	1,2,3,4,5,20A		25 mins	

Check in Counters and Laterals		
1 - 3	QF	Lateral 1
4 - 6	JQ	Lateral 1
7 - 10	VA	Lateral 2

Baggage Arrival Carousels		
Carousels	**Airline**	**A/C**
1	JQ1,QF1,VA2,***	ALL
2	VA1,JQ2,QF2,***	ALL
*** = Other		
Preferred Sequence		

V7 Issued 05 May 2015

PART 2 AERODROME ADMINISTRATION AND OPERATING PROCEDURES

SECTION 10 AIRSIDE VEHICLE CONTROL

10.1 INTRODUCTION

MAPL has developed an *Airside Vehicle Control Manual* (AVCM) and an *Airside Drivers Handbook* (ADH). These documents identify the mandatory rules and procedures that have been adopted for the control of surface vehicles operating on or near the movement areas of the airport as well as the procedures used to authorise drivers to drive vehicles airside.

The MAPL AVCM and ADH are separate controlled documents, distributed independently from the *Airport Operations Manual*.

10.2 GENERAL PRINCIPLES

MAPL, as the operator of the airport, controls the entry to, and the activities of, all surface vehicles on the airside. Pursuant to this the MAO has the responsibility for authorising the operation of vehicles airside at the Mackay Airport.

No person shall operate any vehicle airside without prior and specific approval from the General Manager or his delegate. No type of vehicle or ground equipment shall be operated on airside areas without the prior and specific authorisation of the General Manager or his delegate.

When Air Traffic Control is active, vehicles are permitted on the manoeuvring area of the airport only when specifically approved by ATC and at other times after making mandatory CTAF calls and ensuring that there will be no conflict with aircraft operations.

10.3 AIRSIDE DRIVING AUTHORITY

The procedures for the approval for a vehicle to be used on airside and the issuing of a MAPL Airside Driver's Authority are contained in the *Airside Vehicle Control Manual*.

An Airside Driver's Authority may be issued following satisfactory training and testing in one of two categories, namely:

- Restricted Airside Driver's Authority — Perimeter roads & Aprons
- Unrestricted Airside Driver's Authority — Taxiways & Runways

10.4 AIRSIDE VEHICLE PERMIT

A copy of the application and details of the requirements to be met before an Airside Vehicle Permit (AVP) will be issued can be found on the Mackay Airport website. This permit is to be held at all times by the person granted access.

The SAS shall keep a copy of all AVP applications received. When a permit has been granted, a copy of the permit (with the application) shall be filed and details included in the AVP register. It addresses vehicles, registration and insurance.

Conditions for obtaining an ADA are contained within the ACVM and ADH.

It is important that drivers on airside areas exercise due caution in the course of their duties. Failure to observe these instructions could endanger their life or the lives of others.

10.5 KEY PERSONNEL - ROLES AND RESPONSIBILITIES

MAO – responsible for:

- Implementing airside vehicle control procedures at the Mackay Airport.
- Production and distribution of the Airside Vehicle Control Manual and Airside Drivers Handbook.
- The institution and conduct of regular audits of organisations approved by MAPL to control the operation of their own vehicles operating airside.
- Overseeing MAPL assessment of vehicles that are authorized for use on airside.
- Overseeing training and examinations activities.

SAS – responsible for:

- Training and assessing of ADA applicants and issuing ADAs (note: these duties may be delegated to an ASO).
- Assessing applications for and issuing AVP's
- Instituting and maintaining a system of recording:
- Names and details of on-airport organizations delegated by the MAPL to administer their own airside vehicle control (in accordance with MAPL requirements)
- Details of audits conducted on such organizations
- Details of all authorities issued by the MAPL for the use of vehicles airside
- All authorities issued by MAPL to drivers to drive airside.

ASO – responsible for:

- Escorting drivers who have a lawful reason to be airside and when the vehicle being driven has no formal authority to be used on airside.
- Reporting any unsafe or potentially unsafe circumstance involving a driver of a vehicle on the movement area to the General Manager.

10.6 CONTACT DETAILS

The MAPL MAO and SAS are the key personnel with respect to Airside Vehicle Control.

Their respective contact details are found in the Telephone Contact List at the beginning of this Manual.

11.1 GENERAL

This section identifies the procedures to be used in dealing with hazards to aircraft operations caused by the presence of birds or animals on or near the aerodrome.

MAPL has developed a Wildlife Hazard Management Plan (WHMP) in accordance with CASR Part 139 to provide particulars of the procedures to deal with danger to aircraft operations caused by the presence of birds or animals on or near the aerodrome. The Mackay Airport WHMP is a separate, controlled document, distributed independently from the *Airport Operations Manual*.

11.2 ASSESSMENT OF ACTIVITY

11.2.1 Control of Animal Access

MAPL is responsible for the control of animals at the airport. The main animals likely to be encountered near the aerodrome are dogs, cats, wallabies and stock (e.g. horses and cattle). The integrity of the boundary fence and gates ensures these animals are denied entry onto the aerodrome.

The perimeter fence line and the associated gates are inspected at first light and again at random intervals during the day. The ASO is to ensure that all gates are closed and locked and that the boundary fence is intact at all times.

If at any time animals do find their way onto the aerodrome and they cannot be removed, aircraft operators are to be advised by NOTAM to exercise caution when operating into the aerodrome.

11.2.2 Wildlife Assessment

Collision with birds or other wildlife can result in severe damage to aircraft, even causing the aircraft to crash. The takeoff and landing phases are the most critical times of aircraft flight, and this is when aircraft are most likely to suffer damage from striking birds.

Bird and wildlife activity is monitored by the ASO during their presence at the aerodrome. Bird counts will be conducted at the beginning of each shift (generally between 0600-0700hrs). The information is to be gathered both from the airport and relevant surrounding areas, e.g. sports fields, swamps, water holes etc. and will then be correlated into graph form and used to indicate any significant change in the numbers of a particular species at any given time. This information is useful when planning eradication programs.

The AAO or delegate shall compile statistics on all bird counts, habits and bird strike data together with measures taken to mitigate the risks.

During any period when there is an unusual concentration of birds, aircraft operators are to be advised by appropriate NOTAM or specific bulletin, (this information is published in ERSA), to exercise caution when operating in the vicinity of the aerodrome. When NOTAM action is required the ASO is to log this requirement in the ASO log book and then inform the MAO who is then responsible for issuing the required NOTAM. The MAO will then assess the bird activity and cancel the NOTAM when required.

11.2.2 Attractions to Birds

While it is impossible to stop all birds from over flying aerodromes, when considering adjacent land uses, authorities should take care not to create a bird problem. Existing land uses should also be managed so birds are not attracted. With proper management at aerodromes and careful planning in the environs around the aerodrome, bird numbers can be greatly reduced.

Maintenance procedures will take into account the requirement to reduce bird activity on the Airport, which is achieved by way of habitat management i.e. converting the Airport into an environment that is unattractive to birds. This is done in part through:

- Regulating the height of grass to reduce bird feeding and nestling areas;
- Preventing the accumulation of rubbish that may attract birds.
- Consultation with the NQA Environmental Coordinator.
- Consultation with Avisure, Department of Environment and Heritage Protection (Mackay) and Mackay Regional Council.

11.3 REPORTING OF AN ACTIVITY

11.3.1 Reporting of Wildlife Strikes

The reporting of a bird or animal strike, including a "near miss" or a hazardous situation or suspected bird strike, is mandatory under the *Transport Safety Investigation Act 2003* (TSI Act). These incidents are to be reported to the Australian Transport Safety Bureau (ATSB) on the form available on the ATSB website.

The ASO shall record all aircraft bird or animal strikes in the ASO Log Book and then report these bird and animal strikes to the SAS. The SAS will investigate each incident and, if necessary, discuss with the ASOs any special actions that might be warranted to remove or minimize further similar occurrences.

11.3.2 Reporting of Wildlife Activity

Excessive bird or animal activity on the aerodrome is to be logged in the ASO logbook and any action taken reported to the SAS. As above, SAS will discuss possible solutions, if applicable, with the ASOs to minimize bird or animal activity.

11.4 ARRANGEMENTS FOR REMOVAL OF BIRDS/ANIMALS

11.4.1 Removal of Birds

The ASO is responsible for carrying out harassment, dispersal or eradication procedures at Mackay Airport. Each ASO will be the holder of a Queensland Firearms Licence, be approved by the airport licensee, in this instance the MAPL General Manager or delegate, and have demonstrated competency in the use of MAPL supplied firearms.

The ASO must discharge their firearms only within the confines of Mackay Airport after having satisfied themselves that it is safe to do so.

Predominately, 12 gauge cartridges are used in double barrel shotgun as a means of harassment/dispersal.

Where this proves to be unsuccessful, live shot is to be used to cull problem birds. Dead birds and spent shells shall be removed from the area and disposed of in the correct manner.

11.4.2 Safety Precautions during Bird Removal

Firearms will be provided for the purpose of harassing and dispersing birds and animals. Under no circumstances are they used for any other purpose. Only those persons currently in receipt of a relevant Queensland Firearms License and approved by the General Manager will be permitted the use of firearms for the purpose of bird control on the airport.

Care must be taken when harassing birds and animals. The following items are noted to facilitate the safe and efficient removal of bird and animal hazards at Mackay Airport.

1. As it can take several minutes to adequately disperse birds adjacent to runway and approach/departure area, procedures are to commence well in advance of aircraft movements.
2. All care will be taken to ensure birds are not dispersed in the direction of active runways or approach/departure paths.
3. The location of the bird hazard in relation to any aircraft in the vicinity, whether landing, taking off, taxiing etc. A gun shall not be fired in the direction of or in the vicinity of any aircraft.
4. A strict watch will be maintained for any personnel working in the vicinity, particular men on foot whose clothing may blend in with the background.
5. Never carry a loaded gun in the vehicle.
6. Particular care will be taken when using a gun in the vicinity of any buildings, aerials, runway lights, windsocks etc.
7. A strict watch will be kept for helicopter and fuel tanker traffic.
8. Never fire in the direction of any vehicle moving on the perimeter road or at any houses, vehicle etc. in the vicinity of the boundary fence.
9. When using cracker shell ammunition in dry, hot conditions, care will be taken to ensure that the spent cracker casing (which has a tendency to smoulder) does not set off a grass fire.
10. Guns must be thoroughly cleaned and oiled after use.
11. When not being carried in the ASOs vehicle, guns and ammunition must be stored separately in a firearms specific cabinet.

11.4.3 Damage Mitigation Permit

The Department of Environment and Heritage Protection regulates the taking of wildlife. MAPL is required to apply for and hold a "*Damage Mitigation Permit*" to take any wildlife.

The permit can be valid for up to three years and imposes the following conditions on MAPL "to ensure that the taking of wildlife is ecologically sustainable":

1. The number of wildlife taken must be the minimum necessary to maintain safety.
2. The taking must be humane and can occur only within the boundaries of the holder's property.
3. The permittee is to keep a daily written register listing the numbers, species, sex (if known) and the date of all wildlife taken under the permit. The register is to be made available to a Conservation Officer for inspection, on request.
4. The permittee is to provide access to a Conservation Officer at any hour, to monitor the numbers killed.

The Damage Mitigation Permit is issued by the Department of Environment and Heritage Protection under the Queensland Nature Conservation Act 1992 and Nature Conservation Regulation 1994.

The MAO will coordinate and ensure such a permit is current at all times.

11.4.4 Removal of Animals

The integrity of the aerodrome boundary fence shall be kept in good condition and boundary gates kept closed at all times. If animals find their way onto the aerodrome they are to be removed immediately and the means of entry identified and rectified.

11.5 KEY PERSONNEL – ROLES AND RESPONSIBILITIES

MAO – responsible for:

- Arranging and coordinating Wildlife Hazard Management Committee meetings.
- Liaising with airline operators when necessary regarding bird/animal removal.
- Formulating an Operations and Firearms Policy and annually reviewing the procedures within this policy.
- When necessary, engaging the consultants to undertake professional bird surveys and recommend mitigation strategies.
- Ensuring that MAPL has a current Damage Mitigation Permit.

SAS – responsible for:

- Ensuring that bird/animal removal and dispersal takes place by the ASO during inspections.
- When necessary, ensuring an appropriate NOTAM is raised to cover the removal or dispersal of bird/animals.
- Monitoring bird/animal activity and strike statistics.
- Ensuring that all bird/animal strikes are reported to ATSB.
- Coordinating ASO training for bird and other wildlife identification and strike reporting, inspection for bird and wildlife hazards, bird counts, bird dispersal and culling, and weapons certification.
- Maintaining the weapons/ammunitions register.
- Annually reviewing operations procedures and firearms policy and forward any recommended modifications to the MAO.

