

CASR PART 139 AERODROME MANUAL

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CASR PART 139 AERODROME MANUAL

0 PREFACE

0.1 AMENDMENT RECORD

Revisions to this manual are dated and a new version number assigned accordingly. In addition to recording the date of change for each section or page of the manual, a summary of the changes made is also recorded.

Version No.	Date	Section & Page	Summary of change(s)
1	Nov 2020	All	Initial Issue
2	Nov 2023	All	CASA Safety Observation 827402

0.2 DISTRIBUTION LIST

A copy of this manual is retained in the Northampton and Kalbarri Offices of the Shire of Northampton and is made available to CASA for inspection if requested.

Electronic or printed copies and updates of this manual are distributed as follows:

Copy No.	Manual holder	Electronic format	Hard copy
1	Richard Davey - ARO, Kalbarri Shire Office	X	X
2	Jarrod Dawe - ARO - Kalbarri Works Depot	X	X
3	Andrew Campbell - CEO - Airport Manager	X	X

Kalbarri Airport makes this manual available to all relevant persons on the Shire of Northampton's website.

Persons printing the manual should be aware that any hard copies are uncontrolled and may not be the most up-to-date version.

0.3 ABBREVIATIONS AND ACRONYMS

ABBREVIATIONS or ACRONYMS	MEANING
ACN	aircraft classification number
ADP	aeronautical data package
AEP	aerodrome emergency plan
ARC	aircraft reference code
ARFFS	aviation rescue and firefighting services
AGL	aeronautical ground lighting
AHD	Australian height datum
AIP	aeronautical information publication
AIS	aeronautical information service
ALARP	as low as reasonably practicable
AMSL	above mean sea level
ARO	aerodrome reporting officer
ARP	aerodrome reference point
ASDA	accelerate-stop distance available
ATC	air traffic control
AT-VASIS	an abbreviated T pattern visual approach slope indicator system
AVDGS	advanced visual docking guidance system
CASA	Civil Aviation Safety Authority
ERSA	En-route Supplement Australia
ft	feet
FOD	foreign object debris
H24	continuous
IFR	instrument flight rules
ILS	instrument landing system
IWDI	illuminated wind direction indicator
LDA	landing distance available
LVP	low-visibility procedures
m	metres
MAG	movement area guidance sign
MOS	Manual of Standards
MOWP	method of working plan
NAIPS	national aeronautical information processing system
NOF	NOTAM Office
NOTAM	notice to airman
OFZ	obstacle free zone
OLS	obstacle limitation surface
OMGWS	outer main gear wheel span
PAL	pilot activated lighting system
PANS-OPS	Procedures for Air Navigation Services - Aircraft Operations
PAPI	precision approach path indicator
PCN	pavement classification number
RESA	runway end safety area
RTIL	runway threshold identification lights
RV	runway visibility
RVR	runway visibility range
RWY	runway
SMS	safety management system

ABBREVIATIONS or ACRONYMS	MEANING
STODA	supplementary take-off distance
RMP	risk management plan
TDZ	touchdown zone
TODA	take-off distance available
TORA	take-off run available
T-VASIS	T pattern visual approach slope indicator system
TWY	taxiway
VASIS	visual approach slope indicator system
VDGS	visual docking guidance system
VFR	visual flight rules
WDI	wind direction indicator

0.4 DEFINITIONS

TERM	DEFINITION
accelerate-stop distance available	the length of the take-off run available plus the length of the stopway if provided
accident	<p>an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which:</p> <ul style="list-style-type: none"> • a person is fatally or seriously injured as a result of: <ul style="list-style-type: none"> ◦ being in the aircraft, or ◦ direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or ◦ direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew, or • the aircraft sustains damage or structural failure which: <ul style="list-style-type: none"> ◦ adversely affects the structural strength, performance or flight characteristics of the aircraft, and ◦ would normally require major repair or replacement of the affected component, except for engine failure or damage when the damage is limited to the engine, its cowlings or accessories, or for damage limited to propellers, wing tips, antennas, tyres, brakes, fairings, small dents or puncture holes in the aircraft skin, or ◦ the aircraft is missing or is completely inaccessible
aerodrome	an area of land or water (including any buildings, installations, and equipment) intended to be used either wholly or in part for the arrival, departure or movement of aircraft.
aerodrome elevation	the elevation of the highest point of the landing area
aerodrome reference code	<p>refers to the three (3) elements that are nominated by the aerodrome operator, specifically:</p> <ul style="list-style-type: none"> • a code number which is determined by the aeroplane reference field length, and which is applicable to runways • a code letter which is determined by the aeroplane wingspan, and which is applicable to runways, taxiways, aircraft holding bays and parking positions • the OMGWS which is applicable to runways and taxiways
aerodrome reference point	the designated geographical location of an aerodrome
AIP responsible person	for an aeronautical data originator, a person appointed by the originator under regulation 175.445 as responsible for the provision of aeronautical data or aeronautical information published in the AIP
air transport operation	<p>a passenger transport operation, or a cargo transport operation, that</p> <p>(a) is conducted for hire or reward, or</p> <p>(b) is prescribed by an instrument issued under regulation 201.025</p> <p>However, an operation conducted for a purpose mentioned in paragraph 206(1)(a) of CAR is</p>

TERM	DEFINITION
	<p>not an air transport operation.</p> <p>206(1)(a) <i>aerial work purposes, being purposes of the following kinds (except when carried out by means of an RPA):</i></p> <ol style="list-style-type: none"> 1. <i>aerial surveying</i> 2. <i>aerial spotting</i> 3. <i>agricultural operations</i> 4. <i>aerial photography</i> 5. <i>advertising</i> 6. <i>balloon flying training</i> 7. <i>ambulance functions</i> 8. <i>carriage, for the purposes of trade, of goods being the property of the pilot, the owner or the hirer of the aircraft (not being a carriage of goods in accordance with fixed schedules to and from fixed terminals)</i> 9. <i>any other purpose that is substantially similar to any of those specified in subparagraphs 1 to 7 (inclusive).</i>
AIS provider	a person who holds a certificate under regulation 175.055 of CASR
apron	a defined area on a land aerodrome to accommodate aircraft for the purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance
apron taxiway	a portion of a taxiway system located on an apron to provide a through taxi route for aircraft across the apron to another part of the taxiway system
Australian height datum	the datum that sets mean sea level as zero elevation
clearway	a defined area at the end of the TORA, on the ground or water under the control of the aerodrome operator, which is selected or prepared as a suitable area over which an aeroplane may make a portion of its initial climb to a specified height
displaced threshold	a threshold not located at the extremity of a runway
holding bay	a defined area where aircraft can be held or bypassed to facilitate efficient surface movement of aircraft
incident	an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation
international aerodrome	an aerodrome: (a) designated by the Department as an international airport in Australia; and (b) identified as a designated international airport in Australia on the Department's website.
instrument runway	one of the following types of runway nominated for the operation of aircraft using instrument approach procedures: (a) non precision approach runway (b) precision approach runway (CAT I) (c) precision approach runway (SA CAT I) (d) precision approach runway (SA CAT II) (e) precision approach runway (CAT II) (f) precision approach runway (CAT III A / B / C)
landing distance available	the length of the runway which is declared available and suitable for the ground run of an aeroplane landing
manoeuvring area	part of the aerodrome used for the take-off, landing and taxiing of aircraft, excluding aprons
method of working plan	a plan to ensure that aerodrome works do not present a hazard to aircraft operations
movement area	that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the aprons
non-homogenous runway surface	a runway surface that has different surface finishes across its full width
non-instrument runway	a runway for the operation of aircraft using visual approach procedures
NOTAM	Notice to Airmen - and is a notice issued by the NOTAM Office containing information or instructions concerning the establishment, condition or change in any aeronautical facility,

TERM	DEFINITION
	service, procedure or hazard, the timely knowledge of which is essential to persons concerned with flight operations
NOTAM authorised persons	for an aeronautical data originator, a person/s appointed under regulation 175.445 by the originator authorised to request the issue, review or cancellation of a NOTAM.
obstacle	fixed (whether temporarily or permanently) and mobile objects, structures and parts of such objects and structures, that: (a) are located on an area provided for the surface movement of aircraft, or (b) extend above a defined surface designated to protect aircraft in flight, or (c) stand outside the defined surfaces mentioned in items (a) and (b) above and that have been assessed as being a hazard to air navigation.
obstacle free zone	the airspace above the inner approach surface, inner transitional surface, baulked landing surface, and that portion of the runway strip bounded by these surfaces, which is not infringed by any fixed obstacle other than a low mass and frangibly mounted one required for air navigation purposes
obstacle limitation surfaces	a series of planes, associated with each runway at an aerodrome, that defines the desirable limits to which objects or structures may project into the airspace around the aerodrome so that aircraft operations at the aerodrome may be conducted safely
PANS-OPS	Doc.8168-OPS/611 Volume II (Procedures for Air Navigation Services – Construction of Visual and Instrument Flight Procedures) approved and published by decision of the Council of the International Civil Aviation Organization, as in force from time to time
pavement classification number	a number expressing the bearing strength of a pavement for unrestricted operations by aircraft with aircraft classification number (ACN) less than or equal to the PCN
runway	a defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft
runway end safety area	an area symmetrical about the extended runway centreline and adjacent to the end of the runway strip, primarily to reduce the risk of damage to an aeroplane which undershoots or overruns the runway
runway strip	a defined area, including the runway and stopway, provided to: (a) reduce the risk of damage to aircraft running off a runway, and (b) protect aircraft flying over the runway during take-off or landing operations
scheduled air transport operation	an air transport operation conducted in accordance with a published schedule
secondary power supply	an electrical power supply that: (a) is automatically connected to the relevant load when the primary power source fails, and (b) is derived from: (i) the normal public electrical power supply, but in a way that: (A) supplies power for the aerodrome's functionality from a special substation that is not the normal substation, and (B) supplies the power through a special transmission line that follows a route different from the normal power supply route, and (C) makes extremely remote the possibility of a simultaneous failure of the normal public electrical power supply and the power supply for the aerodrome, or (ii) one or more generators, batteries, or similar devices which deliver a constant, reliable and sufficient supply of electrical power for the relevant aerodrome service
shoulder	an area adjacent to the edge of a pavement so prepared as to provide a transition between the pavement and the adjacent surface
stopway	a defined rectangular area on the ground at the end of the take-off run available and prepared as a suitable area in which an aircraft can be stopped in the case of an abandoned take-off
take-off distance available	the length of the take-off run available plus the length of the clearway if provided
take-off runway available	the length of the runway declared available and suitable for the ground run of an aeroplane taking off
taxilane	a portion of an apron designated as a taxiway and for use only to provide access to, and egress from aircraft parking positions
taxiway	a defined path on an aerodrome on land, established for the taxiing of aircraft from one part of an aerodrome to another. A taxiway includes a taxilane, an apron taxiway, and a rapid exit taxiway

TERM	DEFINITION
threshold	the beginning of that portion of the runway usable for landing
Type A chart	a chart which contains information on all significant obstacles within the take-off area of an aerodrome up to 10 km from the end of the runway
Type B chart	an obstacle chart which provides obstacle data from around the aerodrome
Y location code	the international code prefix used to identify Australian aerodromes

Reference material

Document type	Title
Regulation	Part 139 of the <i>Civil Aviation Safety Regulations 1998</i>
Regulation	Part 175 of the <i>Civil Aviation Safety Regulations 1998</i>
Manual of Standards	Part 139 (Aerodromes) Manual of Standards 2019

1 AERODROME ADMINISTRATION

1.1 OPERATOR'S STATEMENT

The Kalbarri Airport Aerodrome Manual has been prepared in accordance with the requirements set out in the *Civil Aviation Safety Regulations 1998 (CASRs)*, and associated *Part 139 (Aerodromes) Manual of Standards 2019 (Part 139 MOS)*.

The contents of this manual describe the systematic approach to the operation and maintenance of Kalbarri Airport and demonstrates Shire of Northampton's commitment to managing the aerodrome safely and promoting a positive safety culture.

The aerodrome will be operated and maintained in accordance with the procedures set out in this manual, and in any subsidiary materials that are referenced in this manual, unless a temporary non-compliance or deviation from the procedures is necessary to ensure the safety of aircraft, aircraft operations, or individuals using the aerodrome. If the temporary non-compliance or deviation in the procedures is to take effect on a permanent basis, the manual will be updated. CASA will be advised of a temporary deviation or a change to this manual within 30 days.

At all times when the aerodrome is operating, the aerodrome manual and any subsidiary materials will be accessible by those personnel who have a role of responsibility.

This manual identifies persons from all levels of the organisation that are responsible and accountable for the safe operation of the aerodrome. As the authorisation holder, Shire of Northampton is committed to ensuring that all individuals understand their responsibilities and accountabilities as defined within this aerodrome manual.

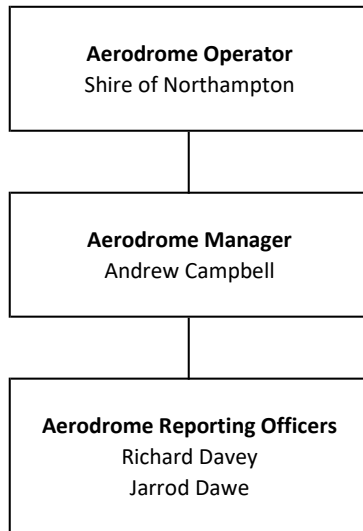
Signed:

Name: Andrew Campbell

Position: Chief Executive Officer

1.2 ORGANISATIONAL STRUCTURE

An organisational chart which clearly identifies all personnel responsible for the management and administration of Kalbarri Airport is below.



1.3 KEY PERSONNEL

1.3.1 ACCOUNTABLE MANAGER

Position: Accountable Manager

Name: Andrew Campbell

Management position: Chief Executive Officer

Responsibilities:

To ensure Shire of Northampton:

- complies with civil aviation legislation
- operates and maintains the aerodrome safely and with a reasonable degree of care and diligence
- operates and maintains the aerodrome in accordance with the aerodrome manual for the aerodrome.

The accountable manager has a general knowledge of the relevant civil aviation safety legislation and standards that are applicable to the inspection, reporting, operation and maintenance of the aerodrome.

1.3.2 MANAGEMENT POSITIONS (AERODROME OPERATION AND MAINTENANCE)

The management position(s) responsible for the **operation** of the aerodrome:

Management position: Chief Executive Officer

Responsibilities: Airport Operations

The management position(s) responsible for the **maintenance** of the aerodrome:

Management position: Chief Executive Officer

Responsibilities: In accordance with CASA MOS 139

1.3.3 AERODROME OPERATIONS AND SAFETY FUNCTIONS

The following individuals or positions are responsible for the aerodrome's operations and safety functions:

Individual / Position: ARO

Responsibilities: Maintain Safety standards as required by CAS MOS 139 13.03 and 13.04

1.4 AERODROME MANUAL ADMINISTRATION

This aerodrome manual identifies all elements required by the Part 139 MOS. Information that is not relevant to the aerodrome's operational context or regulatory compliance is marked NOT APPLICABLE or N/A.

All required information is contained in this manual and no subsidiary materials have been adopted.

This manual will at all times be accessible by those persons who have a role in the operation and maintenance of the aerodrome.

1.4.1 MANUAL CONTROL

The following individuals / positions are responsible for reviewing, maintaining, amending and controlling this aerodrome manual:

Individual / Position	Role / Function
Chief Executive Officer	Reviewing, maintaining, amending and controlling the aerodrome manual

1.4.2 MANUAL AMENDMENT

To maintain the accuracy of this manual, the aerodrome manual controller(s) will be advised of any changes to the aerodrome's facilities, operating procedures, or of any errors or omissions, so that an amendment can be made.

When an amendment is made, the aerodrome manual controller will update the amendment record in the respective section of this manual.

So that readers can identify information in the manual that has changed, the following procedure has been adopted:

- this manual complies with the Part 139 MOS, Chapter 10.03(2)(c)
- the list of effective pages (LEP) is updated with the section, page and date the change was finalised
- section 0.1 Amendment Record is updated with each new version and details of the change/s.

Within 30 days of any amendment to this manual, written notice of the change and a new version of the aerodrome manual is provided to CASA.

1.4.3 MANUAL REVIEW

This manual will be reviewed annually as part of the aerodrome manual validation process.

1.5 AUTHORISATIONS

1.5.1 AERODROME CERTIFICATE - CONDITIONS

The aerodrome was formerly a registered aerodrome. The aerodrome manual has been submitted to CASA. An aerodrome certificate has yet to be issued.

1.5.2 AERODROME INSTRUMENTS

No approvals, determinations, directions, exemptions or other instruments have been issued by CASA.

2 AERODROME INFORMATION

2.1 AERONAUTICAL INFORMATION

2.1.1 AERODROME DIAGRAM

A single aerodrome diagram that clearly illustrates all applicable aerodrome facilities prescribed in subparagraph 5.03(1) of the Part 139 MOS is below.

AIP Australia

30 NOV 2023

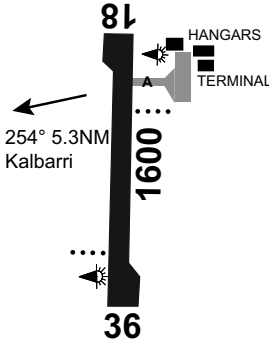
FAC YKBR - 1

KALBARRI

ELEV 515

AVFAX CODE 6012

WA
 274131S 1141534E UTC +8 YKBR
 AD OPR Shire of Northampton, PO Box 61, Northampton, WA, 6535. Email: CERT
 ceo@northampton.wa.gov.au. ARO 0429 341 203: 0427 341 205. Council PH 08 9934 1202.



REMARKS

AD Charges: \$20/landing.

PASSENGER FACILITIES

PT - phone coverage AVBL, WC.

AERODROME OBSTACLES

1. Terrain infringement 230DEG M/3,200M FM ARP ELEV 659.4FT.
2. OLS infringement - Terrain and lit mast, 254DEG M/4,000M FM ARP ELEV 856.5FT.

PHYSICAL CHARACTERISTICS

18/36 181 52a PCN 15 /F /A /1100 (160PSI) /T Sealed WID 30 RWS 90

AERODROME AND APPROACH LIGHTING

RWY 18/36 LIRL AFRU+PAL 126.7 SDBY PWR AVBL
 RWY 18/36 PAPI(1) AFRU+PAL 126.7 3.0 DEG42FT
 (1) Left side.

AIS AND AERODROME COMMUNICATION FACILITIES

FIA MELBOURNE CENTRE 121.2 Circuit Area

FLIGHT PROCEDURES

See ERSa GEN SPECIAL PROCEDURES "FN11: Kalbarri National Park - Fly Neighbourly Advice" for guidance on sightseeing flights.

CTAF - AFRU 126.7

ADDITIONAL INFORMATION

1. All electrical power is by onsite generator, 10 second switchover.
2. Animal hazard (kangaroos) WI AD VCY.

CHARTS RELATED TO THE AERODROME

WAC 3346.

Information may be continued on the next page: PTO

2.1.2 AERODROME ADMINISTRATION STATEMENT

The aerodrome's administration information prescribed in subparagraph 5.03(2) of the Part 139 MOS is recorded below:

DESCRIPTION	DETAILS
Name of aerodrome operator	Shire of Northampton
Postal address	PO Box 61 Northampton WA 6535
Phone number	08 99341202
E-mail address	ceo@northampton.wa.gov.au
Website	www.northampton.wa.gov.au
Facsimile number (if applicable)	NA
OUT OF HOURS CONTACT DETAILS	
Name of out-of-hours contact	Richard Davey
Phone number	0429341203
E-mail address	kalbarri.ranger@northampton.wa.gov.au
Facsimile number (if applicable)	NA
Aerodrome usage	a combination of uses -charter, private, medical

2.1.3 AERODROME LOCATION STATEMENT

The aerodrome's location information prescribed in subparagraph 5.03(4) of the Part 139 MOS is below:

Description	Details
Aerodrome name	Kalbarri Airport
State / Territory	Western Australia
ARP latitude	274131[S] in WGS84
ARP longitude	1141534[E] in WGS84
Y location code	YKBR
Elevation	515 ft
Type A charts (if published)	NA
Type B charts (if published)	NA

2.1.4 MOVEMENT AREA INFORMATION - RUNWAYS

2.1.4.1 RUNWAY CODE NUMBER

The code number for each of the runway(s) is recorded below:

Runway	Code Number
18/36	Code 3

2.1.4.2 RUNWAY BEARING, LENGTH, WIDTH, AND SURFACE TYPE

The bearings, length, width, and surface type(s) of the runway(s) is recorded below:

RUNWAY	RUNWAY BEARING (MAGNETIC)	RUNWAY LENGTH	RUNWAY WIDTH	RUNWAY SURFACE TYPE, OR TYPES (NON-HOMOGENOUS RUNWAYS)
18/36	181	1600m	30m	BITUM (Bituminous)

2.1.4.3 THRESHOLD GEOGRAPHICAL LOCATION & ELEVATION - INSTRUMENT RUNWAYS

The runway at Kalbarri Airport are non-instrument runway.

2.1.4.4 RUNWAY PAVEMENT STRENGTH RATING

The strength rating of the runway(s) pavement is below:

ACN - PCN STRENGTH RATING	RUNWAY 18/36
PCN value	15
Pavement type	F
Pavement subgrade	B
MAX take-off weight	1100kg
MAX tyre pressure value	1.103Mpa
Tyre pressure category	160psi
PCN evaluation method	T

2.1.4.5 RUNWAY STRIP LENGTH AND WIDTH

The length and width of the runway strip(s) is below:

RUNWAY	RUNWAY STRIP LENGTH	RUNWAY STRIP WIDTH (GRADED)	RUNWAY STRIP WIDTH (INCLUDING FLYOVER)
18/36	1600 m	60m	90 m

2.1.4.6 RUNWAY SLOPE

The runway slope details are below:

RUNWAY	RUNWAY SLOPE
18/36	0.27% down to N

2.1.4.7 RUNWAY DECLARED DISTANCES

The declared distances for each runway are below:

TYPES	RUNWAY 18	RUNWAY 36
Take-off run available (TORA)	1600 m (5249 ft)	1600 m (5249 ft)
Take-off distance available (TODA)	1660 m (5446 ft)	1660 m (5446 ft)
TODA gradient	2.59%	2.31%
Accelerate-stop distance available (ASDA)	1600 m (5249 ft)	1600 m (5249 ft)
Landing distance available (LDA)	1600 m (5249 ft)	1600 m (5249 ft)

2.1.4.8 INTERSECTION DEPARTURE TAKE-OFF DISTANCES AVAILABLE

Intersection departures are not available.

2.1.4.9 SUPPLEMENTARY TAKE-OFF DISTANCES AVAILABLE (STODA)

The supplementary take-off distances for each runway are below:

OBSTACLE CLEAR TAKE-OFF GRADIENT	RUNWAY 18	RUNWAY 36
1.6%	1562 m	1628 m
1.9%	1602 m	1651 m
2.2%	1631 m	1658 m
2.5%	1645 m	

2.1.4.10 ESTABLISHED OLS FOR THE RUNWAY

The code number of the runway(s) OLS is recorded below:

RUNWAY END	ESTABLISHED CODE
18	Code 3
36	Code 3

2.1.4.11 TYPE A CHARTS

A Type A chart is not required and has not been prepared.

2.1.4.12 TYPE B CHARTS

A Type B chart has not been prepared.

2.1.4.13 OBSTACLE-FREE ZONE (OFZ)

An obstacle free zone is not identified.

