Leonora Aerodrome

Manual

Version	4.0 – Nov 2024
Approver	Ty Matson
Review Date	November 2025

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Glossary

Acronyms and abbreviations

Acronym / abbreviation	Description
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	metre(s)
MAGS	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 airmen
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 visual range
RWY	runway
SMS	safety management system
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 indictor system
TWY	taxiway
VASIS	visual approach slope indicator system
VDGS	visual docking guidance system
VFR	visual flight rules
WDI	wind direction indicator
WSO	works safety officer

Definitions

Term	Definition
accelerate-stop distance available	the length of the take-off run available plus the length of the stopway if provided.
accident	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: a person is fatally or seriously injured as a result of: 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 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: 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	refers to the three (3) elements that are nominated by the aerodrome operator, specifically: 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.

Term	Definition
air transport operation	a passenger transport operation, or a cargo transport operation, that is conducted for hire or reward, or is prescribed by an instrument issued under regulation 201.025. However, an operation conducted for a purpose mentioned in paragraph 206(1)(a) of CAR is not an air transport operation. 206(1)(a) aerial work purposes, being purposes of the following kinds (except when carried out by means of an RPA): aerial surveying aerial spotting agricultural operations aerial photography advertising balloon flying training ambulance functions carriage, for the purposes of trade, of goods being the property of the pilot, the owner of the hirer of the aircraft (not being a carriage of goods in accordance with fixed schedules to and from fixed terminals) any other purpose that is substantially similar to any of those specified in subparagraphs (i) to (vii) (inclusive).
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: designated by the Department as an international airport in Australia; and identified as a designated international airport in Australia on the Department's website.

Term	Definition
instrument runway	one of the following types of runway nominated for the operation of aircraft using instrument approach procedures: non precision approach runway precision approach runway (CAT I) precision approach runway (SA CAT I) precision approach runway (SA CAT II) precision approach runway (CAT II) 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	a 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, 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: are located on an area provided for the surface movement of aircraft, or extend above a defined surface designated to protect aircraft in flight, or 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.

Term	Definition
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: reduce the risk of damage to aircraft running off a runway, and 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: is automatically connected to the relevant load when the primary power source fails, and is derived from: the normal public electrical power supply, but in a way that: supplies power for the aerodrome's functionality from a special substation that is not the normal substation, and supplies the power through a special transmission line that follows a route different from the normal power supply route, and makes extremely remote the possibility of a simultaneous failure of the normal public electrical power supply and the power supply for the aerodrome, or 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.

Term	Definition
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.
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 *Civil Aviation Safety Regulations 1998*
Regulation	Part 175 of the *Civil Aviation Safety Regulations 1998*

Forms

Form	Used for	Location
NOTAM request Form	Submitting NOTAMS	https://www.airservicesaustralia.com/wp-content/uploads/ats-form-0018.pdf
ATSB online aviation accident or incident notification form	Birdstrike or aviation accident/incident	https://www.atsb.gov.au/mandatory/asair-form/

Preface

Amendment record

(Part 139 MOS – 10.03)

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 this manual, a summary of the changes made is also recorded.

Version no.	Date of change	Parts and page	Summary of change(s)
2.0	March 2021	All	Initial issue
3.0	March 2023	All	Minor formatting throughout not affecting content. Removal of redundant template sample words. Change of Operations & Maintenance Manager title to Manager Works & Services and change of name. Updated ARO names.
		Reference material & forms	Inclusion of Part 139 & 175 references and NOTAM and ATSB incident forms.
		2.1.1 & Appendix A	Inclusion of twy designation and movement area on plan
		2.1.4.4	Inclusion of information for RWY 12/30 and MTOW for both Runways.
		2.1.6	Included ARC for taxiway.
		2.1.9.3 & 2.1.9.4	Amended apron floodlight details.
		2.1.9.6, 3.3(5) & 3.3(6)	Reworded secondary power to standby power.
		2.1.10, 2.1.12.2 & 2.1.12.3	Amended ownership as not Airport owned assets.
		2.6.10 & 3.6.9.1	Updated template words to provide more information
		2.7.1	Updated grandfathering to include runway strip width, hold position markings and OLS TNS infringements by parked aircraft. Removed items where works have been completed.
		3.3(2) & 3.3(9)	Amended UHF to VHF.
		3.3.12	Inclusion of notification for fault finding & repair.
		3.3.14	Inclusion of commissioning information for PAPI and PAL/AFRU
		3.5.7	Amended LVO driving speed as LVO procedures not established.

Version no.	Date of change	Parts and page	Summary of change(s)
		3.6.9.4 & 3.6.9.5	Reworded to show sections not applicable.
		3.7.4	Reworded obstacle location wording.
		3.7.5 & 3.9.2	Reworded to detail TIFP in place.
		3.7.7 to 3.7.12	Renumbered due formatting error.
		3.11.2.2	Amended record retention to 5 years.
		3.14.2	Reworded as SMS in place.
		4.2.1	Reworded as AEP has been established.
		4.3.1	Reworded to include AEC as part of LEMC.
		4.3.5 & 4.3.6	Included reference to AEP.
4.0	November 2024	Cover & Footer	Amended to reflect current version number, Approver and Review Date.
		Glossary	Inclusion of WOS to Acronyms and Descriptions
		1.1, 1.3.1 & 1.4.1	Updated Shire CEO from Jim Epis to Ty Matson (throughout). Updated Manual Controller details.
		2.1.2	Updated CEO and Manager of Works & Services email addresses.
		2.1.12.1	Updated ARO & After-hours contact phone numbers.
		3.1.1.1 & 3.1.1.2	Updated AIP responsible person to current CEO. Removed Roderick Sprigg from NOTAM authorised persons added CEO and ARO to list.
		3.2.1 & 3.10.1	Updated ARO and WSO names
		3.11.1	Inclusion of CEO to Wildlife Hazard Personnel
		3.11.8	Updated Local authority contacts
		4.1 & 4.3.2	Updated Emergency Response Personnel and ERT. Replacing St. Barbara Ltd with Genesis Minerals Pty Ltd.

Distribution list

(Part 139 MOS – 10.02(2)(7))

A copy of this manual is retained in the Shire Aerodrome office at Leonora Airport. This manual is made available to CASA for inspection if requested.

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

Copy No. (if assigned)	Manual holder	Electronic Format	Hard copy
	Shire of Leonora Aerodrome Manager (CEO)	Yes	
	Civil Aviation Safety Authority	Yes	
	Shire of Leonora Manager of Works and Services	Yes	
	Shire Aerodrome office		Yes

The Shire of Leonora makes this manual available to all relevant persons on our intranet.

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

1 Aerodrome Administration

1.1 Operator's statement

(CASR 139.110(5)(c))

The Shire of Leonora 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 Leonora Airport and demonstrates the Shire of Leonora'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, the Shire of Leonora is committed to ensuring that all individuals understand their responsibilities and accountabilities as defined within this aerodrome manual.

Signed:

Ty Matson

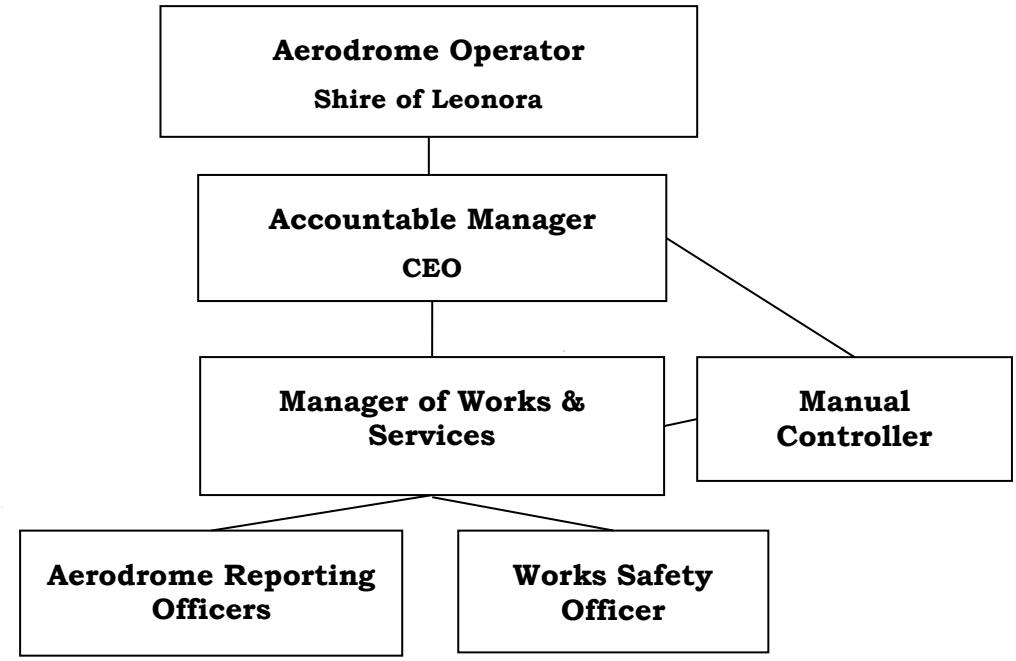
Chief Executive Officer

SHIRE OF LEONORA

1.2 Organisational structure

(Part 139 MOS – 11.02(a)(i))

An organisational chart which clearly identifies all personnel responsible for the management and administration of Leonora Airport is inserted below:



1.3 Key personal

1.3.1 Accountable Manager

(CASR 139.110(1)(5); Part 139 MOS – 11.02(a)(ii); 13.02; 16.08(3); 25.04(2)(4))

Name: Ty Matson

Management position: CEO (Shire of Leonora)

Responsibilities:

To ensure the Shire of Leonora:

- 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)

(Part 139 MOS – 11.02(a)(ii))

The management position responsible for the **operation** and **maintenance** of the aerodrome is:

Management position: Manager of Works and Services

Responsibilities:

- To ensure that the aerodrome facilities and equipment are planned, constructed, installed and maintained in accordance with the MOS Part 139 standards and the Leonora Aerodrome Manual.
- To ensure the operations, training and documentations of the Leonroa Airport are in accordance with the MOS 139 and the Leonora Aerodrome Manual.