ASO – responsible for:

- Inspecting the aerodrome boundary fence daily so that access for animals such as wallabies is restricted. If animals find their way onto the aerodrome they are to be removed immediately and the means of entry identified and rectified.
- Undertaking runway inspections for bird/animal activity and if necessary arranging for dispersal of birds/animals.
- Undertaking bird dispersal and culling.
- Logging and ensuring that all bird/animal strikes during inspections are reported to ATSB.
- Monitoring bird/animal activity on the aerodrome and if necessary arranging for a suitable NOTAM to be issued through the SAS.

- Safely storing and maintaining firearms and ammunition, as per the NQA Firearms Policy and relevant SWP.

11.6 CONTACT DETAILS

The MAO, SAS and ASO are the key personnel with respect to Wildlife Hazard Management. Their respective contact details are found in the Telephone Contact List at the beginning of this Manual.

PART 2	AERODROME ADMINISTRATION AND OPERATING PROCEDURES
SECTION 12	OBSTACLE CONTROL

12.1 GENERAL

This section specifies the procedures required to monitor obstacles and building development on and in the vicinity of Mackay Airport, in relation to the height of buildings and other structures. The Civil Aviation Safety Authority (CASA) bases these requirements on the standards as set out in MOS 139. The General Manager is responsible for the establishment of the Obstacle Limitation Surfaces (OLS) required around the Mackay Airport.

12.1.1 Obstacle Limitation Surfaces (OLS)

At the Mackay Airport, the Obstacle Limitation Surfaces (OLS) are based on the following criteria as applied in MOS 139, Chapter 7, tables 7.1-1 'Approach Runways' & 7.1-2 'Take-Off Runways':

- Runway 14/32 – Instrument Non-Precision Code 4.
- Runway 05/23 – Instrument Non-Precision Code 2 - which has been converted to a taxiway system. MAPL is surveying and protecting the airspace in case of future reinstatement.

The OLS comprises a number of reference surfaces in airspace, which determine whether or not an object may be an obstacle in respect of aircraft maneuvering in the vicinity of the airport or during take-off or landing. An obstacle is thus defined as any object that infringes the OLS.

The OLS are complex surfaces related to the runways. The OLS for Mackay Airport are specifically detailed in Annex A of this section.

12.1.2 PANS-OPS Surfaces

PANS-OPS Obstacle Assessment Surfaces are discrete complex surfaces in airspace specifically related to the requirements for instrument flight (i.e. flight where the pilot relies totally on cockpit instruments and without visual reference to the ground).

In contrast to the OLS, which determined at which point an object becomes an obstacle (to be assessed for its impact on aircraft operations), PANS-OPS surfaces cannot be infringed. In fact, the height of the tallest structures or feature beneath any one of the PANS-OPS surfaces determines the altitude/elevation of that surface, and all connected surfaces. If a new and higher obstacle is created beneath a particular PANS-OPS surface, that surface also has to move correspondingly higher and it may affect other surfaces, which results in a consequential adjustment to the minimum height to which an aircraft may descend. This higher minimum altitude may affect the ability of the pilot to establish visual reference with the ground.

12.2 MONITORING OF THE OBSTACLE LIMITATION SURFACES

12.2.1 Monitoring & Notification of Obstacles by Airport Safety Officers

CASR 139.350 requires MAPL to monitor the airspace around Mackay Airport to detect any infringement of the OLS by and object, building, structure or gaseous efflux having a velocity exceeding 4.3 metres per second.

As part of the daily serviceability inspection the ASO shall carry out a visual check of the approach/take-off climb surface areas, the transitional surfaces and the inner horizontal surface close to the aerodrome. The purpose of the visual check is to determine if any new obstacles have penetrated the OLS or whether a new obstacle could affect the instrument approach procedures published for Mackay.

When a new obstacle is detected, the ASO shall advise ATC and the SAS at the earliest opportunity and raise an appropriate NOTAM advising:

a) The nature of the obstacle – for instance structure or machinery;

b) Distance and bearing of the obstacle from the nearest runway end or the ARP.

c) Height of the obstacle above mean sea level;

d) If it is a temporary obstacle – the duration of the infringement;

e) Amended runway gradient changes and declared distances if applicable.

If a proposed object or structure is determined to be an obstacle, details of the proposal must be referred to CASA to determine whether it will be a hazard to aircraft operations.

CASA may recommend that obstacles be marked and or lit and may impose operational restrictions on the aerodrome as a result of an obstacle.

12.2.2 ANNUAL OLS SURVEY

An instrument check of the Approach, Take-off Climb and Transitional Surfaces will be carried out during the annual Aerodrome Technical Inspection in accordance with CASR 139.230 Para. 2(a) 'Aerodrome Technical Inspections'. The MAO will arrange and brief a suitably qualified consultant or surveyor to carry out this survey. The survey data will be used to update the AIP Runway Distances Supplement (RDS). The MAO will be guided by MOS 139 10.3 in determining the need for NOTAM action if changes to the RDS are required.

12.2.3 Monitoring Areas associated with Instrument Approaches

Airservices Australia designs instrument approach and departure procedures in accordance with ICAO PANS-OPS standards. Airservices Australia has provided drawings showing the PANS-OPS surfaces and critical obstacles in each PANS-OPS surface applicable to Mackay's instrument approach procedures. An instrument approach normally comprises five phases, the initial approach, intermediate approach, final approach, circling approach and missed approach. The circling approach is an area within which an aircraft can manoeuvre after becoming visual, and is normally used by a pilot to land on the runway end that is not aligned with the instrument approach. The missed approach area is used when a pilot does not become visual on the final approach and must climb to a safe altitude to either hold, commence another approach or divert to another airport.

Airservices Australia drawings will show the PANS-OPS surfaces for each of these areas plus the critical obstacle within each area. The Airservices drawings are attached as Annex B. ASOs should identify each critical obstacle visible from the aerodrome so that they can be used as a reference for new obstacles.

ASOs are therefore required to monitor the PANS-OPS surfaces to the extent possible to ensure that any new obstacle in each area is not higher than the critical obstacle advised by Airservices Australia.

The SAS shall conduct an annual inspection of critical obstacles to ensure that any new obstacle in each area is not higher than the critical obstacle advised by Airservices. Inspections shall be documented on ***9034MKY*** *Mackay Airport Operations Inspections – Critical Obstacles*.

The SAS shall advise Airservices Australia Procedure Design Section of any obstacle that may affect their existing instrument approach designs. **Monitoring of New Building Developments & Proposed Structures**

If the SAS becomes aware of any proposed development or construction near the aerodrome that is likely to become an obstacle, details of the development or construction must be passed to CASA immediately. CASR 139.360 refers.

The Queensland Government State Planning Policy 1/02 "Development in the vicinity of certain airports and aviation facilities" requires the Mackay Regional Council to refer any building application that may impact on the airport OLS or gaseous emissions exceeding 4.3m/sec that may affect aircraft safety, to MAPL.

Upon receipt of any application for height approval (either permanent or temporary in nature) the SAS in conjunction with the MAO will assess the proposal and:

- If no protrusion of the OLS or PANS-OPS is involved, recommend that the General Manager recommend approval of the application, or
- If the OLS or PANS-OPS are penetrated by the proposal, recommend that an aeronautical study be undertaken so that the impact of the proposal can be properly assessed.

Consequently, the SAS shall prepare a letter for the General Manager signature to the Mackay Regional Council recommending that they either deny or approve the application.

12.3 ASSESSMENT OF OBSTACLES

The MAO will determine the extent of any proposed infringement including the potential effect on approach and take-off gradients and declared distances, taking into account long term development of the runways. In assessing the compatibility of a proposed structure, MAPL should weigh the cost of preventing or removing the obstacle, against the restrictions imposed by such an obstacle to the aerodrome's immediate and long-term usability. In cases where a proposed obstacle will impact significantly on operational viability, detailed discussions with CASA, Instrument design consultants, major airlines and/or other aircraft operators at the airport will be undertaken by the MAO before making decisions regarding MAPL's recommendation to Council on the proposal.

The following details should be provided to the CASA office and/or instrument procedures design consultant for a determination:

- Existing obstacles
- Proposed obstacle
- Type of structure
- Location
- Latitude/Longitude
- Bearing and distance to ARP
- Distance from start of TORA
- Instrument or non-instrument runway
- Offset from runway centerline
- Height of structure (total including aerials etc)
- Ground level of site
- Height of OLS
- PANS-OPS surface considerations
- Penetration of surface and a copy of the OLS plan showing the location of the object.
- Date of effect for of the proposed object.

12.4 NOTIFICATION OF OBSTACLES

Where published operational data in AIP needs to be altered to reflect the presence of a new obstacle, the SAS will notify industry in accordance with Part 2 Section 4 of this manual and MOS 139 Chapter 10.

A NOTAM will be issued for the duration of all temporary obstructions or in the case of a permanent obstruction, until such times as details of the obstruction are published in AIP ERSA.

12.5 OBSTACLE MARKING AND/OR LIGHTING

Where required by CASA, obstacles (temporary or permanent) shall be marked and/or lit in accordance with MOS 139.

Details of existing lit obstacles are provided in Part 2 Section 3.8.

12.6 TYPE A – AERODROME OBSTRUCTION CHART

A Type A - Aerodrome Obstruction Chart is not published for the aerodrome.

12.7 KEY PERSONNEL – ROLES AND RESPONSIBILITIES

General Manager – responsible for:

- Establishment of the OLS requirements for Mackay Airport.
- Approving/rejecting the erection of buildings or other structures in the vicinity of the airport and for the approval of building heights and temporary crane heights associated with such construction works.

MAO – responsible for:

- Ensuring that details of all obstacles (as defined in MOS 139 Chapter 7) are reflected in the AIP published information for the aerodrome.
- Ensuring that instrument surveys of the approach and take-off climb areas are carried out annually (through Technical Inspection), and ensure, if necessary, appropriate NOTAMS are issued as a result of these surveys.
- Ensuring there is a current Airport OLS plan available for the airport.
- Ensuring that there is a system in place to assess and make recommendations regarding applications for the erection of buildings or other structures in the vicinity of the airport and for the approval of building heights and temporary crane heights associated with such construction works.
- Implementing and maintaining a building height control approval system to receive and assess applications for height approvals.

SAS - responsible for:

- Ensuring that during aerodrome serviceability inspections, visual inspections of the OLS are carried out for the purpose of early detection of any new obstacles.
- Ensuring that arrangements are made for NOTAM action in respect of temporary obstacles infringing the OLS.
- Monitoring the location and height of any obstacle that infringes the OLS and which may be a threat to the safety of aircraft operations, and to report such infringements to CASA and the MAO as appropriate.
- Ensuring that the Airport OLS plan and associated plans are kept up to date.

- Ensuring that a system is in place for the provision of advice to Airservices Australia – AIS Section for the purpose of amending published information relating to the presence of obstacles (in accordance with Part 2 Section 3 of this manual).

ASO: - responsible for:

- Monitoring daily the OLS and reporting to SAS any newly detected obstacles which may be penetrating the OLS.
- Monitoring of the obstacle lighting.