2.1.4.14 ARRESTOR SYSTEM

An arrestor system is not provided.

2.1.5 MOVEMENT AREA INFORMATION - RUNWAY STRIP AVAILABILITY

The runway strip is not available for take-offs and landings.

2.1.6 MOVEMENT AREA INFORMATION - TAXIWAYS

Each taxiway designation, code letter, width, and surface type are below:

TAXIWAY NAME	TAXIWAY DESIGNATION	ARC LETTER	TAXIWAY WIDTH	TAXIWAY SURFACE TYPE
Taxiway	A	C	15m	Bitumen Seal

2.1.7 MOVEMENT AREA INFORMATION - APRONS

The aerodrome has no international operations, nor have the parking position designations been provided to Airservices for publication in the AIP. See below for the apron surface type(s):

APRON	APRON SURFACE TYPE
Domestic Apron	Bitumen Seal

2.1.8 VISUAL AIDS - APPROACH AND RUNWAY LIGHTING SYSTEMS

2.1.8.1 APPROACH LIGHTING SYSTEM(S) (ALS)

The aerodrome does not have a runway approach lighting system.

2.1.8.2 RUNWAY THRESHOLD LIGHTS AND WING BARS

The particulars for each runway threshold lights, and wing bars (if provided) are below:

RUNWAY DESIGNATION	THRESHOLD LIGHTS - COLOUR	WING BARS - COLOUR	GEOGRAPHICAL COORDINATES
18	Green	Wing bars not provided	274105.88S 1141533.36E
36	Green	Wing bar not provided	274157.87S 1141533.28E

2.1.8.3 VISUAL APPROACH SLOPE INDICATOR SYSTEM (VASIS)

The particulars of each visual approach slope indicator system are below:

RUNWAY DESIGNATION	VASIS TYPE	APPROACH SLOPE (°)	PAPI MINIMUM EYE HEIGHT
18	PAPI (single-sided)	3 °	42 ft
36	PAPI (single-sided)	3 °	42 ft

2.1.8.4 TOUCHDOWN ZONE (TDZ) LIGHTING

Touchdown zone lighting is not provided.

2.1.8.5 RUNWAY CENTRELINE LIGHTS

Runway centreline lights are not provided.

2.1.8.6 RUNWAY EDGE LIGHTS

The length, longitudinal spacing, colour and intensity of the runway edge lights are below:

RUNWAY DESIGNATION	LENGTH	LONGITUDINAL SPACING	COLOUR	INTENSITY (cd)
18/36	1600 m	60 m	White	120,000 cd

2.1.8.7 RUNWAY END LIGHTS

The colour(s) of the runway end lights are below:

RUNWAY END	RUNWAY END LIGHTS - COLOUR
18/36	Red/Green

The colour of wing bars (if provided) are recorded in subsection 2.1.8.2 of this manual.

2.1.8.8 STOPWAY LIGHTS

The aerodrome does not have stopway lights.

2.1.8.9 STARTER EXTENSION LIGHTING

The aerodrome does not have starter extension lighting.

2.1.8.10 RUNWAY THRESHOLD IDENTIFICATION LIGHTS (RTIL)

The aerodrome does not have RTIL.

2.1.8.11 PILOT ACTIVATED LIGHTING (PAL) SYSTEM

The availability of a PAL system is as follows:

- RWY18 LIRL PAPI (1) PAL + AFRU 126.7 MHz 3 DEG 42FT SDBY PWR AVBL
- RWY36 LIRL PAPI (1) PAL + AFRU 126.7 MHz 3 DEG 42FT SDBY PWR AVBL

(1) Left side. PAL + AFRU requires 3 one-second pulses to activate. (See ERSA INTRO para 23.4)

2.1.9 VISUAL AIDS - OTHER LIGHTING AND SECONDARY POWER SUPPLY

2.1.9.1 AERODROME BEACON

The aerodrome does not have an aerodrome beacon.

2.1.9.2 TAXIWAY LIGHTING SYSTEMS (INCLUDING HOLDING POSITIONS AND STOP BARS)

The lighting systems for taxiways, including taxiway holding positions and stop bars (where provided), are below:

TAXIWAY DESIGNATION	TAXIWAY LIGHTING SYSTEM - EDGE LIGHTS	TAXIWAY LIGHTING SYSTEM - CENTRELINE LIGHTS	TAXIWAY LIGHTING SYSTEM - STOP BARS	TAXIWAY LIGHTING SYSTEM - HOLDING POSITION LIGHTS
A	Blue	NA	NA	NA

2.1.9.3 APRON LIGHTING SYSTEMS (INCLUDING VDGS)

Apron lighting is not provided at the aerodrome.

2.1.9.4 OTHER MOVEMENT AREA - LIGHTING SYSTEMS

No other movement area lighting systems are provided at the aerodrome.

2.1.9.5 OBSTACLE LIGHTING FOR OLS INFRINGEMENTS

All lit obstacles within the aerodrome OLS are below:

OBSTACLE TYPE	OBSTACLE POSITION	ELEVATION	LIGHTING (type / colour)
Lit Mast	254 DEG MAG 4000m FM ARP	856.5 ft AMSL	Red Steady

2.1.9.6 SECONDARY POWER SUPPLY (INCLUDING SWITCH-OVER TIME)

A secondary power supply is not provided.

2.1.10 NAVIGATION AIDS

No navigation aids are provided by the aerodrome operator.

2.1.11 AVIATION RESCUE AND FIRE-FIGHTING SERVICES (ARFFS)

An ARFFS is not provided by the aerodrome operator.

2.1.12 GROUND SERVICES

2.1.12.1 FUEL SUPPLIERS

The aerodrome does not provide fuel services.

2.1.12.2 WEATHER INFORMATION BROADCASTS

Aerodrome weather information broadcasts are not provided by the aerodrome operator.

2.1.12.3 GROUND-TO-AIR COMMUNICATION SYSTEMS

Ground-to-air communication systems are not provided by the aerodrome operator.

2.1.12.4 OTHER AVIATION-RELATED SERVICES MADE AVAILABLE TO PILOTS

No other aviation-related services are made available to pilots by the aerodrome operator.

2.1.13 AERODROME OPERATIONAL PROCEDURES - STANDARD TAXI ROUTES

2.1.13.1 STANDARD TAXI ROUTES DETERMINED BY AERODROME OPERATOR

Standard taxi routes have not been determined by the aerodrome operator.

2.1.13.2 STANDARD TAXI ROUTES DETERMINED BY THE ATS PROVIDER

Standard taxi routes have not been determined by the ATS provider.

2.1.14 AERODROME OPERATIONAL PROCEDURES - SPECIAL PROCEDURES

There are no special procedures at the aerodrome that pilots would be reasonably expected to know in the interests of aviation safety.

2.1.15 AERODROME OPERATIONAL PROCEDURES - NOTICES

Cautionary or administrative notices relating to the safe use of the aerodrome are below:

- Animal Hazard (Kangaroos)

2.1.16 AERODROME OPERATIONAL PROCEDURES - LOW-VISIBILITY PROCEDURES

Low-visibility procedures are not established at the aerodrome.

2.2 AERODROME SITE PLAN

A scaled plan of the aerodrome site that clearly shows all applicable aerodrome facilities prescribed in subparagraph 11.01(2)(a) of the Part 139 MOS is available in Appendix A of this manual.

2.3 SITE PLAN - FACILITIES OUTSIDE THE AERODROME BOUNDARY

Kalbarri Airport does not own any aerodrome facilities or equipment that is located outside the boundaries of the aerodrome; therefore this subsection is NOT APPLICABLE.

2.4 AERODROME REFERENCE CODE (ARC) NOMINATIONS

2.4.1 RUNWAYS

The aerodrome reference code (ARC) number, letter and OMGWS for each runway is below:

RUNWAY	ARC NUMBER	ARC LETTER	OMGWS
18/36	3	C	6 m up to but not including 9 m

2.4.2 TAXIWAYS AND TAXILANES

The aerodrome reference code (ARC) letter and OMGWS for each taxiway and taxilane is below:

TAXIWAY / TAXILANE	ARC LETTER	OMGWS
A	C	6 m up to but not including 9 m

2.4.3 AIRCRAFT PARKING POSITIONS

Marked aircraft parking positions (primary and secondary) are not provided; therefore, this subsection is NOT APPLICABLE.

2.4.4 HOLDING BAYS (AIRCRAFT)

Aircraft holding bays are not provided; therefore, this is NOT APPLICABLE.

2.5 INSTRUMENT CLASSIFICATION OF EACH RUNWAY

The instrument classification for each runway end is below:

RUNWAY DESIGNATION	INSTRUMENT CLASSIFICATION
18	Non-instrument runway
36	Non-Instrument runway

2.6 DEVIATIONS FROM PREFERRED STANDARDS

2.6.1 LOCATION OF RUNWAY THRESHOLD

All runway thresholds are located at the extremity of the runway.

2.6.2 RUNWAY TURN PAD / BYPASS PAD

All runway turn pads / bypass pads are located on the right-hand side of the runway as viewed when looking in the direction of take-off from that runway end.

2.6.3 RUNWAY LONGITUDINAL SLOPE VALUES

The maximum runway longitudinal slope values expressed in subparagraphs 6.06(1) to (6) of the Part 139 MOS have not been exceeded.

2.6.4 RUNWAY TRANSVERSE SLOPE VALUES

The runway transverse slope values expressed in Table 6.08(2) of the Part 139 MOS have not been exceeded.

2.6.5 RUNWAY SURFACES

2.6.5.1 AVERAGE SURFACE TEXTURE DEPTH

The preferred average surface texture depth of 1 mm has been met on all runways.

2.6.5.2 FRICTION VALUES

The aerodrome is not used for scheduled international air transport operations.

2.6.6 LONGITUDINAL SLOPE DESIGN VALUES ON GRADED RUNWAY STRIP

The design longitudinal slope values expressed in subparagraph 6.18(1) of the Part 139 MOS have not been exceeded.

2.6.7 RUNWAY END SAFETY AREA (RESA)

Runway 18 RESA meets the minimum but not the preferred RESA length as stated in Table 6.26(4) of the Part 139 MOS.

The preferred RESA length as stated in Table 6.26(4) of the Part 139 MOS has not been met on the following runways:

RUNWAY DESIGNATION	ACTUAL RESA LENGTH	REASONS WHY THE PREFERRED RESA LENGTH NOT MET
18	94m	Meets minimum but not preferred length.
36	157m	Meets minimum but not preferred length. Grandfathered facility.

2.6.8 TAXIWAY LONGITUDINAL SLOPE VALUES

The maximum taxiway longitudinal slope values expressed in subparagraphs 6.40(1) and (2) of the Part 139 MOS have not been exceeded.

2.6.9 TAXIWAY TRANSVERSE SLOPE VALUES

The taxiway transverse slope values expressed in Table 6.41(2) of the Part 139 MOS have not been exceeded.

2.6.10 COLOUR OF AERODROME MARKINGS, MARKERS, SIGNALS AND SIGNS

The colours of all aerodrome markings, markers, signals and signs comply with Part 139 (Aerodromes) Manual of Standards Table 8.03(1)

2.6.11 RUNWAY EDGE LIGHTS ON A REDUCED RUNWAY WIDTH

Runway edge lights are not located more than 3 m from the runway edge.

2.6.12 SPACING OF TAXIWAY EDGE LIGHTS

The spacing of all taxiway edge lights complies with section 9.92 of the Part 139 MOS.

2.7 FACILITIES WITH RETAINED COMPLIANCE

2.7.1 NON-COMPLIANT GRANDFATHERED FACILITIES

At the time of commencement of the Part 139 MOS, the following aerodrome facilities do not comply with the new standards.

These aerodrome facilities / OLS did meet a previous standard that was in place at the time the facility was introduced, last upgraded or replaced.

These facilities will be maintained in accordance with the requirements set out in the Part 139 MOS for the same facility.

FACILITY (GRANDFATHERED)	DESCRIPTION OF NON-COMPLIANCE
Runway 18	RESA meets the minimum but not the preferred length
Runway 36	RESA does not meet the minimum length and is listed as a grandfathered facility

2.7.2 GRANDFATHERED FACILITIES OPTED-IN

All grandfathered facilities remain grandfathered to a previous standard.

3 AERODROME OPERATING PROCEDURES AND SYSTEMS

3.1 REPORTING AERONAUTICAL DATA AND INFORMATION

This section documents the procedures for:

- providing information to the AIS provider (Airservices) for publication in the Aeronautical Information Package (AIP)
- notifying Airservices of any changes that are required to be made to the information that is published in the AIP
- reporting to the NOTAM Office (NOF) any changes to the condition of the aerodrome facility, or any hazards, that may adversely affect aviation safety
- reporting hazards that may adversely affect aviation safety to ATC
- making the aerodrome reports readily accessible to relevant personnel
- retaining reports for at least 3 years
- maintaining the integrity of information that is published.

3.1.1 PERSONNEL WITH RESPONSIBILITIES - DATA ORIGINATOR

3.1.1.1 AIP RESPONSIBLE PERSON

The nominated AIP responsible person for Kalbarri Airport is Andrew Campbell and/or Richard Davey

Their nomination has been provided to Airservices on the Aeronautical Data Originator (ADO) form that is available on the Airservices Australia website.

To meet the requirements of CASR 175.445, Shire of Northampton ensures that the AIP responsible person has been suitably trained so that they have the knowledge and competence to carry out their responsibilities.

Where a change to the AIP responsible person is required, a new ADO form will be submitted to Airservices informing them of the new appointment. This subsection of the manual will also be updated to reflect the change in nomination.

3.1.1.2 NOTAM AUTHORISED PERSON(S)

Persons who are authorised to request the issue, review, and cancellation of NOTAMs at Kalbarri Airport are below:

NOTAM AUTHORISED PERSON(S)
Andrew Campbell
Richard Davey
Jarrold Dawe

To meet the requirements of CASR 175.445, Shire of Northampton ensures that these persons have been suitably trained so that they have the knowledge and competence to request the issue, review and cancellation of NOTAMs.

The list of NOTAM authorised persons is recorded in the NAIPS system that Airservices administers.

A NOTAM group manager who is responsible for maintaining and updating the NOTAM group has been nominated and recorded in the NAIPS system.

The NOTAM group manager for Kalbarri Airport is Richard Davey.

Where a change to the NOTAM group is required, the NOTAM group manager will update the NAIPS system. This subsection of the manual will also be updated to reflect the change in NOTAM authorised person(s).

3.1.2 CHANGES TO PUBLISHED AERONAUTICAL INFORMATION

The AIP responsible person is authorised to request a change to information that is published in the AIP.

Shire of Northampton ensures that all requests for a change adhere to Airservices data quality requirements and are in a format that allows Airservices to readily identify the required change(s) to the existing published data or information, including any consequential changes.

As soon as practicable after becoming aware of a change, a request for a change will be made

in writing to Airservices at: docs.amend@airservicesaustralia.com

Shire of Northampton ensures that a statement of any consultation undertaken is provided with the request for change if the data is expected to cause an aviation organisation to make plans for changes to the organisations' operating procedures.

Once the request for a change has been submitted, the Aeronautical Data Package / Section 2 of this manual will be amended to reflect the change in aeronautical information.

Shire of Northampton endeavours to ensure that long-term changes are planned and incorporated into the AIP. Aeronautical information is updated quarterly. The Airservices document amendment calendar is published on the Airservices website. To best ensure the timely communication of a change to published information, the deadlines for submissions are recorded and monitored by the AIP responsible person.

3.1.3 ADVISING NOTAM OFFICE (NOF) OF CHANGES - AERODROME CONDITIONS / HAZARDS

In the event there is a change to the condition of the aerodrome facility, or there is a hazard to aircraft operations, a NOTAM authorised person will, as soon as possible after the condition or hazard is detected, request the issue of a NOTAM.

To request the issue of a NOTAM, the NOTAM authorised person will complete a NOTAM request form which is available on the Airservices website.

The completed NOTAM request form will be submitted electronically to the NOTAM Office (NOF) at: nof@airservicesaustralia.com

Alternatively, a NOTAM request form will be faxed to the NOF. The fax number for the NOF is: 02 6268 5044

In an emergency or if the matter is urgent, the NOTAM authorised person may phone the NOF to request the immediate issue of a NOTAM. In these circumstances, the NOF can be contacted on: 02 6268 5063.

Urgent reports made by phone will be confirmed as soon as possible by the submission of a NOTAM request form forwarded either by e-mail or facsimile.

On submission of the request to issue a NOTAM, the NOTAM authorised person will obtain a copy of the published NOTAM through NAIPS to check the accuracy of that information which has been published. If an error is discovered, the discrepancy will be reported immediately to the NOF.

NOTAM will normally only be used in the case of operationally significant changes (reportable occurrences) that are required at short notice. The list of reportable occurrences is contained in subsection 3.2.6.1 of this manual.

3.1.4 REPORTING HAZARDS THAT MAY ADVERSELY AFFECT AVIATION SAFETY TO ATC

As the aerodrome is not a controlled aerodrome, hazards that are of an urgent nature and may adversely affect aviation safety for aircraft en-route to the aerodrome will be communicated to Melbourne ATC centre. The contact phone number is 03 93384032

3.1.5 RECORD KEEPING - REPORTS

A copy of all NOTAMs requested by Shire of Northampton Airport are:

Retained by: Aerodrome Manager

Stored securely at: Northampton and Kalbarri offices of the Shire of Northampton

A copy of all requests for change(s) to published information that are sent to the Airservices docs amend are:

Retained by: Aerodrome Manager

Stored securely at: Northampton and Kalbarri offices of the Shire of Northampton

Copies of all requests are held on file for a minimum period of three (3) years from the date each request was made.

The AIP responsible person and NOTAM authorised person(s) have access to all reports held on file.

The accuracy and currency of all active NOTAMs requested by Kalbarri Airport is checked by the aerodrome reporting officer during the serviceability inspection process. Refer to subsection 3.2.4.1 of this manual.

3.1.6 REVIEW OF PUBLISHED INFORMATION

The accountable manager will review, at least once annually, the published aeronautical data and aeronautical information for which the aerodrome is responsible. Documented evidence of each review is:

Retained by: Aerodrome Manager

Stored securely at: Northampton Office of the Shire of Northampton

Shire of Northampton ensures the records of each review are kept for a minimum period of three (3) years from the date the review was completed.

In the event inaccurate information is identified during the review, the AIP responsible person will notify Airservices immediately.

3.2 AERODROME SERVICEABILITY INSPECTIONS

This section documents the procedures for:

- scheduling, conducting and reporting on the results of routine aerodrome serviceability inspections and additional aerodrome serviceability inspections should the circumstances require them to be conducted
- communicating with ATC during the inspection (if applicable)
- taking prompt follow-up action(s) to ensure the correction of any unsafe conditions
- arranging a technical inspection if an unsafe condition is identified
- maintaining records of inspections.

3.2.1 POSITIONS WITH RESPONSIBILITIES

The Aerodrome Manager is responsible for managing the aerodrome's serviceability inspections, ensuring that they occur in accordance with the requirements of the Part 139 MOS, and this manual.

The following is a list of personnel authorised to perform the functions of a reporting officer. The authorisation allows them to carry out serviceability inspections at Kalbarri Airport.

NAME	POSITION	FUNCTION
Richard Davey	ARO	Reporting Officer
Jarrod Dawe	ARO	Reporting Officer

All personnel appointed as reporting officers have been trained so that they can competently carry out their duties at this aerodrome, without the need for supervision.

Shire of Northampton ensures that all training activities for reporting officers are recorded to verify achieved competencies.

All reporting officers undergo recurrent training every two to five years as is recommended in guidance material published by CASA.

A training schedule has been established and is maintained by Aerodrome Manager. The training schedule is reviewed regularly to ensure training is completed in a timely manner.

The training records of all reporting officers are:

Maintained by: Aerodrome Manager

Stored securely at: Northampton Office of the Shire of Northampton

The ARO is responsible for reporting the results of the inspections.

The ARO is responsible for taking follow-up action if an unsafe condition is identified during the inspection.

3.2.2 ROUTINE SERVICEABILITY INSPECTIONS

The aerodrome has no scheduled air transport operations. A minimum of two (2) aerodrome serviceability inspections are conducted each week (at least 48 hours apart).

The serviceability inspections occur in accordance with the pre-determined schedule below:

DAY OF INSPECTION	INSPECTION TIMES
Monday	8.00 am
Wednesday	8.00 am
Friday	8.00 am

3.2.3 ADDITIONAL SERVICEABILITY INSPECTIONS

Kalbarri Airport ensures that the reporting officer conducts additional serviceability inspections immediately any of the following occur:

- following an incident or accident
- a severe wind event, a severe storm or a period of heavy rainfall

- if a hazard to aircraft may be present on the manoeuvring area
- when requested in writing by CASA
- when requested by Melbourne Centre
- when a pilot reports a hazard.

3.2.4 INSPECTION PROCEDURES

When conducting a serviceability inspection, the reporting officer will ensure that the vehicle they use to complete the inspection is:

- in a sound mechanical state to prevent a breakdown, unsafe operation, and any spillage of fuel lubricant or hydraulic fluid
- lit in accordance with the requirements set out in subsection 3.5.3 of this manual
- equipped with a VHF radio capable of monitoring the CTAF and / or ATC frequency.

Reporting officers are instructed to maintain a continuous listening watch of the VHF radio at all times when operating on the manoeuvring area.

Procedures for conducting runway inspections:

1. Vehicle beacon lights to be activated at entrance gate prior to entering apron
2. Stop at holding point - amber lights on runway
3. Listen and look for approaching aircraft
4. Announce on radio - "Kalbarri traffic, patrol car entering the runway for the next (state number) of minutes, Kalbarri"
5. Wait and listen in case of a response from aircraft
6. Enter runway if clear
7. On exiting runway announce on radio - "Kalbarri traffic, patrol car has vacated the runway, Kalbarri"

3.2.4.1 INSPECTION ITEMS

When performing each serviceability inspection, aerodrome reporting officers will check:

1. The surface condition of the movement area (which also includes runway and taxiway strips) looking for the following:
 - surface irregularities, including cracking or spalling
 - pavement deflections, including rutting or slipping
 - water pooling or ponding
 - build-up of rubber or other contaminants which may reduce runway surface friction
 - surface damage caused by the spillage of corrosive fluids or oil
 - subsurface leaks or pressure, including broken water mains or inadequate or defective drainage
 - scour or erosion ditches within unsealed areas, including step-downs from sealed runway surfaces
 - termite mounds, sink holes or other ground obstacles obscured, or not obscured, by grass
 - soft ground, particularly in combination with surface roughness and slipperiness

- any other signs of pavement distress which have the potential to develop into a hazard for aircraft.
2. Aerodrome markings, lighting, wind direction indicators and ground signals for the following:
- loss of visibility markers and markings
 - incorrect markers or markings
 - any disturbance to the correct intensity level and alignment of lights
 - discoloured or dirty lenses
 - unserviceable lights, incorrectly fitted lights, or lights that are misaligned
 - stand-by power equipment, to ensure that it is serviceable including the availability of fuel (if applicable)
 - the condition of light bases, MAGS and navigation equipment within the movement area, including strips
 - exposed edges around concrete footings and other aerodrome installations within the runway and taxiway strips
 - damage to the wind indicator assembly or mounting
 - for wind indicators – damage to sleeve fabric or loss of conspicuous colour
 - the correct operation of the pilot activated lighting (if installed)
 - the correct operation of the broadcast aerodrome weather station (if installed).
3. The cleanliness of the movement area looking for the following:
- foreign objects, for example, aircraft fastening devices and other aircraft parts
 - work tools, small items of equipment and personal items
 - debris, for example, sand, loose rocks, concrete, wood, plastic, pieces of tyre, mud and any other foreign bodies
 - hazards created during and after construction activity, including hazards arising from vehicles and plant travelling over unpaved, wet or contaminated areas.
4. For any obstacles infringing the take-off, approach, transitional and PANS-OPS surfaces that are visible from the aerodrome, specifically:
- the take-off, approach and transitional elements of the OLS
 - PANS-OPS airspace, including any critical obstacles that would otherwise affect the safety or integrity of PANS-OPS airspace.
5. For wildlife on, or in the vicinity of, the movement area:
- the condition of aerodrome fencing and the security of access points to the movement area
 - monitoring the presence and behaviour of any wildlife on, or likely to be on, the aerodrome, and identifying seasonal and environmental conditions which may act as an attractant
 - monitoring evidence of wildlife shelter provided by aerodrome infrastructure, for example, buildings, equipment and gable markers
 - checking for off-aerodrome wildlife attraction sources, observable from the aerodrome site, for example, mowing activities, seeding, standing water bodies, uncovered waste disposal, deceased wildlife or offal
 - the presence and operating condition of any wildlife hazard mitigating equipment incorporated into the wildlife hazard management procedures for the aerodrome.
6. Where the runway and runway strip surfaces are unrated, an empirical assessment of the runway, and the runway strip if it is available for aircraft operations, will be conducted to confirm their suitability.
7. Aerodrome fencing and signage to:

- identify any damage
 - confirm gates are secured
 - ensure there has been no attempted entry onto the manoeuvring area by either land-based wildlife or unauthorised persons.
8. Active NOTAMs requested by the aerodrome to ensure they are accurate and current.
9. The aerodrome frequency response unit to verify that it is functioning correctly.
10. Check operations of 2 generators on site.