1.3.3 Aerodrome operations and Safety functions

(Part 139 MOS – 11.02(c))

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

Individual / position: Aerodrome Reporting Officer

Responsibilities:

- To conduct regular serviceability inspections in accordance with the procedures as described in the aerodrome manual accepted by CASA.
- To report on aerodrome serviceability in accordance with the procedures in the aerodrome manual and to issue NOTAM's as required.
- To provide support and assistance in the event of an aerodrome emergency, in accordance with the Aerodrome Emergency Plan.
- To ensure unauthorised access procedures are implemented in accordance with the procedures as described in the aerodrome manual.
- To enforce airside driving rules and manage the airside vehicle compliance as described in the aerodrome manual procedures.
- To manage bird and animal activity and ensure all efforts are implemented to minimise activity.

Individual / position: Works Safety Officer

Responsibilities:

- As a qualified Works Safety Officer, the ARO/WSO will ensure the safety of aircraft operations during works in accordance with the aerodrome manual procedures.

1.4 Aerodrome manual administration

(Part 139 MOS – 10.01(1)(2)(3); 10.02(1)(3)(4); 10.04(1)(2)(b)(c); 11.02(b))

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 subsidiary materials that are adopted are clearly referenced in the relevant sections of this manual.

This manual and the adopted subsidiary materials 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

(Part 139 MOS – 10.01(4); 11.02(b))

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

Individual / position	Role / Function
Shannon Watene	reviewing, maintaining, amending and controlling the aerodrome manual

1.4.2 Manual amendment

(Part 139 MOS – 10.03(1)(2)(3))

To maintain the accuracy of this manual, the aerodrome manual controller 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:

- All amendments marked by bar on the side of document (as shown here)

Within 30 days of any amendment to this manual, written notice of the change and a copy of the changed part of the aerodrome manual is provided to CASA (aerodromes@casa.gov.au).

1.4.3 Manual review

(Part 139 MOS – 12.09(6)(a)(ii))

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

1.5 Authorisations

1.5.1 Aerodrome certificate – conditions

(Part 139 MOS – 11.01(3)(c))

The aerodrome was formerly a certified aerodrome. There were no conditions on the aerodrome certificate issued by CASA.

1.5.2 Aerodrome instruments

(Part 139 MOS – Chapter 11.01(3)(a))

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

2 Aerodrome Information

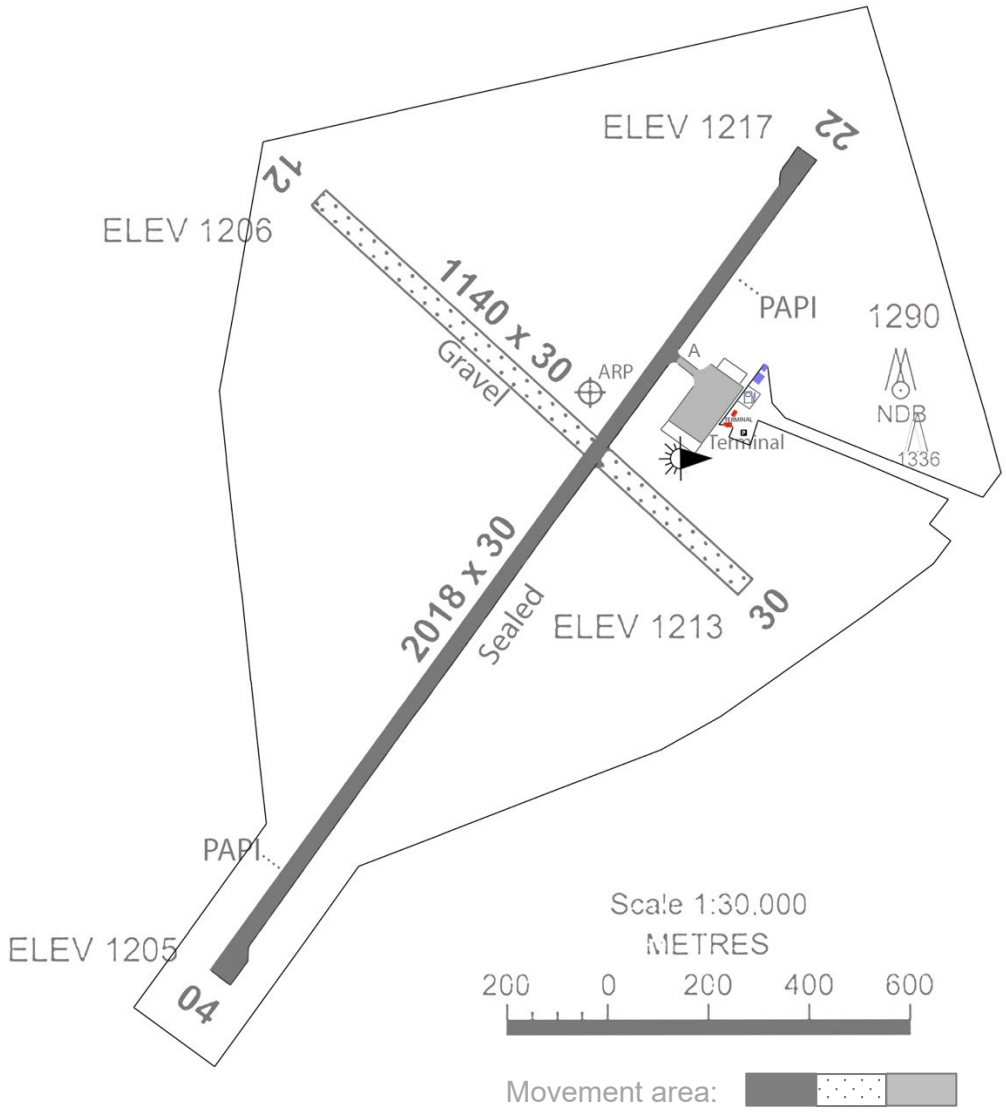
2.1 Aeronautical information

(Part 139 MOS – 11.01(1); Chapter 5)

2.1.1 Aerodrome diagram

(Part 139 MOS – 11.01(1); 5.03(1)(a)-(j))

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



2.1.2 Aerodrome administration statement

(Part 139 MOS – 11.01(1); 5.03(2)(a)-(c))

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

Name of aerodrome operator:	Shire of Leonora
Postal address:	PO Box 56, Leonora. 6438
Phone number:	08 90376044
E-mail address:	*ty.matson@leonora.wa.gov.au* *aro@leonora.wa.gov.au*
Website:	www.leonora.wa.gov.au
Facsimile number (if provided):	08 90376295
Name of after-hours contact:	Paul Warner (Manager of Works and Services)
Phone number:	0428 376 154
E-mail address:	paul.warner@leonora.wa.gov.au
Aerodrome usage:	Combination of public/private use

2.1.3 Aerodrome location statement

(Part 139 MOS – 11.01(1); 5.03(4)(a)-(f))

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

Aerodrome name:	Leonora
State/Territory:	WA
ARP latitude (WGS84):	285241.22S
ARP longitude (WGS84):	1211852.75E
Y location code:	YLEO
Elevation:	1217
Type A charts (if published):	Type A charts are not provided
Type B charts (if published):	Type B charts are not provided

2.1.4 Movement area information – runways

2.1.4.1 Runway code number

(Part 139 MOS – 11.01(1); 5.04(1)(a))

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

Runway	Code number
04/22	Code 3C
12/30	Code 2

2.1.4.2 Runway bearing, length, width, and surface type

(Part 139 MOS – 11.01(1); 5.04(1)(b)(c))

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

Runway	Runway bearing (Magnetic)	Runway length (m)	Runway width (m)	Runway surface type, or types (non-homogenous runways)
0422	35.957 215.957	2018	30m	BITUM [Bituminous]
12 30	132 312	1140	30m	OTHER - Gravel

2.1.4.3 Threshold geographical location & elevation - instrument runways

(Part 139 MOS – 11.01(1); 5.04(1)(d)(i)(ii))

The 12/30 runway at Leonora Airport is a non-instrument runway.

The geographical location coordinates, and the elevation of the midpoint of the runway threshold for each instrument runway are recorded in the table below:

Runway threshold	Latitude (WGS84)	Longitude (WGS84)	Midpoint elevation
RWY 22	285228.23	121196.48	370.84m
RWY 04	285320.80	1211821.83	365.46m

2.1.4.4 Runway pavement strength rating

(Part 139 MOS – 11.01(1); 5.04(1)(e))

The 12/30 runway at Leonora Airport is a natural surface runway without formed pavement**.**

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

ACN – PCN strength rating	Runway 04/22	Runway 12/30
PCN value	24	Not applicable
Pavement type	F	Not applicable
Pavement subgrade	A	Not applicable
MAX Take-off weight	43,000 kg	5,700 kg
MAX tyre pressure value	1Mpa	735 Kpa
Tyre pressure category	Y	Z
PCN evaluation method	T	Not applicable

2.1.4.5 Runway strip length and width

(Part 139 MOS – 11.01(1); 5.04(1)(f))

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

Runway	Runway strip length (m)	Runway strip width (m) (graded)	Runway strip width (m) (including flyover)
04/22	2138	90	150
12/30	1260	90	150

2.1.4.6 Runway slope

(Part 139 MOS – 11.01(1); 5.04(1)(g))

The runway slope(s) is / are recorded in the table below:

Runway	Runway slope
04/22	0.263% up towards RWY 04 TKOF
12/30	0.2% up towards RWY 12 TKOF

2.1.4.7 Runway declared distances

(Part 139 MOS – 11.01(1); 5.04(1)(h))

The declared distances for each runway are recorded in the table below:

	Runway 04	Runway 22
Take-off run available (TORA)	2018 m (6621 ft)	2018 m (6621 ft)
Take-off distance available (TODA)	2078 m (6818 ft)	2078 m (6818 ft)
TODA gradient	2.34%	2.48%
Accelerate-stop distance available (ASDA)	2018	2018
Landing distance available (LDA)	2018	2018

	Runway 12	Runway 30
Take-off run available (TORA)	1140 m (3740ft)	1140 m (3740 ft)
Take-off distance available (TODA)	1200 m (3937 ft)	1200 m (3937 ft)
TODA gradient	3.12%	3.02%
Accelerate-stop distance available (ASDA)	1140 m (3740 ft)	1140 m (3740 ft)
Landing distance available (LDA)	1140 m (3740 ft)	1140 m (3740 ft)

2.1.4.8 Intersection departure take-off distances available

(Part 139 MOS – 11.01(1); 5.04(1)(h); 5.12(3)(4))

Intersection departures are not available.