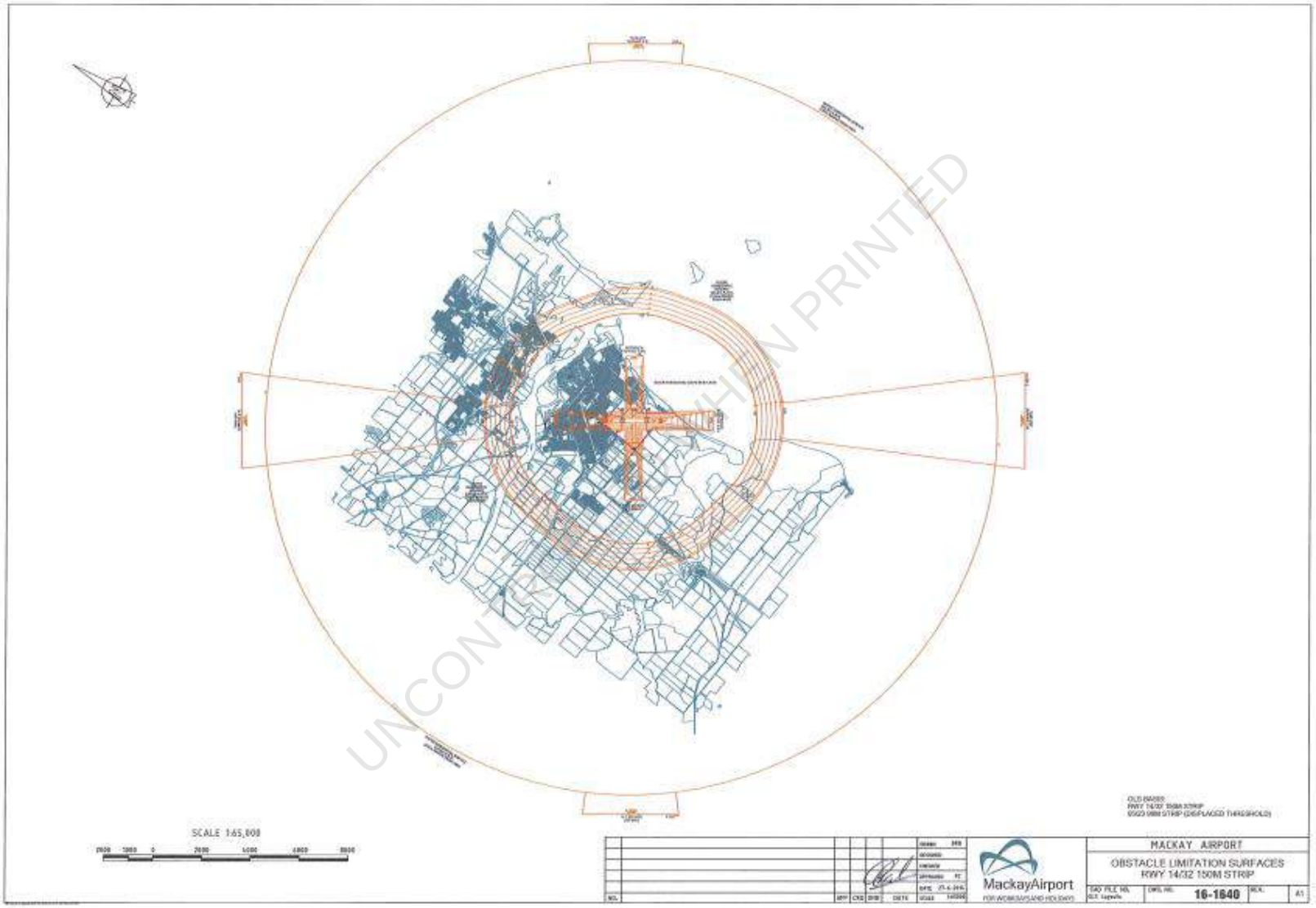
12.8 CONTACT DETAILS

The contact details for the General Manager, MAO, SAS, ASO, CASA officers, Airservices Australia procedure design section and the nominated Airport Consultants are found in the Telephone Contact List at the beginning 2 of this manual.

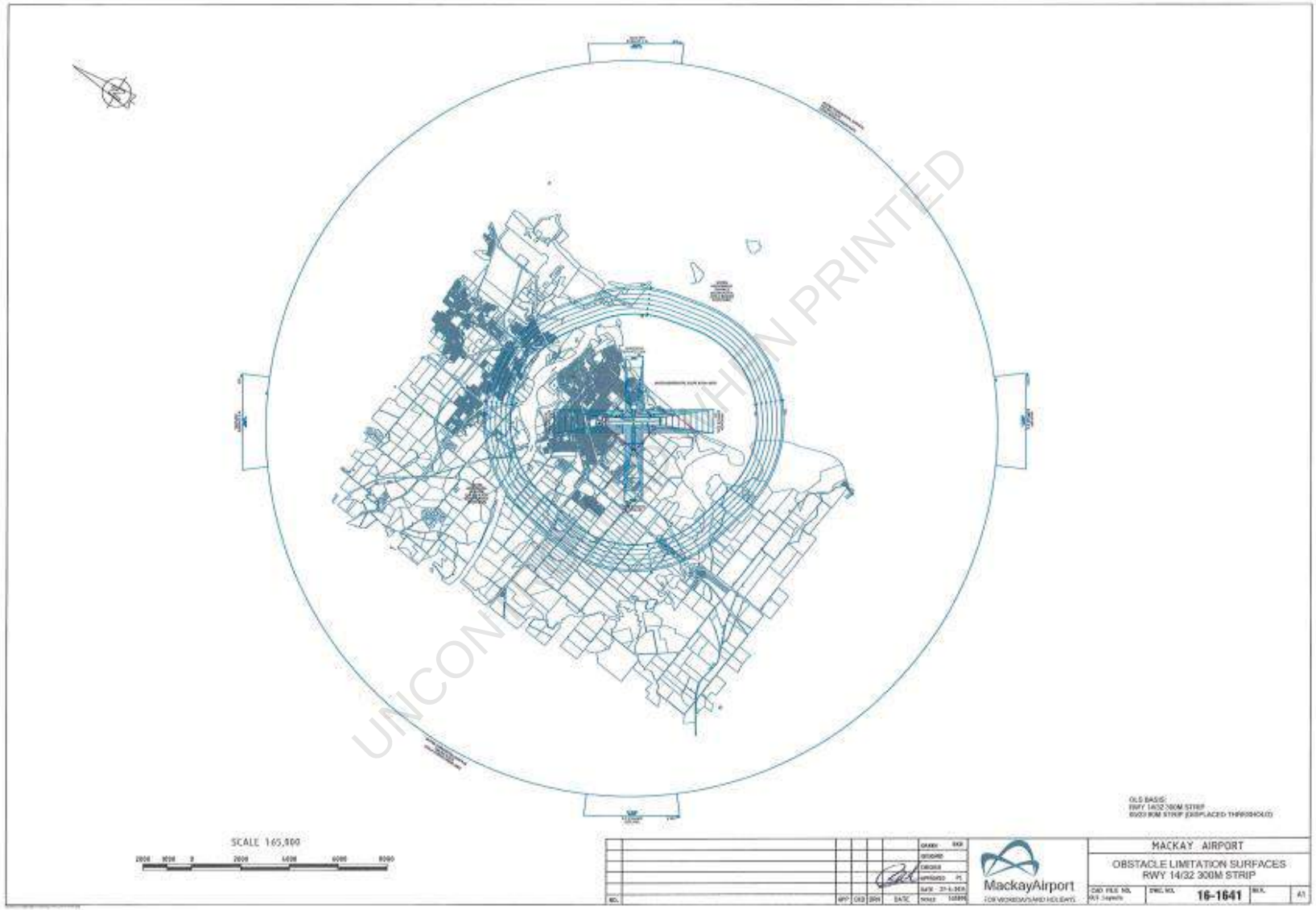
ANNEX A

MACKAY AIRPORT – OLS DRAWING

RUNWAY 14/32 OLS – 150M STRIP



RUNWAY 14/32 OLS – 300M STRIP



AIRPORT OPERATIONS MANUAL

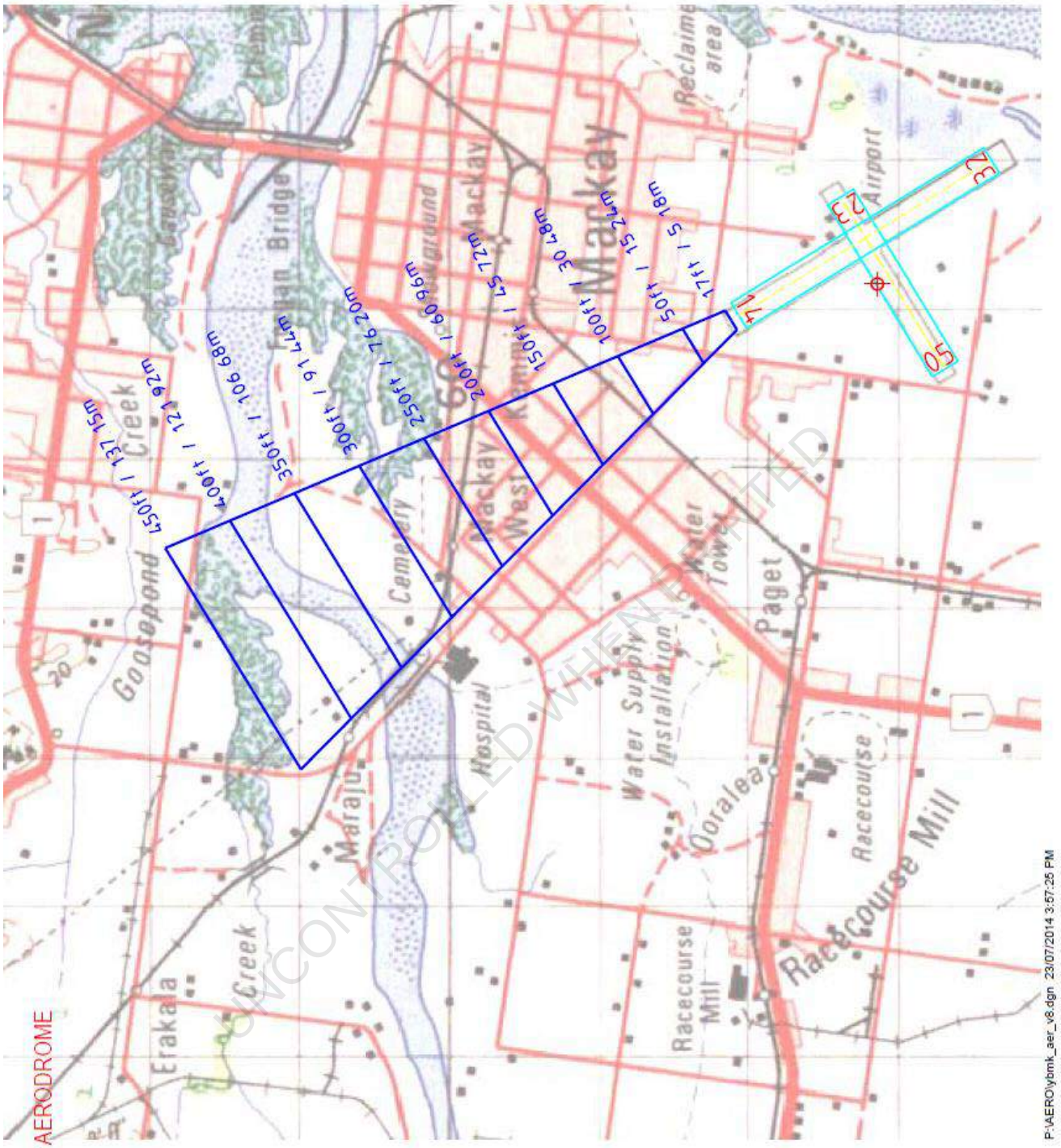
ANNEX B

PROCEDURE DESIGN DRAWINGS (PANSOPS) - AIRSERVICES AUSTRALIA

Note: All bearings/distances on following drawings are from intersection of runways