All items and the areas that are to be checked as part of each aerodrome serviceability inspection are identified in a checklist titled Serviceability Inspection Checklist.

The checklist is a subsidiary document to this manual and is available at: Kalbarri Office of the Shire of Northampton

3.2.5 COMMUNICATING WITH ATC DURING INSPECTION (IF APPLICABLE)

The aerodrome is not a controlled aerodrome; therefore, this subsection is NOT APPLICABLE.

3.2.6 REPORTING INSPECTIONS RESULTS

Shire of Northampton ensures that any significant object found during the serviceability inspection that could reasonably be expected to have an immediate adverse effect on the safety of an aircraft is reported to ATC in accordance with subsection 3.1.4 of this manual.

At the completion of each aerodrome serviceability inspection, the reporting officer records the following information on the Serviceability Inspection Checklist:

- the date and time the serviceability inspection was completed
- the results of the inspection
- a description of any remedial action taken or scheduled to be taken.

All identified faults that require further corrective action are entered in the Serviceability Check Log

Any works activities that are required to correct these faults are conducted in accordance with the works protocols set out in section 3.10 of this manual.

When the fault has been rectified, an entry to confirm the corrective action is complete is made in the [insert name of maintenance database / logbook etc.].

Faults that remain open are subject to regular monitoring.

In the event the aerodrome serviceability inspection identifies a reportable occurrence as prescribed in subsection 3.2.6.1 below, a NOTAM authorised person is to contact the NOF to request the issue of a NOTAM. This request is to be made as soon as possible after it is observed and in accordance with subsection 3.1.3 of this manual.

The NOTAM authorised person has been instructed to provide as much detail as available. Should additional information become known, a revised NOTAM is to be submitted as soon as possible.

3.2.6.1 REPORTABLE OCCURRENCES TO THE NOTAM OFFICE (NOF)

A report to the NOF will be made on identification of the following:

- published runway information – any change (whether temporary or permanent), including changes to current information contained in permanent NOTAMs or in the AIP
- aerodrome works affecting the manoeuvring area or the obstacle limitation surfaces – includes time-limited works that require more than 10 minutes to restore normal safety standards
- aerodrome lighting / obstacle lighting – outage or unserviceability, unless the outage or unserviceability is fixed immediately, or does not meet the required outage limits
- temporary obstacles to aircraft operations, unless the temporary obstacle is removed immediately
- any significant increase in, or concentration of, wildlife hazards on or near the aerodrome which constitute a danger to aircraft, unless the wildlife causing the hazard is dispersed immediately
- any change to gradients within the take-off climb area that is due to a new or changed obstacle which results in a change to the gradient of more than 0.05% from the published gradient data for the runway, unless that new or changed obstacle can be removed without delay
- the emergence of new obstacles, unless the new obstacle is removed immediately
- a radio navigation aid or landing aid owned by Shire of Northampton is unserviceable or has returned to service
- any other event which affects the safety of aircraft using the aerodrome, unless the event is ceased immediately.

3.2.7 PROMPT FOLLOW-UP ACTION TO CORRECT UNSAFE CONDITIONS

In the event the aerodrome serviceability inspection identifies an unsafe condition, the aerodrome reporting officer will:

- immediately report the unserviceability to Melbourne Centre (if applicable)
- if urgent, advise the NOF via the phone to request the immediate issue of a NOTAM
- mark the unserviceable portion of the movement area so that it is not available by deploying the appropriate markers, markings, and lighting in accordance with the Part 139 MOS
- submit a request to issue a NOTAM (if applicable)
- if issued, verify the accuracy of the NOTAM information published by Airservices
- arrange for a technical inspection as soon as practicable
- arrange for repairs to the affected area ensuring that works requirements are adhered
- confirm the suitability of the repairs and the serviceability of the affected areas before returning to normal operations
- cancel the NOTAM (if applicable)
- advise Melbourne Centre (if applicable).

3.2.8 TECHNICAL INSPECTION OF IDENTIFIED UNSAFE CONDITION

If any unsafe condition is identified during the serviceability inspection, a technical inspection of the area impacted by the defect or deficiency will be carried out as soon as practicable in accordance with section 12.09 of the Part 139 MOS.

When arranging the technical inspection, the Aerodrome Manager will ensure that the person engaged to conduct the inspection has the required technical qualifications and experience, or demonstrable relevant experience, as required by section 12.10 of the Part 139 MOS.

A copy of the person's qualifications and relevant experience will be included in the resulting technical inspection report or maintained as part of the aerodrome manual.

On receipt of the technical inspection report, the recommendations will be reviewed by the Aerodrome Manager and agreed corrective actions will be entered into a corrective actions plan. Where a recommendation is not supported, the reasons the recommendation was not supported, will also be documented in the corrective actions plan. A timeframe for implementation will be recorded.

The corrective actions plan will be retained on file at Northampton Office of the Shire of Northampton. The corrective actions plan will be reviewed regularly and updated by Aerodrome Manager.

The technical inspection report will be retained for a minimum period of three (3) years at Northampton office of the Shire of Northampton.

Within 30 days of receiving the technical inspection report, the Aerodrome Manager will send a copy of the report to CASA via e-mail at: aerodromes@casa.gov.au.

3.2.9 MAINTAINING INSPECTION RECORDS

Completed inspection records are:

Filed: electronically and hard copy - File 12.2.3

Stored securely at: Northampton office of the Shire of Northampton

The results of each aerodrome serviceability inspection are retained for a minimum period of two (2) years from the date the inspection was completed.

3.3 AERODROME LIGHTING

This section documents the procedures for:

- inspecting and maintaining aerodrome lighting, and obstacle lighting that is maintained by Shire of Northampton
- carrying out routine maintenance and emergency maintenance
- monitoring the supply of secondary and stand-by power (if provided)
- responding to a partial or total power system failure
- taking follow-up action(s) to correct deficiencies
- maintaining records of inspections
- monitoring hazardous lights, lasers, and reflection or glare within the aerodrome boundary.

3.3.1 PERSONNEL WITH RESPONSIBILITIES

The following individuals or positions have responsibilities for each lighting-related activity:

(a) Carrying out lighting inspections

Individual / position: Aerodrome Reporting Officer

(b) Maintaining the records of inspections

Individual / position: Aerodrome Reporting Officer

(c) Taking follow-up action if unsafe condition identified during inspection

Individual / position: ARO in consultation and approval of Aerodrome Manager

(d) Operating aerodrome lighting, including switching systems, back-up supply systems, and portable lighting equipment

Individual / position: Aerodrome Reporting Officer

(e) Performing maintenance on aerodrome lighting

Individual / position: Electrical Contractor

(f) Monitoring hazardous lights, lasers, reflection or glare within the aerodrome boundary

Individual / position: Aerodrome Reporting Officer

3.3.2 AERODROME LIGHTING - INSPECTION AND MAINTENANCE

The reporting officer carries out a visual inspection of aerodrome lighting as part of the routine serviceability inspection process. The lights will be switched on so that their serviceability can be assessed.

At least one inspection each week will occur after sunset or before sunrise.

The inspection, reporting the results of the inspection, and any follow-up actions that are required, will occur in accordance with the serviceability inspection process outlined in section 3.2 of this manual.

In addition to the serviceability inspection, inspection and maintenance activities for each lighting system will occur in accordance with the table below.

AERODROME LIGHTING SYSTEMS	INSPECTION SCHEDULE	ITEMS TO BE INSPECTED OR CHECKED	MAINTENANCE ACTIVITIES
Runway edge lighting	once per week	All lights operational Light units are vertical Lenses are clean Correct filters/lens colours are fitted	Replace non operational lights Clean lenses Replace filters/lens if needed

3.3.3 OBSTACLE LIGHTING MAINTAINED BY AERODROME OPERATOR - INSPECTION AND MAINTENANCE

There is no obstacle lighting maintained by Kalbarri Airport; therefore, this subsection is NOT APPLICABLE.

3.3.4 PORTABLE RUNWAY LIGHTS - INSPECTION AND MAINTENANCE

No portable runway lights are available for use at the aerodrome; therefore, this subsection is

NOT APPLICABLE.

3.3.5 MONITORING SECONDARY POWER SUPPLY

A secondary power supply is not available at Kalbarri Airport; therefore, this subsection is NOT APPLICABLE.

3.3.6 MONITORING STANDBY POWER SUPPLY

Standby power is available at Kalbarri Airport.

The standby power supply can be automatically and manually activated.

The availability of standby power is notified in AIP ERSA.

The supply of standby power will be monitored by ARO in accordance with the following procedure:

- Check fuel, oil and coolant levels
- Start and run generator for ten minutes

3.3.7 LIGHTING INSPECTIONS AND CHECKS

In addition to the inspections outlined in subsection 3.3.2, inspection and maintenance activities for each lighting system will occur in accordance with the table below:

AERODROME LIGHTING SYSTEMS	INSPECTION SCHEDULE	ITEMS TO BE INSPECTED OR CHECKED	MAINTENANCE ACTIVITIES
PAPI	Quarterly	Check each box for dust accumulation around optics, glass, reflector and colour filters	Clean out dust and remove any weed growth
Runway Edge	Weekly	Check angle of light and individual light operation	Adjust angle of elevation if required. Replace light if non operational
Runway Threshold	Weekly	Check angle of light and individual light operation	Adjust angle of elevation if required. Replace light if non operational
Taxiway	Weekly	Check angle of light and individual light operation	Adjust angle of elevation if required. Replace light if non operational
Illuminated Wind Indicators	Weekly	Check angle of light and individual light operation	Adjust angle of elevation if required. Replace light if non operational

Procedures for recording inspection and maintenance activities are included in subsection 3.3.8 of this manual.

Aerodrome lighting inspections carried out as part of the Aerodrome Technical Inspection will be conducted in accordance with section 3.9 of this manual.

Each lighting system and the list of specific elements to be inspected and checked is contained in the Serviceability Inspection Checklist and the Lighting Maintenance and Inspection Check Forms, which is available at Northampton and Kalbarri offices of the Shire of Northampton.

3.3.8 MAINTAINING LIGHTING INSPECTIONS RECORDS AND

FOLLOW-UP ACTIONS

At the completion of each lighting inspection, the ARO records the following information on the Lighting Maintenance and Inspection Checklist Form:

- the date and time the inspection was completed
- the person responsible for completing the inspection
- the results of the inspection
- a description of any action taken.

All identified faults that require further corrective action are to be entered into the electrical file. Any works activities that are required to correct these faults are to be conducted in accordance with the works protocols set out in section 3.10 of this manual.

When the fault has been rectified, an entry will be made in the electrical file 12.2.3 confirming the corrective action is complete.

Faults that remain open are to be subject to regular monitoring.

3.3.9 SWITCHING LIGHTS ON AND OFF & INTENSITY SELECTION

The lighting system is operated by: PAL and/or manual switch.

The data on the operating current and the corresponding intensity selection is below:

LIGHTING SYSTEM	OPERATING CURRENT	INTENSITY SELECTION
PAPI	16 amp	Daylight: 6.46amps Dusk: 3.94amps Night: 2.14amps
Runway Lights	16 amp	Set

The procedures for switching lights on and off, including the intensity selection, are as follows:

- The PAL operates on a single frequency of 126.7 MHz and allows pilots to operate the aerodrome lighting using a VHF radio
- With the allocated frequency selected on the radio 3 transmissions within a period of 5 seconds will activate the aerodrome lighting, which will then remain operational for thirty minutes.
- During the last ten minutes of the thirty minute cycle the illuminated wind indicator will flash to give a warning to pilots that the cycle is about to be completed. They system can be reactivated at any time to give a further thirty minute operation.
- The aerodrome lights can be activated manually at the lighting control box (smaller cabinet located near the generator sets next to the apron) using the key.
- To manually activate the lights turn the key switch to manual. To return the lights to PAL activation turn the switch to auto. The switch should be left on auto at all times.
- All reporting officers hold a key to the lighting control box.

3.3.10 BACK-UP ARRANGEMENTS FOR PAL SYSTEM

The pilot-activated lighting (PAL) system has been designed so that, if it fails, it can be manually activated.

The bypass switch has been provided that allows manual activation of the lights. The bypass switch is located in the main electrical control box at the generator site.

Kalbarri Airport has issued written authorisation for manual activation of the lights, if required, to Kalbarri Sub-Branch of the St John Ambulance. A copy of the authorisation has been retained on file and is available at Kalbarri office of the Shire of Northampton

The manual activation switch is accessible with a key

3.3.11 ROUTINE AND EMERGENCY LIGHTING MAINTENANCE

Routine maintenance is carried out in accordance with the following procedures:

- covering the runway light sensor located on top of the control cabinet with insulation tape and then activating the PAL system as described in 3.3.9. This will start the north generator and all airport lighting - excluding the terminal lighting - will come on allowing the ARO to visibly check the flood lights, PAPI's, runway lights and both the Primary and Secondary wind direction indicator lighting; or
- by opening the right hand side of the control cabinet and activating the manual switches of either generator and then individually activating the flood light switch - look up at flood lights to ensure operating, then turn off; activating the PAPI manual switch and listen for load on generator, then turn off; then activating the runway lighting manual switch. At this time the ARO can visibly check the runway lighting only.

It is then important to remove the insulation tape from the light sensor when checks are completed. The lighting system will run its cycle and then switch off automatically, or turn off the manual runway lighting switch and generator switch inside the cabinet and lock the cabinet.

The PAPI system can be checked at any time of the day by simply operating the PAL system, in which case it will run its cycle and then turns off.

The terminal power and lighting can be checked by activating the manual switch on the north internal wall of the terminal behind the counter. This will turn on the south generator and when the switch is turned off will run for ten minutes before shutting the generator down automatically.

Emergency maintenance is carried out in accordance with the following procedures:

- Runway lights can be repaired while the lighting is activated
- To repair/replace PAPI or Wind Direction Indicator light globes the power must be shut off and reactivated when the repairs are complete for testing.
- Spare airport lighting parts are kept in the terminal office

3.3.12 PARTIAL OR TOTAL POWER SYSTEM FAILURE

In the event of a partial or total system failure, the following procedures are to be followed:

- standby power automatically activates in 10 seconds

3.3.13 MONITORING HAZARDOUS LIGHTS, LASERS, REFLECTION OR GLARE

The Aerodrome Manager is to notify CASA in writing immediately when they become aware of any installation, or a proposal to install, or use any installation, equipment or laser, outside the aerodrome boundary that may have lighting or lighting intensity greater than that specified in Figure 9.144(2) of the Part 139 MOS.

Before proceeding to install or use any installation, equipment, or lasers within the boundary of

the aerodrome, the Aerodrome Manager will report the following proposals to CASA so that a hazard assessment can be undertaken:

- installation of any equipment or lighting which would reflect sunlight (including solar panels, lasers, mirrors, or reflective building cladding)
- lighting that will emit multiple colours from a single source
- lighting that will result in rapid change in light colour
- flashing lights
- lighting that may have a lighting intensity that is greater than that specified in Figure 9.144(2) of the Part 139 MOS.

Kalbarri Airport will not proceed with any proposal until CASA has assessed, and approved in writing, confirming the installations will not cause a hazard to aircraft operations.

3.3.14 COMMISSIONED LIGHTING SYSTEMS

Kalbarri Airport has commissioned the following lighting systems:

LIGHTING SYSTEM	DATE COMMISSIONED	COMMISSIONING DOCUMENTATION - INDEPENDENT COMPLIANCE STATEMENT / LABORATORY TEST REPORT	COMMISSIONING DOCUMENTATION - GROUND CHECK REPORT	COMMISSIONING DOCUMENTATION - FLIGHT CHECK REPORT
Refer Appendix B	14th May 2009	Refer Appendix B	Refer Appendix B	Refer Appendix B

3.3.15 COMMISSIONING A NEW OR UPGRADING / REPLACING AN EXISTING LIGHTING SYSTEM

Kalbarri Airport will not commission a new aerodrome lighting system, or permit the use of a lighting system that has been replaced or upgraded, until:

- compliance statements from the manufacturer and the supplier, or, a test report from an accredited laboratory (as per subparagraph 9.17(1) of the Part 139 MOS), confirm that light fitting types, models and versions comply with the standard for photometric and other relevant characteristic specified in the Part 139 MOS
- a ground check has been completed by an appropriately qualified person and written evidence has been provided that confirms the lighting system meets the requirements of the Part 139 MOS
- if applicable, a flight check has been completed by a CASA approved person and written evidence has been provided that confirms the lighting system meets the requirements of the Part 139 MOS.

Once full compliance with the Part 139 MOS has been confirmed, a NOTAM authorised person is to request the issue of a NOTAM advising that the lighting system is available. The AIP responsible person is to advise Airservices of the particulars of the lighting system for publication in the AIP.

The Aerodrome Manager will provide a copy of the ground check determination, and the flight check report (if applicable), to CASA via e-mail to: aerodromes@casa.gov.au

All compliance statements / laboratory test reports, ground check, and flight check reports will be retained by the Aerodrome Manager and stored securely at Northampton office of the Shire

of Northampton.

Subsection 3.3.14 of this manual is to be amended to include the particulars of the newly commissioned lighting system(s).

All reports and commissioning records are retained for as long as the lighting system remains in service.

3.4 UNAUTHORISED ENTRY TO AERODROME

This section details how unauthorised persons, vehicles, equipment, mobile plant, animals or other things that may endanger the safety of aircraft, are prevented from entering onto the movement area, including procedures for:

- controlling airside access
- monitoring airside access control points and barriers.

3.4.1 CONTROLLING AIRSIDE ACCESS

To prevent unauthorised access by persons, vehicles, equipment, mobile plant, animals and other things that may endanger aircraft safety, a fence has been installed around the perimeter of the airside boundary:

- Type of fence: combination of eleven line ring-lock with 2 strands of barbed wire above the ring-lock on perimeter with the exception of in front of the terminal where it is a chain mesh fence
- Height of fence: 1.5m ring-lock perimeter fence and a 1.6m chain link fence in front of terminal

Shire of Northampton ensures that only authorised persons are allowed unescorted access to the movement area and other operational areas of the aerodrome.

For those persons not authorised, escorted access is provided as required.

Airside access gates are:

- Located at: Refer to Attachment A - Facilities Plan
- Always locked by: Security controlled padlock and combination lock for pedestrian airside gate
- Keys are issued by: ARO
- A register of issued keys and / or access cards is maintained by: ARO
- An audit of issued and unissued keys is conducted annually by: ARO

Restricted access signs are located at regular intervals along the boundary fence, at each airside access gate, and at each building that provides direct access airside. The signs are located such that at least one sign is visible to a person approaching the secure perimeter.

Airport tenants are responsible for controlling airside access through their leased areas. Any unauthorised entry observed by the tenant is to be reported immediately to ARO.

Only authorised vehicles driven by an airside driver are permitted airside. Refer to section 3.5 of this manual.

Animals are only permitted airside if caged or restrained.

3.4.2 MONITORING AIRSIDE ACCESS POINTS AND BARRIERS

The reporting officer carries out a visual inspection of the perimeter fence and airside access gates as a part of the aerodrome serviceability inspection process. The inspection, reporting the results of the inspection, and any follow-up action(s) that is required, is to occur in accordance with the process outlined in section 3.2 of this manual.

Additional fence and access gate inspections are conducted:

- By: ARO
- When: immediately after a severe weather event, aircraft accident, unauthorised incursion

These additional inspections are recorded: Serviceability Inspection Checklist.

In the event there is evidence of unauthorised entry by persons or wildlife, or the fence or access gates are compromised, the fence or access gates are to be re-secured where possible, and an airside inspection undertaken immediately to ensure there are no unauthorised persons, or wildlife, on the aerodrome.

Damaged fences or gates will be entered in the Serviceability Inspection Checklist, in accordance with the process outlined in subsection 3.2.6 of this manual, and are to be repaired as soon as possible.

3.5 AIRSIDE VEHICLE CONTROL

3.5.1 PERMIT SYSTEM FOR AIRSIDE VEHICLES

A permit system for airside vehicles is not required as the aerodrome does not, in a financial year, have more than 350,000 air transport passenger movements, or more than 100,000 aircraft movements; therefore, this subsection is NOT APPLICABLE.

3.5.2 VEHICLES AND GROUND EQUIPMENT OPERATED AIRSIDE

Kalbarri Airport ensures that all vehicles and ground equipment operated airside are maintained in a sound mechanical state to prevent a breakdown or unsafe operation, and any spillage of fuel, lubricant or hydraulic fluid.

Kalbarri Airport requires:

- vehicles operating airside to hold state registration confirming they are maintained in a roadworthy condition
- in the event an airside vehicle does not, or cannot obtain state registration, the owner of the vehicle to provide a statement of vehicle condition from a qualified mechanic prior to accessing the airside for the first time. A vehicle condition statement is valid for a maximum period of 12 months. If the owner still intends for the vehicle to be operated airside, a new vehicle condition statement is required to be presented prior to the end of that 12-month period
- evidence that vehicles comply with lighting and radio requirements (as applicable)
- a certificate of insurance with valid cover for the use of the vehicle within the airside area of the aerodrome.

A list of authorised vehicles is:

- Maintained by: ARO
- Available at: Kalbarri office of the Shire of Northampton

To ensure the requirements of this manual are achieved, Kalbarri Airport can inspect or can require an inspection to be carried out on any vehicle or ground equipment that is operating airside.

In the event that an inspection is not carried out, or the inspection identifies an unsafe condition that may create a hazard to aviation safety, the vehicle is to be denied access. If the vehicle is already airside, the operator of the vehicle is to be instructed to remove the vehicle from the airside.