2.1.4.9 Supplementary take-off distances available (STODA)

(Part 139 MOS – 11.01(1); 5.04(1)(h))

The supplementary take-off distances for each runway are recorded in the table below:

Obstacle clear take-off gradient	Runway 04 (m)	Runway 22 (m)
1.6%	1815	1925
1.9%	1951	1991
2.2%	2045	2042
2.5%	-	-
3.3%	-	-
5%	-	-

Obstacle clear take-off gradient	Runway 12 (m)	Runway 30 (m)
1.6%	-	1040
1.9%	-	1092
2.2%	849	1130
2.5%	995	1161
3.3%	-	-
5%	-	-

2.1.4.10 Established OLS for the runway

(Part 139 MOS – 11.01(1); 5.04(1)(i))

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

Runway end	Established code
04	Code 3
22	Code 3
12	Code 2
30	Code 2

2.1.4.11 Type A charts

(Part 139 MOS – 11.01(1); 5.04(1)(j)(i))

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

2.1.4.12 Type B charts

(Part 139 MOS – 11.01(1); 5.04(1)(j)(ii))

A type B chart has not been prepared.

2.1.4.13 Obstacle-free zone (OFZ)

(Part 139 MOS – 11.01(1); 5.04(1)(k))

An obstacle free zone is not identified.

2.1.4.14 Arrestor system

(Part 139 MOS – 11.01(1); 5.04(1)(l))

An arrestor system is not provided.

2.1.5 Movement area information – runway strip availability

(Part 139 MOS – 11.01(1); 5.04(2)(a)(b))

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

2.1.6 Movement area information – taxiways

(Part 139 MOS – 11.01(1); 5.04(3)(a)-(d))

Each taxiway designation, code letter, width, and surface type are recorded in the table below:

Taxiway name	Taxiway designation	ARC letter	Taxiway width (m)	Taxiway surface type
None	-	C	15m	Asphalt

2.1.7 Movement area information – aprons

*(Part 139 **MOS –** 11.01(1); 5.04(4)(a)-(c); 5.04(5)(a)(b))*

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

Apron	Apron surface type
Apron	Asphalt

2.1.8 Visual aids – approach and runway lighting systems

(Part 139 MOS – 11.01(1); 5.05)

2.1.8.1 Approach lighting system(s) (ALS)

(Part 139 MOS – 11.01(1); 5.05(1)(a))

The aerodrome does not have a runway approach lighting system.

2.1.8.2 Runway threshold lights and wing bars

(Part 139 MOS – 11.01(1); 5.05(1)(b))

The particulars for each runway threshold lights / wing bars (if provided) are recorded in the table below:

Runway designation	Threshold lights – colour	Wing bars - colour	Geographical coordinates
04	Green	Wing bars not provided	-
22	Green	Wing bars not provided	-

2.1.8.3 Visual approach slope indicator system (VASIS)

(Part 139 MOS – 11.01(1); 5.05(1)(c))

The particulars of each visual approach slope indicator system are recorded in the table below:

Runway designation	VASIS type	Approach slope (°)	PAPI minimum eye height (ft) / (m)
04	PAPI (single sided)	3°	45.4 ft / (13.84m)
22	PAPI (single sided)	3°	45.7 ft / (13.93m)

2.1.8.4 Touchdown zone (TDZ) lighting

(Part 139 MOS – 11.01(1); 5.05(1)(d))

Touchdown zone lighting is not provided.

2.1.8.5 Runway centreline lights

(Part 139 MOS – 11.01(1); 5.05(1)(e))

Runway centreline lights are not provided.

2.1.8.6 Runway edge lights

(Part 139 MOS – 11.01(1); 5.05(1)(f))

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

Runway designation	Length (m)	Longitudinal spacing (m)	Colour	Intensity (cd)
04	2018	60m	White	200 cd
22	2018	60m	White	200 cd

2.1.8.7 Runway end lights

(Part 139 MOS – 11.01(1); 5.05(1)(g); Chapter 9, Division 10)

The colour(s) of the runway end lights is / are recorded in the table below:

Runway end	Runway end lights – colour
04	Red
22	Red

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

2.1.8.8 Stopway lights

(Part 139 MOS – 11.01(1); 5.05(1)(h))

The aerodrome does not have stopway lights.

2.1.8.9 Starter extension lighting

(Part 139 MOS – 11.01(1); 5.05(1)(i))

The aerodrome does not have starter extension lighting.

2.1.8.10 Runway threshold identification lights (RTIL)

(Part 139 MOS – 11.01(1); 5.05(1)(j))

The aerodrome does not have RTIL.

2.1.8.11 Pilot activated lighting (PAL) system

(Part 139 MOS – 11.01(1); 5.05(1)(k))

The availability of a PAL system is as follows:

PAL+AFRU operates on the VHF radio frequency 126.8 MHz and requires three one-second max pulses to activate

2.1.9 Visual aids – other lighting and secondary power supply

2.1.9.1 Aerodrome beacon

(Part 139 MOS – 11.01(1); 5.05(2)(a))

The aerodrome does not have an aerodrome beacon.

2.1.9.2 Taxiway lighting systems (including holding positions and stop bars)

(Part 139 MOS – 11.01(1); 5.05(2)(b))

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

Taxiway designation	Taxiway lighting systems			
	Edge lights	Centreline lights	Stop bars	Holding position lights
N/A	Blue	N/A	N/A	2 yellow edge lights at holding position for Runway 04/22

2.1.9.3 Apron lighting systems (including VDGS)

(Part 139 MOS – 11.01(1); 5.05(2)(c))

There are seven LED apron floodlights which provides lighting to the apron area.

There are no VDGS systems at Leonora Airport.

2.1.9.4 Other movement areas – lighting systems

(Part 139 MOS – 11.01(1); 5.05(2)(d))

No other movement area lighting systems are provided at Leonora Airport.

2.1.9.5 Obstacle lighting for OLS infringements

(Part 139 MOS – 11.01(1); 5.05(2)(e))

All lit obstacles within the aerodromes OLS are recorded in the table below**:**

Obstacle type	Obstacle position	Elevation (ft)	Lighting (type / colour)
Lit Silo	59 DEG MAG 1036m FM ARP	1353 ft AMSL	LIOL – steady red

2.1.9.6 Secondary power supply (including switch-over time)

(Part 139 MOS – 11.01(1); 5.05(2)(f))

A secondary power supply is not provided.

The particulars of the standby power supply and its switchover time are recorded below:

Standby power supply type	Switch-over time
45 KVA Diesel Generator	Less than 30 sec

2.1.10 Navigation aids

(Part 139 MOS – 11.01(1); 5.06)

No navigation aids are provided by the aerodrome operator.

Airservices Australia provides the following navigation aids recorded in the table below:

Navigation aid	Latitude (WGS84)	Longitude (WGS84)	Operating frequency
Non-Directional Beacon	285243.9S	1211913.0E	377 KHz
Satellite Ground Service	285246.45S	1211914.00E	

2.1.11 Aviation rescue and fire-fighting services (ARFFS)

(Part 139 MOS – 11.01(1); 5.07)

An ARFFS is not provided by the aerodrome operator.

2.1.12 Ground services

2.1.12.1 Fuel suppliers

(Part 139 MOS – 11.01(1); 5.08(a))

Fuel suppliers and their contact details are recorded in the table below:

Fuel supplier	Fuel type	Contact details	After-hours contact details
Air BP	Jet A1	Air BP Area Manager: Mark Stephens – 0410 479 386 Shire of Leonora Manager Works & Services – 0428 376 154 ARO – 0439 173 279	Shire of Leonora – 0428 376 154 0439 173 279
Shire of Leonora	AVGAS	Shire of Leonora Manager Works & Services – 0428 376 154 ARO – 0439 173 279	Shire of Leonora – 0428 376 154 0439 173 279

2.1.12.2 Weather information broadcasts

(Part 139 MOS – 11.01(1); 5.08(b))

The weather information broadcasts provided by the Bureau of Meteorology are as follows:

Aerodrome Weather Information Service (AWIS) – Automatic Weather Readings.

Radio Frequency 124.750 – 1 sec pulse

Phone – 08 6216 2625

2.1.12.3 Ground-to-air communication systems

(Part 139 MOS – 11.01(1); 5.08(c))

The ground-to-air communication systems provided by the aerodrome operator are recorded below:

- Aerodrome Frequency Response Units (AFRU) – CTAF 126.8 MHz.

There is no UNICOM service provided by the aerodrome operator.