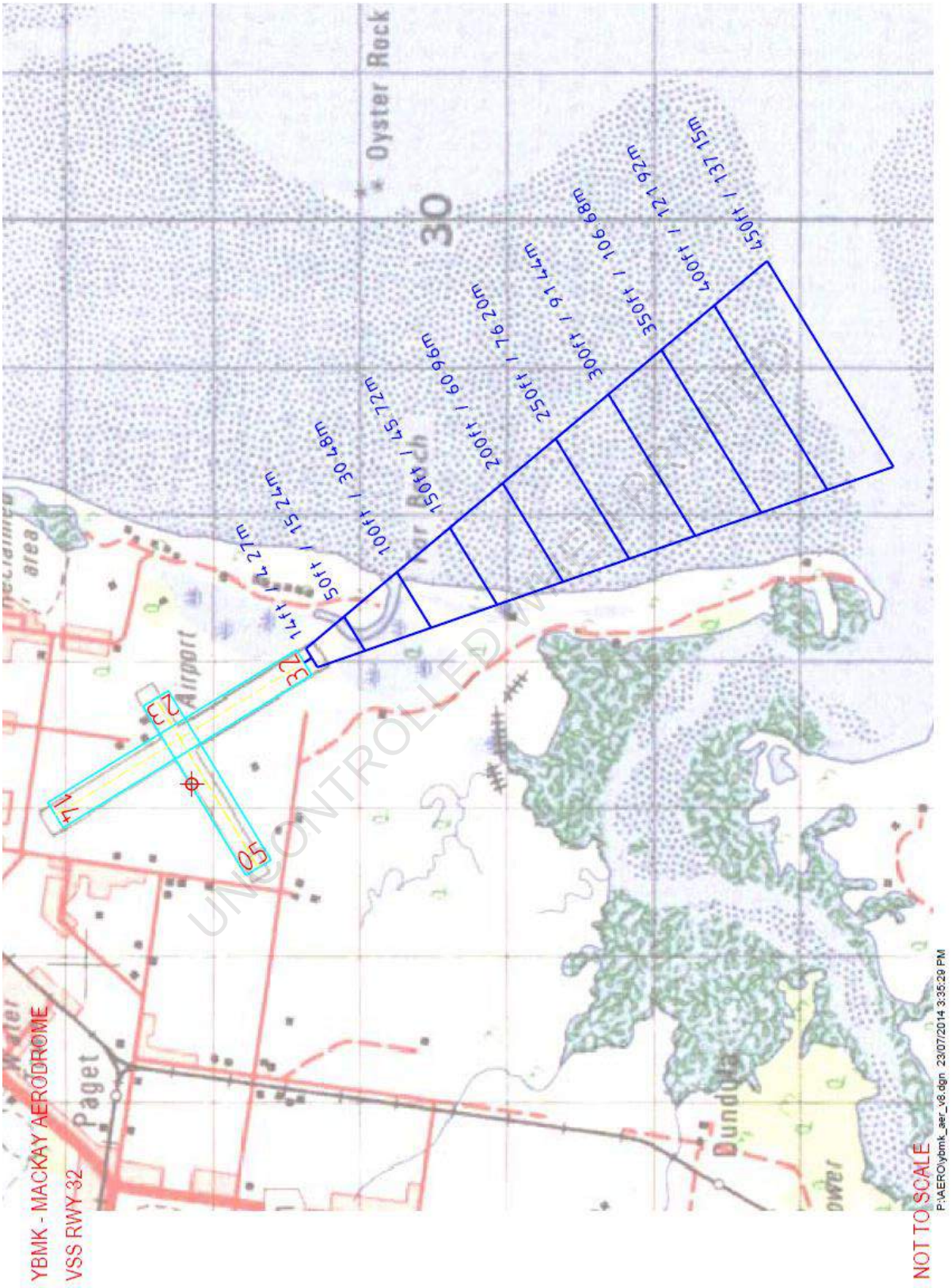
YBMK OBSTACLES

Serial	Segment	Description	BRG °T ARP	Dist (KM)	Dist (NM)	Elev (ft)	MOC	Nominal Alt (ft)	OIS / Flt Alt (ft)	Approximate Position	
BMK01	25NM MSA (R320°-R152°)	SKIDDAW PEAK 393m	015°	44.9	24.22	1446	984	2500	**1516**	20 46.72	149 17.09
BMK02	25NM MSA (R152°-R320°)	1058m Spot	206°	52.3	28.26	3677	984	4700	**3716**	21 36.04	148 58.09
BMK03	10NM MSA	560m Contour	026°	27.0	14.60	2102	984	3100	**2116**	21 22.01	149 02.68
BMK04	CIRCLING CAT A/B	40m Contour	346°	5.8	3.15	314	295	610	**315**	21 07.23	149 09.95
BMK05	VOR14 FINAL	Mt Oscar Tower	352°	6.2	3.33	404	246	650	**404**	21 06.99	149 10.21
BMK06	CIRCLING CAT D	154m Spot	310°	10.1	5.43	658	394	1060	**666**	21 06.83	149 06.29
BMK07	RNAV14 INTERMEDIATE	The Black Mtn	324°	14.2	7.66	1183	492	1700	**1208**	21 04.13	149 05.87
BMK08	SECTOR-E ARRIVAL - FINAL	Racecourse Mill Smoke Stack	279°	4.9	2.62	262	300	720	**420**	21 10.01	149 08.00
BMK09	VOR14 FINAL	Mackay Hospital Building	320°	3.8	2.03	151	246	440	**194**	21 08.76	149 09.34
BMK10	NDB-A or VOR-A FINAL	40m Contour	082°	6.9	3.73	314	295	610	**315**	21 09.72	149 14.72
BMK11	RNAV14 FINAL	40m Contour	336°	5.9	3.20	330	246	700	**454**	21 07.38	149 09.33