A list of vehicles that have been removed from the airside or denied access is:

- Maintained by: ARO
- Available at: Kalbarri office of the Shire of Northampton

A vehicle that is denied access or has been removed from the airside at the direction of Kalbarri Airport is not to be authorised to re-enter the airside until an inspection has been completed and a satisfactory vehicle condition statement has been received.

3.5.3 AIRSIDE VEHICLE LIGHTING REQUIREMENTS

As the aerodrome does not have scheduled air transport operations and the aerodrome is not an international aerodrome, vehicles operating during the day may, as a minimum, use the standard manufacturer-fitted vehicle hazard warning lights.

Vehicles operating at night will display lights that are visible in all directions.

Except for a vehicle that is under escort, all vehicles will be lit when moving or operating on:

- a runway / runway strip
- a taxiway / taxiway strip
- the movement area at night
- during periods of low visibility.

3.5.4 VEHICLES ON MANOEUVRING AREA

Except for a vehicle that is under escort, all vehicles operating on the runway, runway strip, taxiways and taxiway strips have a VHF receiver capable of monitoring the CTAF and / or ATC frequency. All drivers are to maintain a listening watch through the VHF receiver. Only those persons that hold an Aeronautical Radio Operator Certificate (AROC) are permitted to transmit.

3.5.5 AIRSIDE DRIVERS - TRAINING

As Kalbarri Airport does not have scheduled air transport operations, drivers not under escort, and who are operating a vehicle airside, are inducted to understand the following:

- the terminology used to describe the movement area
- the purpose and location of all airside areas
- hazardous or prohibited areas on the airside
- the significance of aerodrome visual aids and signs.

Induction details:

- The Aerodrome Manager in association with the ARO will ensure that applicants have read, understood and will comply with the following requirements for persons operating a vehicle airside. Applicants are expected to observe the 10kmph speed limit at the aerodrome within the vicinity of aircraft
- Hold a current State or Territory licence to drive the class of vehicle or vehicles to be operated, where one exists, or the nearest equivalent where a specific class does not exist.
- Understand the terminology used to describe the areas on the airside or the aerodrome and be familiar with their location
- Understand the significance of apron signs and markings if operating on the manoeuvring area, and understand aviation radio transmissions that may be received

3.5.6 VEHICLES IN PROXIMITY TO AIRCRAFT

Airside drivers must give way to aircraft.

Airside vehicles are to remain clear of the runway, runway strip, taxiway(s), or taxiway strip(s) when they are in use or available to be used by aircraft unless there is a safety-related or operational requirement for vehicles to operate in these areas.

Airside vehicles are not to be driven:

- in a manner likely to endanger the safety of any person or create a hazard to aircraft operations
- under an aircraft, or within 3 m of lateral clearance, or within 1 m of overhead clearance, of any part of the aircraft, except when required for servicing the aircraft
- within 15 m of refuelling aircraft
- when drivers are affected by alcohol or drugs as per CASR Part 99.

3.5.7 MOVEMENT AREA SPEED LIMITS

Speed limits are explained and provided to all drivers during their driver training and / or induction.

Drivers must adhere to the following speed limits:

LOCATION	SPEED LIMIT (km / h)
Perimeter roads	40 km/h
Apron	10 km/h
Taxiways	10 km/h
Runways	40 km/h
During low-visibility operations	10 km/h

The above speed limits are sign not posted.

3.5.8 ESCORT SERVICE PROCEDURES

Third parties are not permitted to provide vehicle escorts airside; therefore, this subsection is NOT APPLICABLE.

3.5.9 MONITORING AND ENFORCING TRAFFIC RULES

The aerodrome reporting officer is responsible for periodically monitoring the operation of vehicles airside in accordance with the following:

- 3.5 Airside Vehicle Control

Appropriate action is to be taken against drivers who are clearly in breach of displayed signage, markings, or speed limits. This may include withdrawing their authority to operate a vehicle airside.

3.6 AIRCRAFT PARKING CONTROL

3.6.1 AIRCRAFT PARKING CONTROL PERSONNEL

Kalbarri Airport does not have scheduled international air transport operations, and there is no hazard resulting from apron congestion. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.6.2 LIAISON WITH ATC - APRON MANAGEMENT

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.6.3 ALLOCATING AIRCRAFT PARKING POSITIONS

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.6.4 ENGINE START AND AIRCRAFT PUSH-BACK CLEARANCES

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.6.5 AERODROME VISUAL DOCKING GUIDANCE SYSTEMS

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.6.6 MARSHALLING SERVICE

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.6.7 LEADER (VAN) SERVICE OR FOLLOW-ME SERVICE

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.6.8 APRON SAFETY MANAGEMENT PROCEDURES

The reporting officer(s) is responsible for periodically monitoring activities occurring on the

apron to check that:

- no person, vehicle, or equipment is within the potential jet blast area behind the aircraft
- aprons are free from loose stones and other material that may cause FOD
- all equipment is appropriately stored in marked equipment storage areas
- vehicles do not pass behind aircraft that are displaying anti-collision beacons
- tug operators are adhering to the line marking guidance provided
- wheel chocks are appropriately positioned on parked aircraft.

As trends may identify changes to apron safety management procedures, reported incidents and hazards are also reviewed by:

- Position / committee: ARO.

3.6.9 ALTERNATIVE SEPARATION DISTANCES AND APRON MARKINGS

3.6.9.1 REDUCED SEPARATION DISTANCES - VDGS

The aerodrome does not have VDGS; therefore, reduced separation distances are not permitted.

3.6.9.2 AIRCRAFT TYPE DESIGNATOR MARKINGS

Not Applicable - No designator markings.

3.6.9.3 ALIGNMENT LINES

No alignment lines beyond the stop line are marked for aircraft parking positions.

3.6.9.4 PUSH-BACK OPERATOR GUIDANCE MARKINGS

Not Applicable

3.6.9.5 PASSENGER PATH MARKINGS

Not Applicable

3.6.9.6 MISCELLANEOUS AREA LINE MARKINGS

There are no miscellaneous area line markings displayed on the apron(s).

3.7 AERODROME OBSTACLE CONTROL

3.7.1 OBSTACLE CONTROL PERSONNEL

The following person(s) have responsibilities for obstacle control:

INDIVIDUAL OR POSITION	RESPONSIBILITIES
ARO	monitoring surfaces related to the OLS and terminal instrument flight procedures (PAN-OPS)
ARO	notifying CASA or the procedure designer when a proposed or actual infringement of the prescribed airspace is identified
ARO	implementing obstacle control within the aerodrome boundary
ARO	liaison and facilitation of obstacle control outside the aerodrome boundary

3.7.2 MONITORING TAKE-OFF, APPROACH AND TRANSITIONAL SURFACES

Kalbarri Airport has established the obstacle limitation surfaces (OLS) for each runway that meet the physical dimensions for approach and take-off runways as set out in Chapter 7 of the Part 139 MOS.

The particulars of each surface are shown on an OLS plan for the aerodrome which is available at Appendix C.

The aerodrome reporting officer is responsible for visually scanning the OLS as part of the aerodrome serviceability inspection in section 3.2 to identify the emergence of any new or potential obstacles.

It has been determined from the original establishment of the OLS that no obstacles are likely to infringe the take-off, approach and transitional surfaces. Subsequently, a survey of the take-off, approach, and transitional surfaces is not conducted as there are no objects near to, and no existing obstacles that are infringing, the approach, take-off, or transitional surfaces, that are likely to alter in height.

To enable an accurate assessment, divergence markers that identify the approach and take-off splays are used as a visual reference point. An assessment is completed as part of the aerodrome technical inspection programme conducted in accordance with section 3.9 of this manual.

3.7.3 PROPOSED OR ACTUAL INFRINGEMENTS - OLS

3.7.3.1 PROPOSED OLS INFRINGEMENTS

If a proposed object or structure is identified as likely to be an obstacle, details of the proposal are to be sent to CASA in writing by: Aerodrome Manager.

On receipt of CASA's written assessment, the relevant planning authority is to be advised of the result of the assessment.

Kalbarri Airport will follow up with the planning authority to ensure that those obstacles considered an unacceptable risk to aviation safety are not approved, or that those obstacles that are considered acceptable but subject to additional mitigations are appropriately marked and / or lit.

3.7.3.2 ACTUAL OLS INFRINGEMENTS

Kalbarri Airport will not make a runway available for night use until CASA has determined that any obstacle(s) will not adversely affect the safety of night operations.

For any identified obstacles that have been erected without prior notification and which have not been assessed, the aerodrome reporting officer is to:

- advise ATC immediately (if applicable)
- consider limiting aircraft approach and take-off to the runway
- ensure an immediate request is made to issue a NOTAM
- take immediate steps to have the obstacle removed
- ascertain the height of the obstacle and consider displacing the runway approach threshold. If the threshold is displaced, the published declared distances will be amended, and the new threshold location appropriately marked / lit
- report the infringement to CASA in writing.

The NOTAM authorised person includes the following information in the NOTAM request:

- the nature of the obstacle
- the distance and magnetic bearing of the obstacle from:
 - if the obstacle is within the take-off area – the start of the take-off end of the runway, or
 - the ARP.
- the height of the obstacle in relation to the aerodrome elevation
- if it is a temporary obstacle – the time during which it is a temporary obstacle.

The request to issue the NOTAM is to be made in accordance with the procedures set out in section 3.1 of this manual.

Once the obstacle has been removed, the aerodrome reporting officer is to:

- advise ATC (if applicable)
- re-open, or re-instate the full runway length (if required)
- ensure a request to cancel the NOTAM is made (if issued).

3.7.4 HEIGHT OF INFRINGEMENTS - OLS

There are no buildings, structures, plumes or other developments that infringe the aerodromes OLS; therefore, this subsection is NOT APPLICABLE.

3.7.4.1 HAZARDOUS OBSTACLES

CASA has assessed the following obstacles as being hazardous obstacles. The details of their marking and lighting requirements are also below:

OBSTACLE TYPE	LOCATION	HEIGHT OF HAZARDOUS OBSTACLE	PENETRATED SURFACE	MARKING / LIGHTING
Lit Mast	254DEG	856.5ft	Inner Horizontal	Red Steady
Meanarra Hill	230DEG	659.4ft	Inner Horizontal	None

3.7.5 MONITORING VISUAL SEGMENT SURFACES AND CRITICAL OBSTACLES

There are no published terminal instrument flight procedures for the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.7.6 PROPOSED OR ACTUAL INFRINGEMENTS - PANS-OPS

There are no published terminal instrument flight procedures for the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.7.7 HEIGHT OF INFRINGEMENTS - PANS-OPS

The aerodrome does not have published terminal instrument flight procedures; therefore, this subsection is NOT APPLICABLE.

3.7.8 OBSTACLE CONTROL WITHIN AERODROME BOUNDARY

Kalbarri Airport does not permit objects or structures, other than approved visual and navigational aids, to be erected within the obstacle restriction area of the aerodrome without the written approval of CASA.

All proposed fixed objects or structures at the aerodrome, whether temporary or permanent, that sit on or above the movement area, or those that extend above the defined height limits, including the OLS, have been and / or will be reported to CASA in writing.

On receipt of CASA's assessment, Kalbarri Airport adopts controls appropriate to the recommendations provided by CASA.

3.7.9 OBSTACLE CONTROL OUTSIDE AERODROME BOUNDARY

Kalbarri Airport has liaised with local government authorities located within the OLS footprint of the aerodrome and requested they forward development proposals for assessment where the proposal may penetrate the OLS or PANS-OPS of the aerodrome.

Assistance has been provided to ensure the local government authority has suitable processes and information to determine which development proposals should be forwarded for assessment.

3.7.10 OBSTACLE LIGHTS SERVICEABILITY MONITORING PROGRAMME

The following lit obstacles are located within the OLS area of the aerodrome:

LIT OBSTACLES & INSPECTION PROGRAMME

REQUIREMENTS	OBSTACLE DETAILS
OBSTACLE TYPE	Communication Mast
LOCATION OF OBSTACLE	254DEG
TYPE OF OBSTACLE LIGHTING	Steady Red
OBSTACLE LIGHT OWNER	Telstra
OBSTACLE INSPECTION FREQUENCY	Twice per week
INSPECTION FREQUENCY FOR OBSTACLE LIGHTS THAT ARE NOT VISUALLY OBSERVABLE	Not Applicable

A plan that shows the location of each of these obstacle lights is available at: Appendix D.

At the completion of each obstacle light inspection, the following information is recorded on the Serviceability Inspection Checklist.

- the date and time the obstacle light inspection was completed
- who performed the inspection
- the results of the inspection
- a description of any action taken.

The results of each obstacle light inspection and any action taken will be maintained by ARO.

Inspection records stored at: Kalbarri office of the Shire of Northampton.

3.7.11 OBSTACLE LIGHT OUTAGE

In the event an obstacle light outage is detected during an inspection, the reporting officer is to:

- ensure that a NOTAM authorised person requests the immediate issue of a NOTAM
- liaise with the owner of the obstacle light so that the outage is repaired as quickly as possible.

If the obstacle light has been determined by CASA, in writing, as essential for aviation safety, the reporting officer is to:

- immediately report the outage to any aircraft that are manoeuvring, or about to manoeuvre on the affected runway
- immediately close the relevant runway or close the aerodrome until the outage is repaired
- notify CASA of the outage as soon as possible.

3.7.12 CHARTS PUBLISHED BY THE AERODROME OPERATOR

3.7.12.1 TYPE A CHARTS

Type A charts are not required and have not been prepared; therefore, this subsection is NOT APPLICABLE.

3.7.12.2 TYPE B CHARTS

Type B charts have not been prepared; therefore, this subsection is NOT APPLICABLE.

3.7.12.3 PRECISION APPROACH TERRAIN CHARTS - ICAO

Precision Approach Terrain Charts have not been prepared; therefore, this subsection is NOT APPLICABLE.

3.7.12.4 AERODROME TERRAIN AND OBSTACLE CHARTS - ICAO (ELECTRONIC)

Aerodrome Terrain and Obstacle Charts have not been prepared; therefore, this subsection is NOT APPLICABLE.

3.8 PROTECTION OF COMMUNICATION, NAVIGATION, SURVEILLANCE AND METEOROLOGICAL FACILITIES

3.8.1 CONTROLLING ACTIVITIES NEAR CNS AND MET FACILITIES

There are no CNS or MET facilities located on the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.8.2 SUPPLY AND INSTALLATION OF WARNING SIGNS

There are no communications, navigation and surveillance (CNS) or meteorological (MET) facilities located on the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.9 AERODROME TECHNICAL INSPECTIONS / MANUAL VALIDATIONS

3.9.1 INSPECTION PERSONNEL

The following is a list of individuals or positions, and their responsibilities in the aerodrome technical inspection and reporting process:

INDIVIDUAL OR POSITION	RESPONSIBILITIES
Aerodrome Manager	managing the inspection programme
Aerodrome Manager	planning the aerodrome technical inspections
Aerodrome Manager	reporting inspection results and follow-up action
Aerodrome Manager	receiving and considering inspection reports
Aerodrome Manager	taking follow-up action if defects or deficiencies have been identified
INDIVIDUAL OR POSITION	RESPONSIBILITIES
Aerodrome Manager	managing the validation programme
Aerodrome Manager	planning the validations
Aerodrome Manager	reporting the validation results and follow-up action
Aerodrome Manager	receiving and considering validation reports
Aerodrome Manager	taking follow-up action if defects or deficiencies have been identified

3.9.2 INSPECTION ITEMS AND TIMEFRAMES

Kalbarri Airport, in a financial year, has less than 10,000 air transport passenger movements and less than 20,000 aircraft movements.

An aerodrome manual validation is carried out in accordance with the following:

VALIDATION REQUIREMENT	FREQUENCY	REQUIRED QUALIFICATIONS AND / OR EXPERIENCE
A check of the approach, take-off, and transitional surfaces to ensure published aerodrome information is accurate to within 0.05% of the published gradient in the AIP-ERSA	The validation is completed annually	The person engaged to conduct the validation is: <ul style="list-style-type: none"> technically qualified or experienced in surveying, or has a sound knowledge and understanding of the standards for obstacle limitation surfaces and can, by appropriate means, validate the accuracy of the current published information in the AIP and have a sound knowledge and understanding of the standards for OLS
A check of the other surfaces associated with the OLS	The validation is completed annually	The person engaged to conduct the validation is: <ul style="list-style-type: none"> technically qualified or experienced in surveying, or has a sound knowledge and understanding of the standards for obstacle limitation surfaces and can, by appropriate means, validate the accuracy of the current published information in the AIP and have a sound knowledge and understanding of the standards for OLS

VALIDATION REQUIREMENT	FREQUENCY	REQUIRED QUALIFICATIONS AND / OR EXPERIENCE
A check of the currency and accuracy of information published in the AIP	The validation is completed annually	The person engaged to conduct the validation has sound knowledge and experience of the applicable civil aviation safety legislation
A check of the currency and accuracy of aerodrome operating procedures specified in the aerodrome manual and supporting documents	The validation is completed annually	The person engaged to conduct the validation has sound knowledge and experience of the applicable civil aviation safety legislation
A check that personnel appointed as a reporting officer (a) have been trained and assessed in accordance with Chapter 13, and (b) appear to be generally competent to carry out the required duties in accordance with MOS	The validation is completed annually	The person engaged to conduct the validation has sound knowledge and experience of the applicable civil aviation safety legislation
A check that personnel appointed as a works safety officer (a) have been trained and assessed in accordance with Chapter 13, and (b) appear to be generally competent to carry out the required duties in accordance with MOS	The validation is completed annually	The person engaged to conduct the validation has sound knowledge and experience of the applicable civil aviation safety legislation

3.9.3 QUALIFIED PERSONNEL FOR TECHNICAL INSPECTIONS / MANUAL VALIDATIONS

The Aerodrome Manager, at the time of engaging a person to conduct each element of the technical inspection, is to sight the qualifications and relevant experience of each person(s) to verify that they meet the required qualifications and / or experience as documented in subsection 3.9.2 of this manual.

A person who cannot demonstrate that they have the required technical qualifications and experience, or demonstrable relevant technical experience, will not be permitted to perform the inspection.

A record of qualifications and relevant experience is included in the technical inspection report.

The Aerodrome Manager, at the time of engaging a person to conduct each element of the aerodrome manual validation, is to sight the qualifications and relevant experience of each person(s) to verify that they meet the required qualifications and / or experience as documented in subsection 3.9.2 of this manual.

A person who cannot demonstrate that they have the required technical qualifications and experience, or demonstrable relevant technical experience, will not be permitted to perform the inspection.

A record of qualifications and relevant experience is retained in the report for the annual aerodrome manual validation.

3.9.4 SCHEDULING INSPECTIONS / MANUAL VALIDATIONS AND RECORDING THEIR RESULTS

A Serviceability Check Log is maintained that provides the timing of inspections, weekly, fortnightly, monthly, six monthly.

- Person(s) responsible for Serviceability Check Log: Aerodrome Manager

- Location of Serviceability Check Log: Kalbarri and Northampton offices of the Shire of Northampton.

Irrespective of the schedule, an immediate inspection is conducted in the event any of the following is detected during an aerodrome serviceability inspection:

- an unsafe condition is identified
- a defect or deficiency in a part of the aerodrome is identified
- incorrect aerodrome information published in the AIP, or a NOTAM, or reported to ATC (if applicable)
- any details in the aerodrome manual that are incorrect or not current
- any procedure in use at the aerodrome, which is not in accordance with, or conflicts with procedures in the aerodrome manual.

3.9.5 BRIEFING TECHNICAL INSPECTORS

At the time of engagement, the person(s) conducting the technical inspection will be briefed on the scope of the inspection, including the technical matters and the locations which must be inspected.

The Aerodrome Manager is to advise the person(s) conducting each element of the technical inspection that they are to include in their report:

- any non-compliance with the Part 139 MOS with respect of the aerodrome's facility, equipment, operation, or aerodrome personnel
- any defect or deterioration in any facility, equipment or visual aid which could make the aerodrome unsafe for aircraft operations
- any incorrect aerodrome information:
 - published in the AIP or NOTAMs
 - reported to ATC (if applicable)
- any information in the aerodrome manual which is incorrect or not current
- any procedure, or practice in use at the aerodrome, which is not in accordance with, or conflicts with, procedures in the aerodrome manual.

At the time of engagement, the person(s) conducting the manual validation will be briefed on the scope of the validation.

The Aerodrome Manager is to advise the person(s) conducting each element of the validation that they are to include in their report:

- any non-compliance with the Part 139 MOS, including with respect to aerodrome personnel
- any incorrect aerodrome information:
 - published in the AIP or NOTAMs
 - reported to ATC (if applicable)
- any information in the aerodrome manual which is incorrect or not current
- any procedure, or practice in use at the aerodrome, which is not in accordance with, or conflicts with, procedures in the aerodrome manual.

3.9.6 POST-INSPECTION / VALIDATION CORRECTIVE ACTIONS

On receipt of the technical inspection report, each recommendation is to be entered into a corrective action plan and is to be considered. Each recommendation is to be documented and considered by the following person(s):

- Documented by: Aerodrome Manager
- Considered by: Aerodrome Manager.

Where a recommendation has been supported, the agreed corrective actions are to be documented and assigned to an individual who will be responsible for implementing the listed corrective actions. An agreed target date for completion for each corrective action will also be assigned.

In the event a recommendation is not supported, the reasons for not supporting the recommendation are also to be documented in the corrective action plan.

Kalbarri Airport ensures that corrective action plans are reviewed and updated regularly. Specific responsibilities for corrective plans have been attributed to the following person(s):

- Maintained by: Aerodrome Manager
- Stored securely at: Northampton office of the Shire of Northampton

In the event CASA requests a written copy of the corrective action plan, Kalbarri Airport ensures that this copy will be provided to CASA within 30 days and will include a report showing the progress of corrections to any defects or deterioration.

3.9.7 PROVIDING CASA WITH INSPECTION / VALIDATION REPORTS

Within 30 days of receiving the technical inspection report, a copy of the report is to be provided to CASA:

- By: Aerodrome Manager
- Via e-mail: aerodromes@casa.gov.au.

Upon receipt of a written request, a copy of the corrective actions plan, including progress made to address the actions, is to be provided within 30 days to the aerodrome inspector making the request:

- By: Aerodrome Manager. Where the validation identifies incorrect information published in the AIP, NOTAM, or in the aerodrome manual, or any errors or conflicts with the procedures documented in the aerodrome manual, within 30 days of finalising the manual validation, a report is to be provided to CASA by Aerodrome Manager.

3.9.8 MAINTAINING RECORDS OF TECHNICAL INSPECTIONS / MANUAL VALIDATIONS

Technical inspection reports are retained for a period of at least three (3) years from the date the report was completed.

- Maintained by: Aerodrome Manager
- Stored securely at: Kalbarri and Northampton offices of the Shire of Northampton.

Records of the results of each manual validation are retained for a period of at least three (3) years from the date the record was completed.

- Maintained by: Aerodrome Manager
- Stored securely at: Kalbarri and Northampton offices of the Shire of Northampton.

3.10 AERODROME WORKS SAFETY

Kalbarri Airport always makes all necessary arrangements to ensure that aerodrome works do

not create a hazard to aircraft or cause confusion to pilots.

A works safety officer is to be present to directly oversee works safety at all times when the aerodrome is open and available for aircraft operations.

Aerodrome markers, markings and lights required for, or affected by aerodrome works are installed, altered or removed in accordance with the required standards.

Any part of the movement area that is unserviceable as a result of aerodrome works being carried out is marked and lit. Obstacles created as a result of the aerodrome works are assessed and marked, or lit in accordance with the assessment.