2.1.12.4 Other aviation-related services made available to pilots

(Part 139 MOS – 11.01(1); 5.08(d))

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

(Part 139 MOS – 11.01(1); 5.09(1)(a))

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

2.1.13.2 Standard taxi routes determined by the ATS provider

(Part 139 MOS – 11.01(1); 5.09(1)(b))

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

2.1.14 Aerodrome operational procedures – special procedures

(Part 139 MOS – 11.01(1); 5.09(2))

Special procedures unique to the aerodrome which pilots would reasonably be expected to know in the interests of aviation safety are recorded below:

- Aircraft above 5700kg must use full length and turning nodes
- Turns on Runway or at turning nodes must be minimum speed and maximum radius.

2.1.15 Aerodrome operational procedures – notices

(Part 139 MOS – 11.01(1); 5.09(3))

There are no cautionary or administrative notices relating to the safe use of the aerodrome.

2.1.16 Aerodrome operational procedures – low-visibility procedures

(Part 139 MOS – 11.01(1); 5.09(4)(a)(b)(c))

Low-visibility procedures are not established at the aerodrome.

2.2 Aerodrome site plan

(Part 139 MOS – 11.01(2)(a)(i)-(v))

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 *A1* of this manual.

2.3 Site plan – facilities outside the aerodrome boundary

(Part 139 MOS – 11.01(2)(b))

Leonora 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

(Part 139 MOS – 4.01; 11.01)

2.4.1 Runways

(Part 139 MOS – 11.01(2)(c))

Sample text

The aerodrome reference code (ARC) number, letter and OMGWS for each runway are recorded in the table below:

Runway	ARC number	ARC letter	OMGWS
04/22	Code 3	Code C	9 m up to but not including 15 m
12/30	Code 2	Code B	4.5 m up to but not including 6m

2.4.2 Taxiways and taxilanes

(Part 139 MOS – 11.01(2)(c))

Sample text

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

Taxiway / Taxilane	ARC letter	OMGWS
Taxiway	Code C	OMGWS 9 m up to but not including 15 m

2.4.3 Aircraft parking positions

(Part 139 MOS – 1.08(2))

The aerodrome reference code (ARC) letter for each marked primary and secondary aircraft parking position is recorded in the table below:

Parking position designation	ARC letter
Bay 1	Code C
Bay 2	Code C

2.4.4 Holding bays (aircraft)

(Part 139 MOS – 1.08(2); 6.55(2))

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

2.5 Instrument classification of each runway

(Part 139 MOS – 3.01(2); 11.01(2)(d))

Sample text

The instrument classification for each runway end is recorded in the table below:

Runway designation	Instrument classification
RWY 04	Non-precision approach runway
RWY 22	Non-precision approach runway
RWY 12	Non-instrument approach runway
RWY 30	Non-instrument approach runway

2.6 Deviations from preferred standards

(Part 139 MOS – 1.08(3)(4); 11.01(3)(d))

2.6.1 Location of runway threshold

(Part 139 MOS – 6.01(3)(4)(6); 8.26)

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

2.6.2 Runway turn pad / bypass pad

(Part 139 MOS – 6.03(2)(3))

All runway turn 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

(Part 139 MOS – 6.06(1)-(7))

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

(Part 139 MOS – 6.08(2)(3))

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

(Part 139 MOS – 1.08(4); Table 6.09(1)-1)

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

2.6.5.2 Friction values

(Part 139 MOS – 108(4); Table 6.09(1)-2)

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

2.6.6 Longitudinal slope design values on graded runway strip

(Part 139 MOS – 6.18(1)(2))

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)

(Part 139 MOS – 1.08(4); 6.26(4))

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
04	90m	Min Length met, preferred length of 240m is currently unattainable due to the Aerodrome Boundary.
22	90m	Min Length met, preferred length of 240m is currently unattainable due to the Aerodrome Boundary.
30	60m	Min Length met, preferred length of 120m is currently unattainable due to the Aerodrome Boundary.

2.6.8 Taxiway longitudinal slope values

(Part 139 MOS – 1.08(4); 6.40(1)(2)(3))

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

(Part 139 MOS – 6.41(2)(3))

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

(Part 139 MOS – Table 8.03(1))

All markings meet AS2700-2011.

2.6.11 Runway edge lights on a reduced runway width

(Part 139 MOS – 9.51(10)(11))

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

2.6.12 Spacing of taxiway edge lights

(Part 139 MOS – 9.92(1))

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

(Part 139 MOS – 11.01(3)(b))

At the time of commencement of the Part 139 MOS, the following aerodrome facilities / OLS 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
TKOF and Approach	OLS measurements
Runway 04/22 strip width	The runway strip width is 150m whereby 280m is now required for a non-precision runway (Part 139 MOS – 6.17) 6.2.18.2 and Table 6.2-6 of Manual of Standards Part 139 – Aerodromes (to which the runway was designed and constructed) stated a non-precision Code 3 runway of 30m width required 150m for overall runway strip width.
Runway holding position marking	The runway holding position markings are currently marked to 8.4.3.3 of Manual of Standards Part 139 – Aerodromes specifications with 0.15m wide lines and spaces rather than 0.3m now required. This will be rectified when next undertaking line marking works.
Infringements of transitional surfaces	The tail heights of the following aircraft infringe OLS transitional surfaces when parked on the applicable bays on the apron: <u>Bay 1</u> • F100 by 1.8m (apron level assumed 0.5m below runway level) <u>Bay 2</u> • F100 by 1.5m (apron level assumed 0.5m below runway level) • A319 by 4.5m • DH8D (Q-400) by 1.3m These infringements are noted in AIP publications.

2.7.2 Grandfathered facilities – opted-in

(Part 139 MOS – 2.01 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

(CASR 175.445; Part 139 MOS – 11.05(3))

3.1.1.1 AIP responsible person

(CASR 175.445(1)(2); Part 139 MOS – 11.05(3))

The nominated AIP responsible person for Leonora Airport is Ty Matson (CEO).

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, the Shire of Leonora 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)

(CASR 175.445(4)(5); Part 139 MOS – 11.05(3))

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

NOTAM authorised person(s)
Ty Matson
Paul Warner
R**alph** Briggs

To meet the requirements of CASR 175.445, the Shire of Leonora 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 person(s) is also recorded in the NAIPS system that Airservices administers.

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

The NOTAM group manager for Leonora Airport is **Paul Warner.**

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

(CASR 175.455, 175.460; Part 139 MOS – 11.05(1)(a))

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

The Shire of Leonora 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 the change, a request for a change will be made in writing to Airservices at**:** docs.amend@airservicesaustralia.com.

The Shire of Leonora 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.

The Shire of Leonora 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 monitored by the AIP responsible person.

3.1.3 Advising NOTAM Office (NOF) of changes – aerodrome conditions / hazards

(CASR 175.470; Part 139 MOS – 11.05(1)(b)(c))

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@aiservicesaustralia.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

(Part 139 MOS – 11.05(1)(d))

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 9235 7420.

3.1.5 Record keeping – reports

(Part 139 MOS – 11.05(2)(a)(b))

A copy of all NOTAMs requested by Leonora Airport are:

Retained by: Aerodrome Reporting Officer

Stored securely at: ARO Office, Leonora Airport.

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

Retained by: Manual Controller

Stored securely at: ARO Office, Leonora Airport and digitally on the Shire of Leonora Server.

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 Leonora 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

(CASR Part 175.465; Part 139 MOS – 12.09(6)(a)(i); 12.11(11)(d)(i))

The Manual Controller 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: Manual Controller and Aerodrome Manager

Stored securely at: ARO office, Leonora Airport and on the Shire of Leonora Server.

Leonora 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

(Part 139 MOS – 11.03(1)(2))

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

(CASR 139.080(2); 139.085(2); Part 139 MOS – 11.03(2)(a)-(d); 13.03(a)-(f))

The Manager Works & Services 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 Leonora Airport.

Name	Position	Function
Paul Warner	Manager Works & Services	Manager, Reporting Officer, Safety Officer
Ralph Briggs	ARO, WSO	Reporting Officer, Safety Officer
Chris Molloy	ARO, WSO	Reporting Officer, Safety 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.

Leonora ensures 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 Manager Works & Services. 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: Manual Controller

Stored securely at: ARO office, Leonora Airport

The Aerodrome Reporting Officer is responsible for reporting the results of the inspections.

The Manager Works & Services is responsible for taking follow-up action if an unsafe condition is identified during the inspection.

3.2.2 Routine serviceability inspections

(Part 139 MOS – 11.03(1)(a)(i); 12.01(2)(3))

The aerodrome has scheduled passenger air transport operations. An aerodrome serviceability inspection is carried out on each day that an air transport movement is scheduled. A minimum of two (2) aerodrome serviceability inspections are conducted each week (at least 48 hours apart).

Shire of Leonora ensures that the aerodrome serviceability inspections are completed before the first passenger air transport operation occurs.

Should the first air transport passenger movement occur before first light, an inspection of the safety critical elements is completed before the first movement occurs.

The safety critical elements are: FOD, visual aids, significant hazards.

Inspections of the remaining items will re-commence and be completed as soon there is sufficient daylight.

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

Day of Inspection	Inspection times
Monday	6am – 8am
Tuesday	6am – 8am
Wednesday	6am – 7am
Thursday	6am – 8am
Friday	6am – 9am
Weekend	Most convenient time

3.2.3 Additional serviceability inspections

(Part 139 MOS – 11.03(1)(a)(ii); 12.01(1)(a)-(d))

Leonora 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 ATC
- when a pilot or ARFFS provider reports a hazard.

3.2.4 Inspection procedures

(Part 139 MOS – 11.03(1)(b))

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, including the direction of travel, communication procedures, actions in the event of a communication failure or vehicle breakdown etc. are documented in the **AMS Aerodrome Reporting Officer Handbook**.