YBMK - MACKAY AERODROME
VSS RWY 14

NOT TO SCALE


Oyster Rock
30
450ft / 137.15m
400ft / 121.92m
350ft / 106.68m
300ft / 91.44m
250ft / 76.20m
200ft / 60.96m
150ft / 45.72m
100ft / 30.48m
50ft / 15.24m
14ft / 4.27m
32
14
23
05
Airport
Paget
Bundua
YBMK - MACKAY AERODROME
VSS RWY 32
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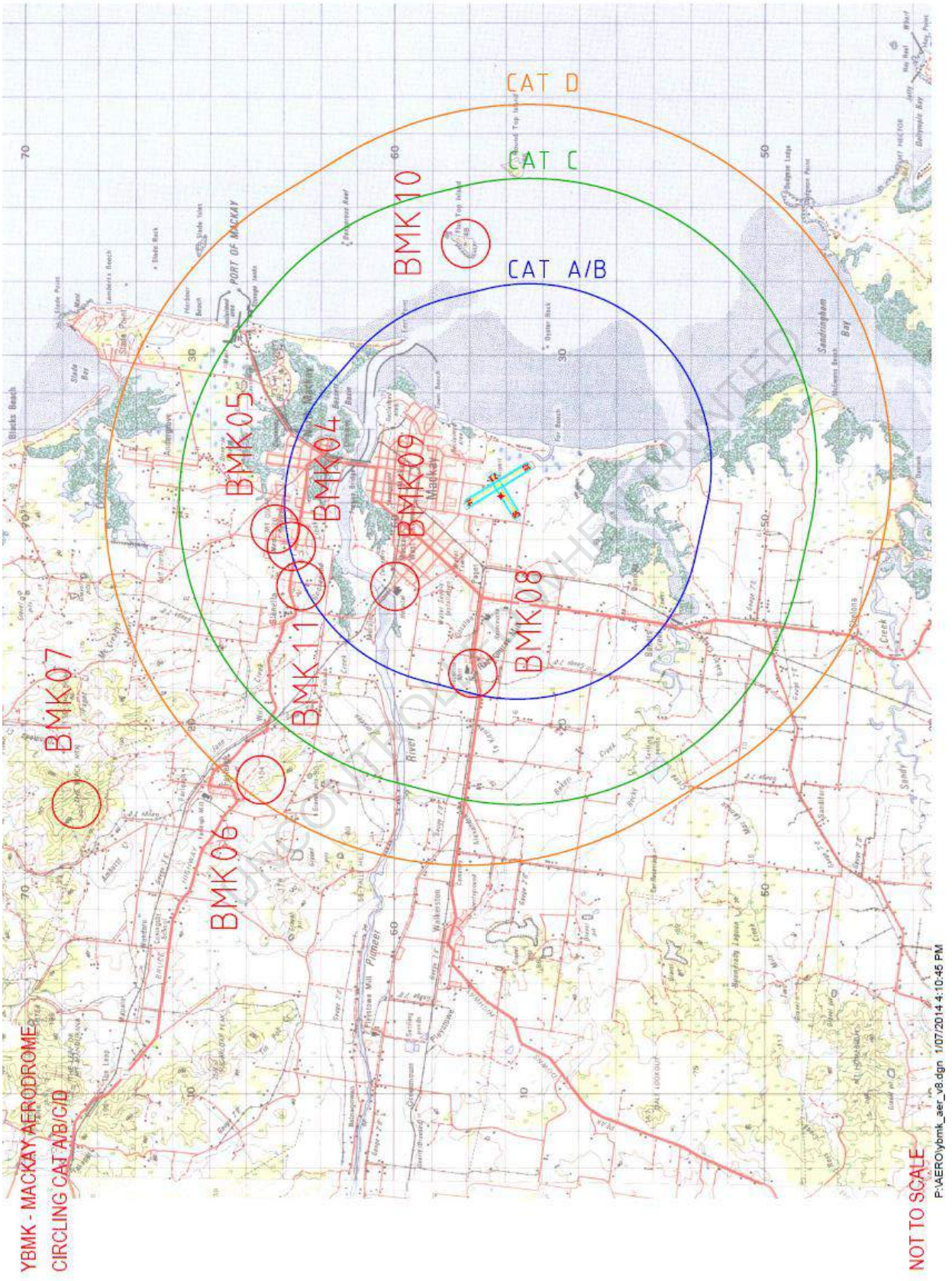
CAT D
CAT C
CAT A/B
BMK10
BMK05
BMK04
BMK09
BMK11
BMK08
BMK07
BMK06
YBMK - MACKAY AERODROME
CIRCLING CAT A/B/C/D
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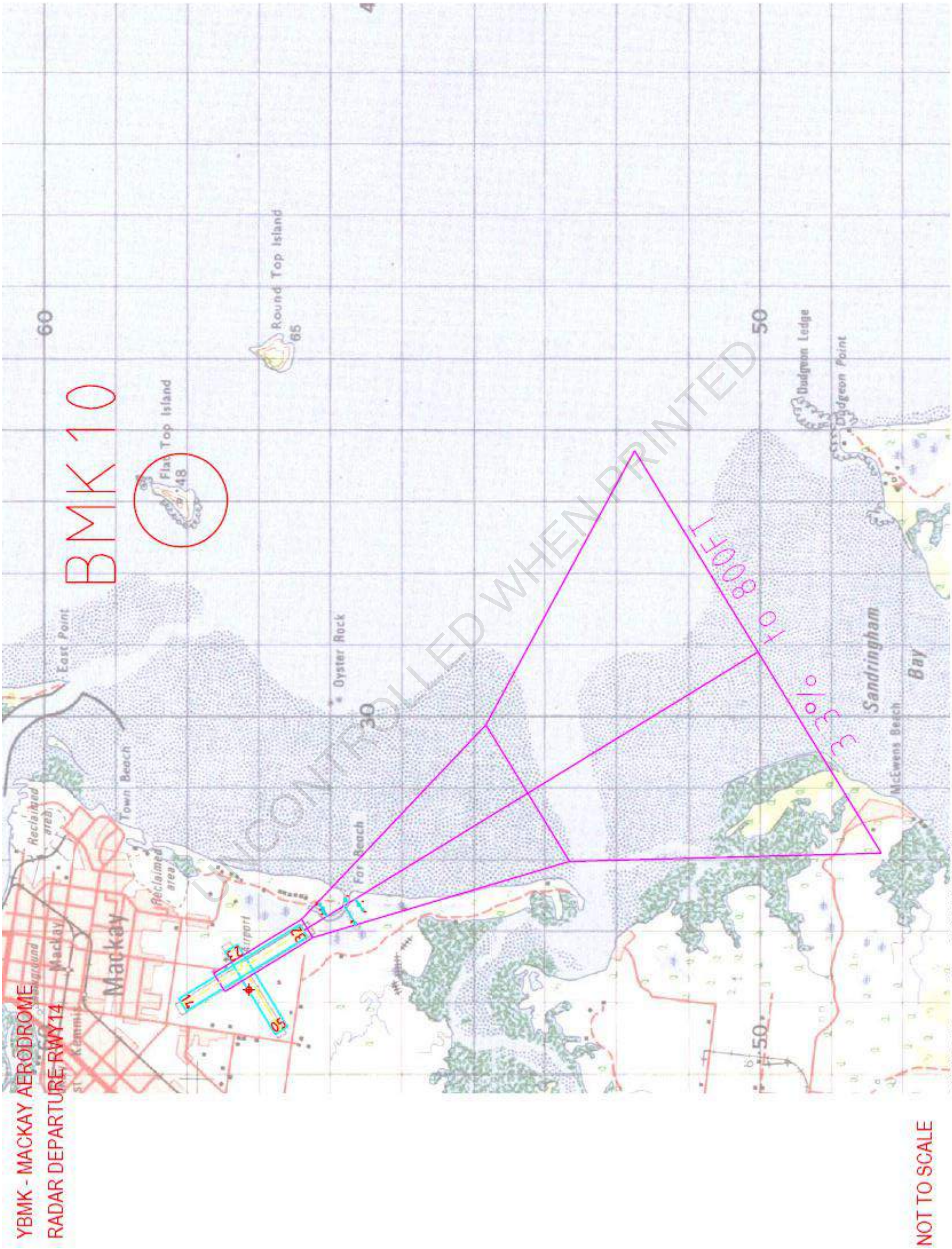
YBMK - MACKAY AERODROME
RADAR DEPARTURE RWY14
BMK10
3.3% TO 800FT
Round Top Island
Flat Top Island
East Point
Oyster Rock
Town Beach
Far Beach
Mackay
Sandringham Bay
McEwens Beach
Dudgeon Point
Dudgeon Ledge
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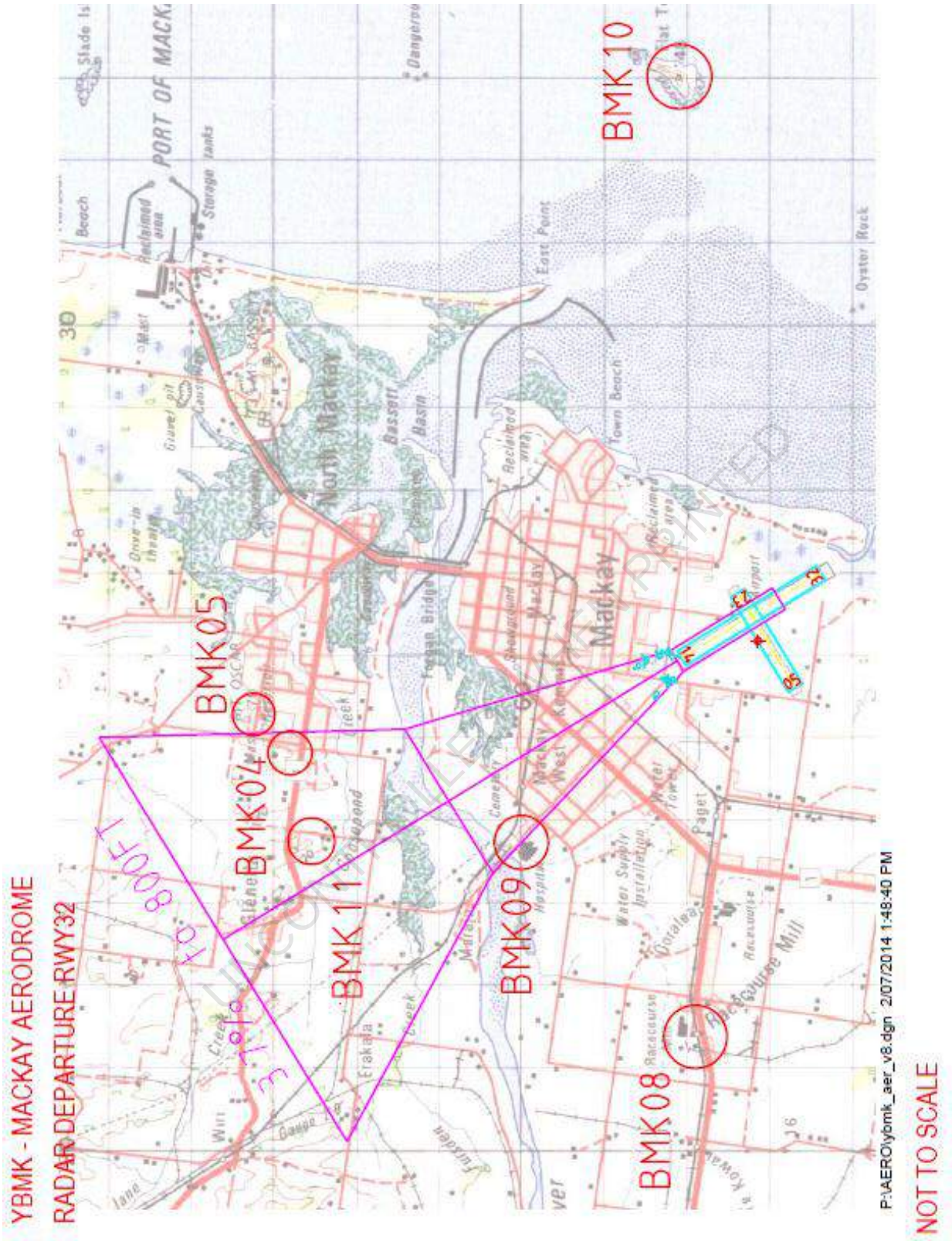
YBMK - MACKAY AERODROME
RADAR DEPARTURE RWY32
BMK05
BMK04
BMK11
BMK09
BMK08
BMK10
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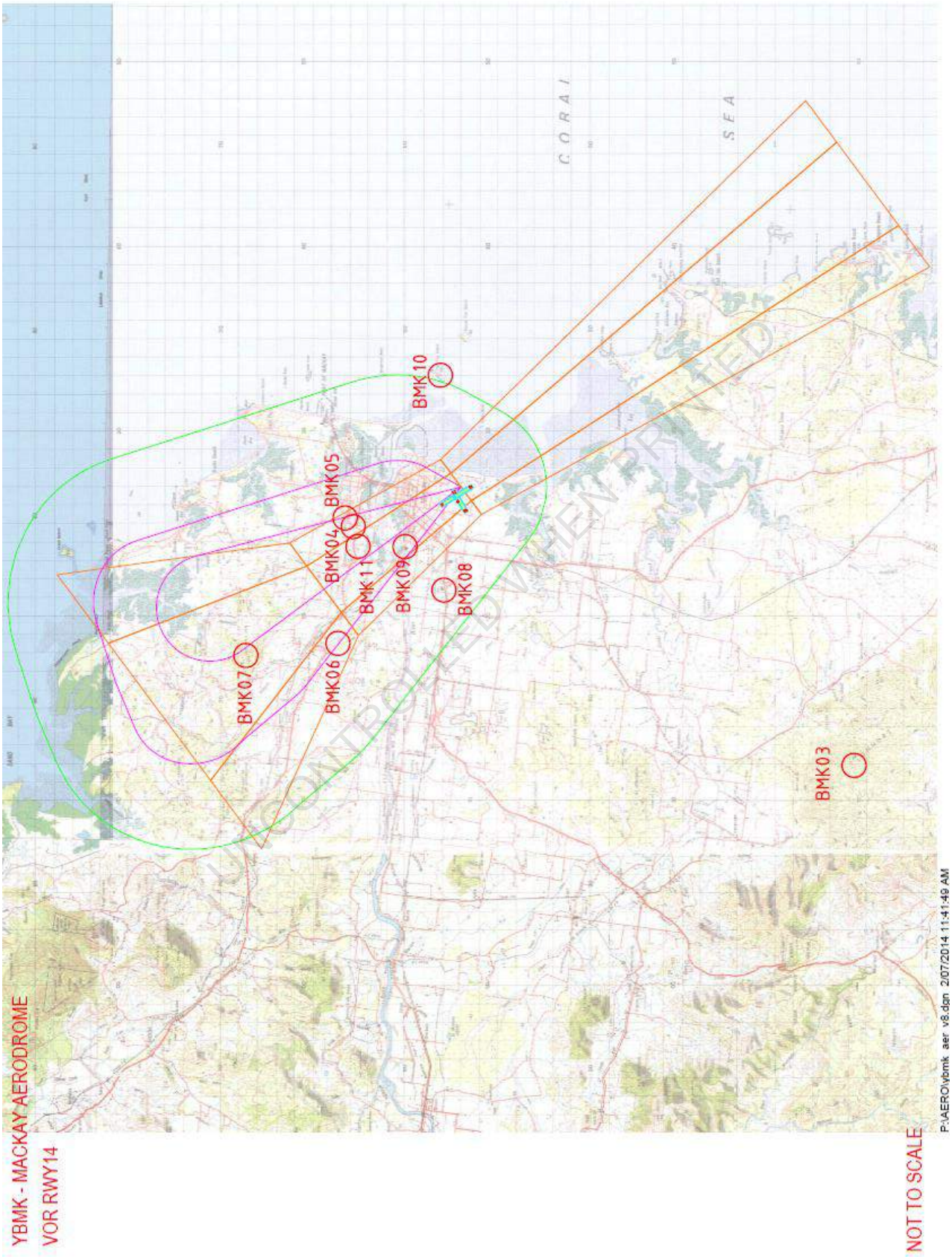
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VOR RWY14
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CORAL SEA
BMK10
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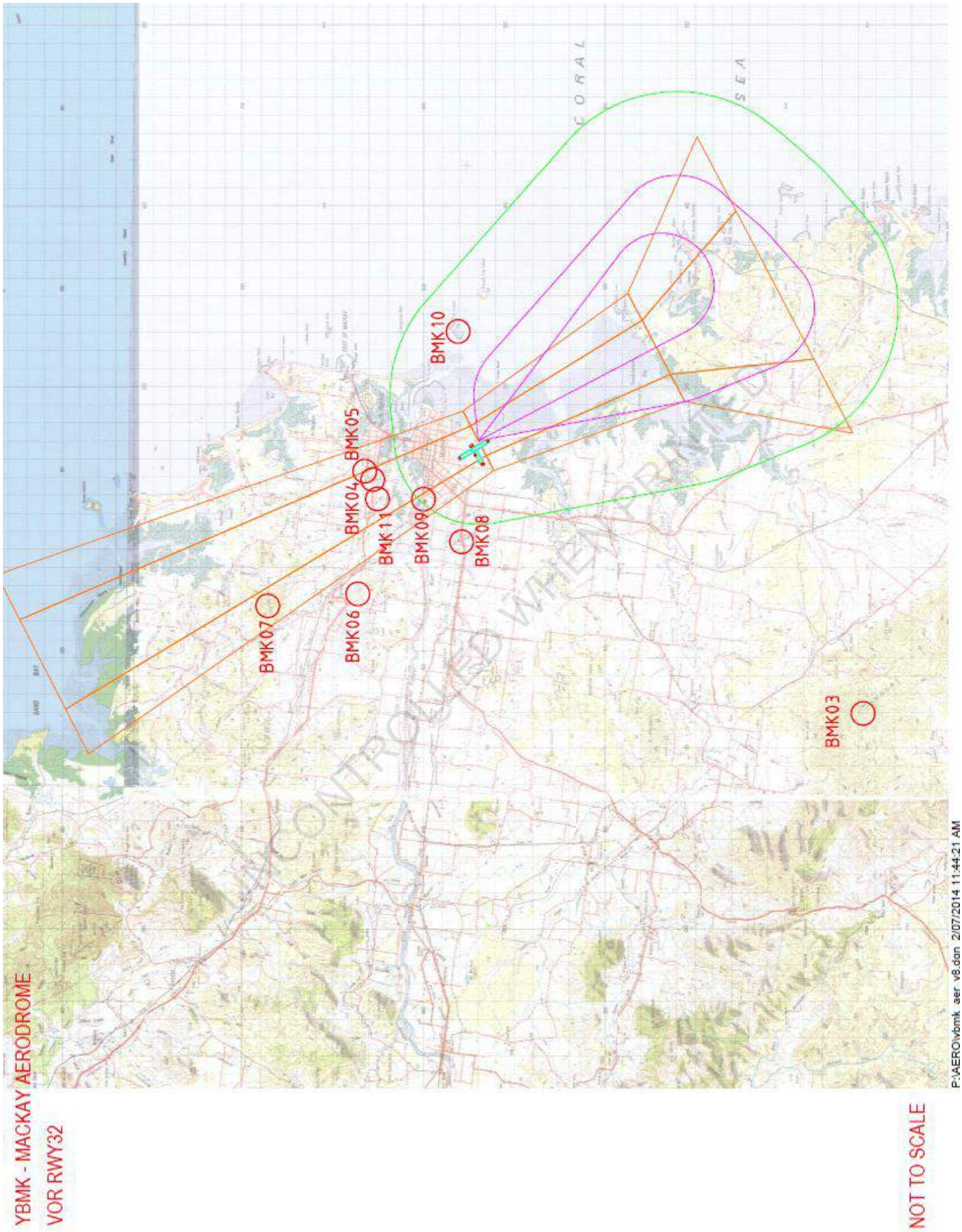
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YBMK - MACKAY AERODROME
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YBMK - MACKAY AERODROME
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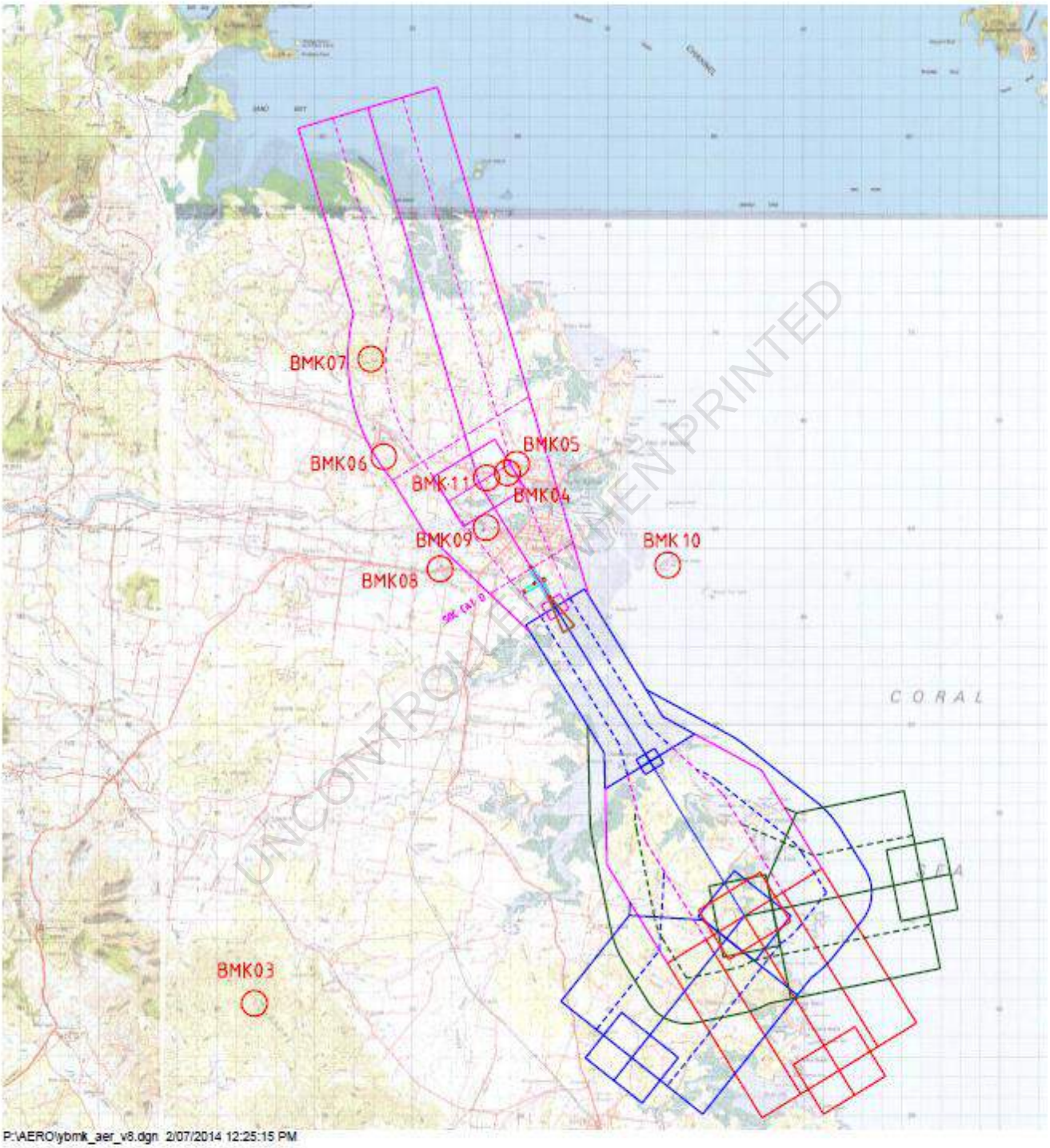
BMK03
CORAL
SEA
NOT TO SCALE