Where works are to be undertaken in the vicinity of CNS or MET facilities, the service provider is to be consulted to ensure neither the works, nor the vehicles or plant associated with the works affect performance of the facilities.

Where significant displacement of a runway threshold is planned, works planning may require consultations with the terminal instrument flight procedure (TIFP) designer and the surveyor that conducts the annual obstacle surveys.

3.10.1 WORKS SAFETY PERSONNEL

The following persons have specified responsibilities for works:

INDIVIDUAL / POSITION	RESPONSIBILITY
Aerodrome Manager	works planning
Contractor	conducting works
Aerodrome Manager & ARO	arrangement and notifications

The following is a list of personnel appointed to perform the functions of a works safety officer (WSO):

NAME	POSITION	FUNCTION
Richard Davey	ARO	Works safety officer
Jarrold Dawe	ARO	Works safety officer

All personnel appointed as a WSO have been trained so that they can competently carry out their duties at this aerodrome, without the need for supervision.

Kalbarri ensures all training activities for works safety officers are recorded to verify achieved competencies.

All WSOs undergo recurrent training every two (2) to five (5) years as is recommended in guidance material published by CASA, or earlier if deficiencies are identified.

A training schedule has been established and is maintained by Aerodrome Manager. The training schedule is reviewed regularly to ensure training is completed in a timely manner.

The training records of all WSOs are:

- Maintained by: Aerodrome Manager
- Stored securely at: Northampton office of the Shire of Northampton.

3.10.2 PREPARATION OF A METHOD OF WORKING PLAN (MOWP)

Although a MOWP is not required when planning scheduled works, as a means to ensure

aerodrome works do not create a hazard or confusion, and that the impact of the works will be clearly understood, Kalbarri Airport is to consult with:

- operators based at the aerodrome
- emergency services aircraft that are likely to operate at the aerodrome
- and other key stakeholders.

A list of representatives from each operator / organisation listed above, and their contact details, is maintained by: Aerodrome Manager.

CASA is to be consulted should any safety issues be identified.

In the event Kalbarri Airport elects to develop a MOWP, the MOWP will be prepared in accordance with the content and sequencing requirements stated in Chapter 16 of the Part 139 MOS.

The name, position, and function of each WSO will be recorded in the MOWP. Copies of the WSOs qualifications to be held with the MOWP.

MOWPs will be authorised and signed by either the:

- Accountable Manager
- Project Manager that has written authorisation from the aerodrome operator to sign the MOWP.

Written authorisations will be retained on file.

3.10.3 MOWP NOTIFICATIONS

Unless the works are unforeseen urgent works, the authorised MOWP will be issued not less than 14 days before the works are scheduled to commence by Aerodrome Manager.

The MOWP is to be issued to:

- air transport operators using the aerodrome
- operators of emergency services aircraft that are likely to operate at the aerodrome
- ATC (if applicable)
- ARFFS (if applicable)
- providers of any communications, navigation, surveillance or meteorological infrastructure or equipment that might be affected by the works (if applicable)
- the WSO
- the project manager
- the works organiser
- the aerodrome security manager (if applicable)
- CASA via e-mail at: aerodromes@casa.gov.au.

A distribution list of all MOWP recipients and their contact details is:

- Maintained by: Aerodrome Manager
- Stored securely at: Northampton office of the Shire of Northampton.

The following person(s) is responsible for ensuring that all recipients receive the MOWP: Aerodrome Manager and/or ARO.

The MOWP distribution list will be regularly reviewed to ensure it remains current.

In the event a MOWP requires amendment, the amended MOWP will:

- clearly show the information that has changed
- be disseminated to all persons who received the original MOWP
- be issued no later than 48 hours before the change in works commences.

Amendments to the MOWP are the responsibility of: Aerodrome Manager.

A NOTAM providing the time and date of the commencement of the works is to be issued as early as possible, but not less than 48 hours before commencement.

In the event the change in works is due to an unforeseen event and a notification period of at least 48 hours is not possible, a NOTAM is to be requested as soon as possible after the change becomes known, and notification of the change is declared on the AFRU / or requested on the ATIS.

3.10.4 COMMUNICATIONS WITH ATC DURING AERODROME WORKS

WSOs that hold an Aeronautical Radio Operator Certificate (AROC) are authorised to transmit on an aeronautical radio frequency. WSOs without an AROC are only authorised to listen to the aeronautical radio frequency, but not transmit.

WSOs will at all times maintain a continuous radio listening watch.

In the event the runway is unserviceable and the WSO does not hold an AROC, unserviceability markings will be used so that a pilot can clearly identify that the runway is unserviceable.

During CTAF operations, WSOs have the contact number for the operations centre for air traffic service to communicate unexpected changes to the availability of the aerodrome.

3.10.5 TIME-LIMITED WORKS (TLW) OR EMERGENCY WORKS

TLW are only to be carried out if:

- a works safety officer(s) is present in the vicinity of the works
- normal operations are not disrupted
- the movement area can be restored to normal safety standards, and
- any obstacles created by those works removed in not more than 30 minutes.

At all times during TLW, the WSO is to maintain a continuous radio listening watch.

In the event TLW have been stopped to facilitate an aircraft movement, normal safety standards are to be restored not less than five (5) minutes before the aircraft movement is to occur.

Where TLW have been stopped for an aircraft movement, TLW is only permitted to resume:

- for an aircraft arrival:
 - immediately after the aircraft arrival provided the safety of the aircraft is not endangered
 - if the aircraft has not arrived, at least 30 minutes after the aircraft was due to arrive.
- for an aircraft departure:
 - a minimum period of 15 minutes must have elapsed between the aircraft's departure and the resumption of TLW.

3.10.6 NOTIFICATIONS OF TLW OR EMERGENCY WORKS

TLW or emergency works with recall times between 10 and 30 minutes are to be advised by NOTAM.

For TLW, the works safety officer is to ensure that a NOTAM has been issued at least 24 hours before the works commence.

The request for a NOTAM is to be made in accordance with section 3.1 of this manual.

The NOTAM authorised person is to include the following information in the NOTAM request:

- date and time of commencement of the works
- time required to restore normal safety standards.

Emergency works on a runway, or runway strip are not to commence until ATC (local tower, or the air traffic service centre) have been notified and the publication of a NOTAM advising the changes to the aerodrome has been verified. The operations centre for air transport operators with scheduled services occurring during the expected duration of emergency works is also be advised of the changes occurring due to the works.

3.10.7 WORKS AT CLOSED AERODROME

To enable works to be completed when the aerodrome is closed, written notice of the intention to close the aerodrome is to be sent, at least 14 days before the aerodrome closure, to:

- air transport operators using the aerodrome
- each other known organisation using the aerodrome which is likely to be affected by the closure
- CASA.

A distribution list of those receiving the written notification will be retained by: ARO.

A copy of the written notice will be retained by: ARO.

At least 14 days before the aerodrome closure, a NOTAM will also be issued in accordance with section 3.1 of this manual, advising when the aerodrome will be temporarily closed.

3.11 WILDLIFE HAZARD MANAGEMENT

3.11.1 WILDLIFE HAZARD PERSONNEL

The following individuals and positions have responsibilities for wildlife hazard management:

INDIVIDUAL / POSITION	RESPONSIBILITIES
Richard Davey - ARO Jarrod Dawe - ARO	monitoring wildlife hazards
Richard Davey - ARO Jarrod Dawe - ARO	mitigating wildlife hazards

3.11.2 TRAINING OF PERSONNEL

3.11.2.1 TRAINING FOR WILDLIFE HAZARD MONITORING AND REPORTING

At Kalbarri Airport, all personnel tasked with wildlife hazard monitoring and reporting are trained, so that they can competently:

- conduct wildlife observations and identify high-risk species
- assess wildlife populations and describe their behaviour
- record information
- collect any remains of a wildlife strike on the aerodrome
- attempt to facilitate the identification of:
 - any wildlife involved in a strike event
 - any resulting damage to an aircraft.
- report the outcomes of observations, monitoring and strike collection activities.

Re-currency training is completed every: 2 to 5 years

The training records of all personnel are kept for a minimum period of three (3) years and are:

- Maintained by: Aerodrome Manager
- Stored securely at: Northampton office of the Shire of Northampton.

3.11.2.2 TRAINING FOR WILDLIFE HAZARD MITIGATION

All personnel engaged in wildlife hazard mitigation are trained, so that they can competently:

- engage in active wildlife management without causing a hazard to aviation safety
- assess the effectiveness of any mitigation measures that are taken.

Re-currency training is completed every: 2 to 5 years.

The training records of all personnel are kept for a minimum period of three (3) years and are:

- Maintained by: Aerodrome Manager
- Stored securely at: Northampton office of the Shire of Northampton.

3.11.3 WILDLIFE HAZARD MANAGEMENT PLAN

The type and frequency of aircraft operations does not trigger the requirement for a wildlife hazard management plan, nor does the aerodrome have a high wildlife hazard management risk. A wildlife hazard management plan has not been prepared.

3.11.4 WILDLIFE HAZARD MONITORING

Wildlife hazards at Kalbarri Airport are monitored as part of the aerodrome serviceability inspection process as shown in section 3.2 of this manual.

In addition to an inspection of the aerodrome boundary fence, and gates, looking for holes or other potential signs of a breach by wildlife, reporting officers will identify and record the

following:

- presence of wildlife on and in the vicinity of the aerodrome, which is to include:
 - a count of all birds and animals sighted
 - bird / animal activity, e.g. feeding, flying, nesting
 - species (if known)
 - numbers
 - location.
- seasonal and environmental conditions which may attract wildlife, such as grasses, standing water, uncovered waste, deceased wildlife (e.g. dead rabbits, mice etc.)
- any additional indicators such as new nests or eggs.

All wildlife observed on the aerodrome and in the vicinity of the aerodrome are recorded on the: Wildlife Strike register.

A record of wildlife strikes is also included in the following register:

- Wildlife strike register: Wildlife Strike Register
- Stored securely at: Kalbarri office of the Shire of Northampton.

All known or suspected wildlife strikes that occur at or in the vicinity of the aerodrome are reported to the Australian Transport Safety Bureau (ATSB). Each month, the wildlife strike statistical reports published by the ATSB are reviewed by: Not Applicable

Any reported occurrences near the aerodrome that have not been previously recorded are included in the Wildlife Strike register.

To detect changes in wildlife hazards, reported wildlife observations and the wildlife strike register are reviewed by ARO.

3.11.5 WILDLIFE HAZARD ASSESSMENT

Any detected wildlife hazard is assessed for risk to aircraft operations.

When assessing the risks, the following data is considered:

- wildlife observations
- reported strike events
- reported near miss events
- times of day or year / weather conditions.

Wildlife hazard risk assessments are:

- Maintained by: ARO
- Stored securely at: Kalbarri Office of the Shire of Northampton

3.11.6 WILDLIFE HAZARD MITIGATION

The following measures have been implemented to assist in mitigating wildlife hazards:

- all gates are kept locked and rubbish appropriately stored
- grass heights are monitored to prevent seeding
- open unlined drains are regularly inspected and maintained to prevent water retention
- in the event dead birds and animal carcasses are located they are quickly removed

- bird spikes or barriers have been installed on roosting sites.

In the event a reporting officer(s) detects a source of attraction for wildlife, so that further actions can be considered and implemented to minimise the attraction, a report is to be drafted and sent to: Aerodrome Manager.

Wildlife mitigation permit(s) is held at the required intervals and renewal is managed by: ARO

Wildlife mitigation permits are stored securely at: Northampton office of the Shire of Northampton.

3.11.7 WILDLIFE HAZARD REPORTING (AIP, NOTAM, ATC, UNICOM)

In the event a wildlife risk is identified on or in the vicinity of the aerodrome, and the risk is a serious or imminent threat and cannot be immediately managed, the reporting officer(s) is to:

- notify ATC (if applicable)
- advise pilots via the CTAF / Unicom
- request the immediate issue of a NOTAM.

Known or seasonal hazards are reported in writing to the AIS provider for publication in the AIP-ERSA.

A NOTAM is requested if the hazard is a higher risk than usual, or is of a short term or seasonal nature.

3.11.8 LIAISON WITH LOCAL AUTHORITIES FOR WILDLIFE HAZARD MITIGATION

The following is a list of local authorities that have land within a 13-km radius of the aerodrome:

LOCAL AUTHORITY	CONTACT
Shire of Northampton	08 99341202

Kalbarri Airport is owned and operated by the Shire of Northampton who ensures future land uses and development proposals are carefully considered.

3.12 LOW-VISIBILITY OPERATIONS

Low-visibility operations are not conducted; therefore, this section is NOT APPLICABLE.

3.12.1 LOW-VISIBILITY PERSONNEL

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

3.12.1.1 RUNWAY VISIBILITY (RV) ASSESSMENT PERSONNEL

No persons at Kalbarri Airport are authorised to conduct runway visibility assessments.

3.12.2 VEHICULAR TRAFFIC IN LOW-VISIBILITY OPERATIONS

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

3.12.3 CNS FACILITIES IN LOW-VISIBILITY OPERATIONS

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

3.12.4 MANOEUVRING AREA INSPECTIONS IN LOW-VISIBILITY OPERATIONS

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

3.12.5 MEASURING RUNWAY VISIBILITY

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

3.12.6 COMMUNICATING VISIBILITY MEASUREMENTS TO ATC OR PILOTS

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

3.12.7 TRANSMISSOMETERS

Transmissometers are not installed at Kalbarri Airport; therefore, this is NOT APPLICABLE.

3.12.8 LOW-VISIBILITY PROCEDURES (LVP)

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.1 SPECIFIC CIRCUMSTANCES FOR LVP

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.2 NOMINATED RATE OF AERODROME MOVEMENTS

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.3 LVP-RELATED TRAINING AND AUTHORISATION FOR AIRSIDE DRIVERS

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

APPLICABLE.

3.12.8.4 CONTROL OF AIRSIDE OPERATIONS

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.5 WITHDRAWAL OF NON-ESSENTIAL VEHICLES AND PERSONNEL

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.6 SUSPENSION OF VISUAL AND NON-VISUAL AID MAINTENANCE

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.7 SECURING AIRSIDE ACCESS AND PREVENTING ENTRY

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.8 ALERTING OF LVP

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.9 COORDINATING LVP ACTIVITIES WITH ATC

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.10 PHYSICAL CHECKS OF LIGHTING AND WARNING DEVICES

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.11 PROTECTION OF AREAS FOR ILS

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.12 EMERGENCY RESPONSES DURING LVP

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.13 LVP STATUS

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.12.8.14 REVIEW OF LOW-VISIBILITY PROCEDURES

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

3.13 DISABLED AIRCRAFT REMOVAL

3.13.1 AIRCRAFT REMOVAL PERSONNEL

The following person(s) have responsibilities for arranging the removal of disabled aircraft:

NAME	ROLE	PHONE NUMBER	AFTER-HOURS PHONE NUMBER
Andrew Campbell	Aerodrome Manager	08 99341202	0427389227
Richard Davey	ARO	0429341203	0429341203
Jarrold Dawe	ARO	0427341205	0427341205

3.13.2 AIRCRAFT REMOVAL - AERODROME OPERATOR & AIRCRAFT CERTIFICATE HOLDER

The registered owner or aircraft operator has complete responsibility for removing their aircraft should it become disabled. All airline operators are therefore expected to have aircraft recovery plans which identify any special equipment that may be necessary.

Kalbarri Airport coordinates the aircraft recovery operation to ensure that the disabled aircraft is removed in a timely and efficient manner.

Removal of damaged aircraft may be subject to clearance of Australian Transport Safety Bureau and other investigating teams.

Although the aircraft owner is responsible, Kalbarri Airport may, where necessary, initiate salvage action when:

- there is a serious and imminent threat or hazard to other aircraft, vehicles or personnel on the movement area
- the aircraft operator refuses to move a disabled aircraft, or neglects to do so within a reasonable time.

In these instances, Kalbarri Airport accepts no responsibility for any loss or damage of any kind resulting from this action, and the aircraft operator shall be held responsible for all costs incurred.

Once a runway is negatively impacted (unavailable), or a reduction in operating length is required, a NOTAM is to be issued in accordance with section 3.1 of this manual.

Appropriate visual aids are deployed, when necessary, to mark unserviceable portions of the aircraft movement area by ARO.

3.13.3 NOTIFYING AIRCRAFT CERTIFICATE HOLDER

The pilot of a disabled aircraft is expected to notify the holder of the aircraft's certificate of registration in the first instance.

If the pilot is not available, or is unable to notify the certificate of registration holder, the required notification is to be issued by [insert position].

If the certificate of registration is not known to Kalbarri Airport, details are to be obtained from the pilot, if possible, or if available, from the [civil aircraft register](#) on the CASA website.

3.13.4 LIAISING WITH THE ATSB, DEFENCE AND ATC

If the disabled aircraft cannot be immediately removed from the movement area, Kalbarri Airport will ensure:

- unserviceability markers, markings and lights are displayed as required
- the NOF is notified of the unserviceability, or changes to the runway or taxiway as applicable.

In the absence of a representative from Kalbarri Airport, the pilot is expected to advise air traffic services of the disabled aircraft closing the runway or airport. As there is no Air Traffic Control at Kalbarri Airport, this notification is expected to occur on the general area frequency should VHF be available on the ground. Once a representative from Kalbarri Airport becomes aware of the disabled aircraft, they are to confirm with the pilot that the air traffic services have been notified.

The ATSB will be notified immediately of an occurrence that requires their involvement.

3.13.5 EQUIPMENT AND PERSON(S) TO REMOVE AIRCRAFT

The holder of the aircraft's certificate of registration is expected to provide, by the fastest means possible, any specialised equipment and personnel required to remove a disabled aircraft.

Prior to engaging recovery assistance from Kalbarri Airport, the aircraft operator is required to indemnify Kalbarri Airport from any adverse consequence resulting from any activities during the recovery process.

Kalbarri Airport is to advise the aircraft operator of the contacts of any commercial crane operators that may assist in providing equipment for the removal of disabled aircraft.

3.14 AERODROME SAFETY MANAGEMENT

3.14.1 SAFETY MANAGEMENT SYSTEM (SMS)

As the aerodrome has less than 50,000 air transport passenger movements / less than 100,000 aircraft movements in a financial year, a safety management system has not been prepared or implemented.

3.14.2 RISK MANAGEMENT PLAN

As the aerodrome has less than 25,000 air transport passenger movements / less than 20,000 aircraft movements in a financial year, a risk management plan has not been prepared or implemented.

4 AERODROME EMERGENCY RESPONSE

4.1 EMERGENCY RESPONSE PERSONNEL

INDIVIDUALS / POSITIONS	RESPONSIBILITIES
Aerodrome Manager	Maintaining aerodrome emergency response procedures
Aerodrome Manager	Notifying procedures to initiate an emergency response
Aerodrome Manager	Initiating emergency response actions by aerodrome personnel
Aerodrome Manager	Returning the aerodrome to operational status after an emergency
Aerodrome Manager	Monitoring the function of the aerodrome response plan in local emergency planning arrangements

4.2 AERODROME EMERGENCY RESPONSE

4.2.1 AERODROME EMERGENCY PLAN (AEP)

The type and frequency of aircraft operations at Kalbarri Airport does not trigger the requirement for an aerodrome emergency plan; therefore, this subsection is NOT APPLICABLE.

4.2.2 LOCAL / STATE EMERGENCY RESPONSE PLAN

The aerodrome has emergency response arrangements that meet the requirements of section 24.03 of the Part 139 MOS and are represented in the local / state emergency response plan.

These emergency response arrangements are:

- Maintained by: Aerodrome Manager
- Available at: Northampton office of the Shire of Northampton.

4.3 AERODROME EMERGENCY PROCEDURES

4.3.1 AERODROME EMERGENCY COMMITTEE

The type and frequency of aircraft operations at Kalbarri Airport does not trigger the requirement for an aerodrome emergency committee. An aerodrome emergency committee has not been established.

4.3.2 EMERGENCY SERVICE ORGANISATIONS

Descriptions of the roles of each emergency service organisation involved in the Kalbarri Airport emergency response arrangements are below:

EMERGENCY SERVICE ORGANISATION	ROLE DESCRIPTION
Police	Assume overall command of incident on arrival
Dept Fire & Emergency Services	Emergency response and fire management
Dept Biodiversity Conservation and Attractions	Fire management - equipment and personnel
St John Ambulance	Medical evacuations
State Emergency Service	Search and rescue, marshalling
Shire of Northampton	Access, staff and equipment

4.3.3 LOCAL EMERGENCY PLANNING ARRANGEMENTS

To ensure a coordinated response, the following procedures are followed when liaising with authorised person(s) responsible for local emergency planning arrangements:

Any person on observing or being notified of an aircraft crash or an expected abnormal landing shall immediately render assistance and advise the Police.

The police shall co-ordinate the response.

On receiving advice of an aircraft crash or crash alert, obtain the following details:

- Location of aircraft
- Number of persons on board
- Aircraft type
- Aircraft Registration
- Aircraft company.

1) Contact the Ambulance, Hospital, Fire Brigade State Emergency Service

If the crash is on or near the aerodrome notify the:

- Aerodrome Manager, and if unavailable; the ARO
- the ARO will notify the ATSC to wholly or partially close the aerodrome.

2) Direct emergency services personnel to the scene of the emergency.

3) The ARO be responsible for actions at the crash scene, admitting only essential rescue personnel, equipment, and ambulance.

4) Obtain relevant details such as location, number of people involved, and the severity of the accident. Direct walking survivors to the assembly area set-aside for victims support care. Ensure that the assembly area is located at least 100 metres from and, preferably upwind

from

the emergency site.

- 5) Ensure free movement of emergency service vehicles
- 6) Notify the Air Traffic Services Centre (ATSC) Melbourne and:
 - Provide all available information, concerning the accident for forwarding to ATSB; and
 - If aircraft details are not known, seek ATS assistance in determining which aircraft is likely to be involved and the number of people on board.
- 7) If a passenger aircraft is involved notify the airline or their agent, and seek details such as aircraft type and the number of persons on board.
- 8) Remain at the assembly area; control spectator and media access to an area away from the scene of the crash.
- 9) Arrange guard duty at the site of the crash. To assist the ATSB investigators, save and protect evidence, including impact marks on the ground, and other indicators such as debris. The exact location of victims marked, and a photographic record made of the scene, before any wreckage is disturbed.

4.3.4 NOTIFICATION AND INITIATION OF EMERGENCY RESPONSE

Notification of an emergency will be made without delay.

To ensure agencies respond appropriately, it is important that all known information about the emergency is relayed as accurately as possible. The following information is to be relayed as applicable:

- exact location of the incident (including location details and map references etc.)
- nature of the incident
- type of aircraft
- estimated time of arrival of the aircraft involved and the runway to be used (if applicable)
- number of persons on board (including passengers and crew)
- presence of hazardous materials including dangerous goods
- any other relevant information.

To assist responding emergency agencies, location details and / or maps of the aerodrome and its immediate vicinity have been provided. The location details and / or maps show:

- primary and secondary access points
- emergency assembly areas
- aerodrome hazards.

The location details and / or maps are available at: Appendix A-L

4.3.5 ACTIVATION, CONTROL AND COORDINATION OF EMERGENCY RESPONDERS

Kalbarri Airport does not have any aerodrome-based emergency responders; therefore, this subsection is NOT APPLICABLE.

4.3.6 AERODROME EMERGENCY FACILITIES

Kalbarri Airport does not have emergency facilities available; therefore, this subsection is NOT APPLICABLE.