This is a subsidiary document to this manual and is available at: ARO office, Leonora Airport.

3.2.4.1 Inspection items

(Part 139 MOS – 12.03(3)-(11))

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:
    a. surface irregularities, including cracking or spalling
    b. pavement deflections, including rutting or slipping
    c. water pooling or ponding
    d. build-up of rubber or other contaminants which may reduce runway surface friction
    e. surface damage caused by the spillage of corrosive fluids or oil
    f. subsurface leaks or pressure, including broken water mains or inadequate or defective drainage
    g. scour or erosion ditches within unsealed areas, including step-downs from sealed runway surfaces
    h. termite mounds, sink holes or other ground obstacles obscured, or not obscured, by grass
    i. soft ground, particularly in combination with surface roughness and slipperiness
    j. 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:
    a. loss of visibility markers and markings
    b. incorrect markers or markings
    c. any disturbance to the correct intensity level and alignment of lights
    d. discoloured or dirty lenses
    e. unserviceable lights, incorrectly fitted lights, or lights that are misaligned
    f. stand-by power equipment, to ensure that it is serviceable including the availability of fuel (if applicable)
    g. the condition of light bases, MAGS and navigation equipment within the movement area, including strips
    h. exposed edges around concrete footings and other aerodrome installations within the runway and taxiway strips
    i. damage to the wind indicator assembly or mounting
    j. for wind indicators – damage to sleeve fabric or loss of conspicuous colour
    k. the correct operation of the pilot activated lighting (if installed)
    l. the correct operation of the broadcast aerodrome weather station (if installed).
3. The cleanliness of the movement area looking for the following:

a. foreign objects, for example, aircraft fastening devices and other aircraft parts
b. work tools, small items of equipment and personal items
c. debris, for example, sand, loose rocks, concrete, wood, plastic, pieces of tyre, mud and any other foreign bodies
d. 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:

   a. the take-off, approach and transitional elements of the OLS
   b. 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:

   a. the condition of aerodrome fencing and the security of access points to the movement area
   b. 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
   c. monitoring evidence of wildlife shelter provided by aerodrome infrastructure, for example, buildings, equipment and gable markers
   d. 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
   e. 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:

   a. identify any damage
   b. confirm gates are secured
   c. 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.

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

The checklist is a subsidiary document to this manual and is available at: ARO office, Leonora Airport.

3.2.5 Communicating with ATC during inspection (if applicable)

(Part 139 MOS – 11.03(1)(g))

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

3.2.6 Reporting inspection results

(Part 139 MOS – 11.03(1)(c); 12.03(12))

The Shire of Leonora 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 **Daily Serviceability Inspection Checklist** and **Reporting Officer Daily Diary**:

- 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 **Hazard Report Form** and **ARO daily diary**.

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 **Maintenance Request/Report folder** and **ARO Daily Diary**.

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 e 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.

At a controlled aerodrome, the aerodrome reporting officer is to advise ATC of any finding identified during the serviceability inspection that requires the issue of a NOTAM.

3.2.6.1 Reportable occurrences to the NOTAM Office

(Part 139 MOS – 11.03(1)(c); 12.04(1)(a)-(i))

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 the Shire of Leonora 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

(Part 139 MOS – 11.03(1)(d); 12.04(2)(3(4))

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

- immediately report the unserviceability to ATC (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 ATC (if applicable).

3.2.8 Technical inspection of identified unsafe condition

(Part 139 MOS – 11.03(1)(e); 12.08; 12.09; 12.10(2)(d))

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

When arranging the technical inspection, the Manager of Works & Services 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 SMS committee 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 ARO office. The corrective actions plan will be reviewed regularly and updated by the Manual Controller.

The technical inspection report will be retained for a minimum period of three (3) years at ARO office, Leonora Airport.

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

3.2.9 Maintaining inspection records

(Part 139 MOS – 11.03(1)(f); 11.04(1)(d); 12.03(12))

Completed inspection records are:

Filed: in hard copy

Stored securely at: ARO office, Leonora Airport.

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 the Shire of Leonora
- 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

(Part 139 MOS – 11.04(2)(a)-(f))

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

(a) Carrying out lighting inspections

Individual / position: *ARO*

(b) Maintaining the records of inspections

Individual / position: *Manual Controller*

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

Individual / position: *Manager of Works & Services*

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

Individual / position: *ARO*

(e) Performing maintenance on aerodrome lighting

Individual / position: *Electrical Contractors*

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

Individual / position: *ARO*

3.3.2 Aerodrome lighting – inspection and maintenance

(Part 139 MOS – 9.136(2); 9.138(4); 11.04(1)(a))

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	Quarterly	Edge Lighting for Apron, Taxiway and Runway.	Clarity/Lux, vegetation around lights, Cleanliness.
Apron Floodlighting	Weekly	Transition	Monitor Floodlights Turning off/on during day/night transition
PAPI	Weekly	PAPI angles	Clinometer Angles
PAL	Daily	PAL activation	Pilot Activated Lighting Turns on remotely from VHF

3.3.3 Obstacle lighting maintained by aerodrome operator – inspection and maintenance

(Part 139 MOS – 11.04(1)(a))

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

3.3.4 Portable runway lights – inspection and maintenance

(Part 139 MOS – 9.07(3)(a))

No portable runway lights are available for use at the aerodrome; therefore, this subsection is NOT APPLICABLE.

3.3.5 Monitoring secondary power supply

(Part 139 MOS – 9.04; 9.05; 11.04(1)(b))

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

3.3.6 Monitoring standby power supply

(Part 139 MOS – 11.04(1)(b))

Standby power is available at Leonora Airport and is automatically activated.

The type, location, lighting systems and the switchover times are recorded below:

Standby power supply type	Location of standby power source	Lighting systems	Switchover times
Diesel Generator	Behind ARO office, Leonora Airport	RWY 04/22 edge lighting, PAPI, Apron flood lighting.	Less than 30 sec

The availability of standby power is notified in AIP ERSA.

The supply of standby power will be monitored by the ARO in accordance with the following procedure: Weekly (Thursday) testing and inspection with Quarterly and Annual Inspections/Servicing as per **Generator Inspection Checklist**.

The supply of standby power will be monitored by the ARO in accordance with the following procedure: Weekly (Thursday) testing according to **Daily Serviceability Checklist** and **Generator Inspection Checklist**.

3.3.7 Lighting inspections and checks

(Part 139 MOS – 11.04(1)(c))

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	Interior of PAPI	Clean out dust and inspect lenses
PAPI	Monthly	Day/night Transition	Check intensity is appropriate for day/night

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 **Number 3 Folder**, which is available at ARO office, Leonora Airport.

3.3.8 Maintaining lighting inspections records and follow-up actions

(Part 139 MOS – 11.04(1)(d))

At the completion of each lighting inspection, the ARO records the following information on the **Daily Serviceability Checklist**, **ARO Daily Diary**, and **PAPI inspection checklist (#3 Folder)**

- 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 **ARO Daily Diary** and **Hazard Report Form**. 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 **ARO Daily Diary**, **Maintenance Report Form** and **Hazard Report Form** 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

(Part 139 MOS – 11.04(1)(e))

The lighting system is operated by: Pilot Activated Lighting.

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

Lighting system	Operating current	Intensity selection
Aerodrome Lighting	4.0 Amps	LIRL

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

PAL requires 3x 1sec max pulses on VHF 126.8.

There is manual activation in the lighting/AFRU cubicle in the Generator area to the rear of the ARO Office.

3.3.10 Back-up arrangements for PAL system

(Part 139 MOS – 9.23(1)(b); 11.04(1)(e))

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

A bypass switch has been provided that allows manual activation of the lights. The bypass switch is located in the Lighting/AFRU Cubicle at the rear of the ARO office.

Leonora Airport has issued written authorisation for manual activation of the lights, if required, to Aerodrome Reporting Officers. A copy of the authorisation has been retained on file and is available at the ARO office.

Each ARO has been issued a key to readily access the manual activation switch at all times when required.

3.3.11 Routine and emergency lighting maintenance

(Part 139 MOS – 11.04(1)(f))

Routine maintenance is carried out in accordance with the following procedures: Maintenance Request Form - Time Limited Works/MOWP protocols incorporated with Contractor Electrician when required.

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

Direct contact with Manager of Works & Services along with Maintenance Request Form and NOTAM requirements.

3.3.12 Partial or total power system failure

(Part 139 MOS – 11.04(1)(g))

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

- Immediate notification to NOF and Melbourne ATC and any imminent flights on CTAF.
- Contact electrical contractor for fault identification and repair.

3.3.13 Monitoring hazardous lights, lasers, reflection or glare

(Part 139 MOS – 9.143(2)(a)(3)(4)(5)(8); 9.144(2); 11.04(1)(h))

The Reporting Officer 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 Reporting Officer 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.

Leonora 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

(Part 139 MOS – 9.18(8))

Leonora Airport has commissioned the following lighting systems:

		Commissioning documentation		
Lighting system	**Date commissioned**	**Independent compliance statement / laboratory test report**	**Ground check report**	**Flight check report**
RWY 04/22 Runway edge lighting	2/10/2020	Lighting Compliance and tests I:\WORKS DEPOT\LEONORA DOCUMENT MANAGEMENT\AIRPORT\ Correspondance re Airport\AGL upgrades\1460 - Leonora AGL Upgrades - P Q M - AGL (1)\2.0 Lighting Fitting\2.4 Compliance	ADB Safegate Ground Check Report I:\WORKS DEPOT\LEONORA DOCUMENT MANAGEMENT\AIRPORT\ Correspondance re Airport\AGL upgrades\1460 - Leonora AGL Upgrades - P Q M - AGL (1)\4.0 Ground Checks	Flight Check Report I:\WORKS DEPOT\LEONORA DOCUMENT MANAGEMENT\AIRPORT\ Correspondance re Airport\AGL upgrades\1460 - Leonora AGL Upgrades - P Q M - AGL (1)\4.0 Ground Checks
PAPI and PAL/AFRU	23/02/2015	Unable to be located on file	Sparlon Electrical Ground Check of new PAL/AFRU transceiver installed at Leonora Aerodrome 6/02/2015	AMS Lighting Flight Check Report 23/02/2015

3.3.15 Commissioning a new or upgrading / replacing an existing lighting system

(Part 139 MOS – 9.17(1)-(10); 9.18(1)-(8))

Leonora 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 Manual Controller or Manager Works & Services 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 Manual Controller and stored securely at ARO office and digitally on the Shire of Leonora Server.