YBMK - MACKAY AERODROME
RNAV-Z (GNSS) RWY14

YBMK - MACKAY AERODROME
RNAV-Z (GNSS) RWY32



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PART 2	AERODROME ADMINISTRATION AND OPERATING PROCEDURES
SECTION 13	DISABLED AIRCRAFT REMOVAL

13.1 Objective

MAPL has prepared this "*Disabled Aircraft Removal Plan*" to provide an efficient and coordinated response for the removal of aircraft disabled on or near the runways at Mackay Airport. The plan provides details pertinent to air safety investigation of a disabled aircraft as well as guidelines for aircraft recovery for nominated personnel.

13.2 Authorisation

An aircraft which suffers an accident passes into the custody of the Australian Transport Safety Bureau (ATSB) pending a decision to undertake an accident investigation and if so, until the accident investigation is complete. Furthermore, an aircraft involved in an accident may not be removed from the accident site until the ATSB officially releases the aircraft to the owner.

In all but extreme emergency situations, the Australian Transport Safety Bureau (ATSB) approval shall be sought by MAPL before any action to remove a disabled aircraft is taken.

There are 2 other sources of authority for the removal of disabled aircraft available to MAPL.

1. **Airport Assets (Restructuring & Disposal) Act 2008:** This Act details powers of MAPL 'authorised officers' in moving any aircraft (contravening property) that affects the efficient operations, safety or security of Mackay Airport.
2. **Civil Aviation Regulations (CAR) 293:** In certain circumstances the Civil Aviation Safety Authority (CASA) can authorise removal of aircraft through this regulation. The primary limitations associated with CAR 293 are that:
    - CASA can use this regulation only where safety of air navigation is involved; and
    - any assistance given in the removal of aircraft is to be necessary and reasonable.

CASA authorisation may be given only in the "interest of safety" and not for commercial expediency. Action then taken indemnifies persons so authorised from liability for damage which may occur to the aircraft by reason of removal.

13.3 Immediate Considerations

It is important that where an aircraft becomes disabled on or adjacent to an aircraft movement area, immediate action is taken to assess the availability or otherwise of runway systems (critical areas).

- NOTAM action shall be taken as appropriate.
- Where possible, if an aircraft up to approximately 3400 kg is involved and where no injuries and only minor damage has been incurred, such as deflated or punctured tyres, immediate removal action may be initiated.
- Where action is taken in accordance with the above, the ATSB Investigation Team shall be advised that such action is proceeding.

13.4. Responsibilities

13.4.1 MAPL

The General Manager or his representative shall:

a) Ensure that ATSB has been notified and obtain their requirements with respect to the aircraft;

b) Arrange for security of the aircraft as required by ATSB;

c) If runway is not to be closed, determine runway length available and arrange for displaced threshold for landing aircraft pending calculation of revised declared distances by the MAO or SAS;

d) During tower hours, keep ATC updated and arrange for appropriate NOTAMS to be issued.

e) Arrange for notification of the holder of the "Certificate of Registration";

f) Inspect all areas prior to resumption of normal operations;

g) Return to operation unaffected portions of the aerodrome as expeditiously as possible after assuring that access to the incident area has been secured and associated taxiways and runways are in good operational condition and free of debris and damage;

h) Coordinate all aspects of the removal effort;

i) Convene a meeting with the airline/operator Recovery Coordinator, ATSB investigator and where necessary representatives from CASA and recovery equipment company.

Additionally, when coordinating a removal/recovery of a disabled aircraft, the General Manager or his representative shall:

a) Keep chronological records of meetings and recovery operations;

b) Arrange storage areas for mail cargo and records etc.;

c) Determine recovery equipment and manpower needs;

d) Obtain aircraft manufacturer's data on recovery;

e) Establish suitable access routes to and from recovery area;

f) Determine storage area for recovered aircraft;

g) Determine need to defuel aircraft;

h) Monitor weather conditions, particularly when crane lifting or air bag operations planned;

i) If necessary, arrange lighting to site;

j) Consider need for presence of a fire tender at recovery site;

k) Determine whether runway clearance limits are likely to be infringed during recovery operation;

l) If excavations are necessary, obtain a clearance in respect to underground services;

m) Arrange necessary surface restorations;

n) Convene a post recovery operation critique.

13.4.2 Australian Transport Safety Bureau

The ATSB is responsible for the investigation of all aircraft accidents and incidents involving civil aircraft operations within Australia in accordance with the provision of Transport Safety Investigation Act 2003.

An aircraft which is the subject of an accident is deemed to be in the custody of the Director and shall not be removed or otherwise interfered with without permission of the ATSB Investigating Officer except for:

a) the extrication of persons, animals and mail from the wreckage of an aircraft;

b) the protection of wreckage from destruction by fire or other cause;

c) the prevention of immediate danger to the safety of persons or property;

d) the removal of the aircraft and its contents to a place of safety when the aircraft is wrecked on water;

e) if the aircraft has come from within Australian territory and the written agreement of the Director has been obtained for removal of goods or baggage, the removal of goods or baggage can be carried out under the supervision of the Police;

f) if the aircraft has come from outside Australian territory and the written agreement of the Director has been obtained for removal of goods or baggage, the removal of goods or baggage from the vicinity of the aircraft can be carried out on a clearance by or with the consent of an officer of Customs.

13.4.3 Aircraft Owners, Operators and Tenants

The holder of the aircraft "Certificate of Registration" or his delegate is responsible for the prompt removal of disabled aircraft and parts thereof, unless required or directed to delay such action by the ATSB or MAPL.

Each aircraft operator using Mackay Aerodrome should have a basic recovery plan ready to meet such an emergency. Consultation with aircraft airframe or engine manufacturers should be conducted as appropriate. The choice of technical ways and means to remove the aircraft and all costs associated with the recovery is the responsibility of the airline or owner involved.

When a disabled aircraft is blocking or delaying the use of any portion of the maneuvering area, the owner or operator of the aircraft shall make immediate arrangements to have such aircraft moved as soon as authorised by ATSB.

In the event that removal of the aircraft is not initiated as soon as possible, or is not progressing at an acceptable rate, the MAPL General Manager will decide whether to initiate action to have the aircraft removed at the expense and risk of the owner.

MAPL may act as a contractor to the owner in the removal of a disabled aircraft. In this case, the owner or the owner's authorised representative must complete and sign an Indemnity and Release Form, a copy of which is shown at Annex A.

13.4.4 Recovery Coordinator

The aircraft owner should appoint a "Recovery Coordinator" with the authority to make all decisions, technical and financial, including clearance from the aircraft insurer, to proceed with prompt removal of the aircraft. The removal of the aircraft and all costs associated with the recovery, including contractor charges, airline rental and service company equipment charges, aerodrome property damage etc., is the responsibility of the aircraft owner/operator.

The duties of the Recovery Coordinator are to:

a) Have all required company facilities, including personnel and equipment made available;

b) Meet with the MAPL General Manager or his representative and the ATSB Investigator and develop a comprehensive plan for the removal of the aircraft;

c) If appropriate, arrange for a company representative to be available to answer any questions from the press, to issue press releases as may be appropriate, and to coordinate with MAPL General Manager or his representative for access of the press to the accident scene;

d) Participate in recovery critique.

13.5 Removal and Recovery Equipment

Equipment suitable for the removal or recovery of aircraft is available from the following companies:

Provider	Equipment	Contact
Mackay Airport	• 2.5t Bobcat with IT (forklift) • 4t Tipper • 5t Excavator • 5KVA Inverter • 2 KVA Petrol Generator • 2 Trolleys located as ChrisAir Maintenance Hangar	Manager Airport Assets Team Leader Assets
Coates Hire, Mackay	• Floodlighting including 4 and 6 KVa generators, Welders, • Cherry Pickers to 50 ft • Forklifts to 20,000lb capacity • Air compressors to 1000 cfm	07 4963 9000
Ground Handling Agencies /Airlines	• Airbags • Recovery Jacks • Lifting Slings	As per 1.2 – AOM Telephone Contact numbers
BOC Mackay	Nitrogen Cylinders to 21,000 psi	07 4952 6522

Following any event in which the Mackay Airport either does not have the resources or requires additional resources to adequately restore services a request for assistance will be made to the Mackay Local Disaster Management Group.

13.6 Contact Details

The names and contact telephone numbers of MAPL officers are detailed at the beginning of this Manual.

ANNEX A TO SECTION 13

INDEMNITY AND RELEASE DOCUMENT
MOVEMENT OF STATIONARY AIRCRAFT

To: Mackay Airport Pty Ltd (MAPL)

I, the undersigned, being the owner or the duly authorised representative of the owner of the aircraft described below hereby agree to provide this indemnity and release on the conditions set out below.

1. I agree and consent to the MAPL, its servants, agents, contractors and employees to move at any time required by MAPL the aircraft at my sole cost and expense.