4.3.7 ACCESS AND MANAGEMENT OF ASSEMBLY AREAS

The procedures for access and the management of assembly areas are described below:

- The Airport is located 10 kilometres by road north of the town centre via the Kalbarri Road
- Access is via the primary gate, located via Fawcett-Broad Drive off the Kalbarri Road on the perimeter fence. Secondary gate is located to the south of the primary gate. Other gates are located on the boundary fence

Pedestrian access to the aerodrome is via a coded gate located at the apron area. Any emergency personnel requiring access must key into the keypad the code C1267.

Vehicle access to the aerodrome is via locked gates. Keys are held by emergency services and aerodrome tenants

Management of the assembly area will be controlled by WA Police with assistance from ARO's

4.3.8 RESPONSE TO A LOCAL STAND-BY EVENT

The procedures to respond to a local stand-by event are described below:

- A "Standby Emergency" is a condition declared when it is known that an aircraft approaching the airport is, or is suspected to be, in such trouble that there is a danger of an accident and requiring the response from off airport agencies.

4.3.9 INITIAL RESPONSE TO FULL EMERGENCY

The procedures to respond to a full emergency event at, or in the immediate vicinity of the aerodrome, are described below:

- A "Full Emergency" is a condition declared when it is known that an aircraft approaching the airport is, or is suspected to be, in such trouble that there is a danger of an accident and requiring the response from off airport agencies.
- The police, ambulance, fire brigade, hospital and ATSB are all part of the initial response. All organisations are to be contacted immediately.

4.4 READINESS OF EMERGENCY FACILITIES, ACCESS POINTS & ASSEMBLY AREAS

The arrangements for keeping aerodrome emergency facilities, access points and assembly areas (if any) in a state of readiness are described below:

- Equipment used and supplied by participating emergency services are tested in accordance with the requirements of that particular body.
- Airport access points and assembly areas are inspected weekly via the Serviceability Inspection Checklist.

4.5 EMERGENCY RESPONDER PREPAREDNESS

4.5.1 SITE INDUCTIONS FOR EMERGENCY RESPONDERS

To ensure local emergency responders are familiar with the aerodrome and its immediate surrounds, familiarisation tours are conducted.

During these tours, emergency responders are:

- shown the location and operation of:
 - aerodrome access points (including routes to get to the access points)
 - aerodrome assembly areas
 - aerodrome emergency facilities and equipment.
- made aware of hazardous storage facilities and materials at the aerodrome
- made aware of procedures to be followed when responding to an incident, including airside driving hazards.

4.5.2 EMERGENCY RESPONSE TRAINING

The aerodrome does not have an AEP; therefore, this subsection is NOT APPLICABLE.

4.5.3 EMERGENCY EXERCISES

The aerodrome does not have an AEP; therefore, this subsection is NOT APPLICABLE.

4.6 POST-EMERGENCY RETURN TO OPERATIONAL STATUS

Aircraft operations will only be resumed when:

- circumstances permit aircraft to operate safely
- the airport movement area is secured
- there is no interference to emergency response activities
- all stakeholders are aware that the emergency response has been formally stood down, or a plan has been established to recommence operations while phases of the emergency response have not been finalised.

If the aerodrome has been closed due to the occurrence of an emergency, normal aircraft operations are not to resume until there are adequate aerodrome personnel available to support the resumption of operations, and trained aerodrome personnel have:

- conducted an inspection of the movement area making sure that the runway and taxiway surfaces are free of hazards that may cause damage to aircraft
- provided confirmation that the movement area is serviceable and safe to resume normal aircraft operations
- ensured that areas which remain closed are suitably marked and lit to distinguish their unserviceability
- completed an assessment that any operational equipment on or near the aerodrome as part of the emergency response does not infringe the prescribed airspace (OLS)
- if a displaced threshold is required, all components of the OLS will be assessed based on the displaced threshold location

- ensured the accuracy of information published in NOTAM.

Where the emergency is confined, operations are only able to resume under restricted conditions. Shire of Northampton ensures all hazards are identified and appropriately assessed prior to the commencement of restricted operations.

The ATSB is to be consulted as they may require the preservation of evidence which may affect the return of part, or all of the movement area, to service.

4.7 REVIEWS OF AERODROME EMERGENCY PLAN (AEP)

The aerodrome does not have an AEP; therefore, this subsection is NOT APPLICABLE.

4.8 MONITORING LOCAL EMERGENCY PLANNING ARRANGEMENTS

Procedures pertaining to the function of the aerodrome in local emergency planning arrangements are to be reviewed with local emergency responders at least once every two (2) years.

Documented evidence of each review is:

- Retained by: Aerodrome Manager
- Stored securely at: Northampton office of the Shire of Northampton.

5 APPENDICES

Appendix A - Aerodrome Site Plan

Appendix B - Commissioning of Runway Lights

Appendix C - Obstacle Limitation Surface

Appendix D - Obstacle Limitation Plan

Appendix E - Boundary Plan

Appendix F - Location Plan

Appendix G - Crash Grid Plan

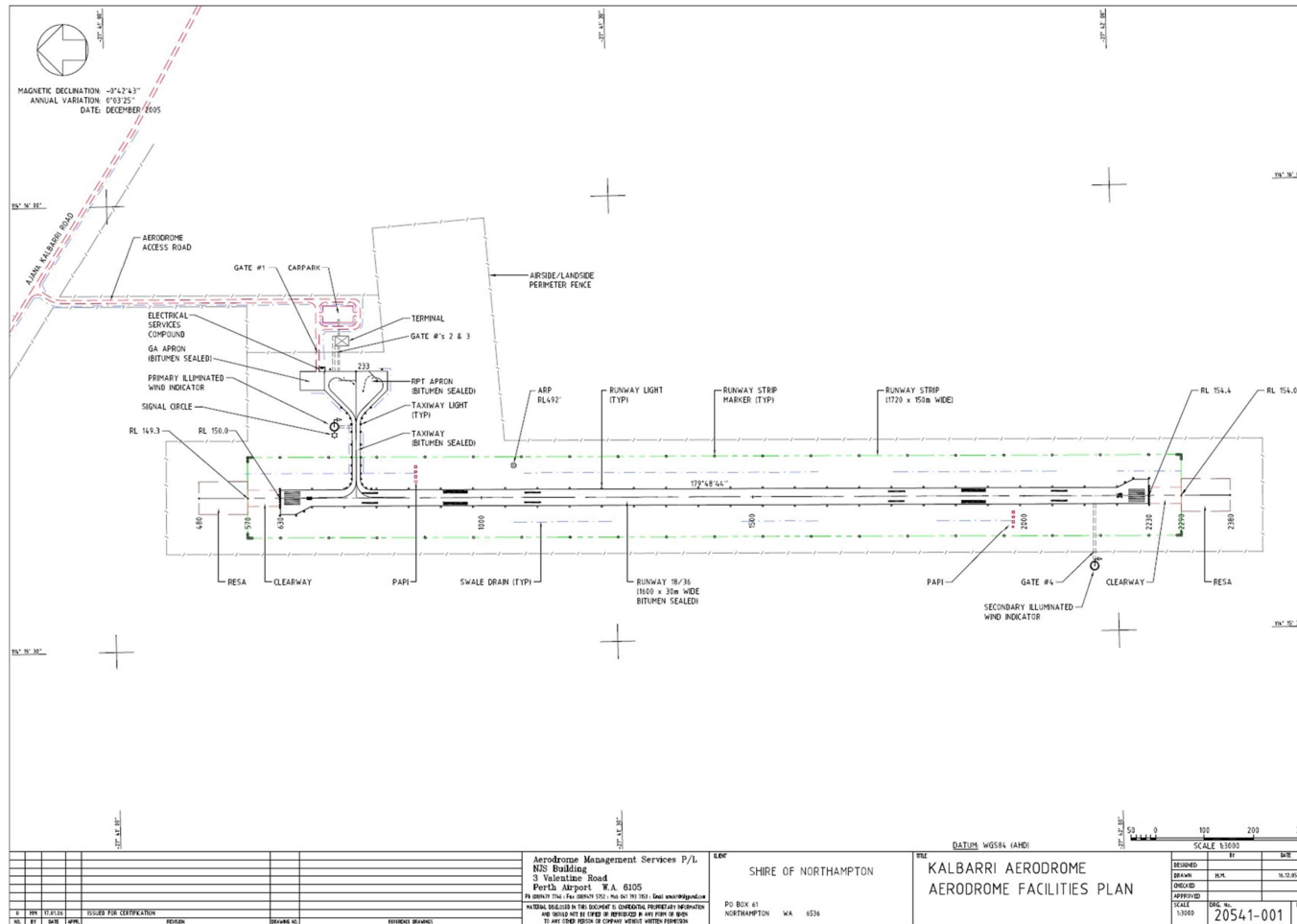
Appendix H - Apron Facilities Plan

Appendix I - Lighting Facilities Plan

Appendix J - Runway Markings

Appendix K - Kalbarri Site Plan

Appendix L - Access Gates, Assembly Areas, Hazards



APPENDIX A – AERODROME SITE AND FACILITIES PLAN

APPENDIX B – COMMISSIONED LIGHTING SYSTEM

KALBARRI AERODROME

Aerodrome Operator

Shire of Northampton

**Commissioning
of
Runway Lighting and PAPIs**

July 2009

APPENDIX B – COMMISSIONED LIGHTING SYSTEM

ENESAR Pty. Ltd.

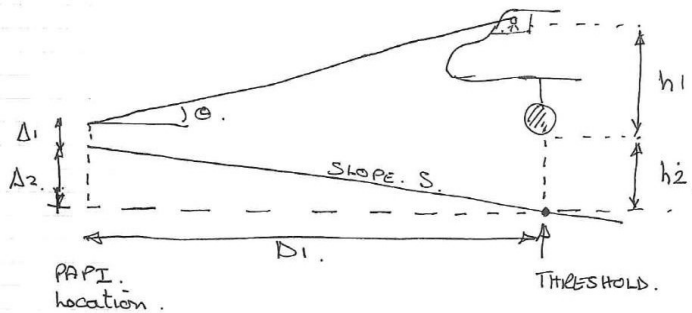
CIVIL ENGINEERING AND
AERODROME CONSULTANTS

Job Name: KALBARRI AERODROME
Subject: LOCATION OF PAPI's

Job No.: _____
Page: 1 of 2

Rev No.: _____
Prep by: ML Date: 14/5/09

Offset longitudinally of PAPI from threshold should be such that min standard wheel clearance (Ref. MOS table 9.9.7) is achieved for the min angle through which the correct PAPI reading is provided to the pilot.
Transverse position per MOS figure 9.9.3.



Δ_1 = height of ground to PAPI, typ 0.3m to 0.8m
(worst case 0.3m)

Δ_2 = difference in elevation between threshold and PAPI.
location = $S \Delta_1$.

S = slope (%)

h_1 = distance from pilots eye to bottom of wheel.
for BAe 146, this is 3.5 to 4m.

h_2 = Standard wheel clearance (ref. MOS Table 9.9.7).
for the above aircraft = 9m.

$\theta = 2^\circ 50'$

APPENDIX B – COMMISSIONED LIGHTING SYSTEM

ENESAR Pty. Ltd.

CIVIL ENGINEERING AND
AERODROME CONSULTANTS

Job Name: KALBARRI AERODROME
Subject: LOCATION OF PAPI's

Job No.: _____
Page: 2 of 2

Rev No.: _____

Prep by: 1/6/09 Date: 14/5/09

$$\tan \theta = \frac{(h_1+h_2) - (\Delta_1 - \Delta_2)}{D_1}$$

$$\Delta_1 = S D_1$$

$$\Rightarrow \tan \theta = \frac{(h_1+h_2) - \Delta_2 - S D_1}{D_1}$$

$$\Rightarrow D_1 = \frac{h_1+h_2 - \Delta_2}{\tan \theta + S}$$

Runway 18 $\Rightarrow D_1 = \frac{(3.84 + 9) - 0.3}{\tan 2^\circ 50' + 0} = 253.67m \approx \underline{254m}$

Runway 36 $\Rightarrow D_1 = \frac{(3.84 + 9) - 0.3}{\tan 2^\circ 50' - 0.003822} = 274.93m \approx \underline{275m}$

APPENDIX B – COMMISSIONED LIGHTING SYSTEM

AC 139-04(0): Commissioning of aerodrome lighting systems

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Appendix I

GROUND CHECK REPORT - PAPI

Aerodrome	KARBARRI
Runway	18
Design Aircraft	BAe 146
Eye-to-wheel-height group	3.84m
Design wheel clearance over threshold	9.0m
Design approach angle	3°
Design minimum eye height over threshold	12.84m/42ft.
Critical Obstacle, if any; (location and height)	N/A.
PAPI Manufacturer Type	THORN
Single or Double Sided	SINGHE
ILS co-sited (Yes/No)	No
Any non-standard design aspects, such as reduced azimuth. (Give details)	No

	Left Side Light Units A-B-C-D	Right Side (if installed) Light Units E-F-G-H
Distance from Threshold - Design	253.67m	
- Measured	254 m	
Distance - R/W edge to D	15.4m	
Distance - D to C	8.8m	
Distance - C to B	8.8m	
Distance - B to A	8.8m	
Distance - R/W edge to E		
Distance - E to F		
Distance - F to G		
Distance - G to H		
Aligned along front of Units (yes/no)	YES	
Aligned in horizontal plane (yes/no)	YES	
Leveling (clinometer setting) of - A	2° 30'	
Leveling (clinometer setting) of - B	2° 51'	
Leveling (clinometer setting) of - C	3° 10'	
Leveling (clinometer setting) of - D	3° 30'	
Leveling (clinometer setting) of - E		
Leveling (clinometer setting) of - F		
Leveling (clinometer setting) of - G		
Leveling (clinometer setting) of - H		
Foundations, assessed as stable (yes/no)		
Vertical colour transition angle of - A	2° 32' 15"	

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APPENDIX B – COMMISSIONED LIGHTING SYSTEM

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	Left Side Light Units A-B-C-D	Right Side (if installed) Light Units E-F-G-H
Vertical colour transition angle of - B	2° 49' 10"	
Vertical colour transition angle of - C	3° 08' 55"	
Vertical colour transition angle of - D	3° 31' 47"	
Vertical colour transition angle of - E		
Vertical colour transition angle of - F		
Vertical colour transition angle of - G		
Vertical colour transition angle of - H		
Light beam horizontal spread - A	26° 21' 57"	
Light beam horizontal spread - B	28° 01' 13"	
Light beam horizontal spread - C	26° 38' 07"	
Light beam horizontal spread - D	26° 28' 35"	
Light beam horizontal spread - E		
Light beam horizontal spread - F		
Light beam horizontal spread - G		
Light beam horizontal spread - H		
Obstacle Assessment Surface, vertical angle, and any penetrations	REFER TO TAKE-OFF SURVEY	
Critical Obstacle, if any. Angle to top.	N/A.	

Overall System Check, and General Remarks:-

Add additional pages if necessary)

I certify that I have checked this PAPI installation, and the system meets the relevant Specifications and Standards.

Signature Ian McKay Date 14/5/09

Name (print) IAN MCKAY

Qualification WRP 4932 + WRP 4509

September 2003

APPENDIX B – COMMISSIONED LIGHTING SYSTEM

AC 139-04(0): Commissioning of aerodrome lighting systems

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Appendix I

GROUND CHECK REPORT - PAPI

Aerodrome	KALBARRI.
Runway	36
Design Aircraft	B747
Eye-to-wheel-height group	3.84m
Design wheel clearance over threshold	9m
Design approach angle	3°
Design minimum eye height over threshold	12.84m / 42ft.
Critical Obstacle, if any; (location and height)	N/A.
PAPI Manufacturer Type	THORN
Single or Double Sided	SINGLE
ILS co-sited (Yes/No)	No
Any non-standard design aspects, such as reduced azimuth. (Give details)	No

	Left Side Light Units A-B-C-D	Right Side (if installed) Light Units E-F-G-H
Distance from Threshold - Design	275	
- Measured	275	
Distance - R/W edge to D	15.5m	
Distance - D to C	8.86m	
Distance - C to B	8.8m	
Distance - B to A	8.8m.	
Distance - R/W edge to E		-
Distance - E to F		
Distance - F to G		
Distance - G to H		
Aligned along front of Units (yes/no)	YES	
Aligned in horizontal plane (yes/no)	YES	
Leveling (clinometer setting) of - A	2° 31'	
Leveling (clinometer setting) of - B	2° 50'	
Leveling (clinometer setting) of - C	3° 10'	
Leveling (clinometer setting) of - D	3° 29'	
Leveling (clinometer setting) of - E		
Leveling (clinometer setting) of - F		
Leveling (clinometer setting) of - G		
Leveling (clinometer setting) of - H		
Foundations, assessed as stable (yes/no)	YES	
Vertical colour transition angle of - A	2° 34' 05"	

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APPENDIX B – COMMISSIONED LIGHTING SYSTEM

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AC 139-04(0): Commissioning of aerodrome lighting systems

	Left Side Light Units A-B-C-D	Right Side (if installed) Light Units E-F-G-H
Vertical colour transition angle of - B	2° 52' 24"	
Vertical colour transition angle of - C	3° 10' 49"	
Vertical colour transition angle of - D	3° 27' 23"	
Vertical colour transition angle of - E		
Vertical colour transition angle of - F		
Vertical colour transition angle of - G		
Vertical colour transition angle of - H		
Light beam horizontal spread - A	27° 12' 25"	
Light beam horizontal spread - B	27° 09' 30"	
Light beam horizontal spread - C	26° 45' 25"	
Light beam horizontal spread - D	27° 08' 06"	
Light beam horizontal spread - E		
Light beam horizontal spread - F		
Light beam horizontal spread - G		
Light beam horizontal spread - H		
Obstacle Assessment Surface, vertical angle, and any penetrations	REFER TO TAKE-OFF SURVEY	
Critical Obstacle, if any. Angle to top.	-	

Overall System Check, and General Remarks:-

Add additional pages if necessary)

I certify that I have checked this PAPI installation, and the system meets the relevant Specifications and Standards.

Signature Ian McKay Date 14/5/09

Name (print) IAN MCKAY

Qualification WRP 4932 + WRP 4509

September 2003

APPENDIX B – COMMISSIONED LIGHTING SYSTEM

AC 139-04(0): Commissioning of aerodrome lighting systems

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Appendix III

FLIGHT CHECK REPORT - AERODROME LIGHTING SYSTEMS

Aerodrome	KALBARRI	Weather	GOOD
Runway	18/36	Visibility	> 10 Km
Aircraft	P68	Cloud	NIL
Date	14/5/09	Time	pm
Crew	MCKAY (193993)		

Not all systems listed on this form will necessarily require checking at a particular aerodrome.

LIGHTING SYSTEM (where provided)	FINDINGS satisfactory / unsatisfactory	REMARKS
Runway Lights		
- Edge		
Pattern	SATISFACTORY	
Colour	SATISFACTORY	
Intensity	SATISFACTORY	
- Threshold including RTIL and Wing Bars, where provided		
Pattern	SATISFACTORY	
Colour	SATISFACTORY	
Intensity	SATISFACTORY	
- Runway End		
Pattern	SATISFACTORY	
Colour	SATISFACTORY	
Intensity	SATISFACTORY	
Visual circling	SATISFACTORY	
Intensity:-		
No of Stages	N/A	
Intensity changes	N/A	
Line of Sight	SATISFACTORY	
Taxiway Lights - Edge		
Adequate guidance	SATISFACTORY	
Colour	SATISFACTORY	
Taxiway Lights - C/L		
Adequate guidance	N/A	
Colour	N/A	
Taxiway - Turn Node		
Adequate guidance	N/A	
Colour	N/A	

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APPENDIX B – COMMISSIONED LIGHTING SYSTEM

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AC 139-04(0): Commissioning of aerodrome lighting systems

LIGHTING SYSTEM (where provided)	FINDINGS satisfactory / unsatisfactory	REMARKS
Runway-Guard Lights, Intermediate Holding Position Lights, -Stop Bars		
Clearly visible	SATISFACTORY	
Location & Pattern	SATISFACTORY	
Colour	SATISFACTORY	
Intensity	SATISFACTORY	
Movement Area Guidance Signs		
Visible	N/A	
Legible	N/A	
Colour	N/A.	
Illuminated Wind Direction Indicator		
Conspicuous - Approach	SATISFACTORY	
Conspicuous - Cct area	SATISFACTORY	
Conspicuous - Apron	SATISFACTORY	
Conspicuous - Thresholds	SATISFACTORY	
Truly representative	SATISFACTORY	
No glare	SATISFACTORY	
Apron Floodlights		
Adequate Illumination	SATISFACTORY	
No glare	SATISFACTORY	
Aerodrome Environment		
Obstacle lights		
Extraneous light		
Aerodrome Beacon:-	Present / Not present	
Visual characteristic	N/A	
Approx. visual range	N/A.	
Approach Lights CAT I or CAT II/III (circle the appropriate one)		
Pattern	N/A	
Colour	N/A	
Intensity:-	N/A	
No of Stages	N/A	
Intensity changes	N/A	
Compatibility with Runway lights	N/A	
Runway Centreline Lights		
Pattern	N/A	
Colour	N/A.	

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APPENDIX B – COMMISSIONED LIGHTING SYSTEM

AC 139-04(0): Commissioning of aerodrome lighting systems

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LIGHTING SYSTEM (where provided)	FINDINGS satisfactory / unsatisfactory	REMARKS
Intensity:-	N/A	
No of Stages	N/A	
Intensity changes	N/A	
Compatibility with other light systems	N/A	
Runway Touchdown Zone Lights		
Pattern	N/A	
Intensity:-	N/A	
No of Stages	N/A	
Intensity changes	N/A	
Compatibility with other light systems	N/A	

Remarks:-

(Add additional pages if necessary)

I certify that I have flight checked the aerodrome lighting system/s, and the system/s meets the relevant operational requirements.

Signature Ian McKay Date 14/5/09
 Name (print) IAN MCKAY
 Letter of Competency No. WRP4932 + WRP4509

September 2003

APPENDIX B – COMMISSIONED LIGHTING SYSTEM

AC 139-04(0): Commissioning of aerodrome lighting systems

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Appendix IV

FLIGHT CHECK REPORT - PAPI

Aerodrome	KALBARRI
Runway	18
Design approach angle	3°
Single or Double Sided	SINGLE SIDED
ILS co-sited (Yes/No)	NO
Any design variations from standard layout. (Give details)	NO

Weather	GOOD	Visibility	> 10 Km
Cloud	NIL	Aircraft	P68
Date	14/5/09	Time	4:30 pm - 9:00 pm
Crew	MEKAY (193993)		

ITEM CHECKED		FINDINGS
DAY CHECK		
Qualitative check of System	Satisfactory	SATISFACTORY
- Uniformity of intensity	Satisfactory	SATISFACTORY
- Straight, Horizontal appearance	Satisfactory	SATISFACTORY
- Colour change sharpness	Satisfactory	SATISFACTORY
- Steady progression of signal	Satisfactory	SATISFACTORY
- Double sided – Symmetry (L-R)	Satisfactory	N/A.
Day Intensities		
- Response to Change of Intensity	Satisfactory	SATISFACTORY
Range of System	4 NM min	≥ 4 NM.
Sensitivity of "on-slope" signal.	Satisfactory	SATISFACTORY
Compatibility with ILS (where present)	Satisfactory	N/A.
Obstacle clearance on Approach, with full system just Red, throughout the azimuth of light beams either side of centreline	Satisfactory	SATISFACTORY
Azimuth restrictions (if applicable)	Confirm effectiveness	SATISFACTORY
NIGHT CHECK		
Night Intensities		
- Matching of PAPI to Runway (for each Night Intensity)	Satisfactory	SATISFACTORY
- Response to Change of Intensity	Satisfactory	SATISFACTORY

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APPENDIX B – COMMISSIONED LIGHTING SYSTEM

26 AC 139-04(0): Commissioning of aerodrome lighting systems

Subjective assessment of aiming point (and relation to touchdown zone marking)

≈ 325 m

Remarks:-

(Add additional pages if necessary)

ABCD EFGH
|||||

I certify that I have flight checked this PAPI installation, and the system meets the relevant operational requirements.