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

(Part 139 MOS – 11.11)

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

(Part 139 MOS – 11.11(a))

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: *Barbed Wire topped, steel mesh and "Ringlock"*
- Height of fence: *2.2m*

The Shire of Leonora 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: *The northern side of the Airport Terminal, or, South side of Rajah Street 200m before the Terminal*
- Always locked by: *Electronic access control system (Terminal Gates), or Padlock (Rajah St Gates)*
- Keys and / or electronic access cards are issued by: *Manager Works & Services*
- A register of issued keys and / or access cards is maintained by: *Shire of Leonora Key Registry*
- An audit of issued and unissued keys and / or access cards is conducted annually by: *Manual Controller.*

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 *Manager of Works & Services.*

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

(Part 139 MOS – 11.11(b))

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: Manager of Works & Services

When: Quarterly.

These additional inspections are recorded: **Daily Checklist** and **Diary**.

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 ARO Daily Diary, Hazard Report and Maintenance Request/Completion Form, in accordance with the process outlined subsection 3.2.6 of this manual, and are repaired as soon as possible.

3.5 Airside vehicle control

(Part 139 MOS – 11.14)

3.5.1 Permit system for airside vehicles

(Part 139 MOS – 11.14(a); 14.02(a))

Leonora aerodrome has 350,000 or less air transport passenger movements / 100,000 or less aircraft movements

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

(Part 139 MOS – 14.03(1)(a)(b))

Leonora 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.

Leonora 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 is 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 Aerodrome Reporting Officers and available at the ARO Office, Leonora Airport.

To ensure the requirements of this manual are achieved, Leonora 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 the Aerodrome Reporting Officers and available at the ARO Office, Leonora Airport.

A vehicle that is denied access or has been removed from the airside at the direction of Leonora 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

(Part 139 MOS – 14.05(1)-(11))

As the aerodrome has scheduled air transport operations, all vehicles, during daylight hours and at night, are to display a flashing or rotating light on the top of the vehicle that complies with the specifications listed in subparagraph 14.05(8) of the Part 139 MOS when moving or operating on:

- a runway / runway strip
- a taxiway / taxiway strip.

All other vehicles operating airside during periods of low visibility, or when on the aprons at night, are to display a light on the top of the vehicle. If a light cannot be suitably placed on the top of the vehicle, additional lights are to be displayed so that the vehicle is visible in all directions.

During daylight hours only, a vehicle directly connected to an aircraft is permitted to display the standard manufacturer-fitted vehicle hazard warning lights, rather than a light on the top of the vehicle.

3.5.4 Vehicles on manoeuvring area

(Part 139 MOS – 14.03(4)(8); 14.04)

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

(Part 139 MOS – 14.01(1)-(4), 14.02(b); 11.14(b))

As Leonora Airport has scheduled air transport operations with 350,000 or less air transport passenger movements / 100,000 or less aircraft movements, drivers not under escort and who are operating a vehicle airside, are trained to know and 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.

Training details:

- Training method: External or Internal ARO Training
- Responsible for records: Manual Controller
- Stored securely at: ARO Office.

3.5.6 Vehicles in proximity to aircraft

(Part 139 MOS – 14.03(3))

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 three (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.

All vehicles operated within 15 m of an aircraft's fuel tank filling points and vent outlets during fuelling operations comply with Appendix 1 of Civil Aviation Order 20.9.

3.5.7 Movement area speed limits

(Part 139 MOS – 14.03(2)(a))

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	60
Aprons	25
Taxiways	25
Runways	90
During low-visibility operations	Not applicable

3.5.8 Escort service procedures

(Part 139 MOS – 14.01(5))

Only authorised third party drivers are permitted to provide vehicle escorts airside.

At any one time, an escort driver is not authorised to escort more than three (3) vehicles.

The escort driver is fully responsible for the driver(s) under escort.

All airside drivers providing an escort service are monitored for adherence with these requirements periodically by the reporting officer.

In the event an airside driver or driver under escort is observed to not be following the rules for operating a vehicle airside, or otherwise creating an unsafe condition, all respective vehicles and their drivers are to be escorted from the airside, and any authorisations are withdrawn.

Records of drivers authorised to conduct escorts are maintained by the Manual Controller and stored securely at the ARO Office.

3.5.9 Monitoring and enforcing traffic rules

(Part 139 MOS – 14.03(2)(b))

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

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

(Part 139 MOS – 11.15(1))

3.6.1 Aircraft parking control personnel

(Part 139 MOS – 11.15(2)(g)(i)(ii))

Leonora 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

(Part 139 MOS – 11.15(2)(a))

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

(Part 139 MOS – 11.15(2)(b))

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

(Part 139 MOS – 11.15(2)(c))

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

(Part 139 MOS –11.15(2)(d)))

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

(Part 139 MOS – 11.15(2)(e))

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

(Part 139 MOS – 11.15(2)(f))

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

(Part 139 MOS – 11.15(3))

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 the SMS Committee.

3.6.9 Alternative separation distances and apron markings

3.6.9.1 Reduced separation distances – VDGS

(Part 139 MOS – 6.58(1)(4)(a)(b))

Minimum separation distances have not been reduced on any parking position at Leonora Airport.

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

3.6.9.2 Aircraft type designator markings

(Part 139 MOS – 8.49(3)(d))

All aircraft type designations have been marked in accordance with the list of aircraft type designators published in ICAO Doc 8643, Aircraft Type Designators.

3.6.9.3 Alignment lines

(Part 139 MOS – 8.65(5))

An alignment line beyond the stop line has been marked at all aircraft parking positions where a VDGS is not provided.

3.6.9.4 Push-back operator guidance markings

(Part 139 MOS – 8.70(4))

Leonora Airport does not have push-back operators guidance markings; therefore, this subsection is NOT APPLICABLE.

3.6.9.5 Passenger path markings

(Part 139 MOS – 8.76(2)(b))

Leonora Airport does not have passenger path markings; therefore, this subsection is NOT APPLICABLE.

3.6.9.6 Miscellaneous area line markings

(Part 139 MOS – 8.77(2))

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

3.7 Aerodrome obstacle control

3.7.1 Obstacle control personnel

(Part 139 MOS – 11.06(2)(a)-(d))

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 (PANS-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
Manager Works & Services / ARO	liaison and facilitation of obstacle control outside the aerodrome boundary

3.7.2 Monitoring take-off, approach and transitional surfaces

(Part 139 MOS – 11.06(1)(a)(i))

Leonora 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 ARO office and Aerodrome Manager office.

The aerodrome reporting officer will visually scan the OLS as part of the aerodrome serviceability inspection in section 3.2 of this manual to identify the emergence of any new or potential obstacles.

A survey that assesses the take-off, approach, and transitional surfaces, is completed as part of the Annual Technical Inspection conducted in accordance with section 3.9 in this manual.

This survey is used to verify the accuracy of published information. On receipt of the survey, the results are compared against the aerodrome's information published in the AIP to ensure that there are no new obstacles, or that the height of existing obstacles has not changed.

Table 7.15 (1) Physical dimensions of the OLS for an approach runway 12/30 RWY 04/22 RWY

OLS (in bold) and dimension items (in italics)	Runway type and code, and OLS values in percentages and metres									
	Non-instrument				Instrument					
					Non-precision			Precision		
	Code				Code			CAT I Code		CAT II & III Code
	1	2	3	4	1, 2	3	4	1, 2	3, 4	3, 4
OUTER HORIZONTAL										

OLS (in bold) and dimension items (in italics)	Runway type and code, and OLS values in percentages and metres									
	Non-instrument				Instrument					
					Non-precision			Precision		
	Code				Code			CAT I Code		CAT II & III Code
	1	2	3	4	1, 2	3	4	1, 2	3, 4	3, 4
Height (m)									150	150
Radius (m)									15000	15000
CONICAL										
Slope	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Height (m)	35	55	75	100	60	75	100	60	100	100
INNER HORIZONTAL										
Height (m)	45	45	45	45	45	45	45	45	45	45
Radius (m)	2000	2500	4000	4000	3500	4000	4000	3500	4000	4000
APPROACH										
Length of inner edge (m)	60	80	150[a]	150	140	280	280	140	280	280
Distance from threshold (m)	30	60	60	60	60	60	60	60	60	60
Divergence each side	10%	10%	10%	10%	15%	15%	15%	15%	15%	15%
First section length (m)	1600	2500	3000	3000	2500	3000	3000	3000	3000	3000
Slope	5%	4%	3.33%	2.5%	3.33%	2%	2%	2.5%	2%	2%
Second section length (m)	-	-	-	-	-	3600[c]	3600	12000	3600	3600
Slope	-	-	-	-	-	2.5%[c]	2.5%	3%	2.5%	2.5%
Horizontal section length (m)	-	-	-	-	-	8400[c]	8400	-	8400	8400
Total length (m)	1600	2500	3000	3000	2500	15000[d]	15000	15000	15000	15000
INNER APPROACH										
Width (m)								90	120	120
Distance from threshold (m)								60	60	60
Length (m)								900	900	900
Slope								2.5%	2%	2%
TRANSITIONAL										
Slope	20%	20%	14.3%	14.3%	20%	14.3%	14.3%	14.3%	14.3%	14.3%
INNER TRANSITIONAL										
Slope								40%	33.3%	33.3%
BAULKED LANDING										
Length of inner edge (m)								90	120[g]	120[g]
Distance from threshold (m)[e]									1800[f]	1800
Divergence each side								10%	10%	10%
Slope								4%	3.3%	3.3%

Take-off climb surface — elements and dimensions	Take-off runway code number and corresponding values (in metres and percentages)		
	Code 1 runway	Code 2 runway	Code 3 or 4 runway
Length of inner edge	60	80	180
Minimum distance of inner edge from runway end[a]	30	60	60
Rate of divergence (each side)	10%	10%	12.5%
Final width	380	580	1800[b]
Overall length	1600	2500	15000
Slope	5%	4%	2%

3.7.3 Proposed or actual infringements – OLS

(Part 139 MOS – 11.06(1)(d)(i))

3.7.3.1 Proposed OLS infringements

(Part 139 MOS – 7.01(1); 7.18(1)(b); 17.19(1); 11.06(1)(d)(i))

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 the Aerodrome Manager or, on their request, the ARO.