2. In consideration of MAPL moving the aircraft, I agree to indemnify and keep indemnified MAPL against all and any loss damage cost charge expense or other liability however suffered paid or incurred by or threatened against MAPL in relation to or arising out of or in consequence of any action, proceeding, claim or demand which is or may be brought made or prosecuted or threatened against MAPL in respect of any loss of or damage to property, loss of life or personal injury or other loss that may arise in any way from the moving of the aircraft by MAPL.

3. I further agree to release MAPL from all claims actions, causes of actions, proceedings and demands which I or the owner now has or but for this indemnity and release would or might at any time in the future have against MAPL and from all present and future liability of MAPL to me and or the owner however caused in relation to or arising out of or in consequence of the moving of the aircraft.

4. I confirm that it is the intention of this indemnity and release that each servant, agent, contractor and employee of MAPL obtain the benefits expressed in their favor under this indemnity and release and be entitled to enforce such benefits.

5. I confirm that I and the owner have abided by all applicable laws including without limitation acts, regulations, by-laws, directions and determinations relating to or made by the Civil Aviation Safety Authority, the Australian Transport Safety Bureau, the Department of Infrastructure and Transport, the Commonwealth of Australia, MAPL, and any other relevant authority or body which has authority in relation to interference with or movement of an aircraft.

Description of Aircraft:

Type of Aircraft:

Registration:

Signed by: **Date**:

Full Name:

In the presence of: (Mackay Airport employee) **Date**:

PART 2	AERODROME ADMINISTRATION AND OPERATING PROCEDURES
SECTION 14	HANDLING OF HAZARDOUS MATERIALS

14.1 General

This chapter identifies the procedures for the safe handling of hazardous materials on the aerodrome. The handling, storing and transporting of Hazardous Materials on the Mackay Airport is governed by provisions of the Australian Standards 1940-2004 "The Storage and Handling of Flammable and Combustible Liquids" and related Australian Standards.

14.2 Aircraft Operations

Aircraft freight companies and airlines are required under CASR 92 to comply with these regulations in relation to the carriage, or consignment for carriage of dangerous goods on Australian aircraft or foreign aircraft within Australian territory.

Manuals on Company procedures are produced by concerned companies and used in conjunction with these Consignment & Carriage of Dangerous Goods by Air Regulations.

14.3 Hazardous Materials

14.3.1 Hazardous Waste

Hazardous waste, including sewage, industrial solvents, acids caustic agents, oxidising agents and other corrosive agents are required to be disposed of appropriately as per applicable regulations.

14.3.2 Petro-Chemicals

All refuelling carried out on the airport by Shell and BP is done by mobile tankers (there are no underground hydrant facilities on the airport) or by bowsers located near the Eastern GA Apron.

BP have a fuel storage depot on the eastern side of the airport. The Shell fuel storage depot is located at the Mackay seaport. The main fuels stored and dispensed by these companies are Avgas & Jet A1.

These companies operate in strict accordance with the requirements of CAO 20.9 and the relevant codes established by the SAA and in particular AS 1940-2004 "The Storage and Handling of Flammable and Combustible Liquids". Quality control checks are performed daily by trained aviation refueller's on the aviation fuel in accordance with the respective Oil Company Quality Control Procedures.

MAPL provides a facility in the MAPL workshop area to dispose of small deposits of waste oils and contaminants. The MAO ensures that the relevant SAA codes and MAPL Workplace Health & Safety and environmental requirements are complied with.

14.3.3 Explosives

Term storage of explosives on Mackay Airport is not permitted. Any explosives, as defined by ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air, will be loaded and unloaded in accordance with the guidelines provided in CAAP 89I -1(2) entitled Safety Distances for Explosive Laden Aircraft.

The MAO will normally only approve the transshipment of relatively small quantities of explosives (such as may be accommodated in aircraft below 5,700kg MTOW) and only if the application is accompanied with a written approval from CASA.

The ASO will be present during the loading of explosives in order to ensure that the conditions of the approval are adhered to. The ASO will advise both ATC and ARFFS of the activity.

14.3.4 Other Hazardous Materials

Other hazardous material may include herbicides, pesticides and (on occasions) radioactive substances.

Pesticides and herbicides are used routinely within MAPL and are handled in accordance with the HAZCHEM labelling on the respective packets or containers.

Although radioactive isotopes may be occasionally transported to Mackay by air (for use in hospitals) MAPL does not consider the incidence of such activities significant enough to warrant detailing specific handling procedures in this manual.

In cases where the MAO becomes aware of any shipment of radioactive substance at the airport, any specific requirements deemed necessary at the time will be discussed with the airline company or its agents. Actions in the event of an incident involving radioactive materials are detailed in the AEP.

14.4 Key Personnel – Roles and Responsibilities

PLEASE NOTE: In all cases, the aircraft operator, the re-fueling company or the ground-handling agent (as the case may be) is responsible to contain and clean-up any hazardous material spill on the airport caused by their organizations.

MAO: - responsible for:

- Ensuring that appropriate procedures are in place to accommodate the aviation safety related requirements in respect of hazardous materials on the airport.
- Approval of the shipment of explosives through the airport, including determining any conditions under which the operation may occur.
- Ensure that all developments on the airport incorporate adequate measures to facilitate the effective and safe disposal of hazardous materials i.e. fuels & oils.

SAS: - responsible for:

- Preparing in conjunction with environmental officers hazardous materials procedures, and promulgating these procedures for use by MAPL operations staff.
- Investigating any reports by ASOs regarding fuel spills or hazardous waste spills.
- Recording and processing MAPL Fuel/Oil Spill Records compiled by ASOs.
- Providing a report, based on ASO findings, to the MAO on any major fuel spill, or other hazardous material spill.

ASO: - responsible for:

- Reporting to the SAS any practices or procedures observed regarding storage and handling of aviation fuels and oils that in their opinion are unsafe.

- Report in the ASO logbook any hazardous material spills.
- In respect of waste spills, overseeing the clean-up by fueling companies or aircraft operators.
- If necessary, supplying absorption materials and/or emulsifying agents for fuel and oil spills.
- In the case of a major fuel spill (i.e. in excess of 100 litres) seeking ARFFS assistance to stand-by with firefighting appliances during the clean-up and, if appropriate, to provide foam, and as a last resort provide high pressure water to neutralize and disperse the spill if the containment fails.
- After the event formally report any spillage to the SAS including cause and corrective action taken.
- Providing unserviceability markers or lighting as may be required.
- Inspect and when necessary reopen a closed portion on the movement area if the area is considered serviceable.

NQA Environmental Coordinator: - responsible for:

- Ensuring that appropriate procedures are in place to accommodate the environmental requirements in respect to hazardous materials on the airport.
- Providing scientific/technical advice to MAPL personnel and airport tenants.
- Undertaking environmental audits in order to ensure detection of spillage or unauthorised disposal of hazardous materials or waste.

NQA Manager Property & Retail: - has the responsibility to include in formal lease documents such conditions that will require tenants to:

- Comply with the Standards Association of Australia codes in respect to hazardous materials.
- Ensure that no hazardous material will be disposed of or permitted to leak or drain onto airport surfaces or into drains, sewers, or soils, and
- Provide, where necessary, suitable spill response materials receptacles for waste substances to be disposed of under applicable Government regulations.
- In the case of aviation fixed base operators and mobile Refuellers, provide fuel sample receptacles at convenient locations with instructions for relevant persons to use them when discarding fuel samples.

14.5 Contact Details

The names and contact telephone numbers of MAPL officers are detailed in the beginning of this manual.

PART 2	AERODROME ADMINISTRATION AND OPERATING PROCEDURES
SECTION 15	PROTECTION OF RADAR AND NAVIGATIONAL AIDS

15.1 General

This chapter identifies the procedures to be used for the protection of radar and navigational aids located on the aerodrome to ensure that their performance will not be degraded.

The following Navigational aids are owned, maintained and operated by Airservices Australia as per the Airservices Australia Aerodrome Operator Interface Arrangement for Mackay Aerodrome.

- VOR Facility
- DME
- NDB Facility (off airport)

15.2 Control of Activities Around the Installation Sites

The procedures for the protection of the navigational aids located on the airport are documented in MOS 139 Section 11 – 'Standards for other aerodrome facilities'.

15.3 Installation Warning Signs

Airservices Australia shall supply and install all appropriate signage, including signs warning of hazardous microwave radiation, around the respective sites.

15.4 Ground Maintenance Arrangements

15.4.1 Site Maintenance

Ground maintenance (such as mowing) is routinely carried out in and around these installations by Airservices Australia contractors in accordance with established procedures involving prior approvals through Airservices Australia Technical staff and ATC.

15.4.2 Maintenance Concerns

Any maintenance or operational problems will be immediately directed to Airservices Australia, Technical Section located on the Airport.

16.2 General

Mackay Airport does not have the facilities to support low visibility aircraft operations when the runway visibility (RV) falls below 800m, the limiting factor being the standby power supply with a switchover time of greater than 1 second.

Although Low Visibility Operations for aircraft are not supported, procedures must be put in place to guarantee the safety of aircraft, personnel and vehicles during conditions of low visibility. In this context, Low Visibility Operations (LVO) refers only to the ground procedures that must be implemented when ATC notifies of its activation.

This section details the arrangements in place to assist ATC in determining the RV during conditions of low visibility as well as the arrangements for restricting personnel and vehicles on movement areas during LVO.

Automatic RVR instrumentation is not provided at Mackay Airport. ATC or pilots may request the ASO to conduct RV assessments in conditions of low visibility. These are visual observations carried out to enable ATC or pilots to determine the RV. RV Assessments may only be performed by suitably qualified and authorised RV assessors. All MAPL ASOs who may be required to conduct RV assessments are trained and notified in writing of their appointment as an RV assessor. Before appointment, they must undergo eye testing to fulfil the requirements of MOS 10.19.3.1.

16.3 Runway Visibility Assessment

16.2.1 Responsibility

In conditions of low visibility and on request from ATC or pilots, the ASO shall conduct an RV assessment on the nominated runway in accordance with the MAPL SOP.

16.2.2 Notification

Once the RV Assessment is complete, the ASO shall report the visibility distance along the specified runway to ATC or the pilot by radio.

16.2.3 Appointed Runway Visibility Assessors

The following MAPL staff have been appointed as Runway Visibility Assessors for Mackay Airport:

Philip Clark	Jason Horton	Brandon Ford
Dale Parker	Shane Hokins	David Annear

16.3 Restrictions during LVO

When ATC notifies the ASO that LVO is implemented, the ASO shall restrict the movement of persons and vehicles on the movement area. To this end, the ASO shall: Cause all works airside to cease and direct personnel, plant and equipment to be moved either from the movement area or to a specific area and remain until further notice. The ASO may anticipate the introduction of LVO and implement restrictions before the RV reduces to 800m. Vehicles and persons associated with the servicing of

aircraft on the apron areas are permitted during these conditions, however, vehicles may need to be restricted within the GA apron areas.

- Provide a "follow me" service for taxiing aircraft and an escort service for vehicles if requested by ATC or pilots.
- Carry out a perimeter fence inspection and check that all security gates are secured.
- Request permission to enter maneuvering areas when LVO is introduced during tower hours

16.4 Key Personnel – Roles and Responsibilities

ATC: - responsible for:

- Requesting RV assessments;
- Determining the RV; and
- Introducing LVO

MAO: - responsible for:

- Ensuring that there are arrangements in place to minimize vehicular and pedestrian traffic on the movement area during LVO.

SAS: - responsible for:

- Ensuring that appropriate serviceability inspections are carried out by the ASO;
- Ensuring that ASOs are trained to conduct RV assessments;
- Ensuring that ASOs conduct RV assessments on request from ATC or pilots.

ASO: - responsible for:

- Conducting RV assessments on request from ATC or pilots;
- Ensuring that only essential vehicles and personnel have access to the movement area during LVO;
- Providing a "Follow Me" service for taxiing aircraft and an escort service for vehicles on request from ATC or pilots by:
    - Liaising with pilot/driver in command directly or via ATC to confirm route and destination;
    - Following a defined route at a suitable speed to destination ensuring safety of other vehicle or aircraft; and
    - Ensuring the escort vehicle has flashing lights and 'low beam' headlights enabled. It is imperative that the position of all vehicles/aircraft using this service be positively established at all times when flying operations are in progress.
- Checking the security of the perimeter fence and security gates;
- Requesting permission to enter maneuvering areas when LVO is introduced during tower hours.