Signature *Ian McKay* Date 14/5/09.
Name (print) IAN MCKAY
Letter of Competency No. WRP 4932 + WRP 4509

September 2003

APPENDIX B – COMMISSIONED LIGHTING SYSTEM

AC 139-04(0): Commissioning of aerodrome lighting systems

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Appendix IV

FLIGHT CHECK REPORT - PAPI

Aerodrome	KALBARRI
Runway	36
Design approach angle	3°
Single or Double Sided	SINGLE
ILS co-sited (Yes/No)	No
Any design variations from standard layout. (Give details)	No

Weather	GOOD	Visibility	> 10 Km
Cloud	NIL	Aircraft	P68
Date	14/5/09	Time	7.30pm - 9.30pm.
Crew	MEKAY (193993)		

ITEM CHECKED		FINDINGS
DAY CHECK		
Qualitative check of System	Satisfactory	SATISFACTORY
- Uniformity of intensity	Satisfactory	SATISFACTORY
- Straight, Horizontal appearance	Satisfactory	SATISFACTORY
- Colour change sharpness	Satisfactory	SATISFACTORY
- Steady progression of signal	Satisfactory	SATISFACTORY
- Double sided – Symmetry (L-R)	Satisfactory	N/A
Day Intensities		
- Response to Change of Intensity	Satisfactory	SATISFACTORY
Range of System	4 NM min	≥ 4 NM
Sensitivity of "on-slope" signal.	Satisfactory	SATISFACTORY
Compatibility with ILS (where present)	Satisfactory	N/A
Obstacle clearance on Approach, with full system just Red, throughout the azimuth of light beams either side of centreline	Satisfactory	SATISFACTORY
Azimuth restrictions (if applicable)	Confirm effectiveness	SATISFACTORY
NIGHT CHECK		
Night Intensities		
- Matching of PAPI to Runway (for each Night Intensity)	Satisfactory	SATISFACTORY
- Response to Change of Intensity	Satisfactory	SATISFACTORY

September 2003

APPENDIX B – COMMISSIONED LIGHTING SYSTEM

26 AC 139-04(0): Commissioning of aerodrome lighting systems

Subjective assessment of aiming point (and relation to touchdown zone marking)

≈ 325m.

Remarks:-

(Add additional pages if necessary)



I certify that I have flight checked this PAPI installation, and the system meets the relevant operational requirements.

Signature Ian McKay Date 14/5/09
Name (print) IAN MCKAY
Letter of Competency No. WRP4932 + WRP4509.

September 2003

APPENDIX B – COMMISSIONED LIGHTING SYSTEM

AC 139-04(0): Commissioning of aerodrome lighting systems

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Appendix VI

FLIGHT CHECK REPORT - PILOT ACTIVATED LIGHTS

Aerodrome	KALBARRI	Weather	Good
Runway/s	18/36	Visibility	>10Km
Aircraft	P68	Cloud	NIL
Date	14/5/09	Time	Pm
Crew	MEKAY (193993)		

The following aerodrome lighting systems are controlled by the PAL:-

ITEM CHECKED	FINDINGS	REMARKS
	satisfactory / unsatisfactory	
Checks on the Ground		
Manual switch	SATISFACTORY	
Activate from Apron	SATISFACTORY	
Activate from Thresholds	SATISFACTORY	
Vis. of turn-off lights	SATISFACTORY	
Period lights are ON	30 minutes	
Re-activation during last ten-minute warning	SATISFACTORY	
Automatic intensity change		
Control Tower interface	N/A.	
Checks in the Air		
Activate from Cct Area	SATISFACTORY	
Activate from 15 NM	SATISFACTORY	
Vis. of turn-off lights	SATISFACTORY	
Intensity:-		
Correct control of Various lighting	N/A	
Intensity changes	N/A	
Compatibility with Runway Lights	SATISFACTORY.	

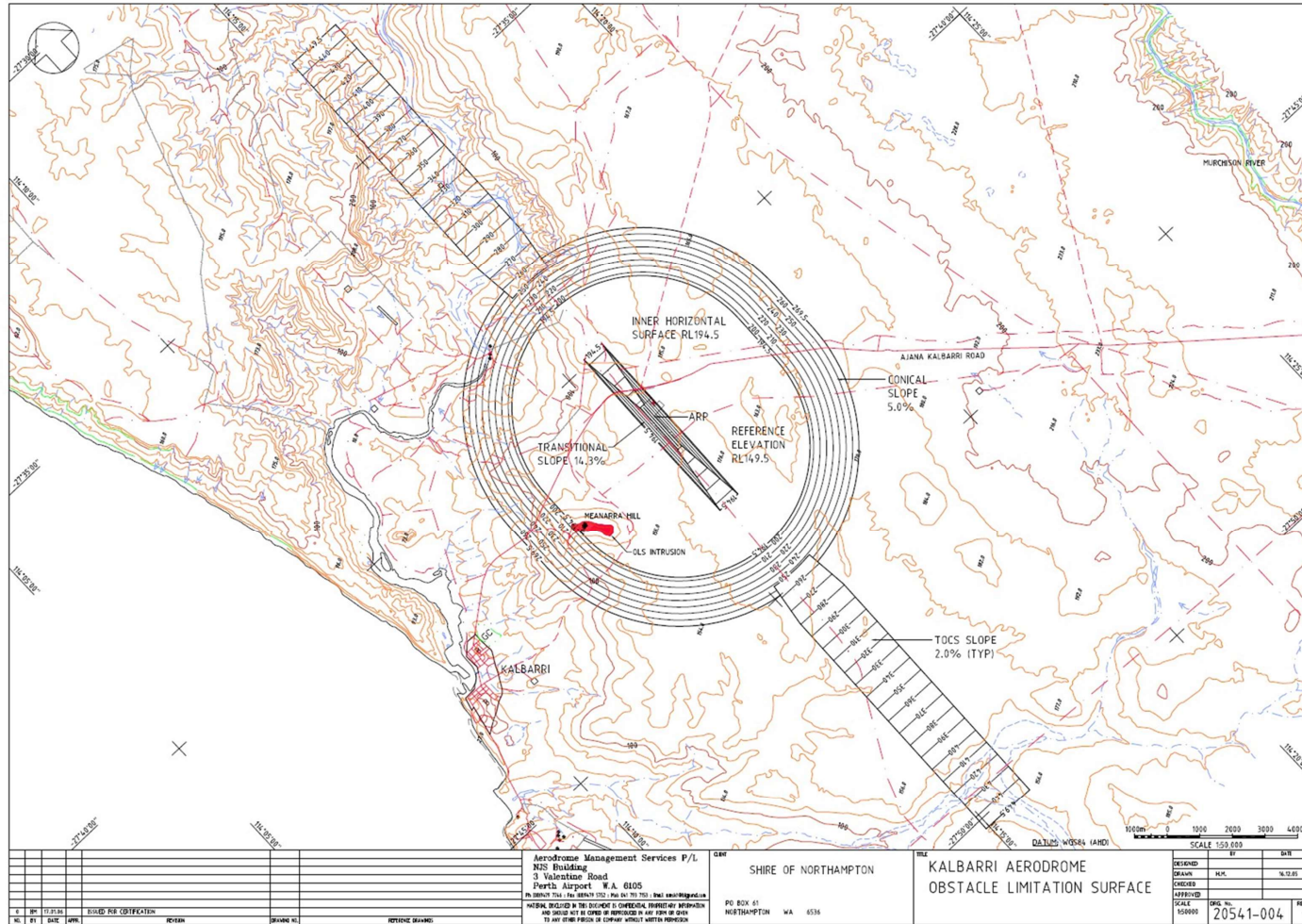
I certify that I have flight checked this PAL system, and the system meets the relevant operational requirements.

Signature Ian McKay Date 14/5/09

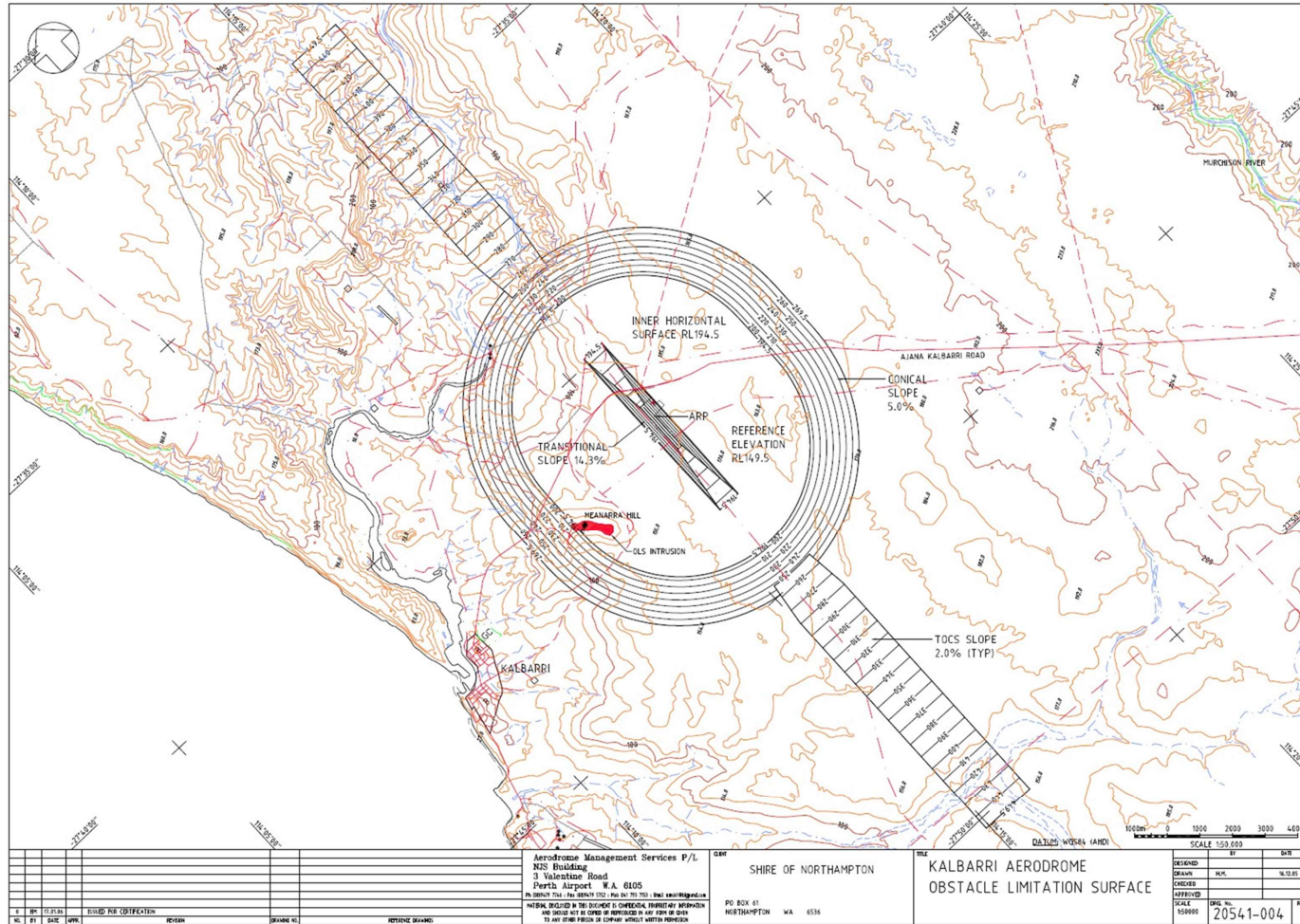
Name (print) IAN MCKAY

~~Letter of~~ Competency Nos. WRP 4932 + WRP4509

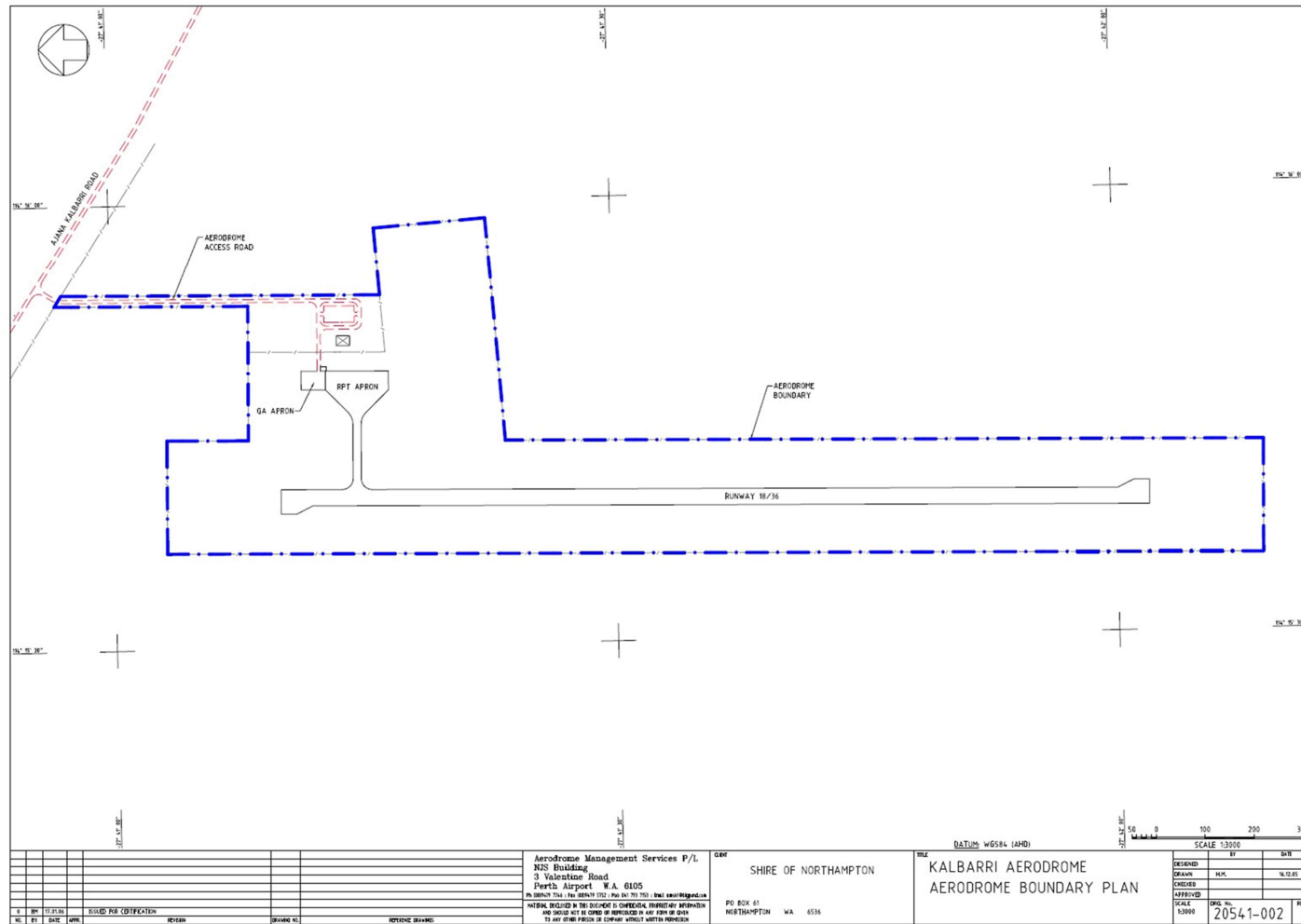
September 2003



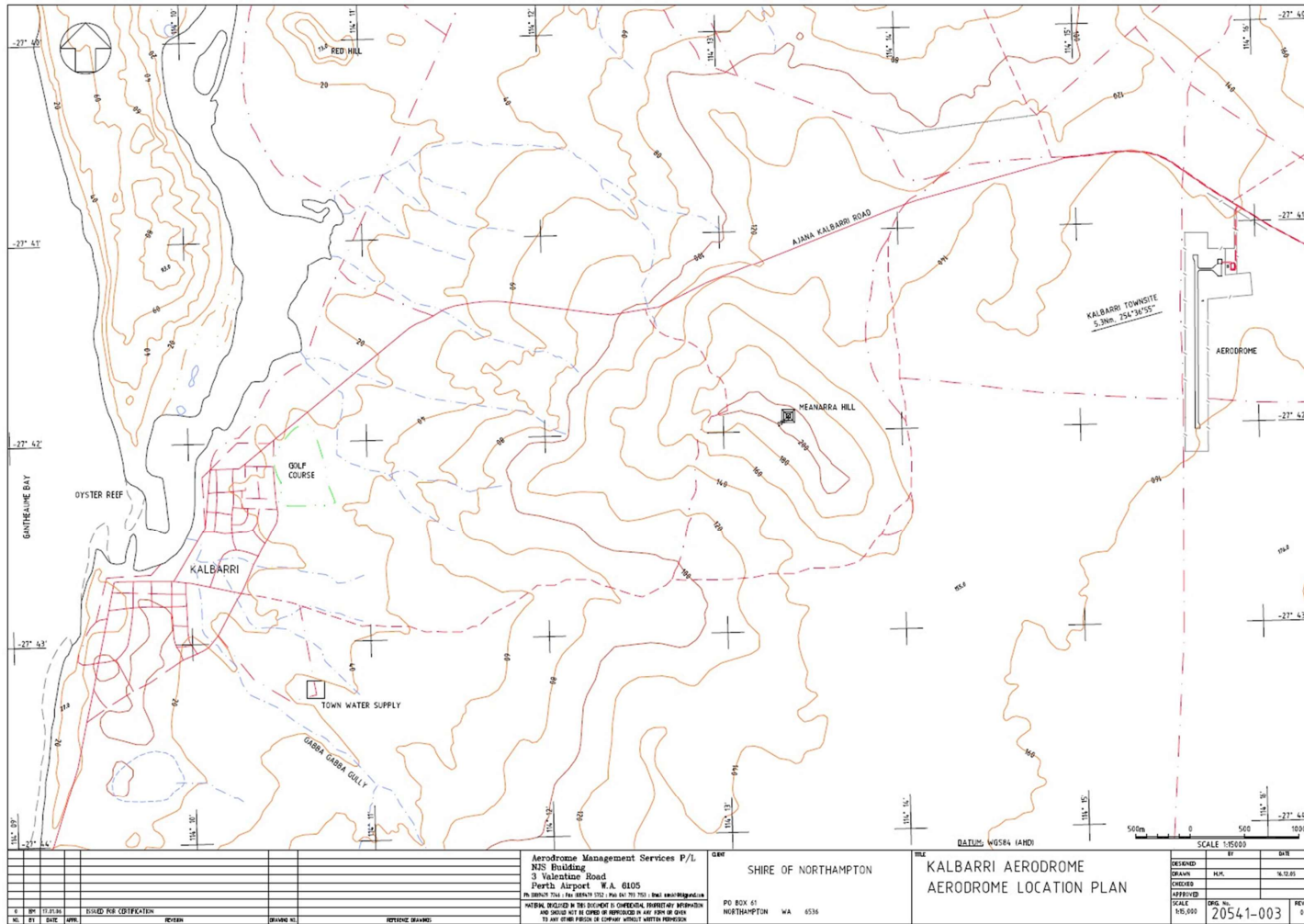
Appendix C – Obstacle Limitation Surface