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

Leonora 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

(Part 139 MOS – 7.18(1)(b); 7.19(2); 11.06(1)(d)(i))

Leonora 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 is to include 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

(Part 139 MOS – 11.06(1)(c)(i))

The heights of buildings, structures, plumes and other developments that infringe the aerodromes OLS are listed below:

Obstacle Type	Location	Height of the obstacle	Penetrated surface
Light Pole	478m FRM TKOF BASELINE, 135m EAST OF EXT CENTRELINE	382.24m above the Australian Height Datum.	RWY 22 Approach/ RWY 04 TKOF
Power Pole	326M FRM TKOF BASELINE, 127M WEST OF EXT CENTRELINE	373.8m above Australian Height Datum.	RWY 04 Approach/ RWY 22 TKOF
Light Pole (Sporting complex)	765M FM TKOF BASELINE, 110M NTH OF EXT CENTRELINE	393.49m above Australian Height Datum.	RWY 30 Approach/ RWY 12 TKOF

3.7.4.1 Hazardous obstacles

(Part 139 MOS – 8.109(4); 8.110(1)-(8); 8.111(2)(a)(b))

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

Obstacle Type	Location	Height of hazardous obstacle	Penetrated surface	Marking / lighting
Lit Silo	1036m Bearing 059 DEG MAG FM ARP	1353ft	-	RED obstacle light.
Unlit Mast	1321m Bearing 113 DEG MAG FM ARP	1336ft	-	-
Unlit Hill	4000m Bearing 144 DEG MAG FM ARP	1464ft	-	-

3.7.5 Monitoring visual segment surfaces and critical obstacles

(Part 139 MOS – 11.06(1)(a)(ii))

Terminal instrument flight procedures have been established by Airservices Australia.

The data and drawings of the area around the aerodrome that show the designed approach paths, visual segment surface, circling areas, and the location of critical obstacles, have been provided by the procedure designer, are available at www.airservicesaustralia.com.

The aerodrome reporting officer will use this data and drawings to monitor the visual segment surface and the nominated critical obstacles that are visible from the aerodrome as part of the aerodrome serviceability inspection in accordance with section 3.2 of this manual.

3.7.6 Proposed or actual infringements – PANS-OPS

(Part 139 MOS – 7.20(3); 11.06(1)(d)(ii)(2)(b))

The Manual Controller is to immediately inform the terminal instrument flight procedure designer as soon as:

- a proposed or actual infringement of the PANS-OPS is identified
- a change to the status of an existing critical obstacle is identified
- there is a proposed development that is higher than the critical obstacle
- a new object or structure has been detected that is higher than the critical obstacle.

The procedure designer's' contact details are as follows:

- Name: AirServices Australia
- E-mail: ifp@airservicesaustralia.com
- Phone: 1300 301 120

3.7.7 Height of infringements – PANS-OPS

(Part 139 MOS – 11.06(1)(c)(ii))

The aerodrome has published terminal instrument flight procedures. There are no buildings, structures, plumes and other developments that infringe the surfaces or areas associated with the published terminal instrument flight procedures (as defined in PANS-OPS); therefore, this subsection is NOT APPLICABLE.

3.7.8 Obstacle control within aerodrome boundary

(Part 139 MOS – 11.06(1)(e))

Leonora 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, Leonora Airport adopts controls appropriate to the recommendations provided by CASA.

3.7.9 Obstacle control outside aerodrome boundary

(Part 139 MOS – 11.06(1)(f))

Leonora 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

(Part 139 MOS – 9.36(1)(3)(a))

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

Lit obstacles & inspection programme		
Requirements	**Obstacle details**	**Obstacle details**
Obstacle type	Lit Silo	
Location of obstacle	1036m Bearing 059 DEG MAG FM ARP	
Type of obstacle lighting	LIOL – steady red and HJ	
Obstacle light owner	Aurizon	
Obstacle inspection frequency	Checked daily in ARO inspection	

At the completion of each obstacle light inspection, the following information is recorded on the **Daily Serviceability 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 are stored at the ARO office, Leonora Airport.

3.7.11 Obstacle light outage

(Part 139 MOS – 9.36(2)(3)(b))

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

(Part 139 MOS – 11.06(1)(b))

3.7.12.1 Type A charts

(Part 139 MOS – 7.21)

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

3.7.12.2 Type B charts

(Part 139 MOS – 7.22)

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

3.7.12.3 Precision Approach Terrain Charts – ICAO

(Part 139 MOS – 7.23)

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)

(Part 139 MOS – 7.24)

Aerodrome Terrain and Obstacle Charts that meet the standards and procedures set out in ICAO Annex 4 have been prepared. The terrain and obstacle data have been provided to the AIS provider in digital format in accordance with CASR Parts 175.D and 175.E.

The Aerodrome Terrain and Obstacle Charts are retained on file and are available at the ARO Office, Leonora Airport.

3.8 Protection of communication, navigation, surveillance and meteorological facilities

3.8.1 Controlling activities near CNS and MET facilities

(Part 139 MOS – 11.16(a); 19.02)

The following is a list of all CNS and MET facilities, their location on the aerodrome, and the particulars of the respective service provider:

CNS / MET facility	Location on the aerodrome	Service provider
Meteorological facility	420m Bearing 133 Deg Mag from ARP	Bureau of Meteorology
CNS	1321m Bearing 113 Deg Mag from ARP	AirServices Australia

Leonora Airport ensures that there will not be any interference to the CNS or MET facilities at the aerodrome caused by developments, the erection of structures or from work activities within the vicinity of each facility.

Leonora Airport refers all developments within the aerodrome boundary, near to or likely to affect an existing CNS or MET facility, to the respective CNS or MET facility providers for a hazard and impact assessment.

In consultation with each facility provider, the restricted area boundaries have been determined for each CNS and MET facility. The restricted area boundaries have been fenced off.

Only the facility service provider is permitted to work within each boundary. When ground maintenance is required, the service provider is advised.

Vehicles and plant are not permitted to enter or remain in an ILS critical or sensitive area whilst the ILS is in use. Should vehicle access be required, Leonora Airport:

- liaises with the service provider to temporarily withdraw the ILS from service unless otherwise authorised by the service provider
- arranges for notification via ATC or NOTAM to inform pilots of the temporary withdrawal.

3.8.2 Supply and installation of warning signs

(Part 139 MOS – 11.16(b); 19.06(5))

Signs have been placed around each communications, navigation and surveillance (CNS) or meteorological (MET) facility to:

- deter unauthorised access from vehicles and persons
- warn of hazardous emissions, including electromagnetic and microwave radiation.

Signs have also been placed at each road access point to each of the ILS critical and sensitive areas to prohibit drivers and pedestrians against entering the area without authority.

The responsibilities for supplying, installing and maintaining the signs have been agreed upon with the service provider and are to occur as follows:

- CNS signs are the responsibility of AirServices Australia
- MET signs are part of Aerodrome Signage and the responsibility of Leonora Airport.

3.9 Aerodrome technical inspections / manual validations

3.9.1 Inspection personnel

(Part 139 MOS – 11.10(2)(a)-(e))

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

Individual or position	Responsibilities
Manager Works & Services	managing the inspection programme
Manager Works & Services	planning the aerodrome technical inspections
Manual Controller	reporting inspection results and follow-up action
SMS Committee	receiving and considering inspection reports
SMS Committee	taking follow-up action if defects or deficiencies have been identified

3.9.2 Inspection items and timeframes

(Part 139 MOS – 11.10(1)(a)(b); 12.09; 12.11(11))

Leonora Airport, in a financial year, has 10,000 but less than 50,000 air transport passenger movements / 20,000 but less than 100,000 aircraft movements.

A technical inspection programme is carried out in accordance with the following:

Inspection requirement	Frequency	Required qualifications and / or experience
An instrument survey of the approach, take-off and transitional surfaces	The inspection is completed annually	The person engaged to conduct the inspection is technically qualified or experienced in surveying and has a sound knowledge and understanding of the standards for OLS
A check of other applicable surfaces associated with the OLS	The inspection is completed annually	The person engaged to conduct the inspection: • is a qualified or experienced in surveying and has a sound knowledge and understanding of the standards for OLS, or • has sound knowledge and understanding of the standards for OLS
For an aerodrome with a Type A chart, the currency and accuracy of the: (a) Type A chart (b) distribution list of current Type A chart holders	This inspection element is NOT APPLICABLE	The review of the Type A chart is completed by a person with tertiary qualifications in civil engineering or surveying, or a person that can demonstrate knowledge for interpreting the chart and the associated data.