17.1 General

In accordance with CASR 139.385, MAPL has provided Mackay Airport with a frequency confirmation system for use during CTAF hours that complies with the requirements of MOS 139 14.3. The system commissioned at Mackay Airport is an Aerodrome Frequency Response Unit (AFRU) which is coupled with Pilot Activated Lighting (PAL). Hence, AFRU+PAL.

17.2 Collection of Statistics

CASA has not given the aerodrome owner any direction about collecting statistics for deciding what radio communication services or air traffic services should be provided at the aerodrome.

17.3 AFRU+PAL

17.3.1 Operation

The AFRU+PAL is installed at Mackay Airport and operates on the CTAF frequency of 124.5MHz. Activation of AFRU+PAL is in accordance with the operating instructions identified in the introduction section of AIP-ERSA.

17.3.2 Installation

The AFRU+PAL has been installed in accordance with the Airservices Australia Series II AFRU/PAL service manual and meets the ARFU technical specification as described in MOS Section 14.3.5. The system was commissioned on 16th February 2005. The AFRU+PAL unit is located in the Airport Lighting Room located in the ATC Tower Complex.

17.3.3 Commissioning

Commissioning of new AFRU+PAL units will be carried out per the requirements of MOS 139 9.1.15 & MOS 139 14.3.8.

Commissioning reports will be sent to the CASA Airport Inspector. If CASA is satisfied with the reports, CASA will approve the issue of a permanent NOTAM. The MAO is responsible for issue of this NOTAM.

17.3.4 Maintenance

Routine maintenance of the AFRU+PAL is carried out on an annual basis by Airservices Australia. The MAA is responsible for arranging this maintenance and any necessary repairs. If necessary the MAO will arrange NOTAM action if the AFRU+PAL becomes unserviceable as per MOS Section 10.3.2.2. Copies of the user manuals for this equipment are held by MAPL and Airservices Australia.

17.3.5 Reporting

During daily inspections the ASO shall check the AFRU transmission. If it is found to be unserviceable, the ASO shall make a log entry, complete a Faults and Services Request and advise the MAO or SAS who will then initiate the NOTAM and coordinate repair of the unit.

17.4 Key Personnel – Roles and Responsibilities

MAO: - responsible for:

- Ensuring that the AFRU+PAL is checked by ASOs during aerodrome serviceability inspections and by the electrical contractor during inspections.
- Arranging a permanent NOTAM on successful commissioning of a new AFRU+PAL system.
- Initiate NOTAM and coordinate repair of the AFRU+PAL if it becomes unserviceable (or delegate to SAS).

MAA: - responsible for:

- Arranging for the annual maintenance of the AFRU+PAL.

ASO: - responsible for:

- Checking the AFRU+PAL during the Daily Serviceability Inspections.
- Logging any unserviceability of the AFRU+PAL in the ASO Logbook.
- Reporting the fault on AFRU+PAL to the MAO or SAS for action.
- Raising a Faults and Services Request on an unserviceable AFRU+PAL system. On confirmation of repair and serviceability check, close fault.
- Initiate NOTAM for the AFRU+PAL if it becomes unserviceable as directed by the MAO or SAS. On confirmation of repair and serviceability check, cancel NOTAM.

17.5 Contact Details

The names and contact telephone numbers of the MAPL officers with responsibility for the Aerodrome Radio Communication Service are detailed in the beginning of this manual.

PART 3	PARTICULARS OF AERODROME TO BE PUBLISHED IN AERONAUTICAL INFORMATION PACKAGE
SECTION 01	**AERODROME INFORMATION REQUIRED FOR NOTIFICATION IN AIP- ERSA**

The information contained herein is correct at the time this document was published and will be updated whenever this document is amended. MAPL, in adherence to its responsibilities to update any changes to this information to Airservices Australia through the NOTAM and AIP amendment process, resolves that AIP should be consulted for the most up to date information.

GENERAL INFORMATION

Aerodrome Name	Mackay Airport (YBMK)
State	Queensland
Aerodrome Location	S21 10.3 E149 10.8 VAR 8 DEG E
Aerodrome Elevation	19 ft
Aerodrome Operator	Mackay Airport Pty Ltd P.O. Box 5806 Mackay MC QLD 4741 Phone: 07 4957 0201, Fax: 07 4953 1929, ARO: 0418 570 233, 0407 570 208

Aerodrome Beacon Provided. Flashing with alternating white/green every 8 seconds

REMARKS:

1. AD Charges: All ACFT
2. This AD is a Security Controlled Airport.

HANDLING SERVICES AND FACILITIES:

BP: AVGAS. H24 Carnet Card Swipe Bowser. Phone: 07 4957 3226, M: 0407 127 539.
SHELL: Aviation Refuellers (Oznorth Services Pty. Ltd commences 15/12/2016) 2100-0730 AH Call Out Fee will apply. PN required. Phone: 07 4957 3226, Mobile: 0407 127 539. Card Swipe Bowser AVGAS. Fuel and Fly Card, Shell Fuel and Fly Card, Shell Global Carnet Card and Credit Cards (VISA and MC)

RESCUE AND FIREFIGHTING SERVICES

1. RFF Category and Hours of Operation as per local NOTAM
2. 131.0mHz AVBL HO
3. Water Rescue Service AVBL

RUNWAY INFORMATION – RWY 14/32 (CODE 4 INSTRUMENT NON-PRECISION)

Magnetic Bearing	RWY 14 – 139°M
Runway Reference Code	4 (150m approach inner edge width)
Runway length & width	RWY 14 – 1981m x 45m
	RWY 32 – 1981m x 45m
Runway Strip	RWY 14/32 – 2101m x 150m
Pavement surface	RWY 14/32 – Asphalt/Grooved
Pavement Rating	PCN 57/F/C/1400(203psi)/T Grooved

Declared Distances & Take-off gradients

RWY 14	TORA 1981 (6499)	TODA 2041 (6696) (2.61%)	ASDA 1981 (6499)	LDA 1981 (6499)
RWY 32	TORA 1981 (6499)	TODA 2041 (6696) (2.15%)	ASDA 1981 (6499)	LDA 1981 (6499)

1. RWY 14/32 APCH SFC based on 150M inner edges.
2. Slope Level. RWY WID 45 RWS WID 150 Graded 150.

SUPPLEMENTARY TAKE-OFF DISTANCES

RWY 14 1889(6197) (1.6) 1969(6460) (1.9) 2024(6640) (2.2) 2038 (6686) (2.5)

RWY 32 1774(5820) (1.6) 1994(6542) (1.9) 2018(6620) (2.2)

Obstacle Chart Type A N/A

APRONS AND TAXIWAYS

1. TWY C not AVBL for ACFT ABV MAX 21M wingspan or ACFT ABV 12,000KG.
2. TWY C AVBL HJ only.
3. TWY D not AVBL for ACFT ABV 5,700KG.
4. TWY E and TWY F not AVBL for ACFT ABV MAX 27.4M wingspan.
5. TWY G not AVBL for ACFT ABV 18.5M MAX wingspan.
6. TWY H not AVBL for ACFT ABV 12,000KG and restricted to 24M MAX wingspan.
7. TWY J, PCN 8/F /A/580 (84PSI)/T
8. TWY L, PCN 8/F /A/580 (84PSI)/T
9. Eastern GA Apron BTN TWY F and TWY G restricted to 18.5M MAX wingspan.
10. Western GA Apron not AVBL for ACFT ABV 12,000KG and restricted to 24M MAX wingspan.
11. Western GA Apron restrictions not AVBL to HEL OPS for ACFT ABV MTOW 1,100KG with skids EXC with prior approval FM Duty Safety Officer, Tel: 0418 570 233.
12. HEL LDG site ADJ TWY C now AVBL to HEL OPS ACFT ABV 1,100KG.

VISUAL AID SYSTEMS

Runway Lighting

	SDBY PWR:	GENERATOR
	RWY 14/32	MIRL - AFRU+PAL 124.5MHz
	SDBY PWR:	GENERATOR

Gen power not available to secondary WDI northern end RWY 14

PAPIs RWY 14/32 3.0° 53.3FT

RWY 14 RTIL – activated in conjunction with RWY lighting

Visual Docking Guidance Systems N/A

RWY 14 MAGS - Illuminated Runway Designation MAG signs and taxiway location MAG signs to RPT Apron.

LOCAL TRAFFIC REGULATIONS

1. Simulated asymmetric DEP or simulated engine failure after take-off:
    a. Not permitted RWY 32;
    b. Not permitted until ACFT CLR of built-up areas;
    c. DRG TWR HR, prior approval from ATC required.
2. Wide bodied ACFT restricted to TWY A and parking position 1A.
3. RPT apron is a Security Restricted Area. Access for non RPT operators to RPT and Cargo Aprons by permission from Airport Management Non RPT operators must obtain prior parking approval 48 HR PN from Mackay Airport Pty Ltd, Phone 0418 570 233, Fax 07 4957 0273. Parking Approval Forms are available via Airport Website and return by Fax or email to aso@mackayairport.com. Access from cargo apron to RPT terminal or landside is via Pedestrian Gate 20A, remaining clear of Security Restricted Area.
4. ACFT requesting PRKG on Bays 1 through to 5A, in addition to completing the 'Mackay Airport Aircraft Parking Approval', require a ground handling agency to be appointed to handle all ground OPS during their stay. Details via airport website.
5. Western GA apron parking - ACFT (including HEL) BLW 12,000KG requiring access to RPT terminal to park on Western GA apron, accessed from TWY J via TWY H. Access from Western apron to RPT terminal or landside is via pedestrian Gate 21A. The northern edge of the Western GA Apron parking area is restricted to DAY operations only. All other ACFT to park at Eastern GA in the parking bays painted white, accessed from RWY 14/32 via TWY E and from TWY L via TWY D.
6. HLS ADJ TWY C AVBL for military and emergency rescue. Other operators must obtain prior PRKG approval FM Mackay Airport Pty Ltd, Phone 0418 570 233, Fax 07 4957 0273.
7. Civil HEL Operations
    a. Air taxi to/from parking at EAST HELIPARK via TWY L;
    b. MAX rotor diameter 15M. If diameter greater than 15M, 24HR PN required for parking allocation;
    c. Caution: Floodlighting towers up to 45M AMSL on sporting fields in sector NE of AD.
8. **TRAINING FLIGHTS**
    a. Circuit training for ACFT ABV 5700KG restricted to 2100-1100.
    b. For NAVAID training, phone Mackay TWR for approval DRG TWR HR.
9. Landing RWY 14 - Jet ACFT ABV 30,000KG MTOW, when operationally possible, are requested to avoid excessive braking and to use full RWY length and turning nodes provided.
10. Run up bay on Eastern GA located on southern side of Eastern GA APN in BTN TWY D and E.

CTAF – AFRU 124.5

Outside TWR HR.

NOISE ABATEMENT PROCEDURES

Noise Abatement Procedures (NAP) apply. Refer AIP DAP.

ADDITIONAL INFORMATION

1. Bird and animal hazard exists year round with risk species varying depending on weather conditions.
    a. Black Kite, Whistling Kite, Masked Lapwing, Bush Stone-Curlew, Magpie Lark, Cattle Egret and Nankeen Kestrel present all year round.

b. Flying Foxes are a seasonal risk at dawn and dusk on the APCH to the RWY (on and off the airfield). Peak risk period is DEC-FEB although potential risk exists year round.

2. PJE on AD HJ - SFC-10,000FT AMSL.
3. In conditions of light mist or fog, high intensity floodlighting adjacent to short final on approach RWY 14 may cause distraction.
4. Pedestrian Gates access code for both GA APN AVBL 0418 570 233 (2000-1100 SUN-FRI, 2000-0930 SAT). AH phone 0419 757 117. Call out fee will apply.
5. ACFT wishing to refuel on Western GA Apron off TWY J and TWY H - AVGAS not AVBL. AVTUR only AVBL by prior arrangement with Shell refuelling agent.
6. ASICs must be displayed at all times whilst airside, including on GA Aprons. Passengers must be escorted at all times.
7. Some areas of EGA and WGA may not comply with lighting standards. Pilots should exercise caution at night.
8. Parking charges apply as per Mackay Airport Conditions of Use which can be obtained via Mackay Airport website.

CHARTS RELATED TO THE AERODROME

1. WAC 3234, 3235.
2. Also refer to AIP Departure and Approach Procedure.

----------END OF MANUAL----------