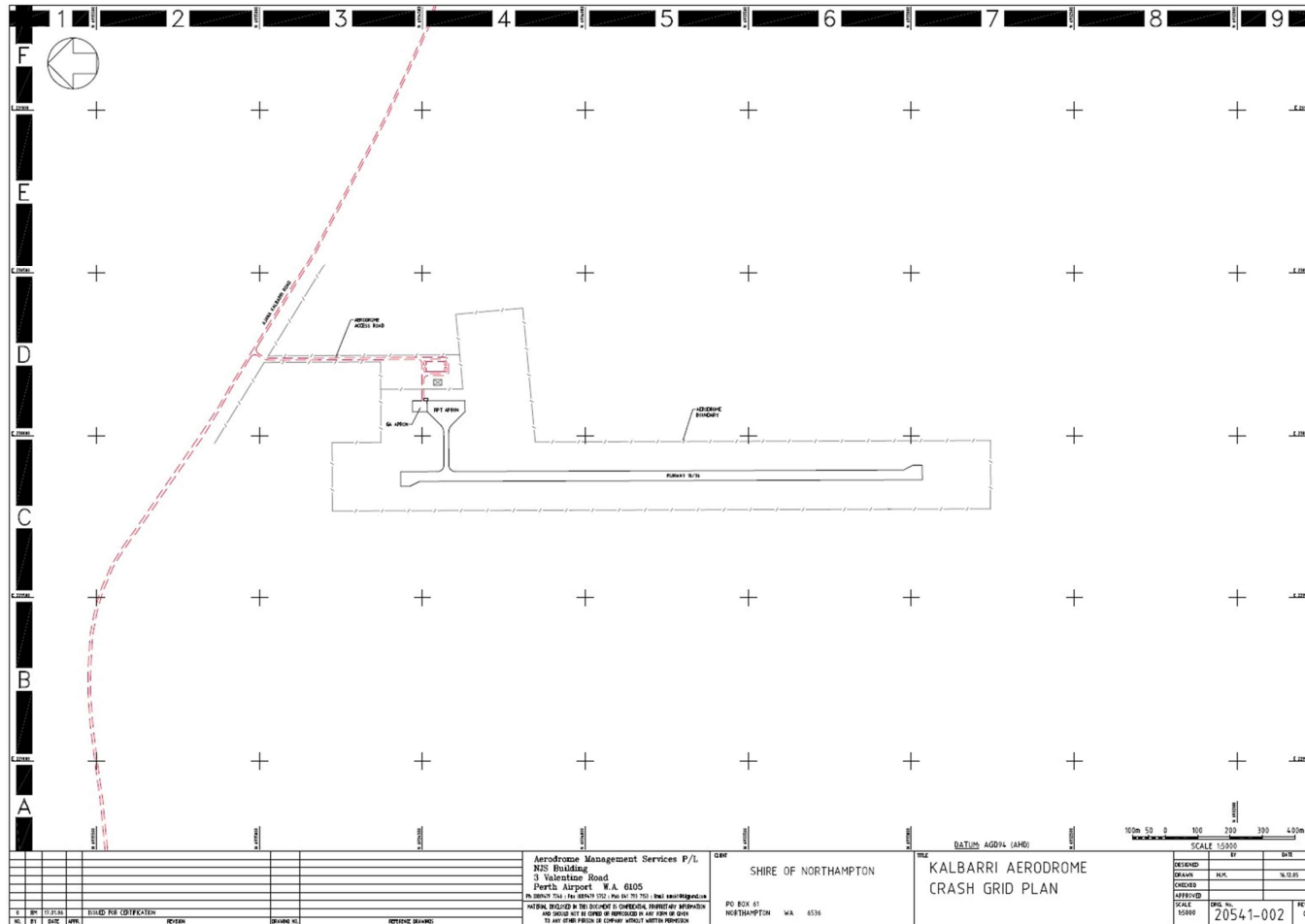
ATTACHMENT D – OBSTACLE LIMITATION PLAN



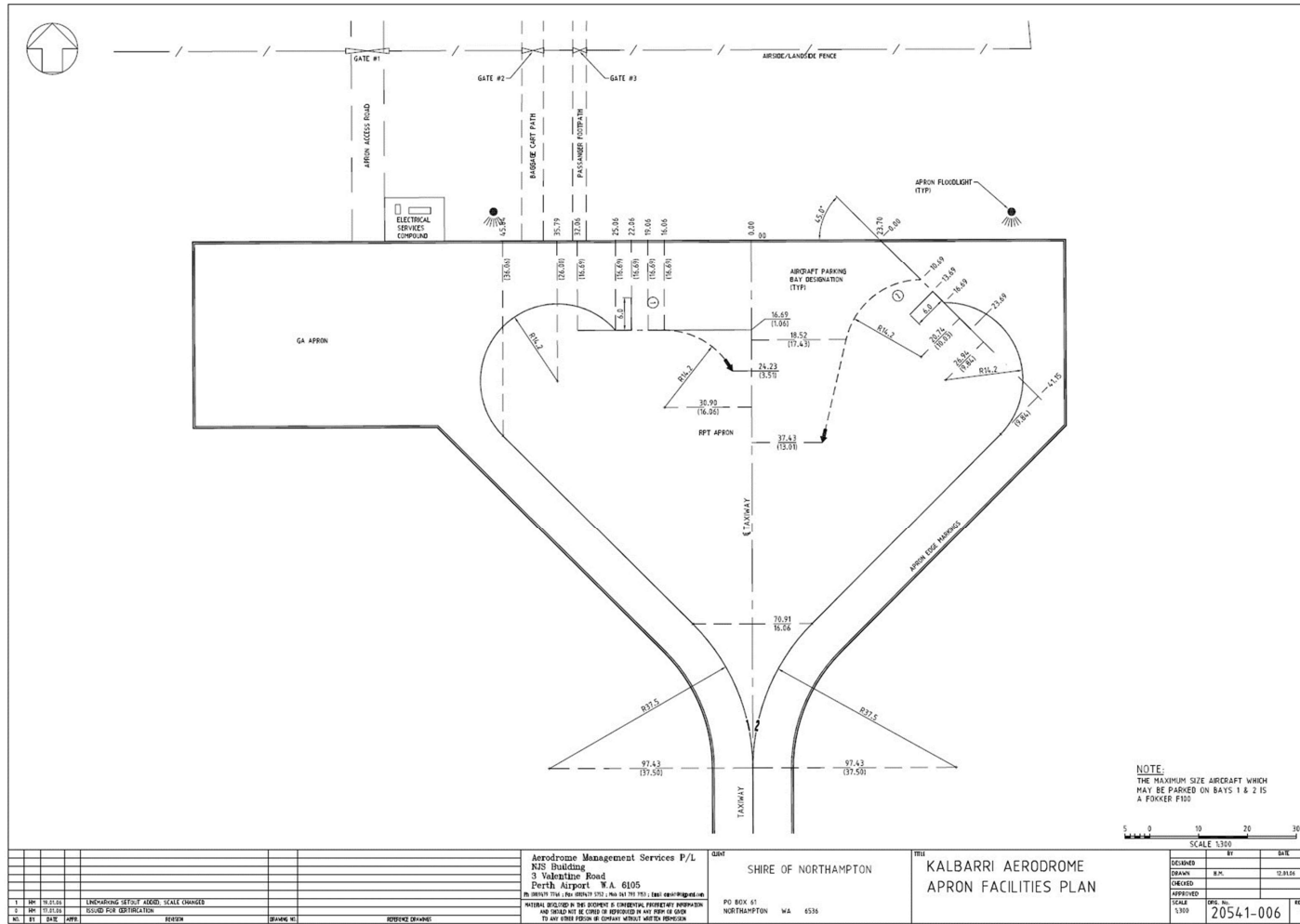
Appendix E - Kalbarri Aerodrome Boundary Plan



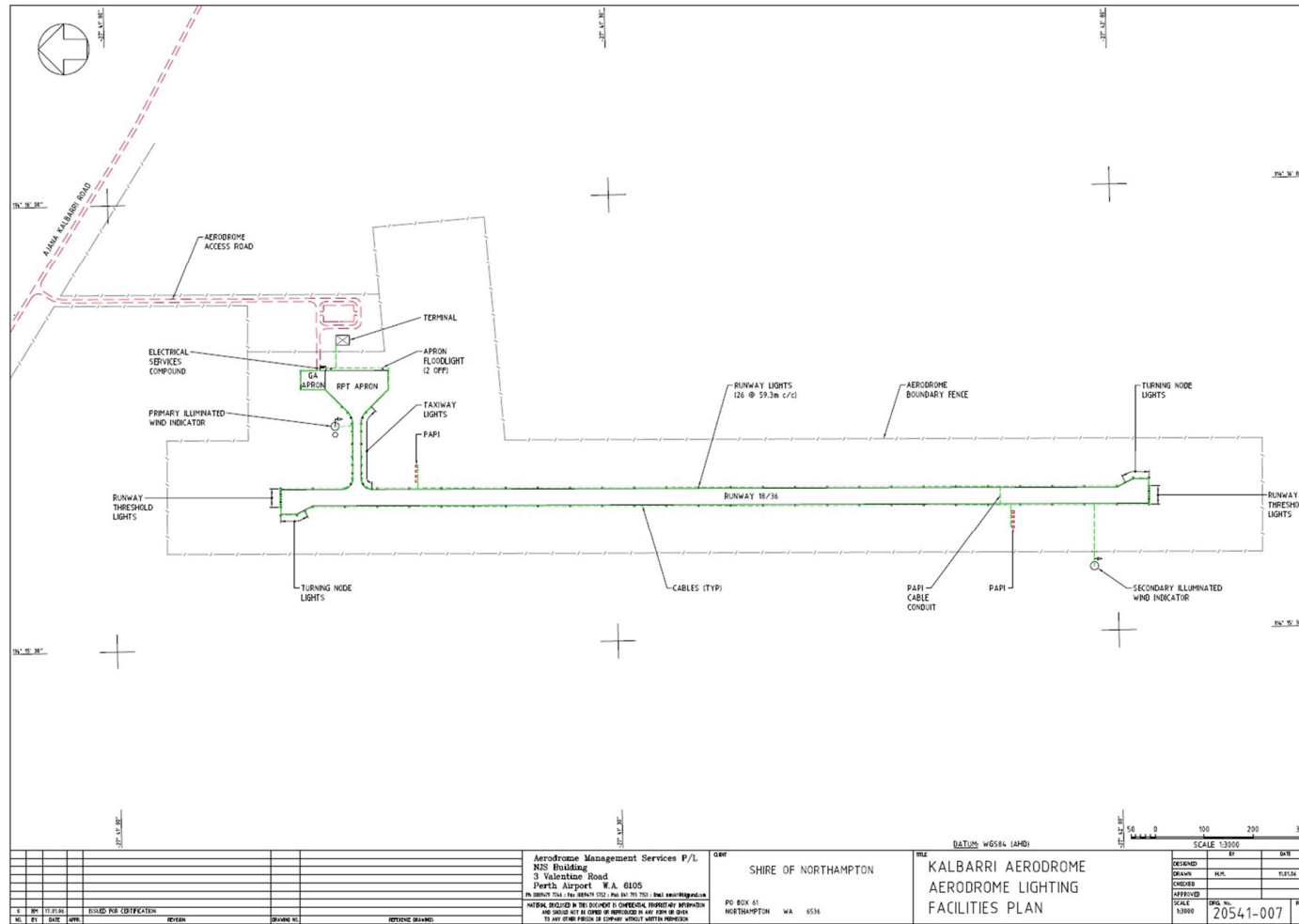
Appendix F - Kalbarri Aerodrome Location Plan



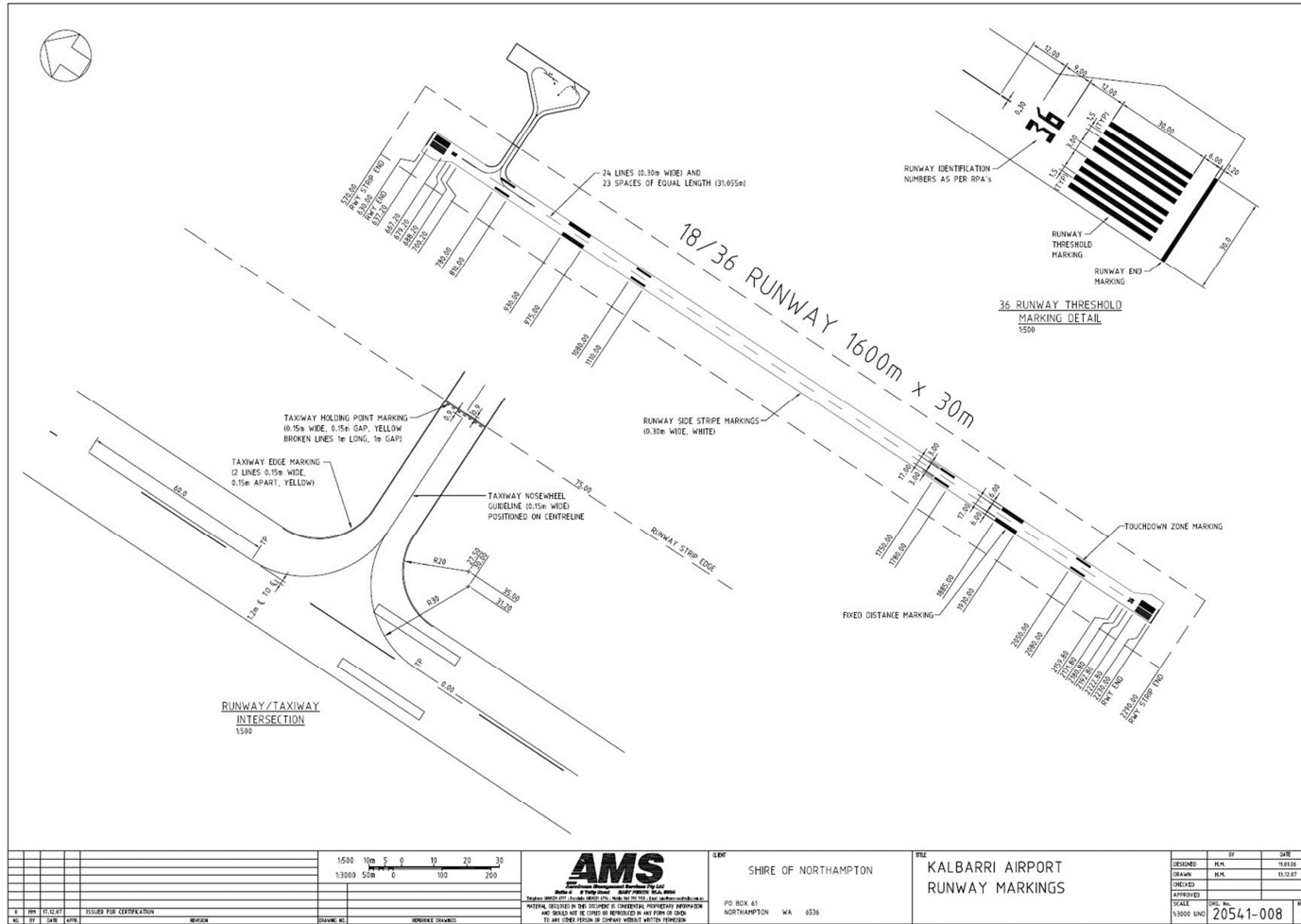
Appendix G - Kalbarri Aerodrome Crash Grid Plan



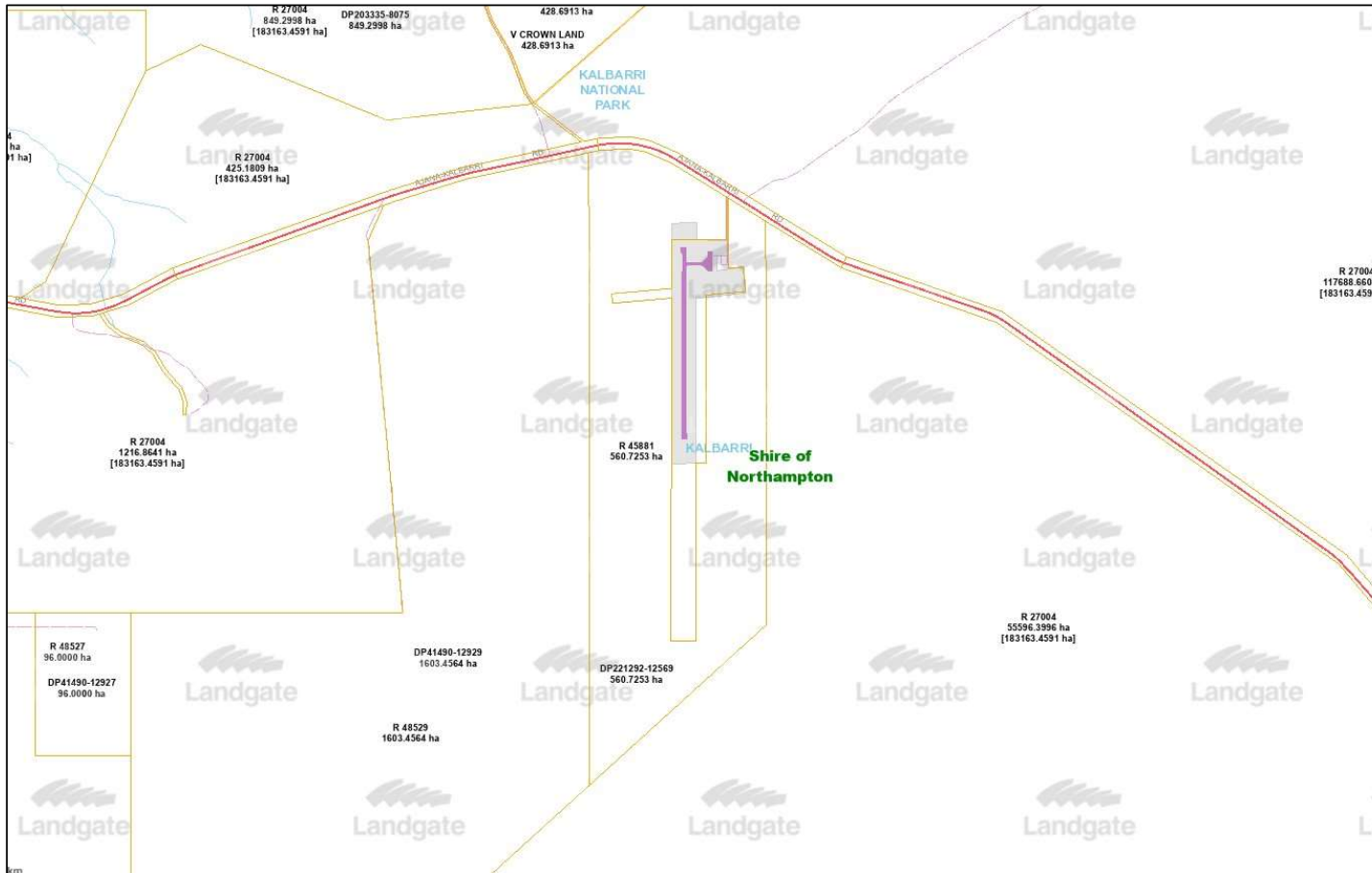
Appendix H – Apron Facilities Plan



Appendix I - Lighting Facilities Plan

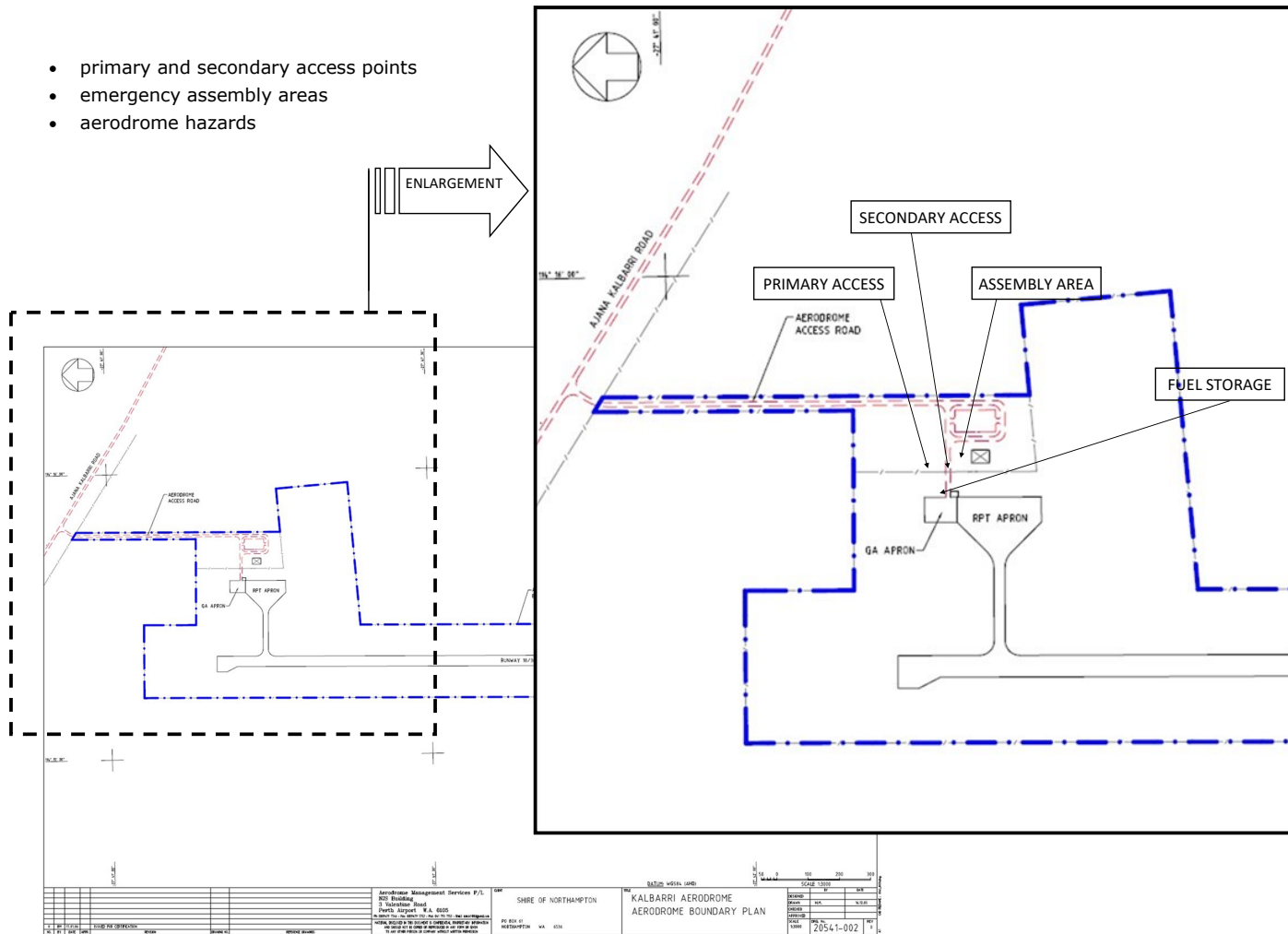


Appendix J - Runway Markings

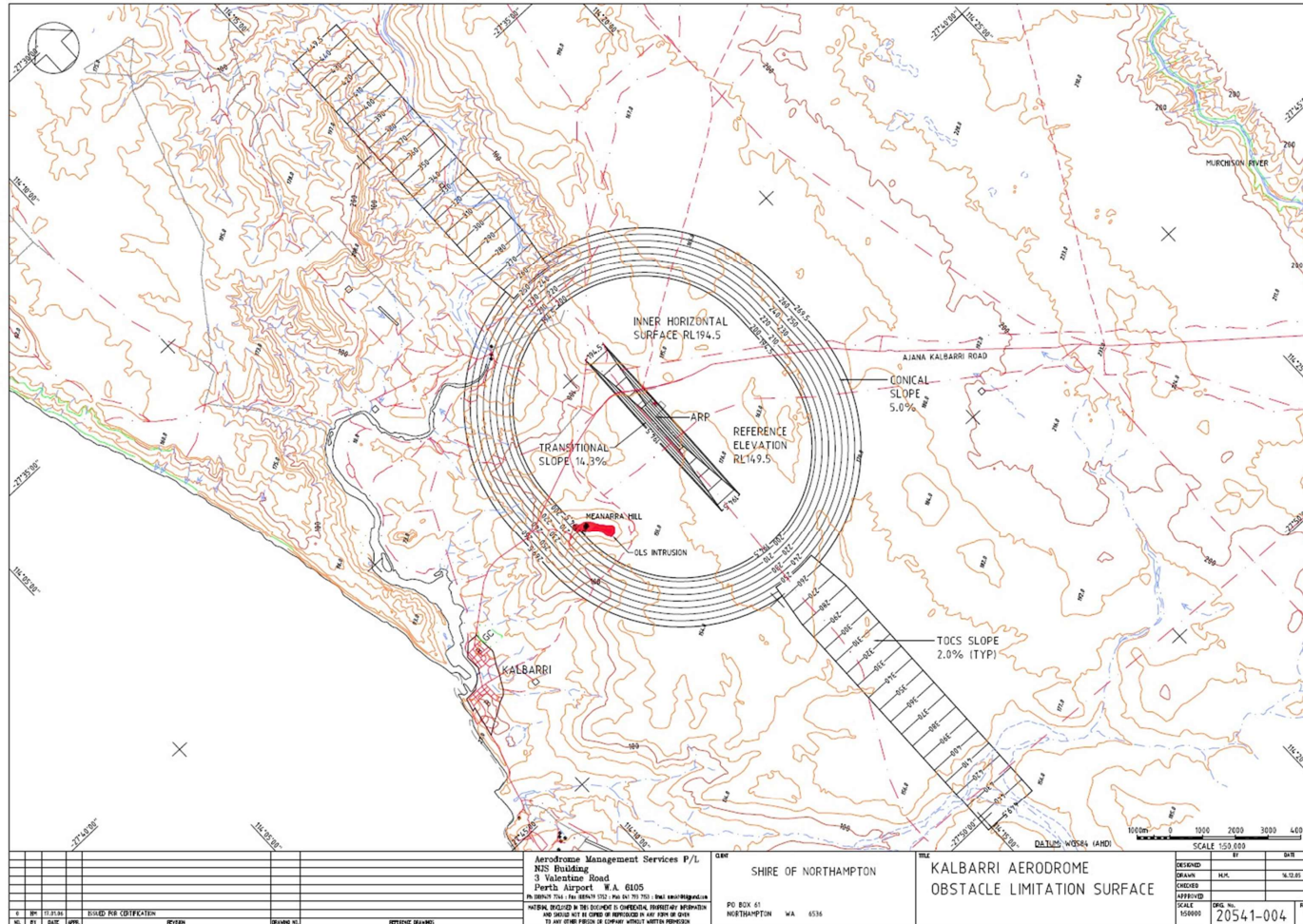


Appendix K – Kalbarri Site Plan

- primary and secondary access points
- emergency assembly areas
- aerodrome hazards



Appendix L - Access Gates-Assembly Area-Hazards



ATTACHMENT D – OBSTACLE LIMITATION PLAN