Inspection requirement	Frequency	Required qualifications and / or experience
For an aerodrome with a TIFP - a check of the Leonora Airport's monitoring of the instrument approach procedure-critical obstacles nominated by the procedure designer	The inspection is completed annually	The person engaged to conduct the inspection has sound knowledge and experience of the applicable civil aviation safety legislation
An inspection and assessment of the movement are pavements, drainage and associated strips, including a visual inspection and assessment of: (a) pavement condition; and (b) contamination, including from rubber build-up **Note:** Periodic friction assessment and surface evaluation (as applicable) is undertaken to identify the need for maintenance or special surface treatment before surface conditions deteriorate below the specified limits.	The inspection is completed every two years	The person engaged to conduct the inspection has: • a recognised degree, diploma, or certificate of civil engineering, or • demonstrable relevant technical experience in civil engineering}
An inspection and testing of the aerodrome lighting and electrical reticulation systems, including the following: (a) visual aids on the movement area (b) apron floodlighting, including illumination of the apron and paring positions (c) illuminated wind direction indicators (d) pilot-activated lighting systems (e) stand-by and emergency aerodrome lighting (if applicable) (f) the visual approach slope indicator system (if applicable) (g) approach lighting systems (if applicable) (h) obstacle lights and beacons maintained by the {insert aerodrome operator's name} (i) any earthing points on the apron	The inspection is completed every two years	The person engaged to conduct the inspection is: • a qualified electrical engineer, or • a qualified licensed electrician with relevant aerodrome lighting knowledge and experience
An inspection and assessment of visual aids on the aerodrome, including the following: (a) movement area markings (b) movement area guidance signs, including aircraft parking position signs (c) airside vehicle control signs (d) protection of CNS and MET signs	The inspection is completed annually	The person engaged to conduct the inspection has sound knowledge and experience of the applicable civil aviation safety legislation
An inspection of equipment or facilities at the aerodrome used for wildlife hazard management, including aerodrome fencing and gates	The inspection is completed annually	The person engaged to conduct the inspection has sound knowledge and experience of the applicable civil aviation safety legislation
An inspection of equipment or facilities at the aerodrome used for aerodrome emergencies	The inspection is completed annually	The person engaged to conduct the inspection has sound knowledge and experience of the applicable civil aviation safety legislation

Inspection requirement	Frequency	Required qualifications and / or experience
A check of the currency and accuracy of aerodrome information published in the AIP	The inspection is completed annually	The person engaged to conduct the inspection 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 inspection is completed annually	The person engaged to conduct the inspection has sound knowledge and experience of the applicable civil aviation safety legislation
A check that the safety management system is up-to-date and is functioning as documented or A check that the risk management plan is up-to-date and is functioning as documented	The inspection is completed annually	The person engaged to conduct the inspection has sound knowledge and experience of the applicable civil aviation safety legislation
An inspection of airside vehicle control arrangements	The inspection is completed annually	The person engaged to conduct the inspection 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 inspection is completed annually	The person engaged to conduct the inspection 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 inspection is completed annually	The person engaged to conduct the inspection has sound knowledge and experience of the applicable civil aviation safety legislation

3.9.3 Qualified personnel for technical inspections / manual validations

(Part 139 MOS – 11.10(1)(b); 12.10(3)(4); 12.11(13))

The Manager of Works & Services, 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 Manager of Works & Services 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

(Part 139 MOS – 11.10(1)(c))

A calendar is maintained by the Manual Controller in the ARO Daily Diary and/or Outlook email reminder to schedule inspections. To allow adequate planning time, a reminder is also set in the calendar three (3) months in advance of the due date.

The calendar is updated when an element of the technical inspection is completed, and a new date for the next inspection and a three-month advance reminder is set.

The calendar is reviewed monthly.

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.

The results of each technical inspection are presented in a report.

A calendar is maintained to schedule manual validations.

- Person(s) responsible for calendar: Manual Controller
- Location of calendar: Daily Diary and/or Outlook email reminder

To allow adequate planning time, a reminder is also set in the calendar three (3) months in advance of the due date.

The calendar is updated when an element of this manual validation is completed, and a new date for the next validation and a three-month advance reminder is set.

The calendar is reviewed monthly.

Irrespective of the schedule, an immediate validation 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.

The results of each manual validation undertaken are presented in a report.

3.9.5 Briefing technical inspectors

(Part 139 MOS – 11.10(1)(d)(i)(ii); 12.08(4); 12.11(8))

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 Manager of Works & Services 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 Manager of Works & Services 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

(Part 139 MOS – 11.10(1)(e); 12.08(4))

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: Manual Controller
- Considered by: SMS Committee

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.

Leonora 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: Manual Controller
- Stored securely at: ARO office, Leonora airport.

In the event CASA requests a written copy of the corrective action plan, Leonora 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.

As soon as possible after the aerodrome manual validation has been completed, all errors or anomalies identified in the manual are to be corrected by the Manual Controller.

If necessary, consequential corrections to supporting procedures and to the aerodrome information published in the AIP are also to be made.

3.9.7 Providing CASA with inspection / validation reports

(Part 139 MOS – 11.10(1)(f); 12.08(7); 12.11(8))

Within 30 days of receiving the technical inspection report, a copy of the report is to be provided to CASA by the Manual Controller via e-mail at: 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 the Manual Controller.

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 the Manual Controller.

3.9.8 Maintaining records of technical inspections / manual validations

(Part 139 MOS – 12.08(9); 12.11(10))

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

- Maintained by: Manual Controller
- Stored securely at: ARO office, Leonora Airport and Digitally on the Shire of Leonora Server

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: Manual Controller
- Stored securely at: ARO office, Leonora Airport and Digitally on the Shire of Leonora Server

3.10 Aerodrome works safety

(Part 139 MOS – 11.07)

Leonora 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 are 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

(Part 139 MOS – 11.07(1)(2); 13.01)

The following persons have specified responsibilities for works:

Individual / position	Responsibility
Manager Works & Services	works planning
Works Safety Officers	conducting works
Works Safety Officers	arrangement and notifications

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

Name	Position	Function
Paul Warner	Manager Works & Services	Works safety officer
Ralph Briggs	ARO	Works safety officer
Chris Molloy	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.

Leonora 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 Manager of Works & Services. The training schedule is reviewed regularly to ensure training is completed in a timely manner. The training records of all WSOs are maintained by the Manual Controller and stored securely at the ARO office and digitally on the Shire of Leonora Server.

3.10.2 Preparation of a method of working plan (MOWP)

(Part 139 MOS – 11.07(1)(a); Chapter 15; Chapter 16)

Leonora Airport develops a Method of Working Plan (MOWP) for scheduled works unless the:

- works are time-limited works
- aerodrome is closed to aircraft operations during the works and a 14-day written notice period of the impending closure was made
- works are of an emergency nature (to repair unforeseen failure or damage to part of the manoeuvring area, or to remove an obstacle)
- works do not require any restrictions to aircraft operations.

MOWPs are prepared in accordance with the content and sequencing requirements stated in Chapter 16 of the Part 139 MOS.

When preparing a MOWP, and so that the impact of the works is clearly understood, consultations are conducted by the Manager of Works & Services.

The following operators / organisations are consulted:

- 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).

A list of representatives from each operator / organisation listed above, and their contact details, is maintained by the Manual Controller.

Although a MOWP does not require CASA approval, CASA is to be consulted on any safety issues identified in the preparation of the MOWP.

The name, position, and function of each WSO will be recorded in 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

(Part 139 MOS – 11.07(1)(b); 15.02(3)(5); 16.10)

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 the Works Safety Officer.

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
- CASA via e-mail at aerodromes@casa.gov.au

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

- Maintained by: Manual Controller
- Stored securely at: ARO office, Leonora Airport and Digitally on the Shire of Leonora Server

The Manual Controller is responsible for ensuring that all recipients receive the MOWP.

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 the Works Safety Officer with approval of Manager of Works & Services.

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

(Part 139 MOS – 11.07(1)(c))

Leonora Airport is not a controlled aerodrome. N/A

3.10.5 Time-limited works (TLW) or emergency works

(Part 139 MOS – 11.07(1)(d))

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

(Part 139 MOS – 11.07(1)(e))

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

(Part 139 MOS – 11.07(1)(f))

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 the Manual Controller. A copy of the written notice will be retained by the Airport Accountable Manager.

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

(Part 139 MOS – 11.08(2))

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

Individual / position	Responsibilities
Manager of Works & Services	mitigating wildlife hazards
Aerodrome Reporting Officer	monitoring wildlife hazards
Chief Executive Officer	mitigating wildlife hazards

3.11.2 Training of personnel

3.11.2.1 Training for wildlife hazard monitoring and reporting

(Part 139 MOS – 17.07(1)(3))

At Leonora 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 5 years.

The training records of all personnel are kept for a minimum period of three (3) years and are maintained by the Manual Controller and stored securely at the ARO office, Leonora Airport.

3.11.2.2 Training for wildlife hazard mitigation

(Part 139 MOS – 17.07(2)(a)(b)(3))

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: 5 years

The training records of all personnel are kept for a minimum period of five (5) years and are maintained by the Manual Controller and stored securely at the ARO office, Leonora Airport.

3.11.3 Wildlife hazard management plan

(Part 139 MOS – 17.03; 17.04)

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

(Part 139 MOS – 11.08(1)(a); 17.01(3))

Wildlife hazards at Leonora 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 **Daily Serviceability Checklist** and **ARO Daily Diary**.

A record of wildlife strikes is also included in the wildlife strike register in the **Wildlife Incident Folder** which is stored securely at the ARO office, Leonora Airport.

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 the Manual Controller.

Any reported occurrences near the aerodrome not previously recorded are included in the Wildlife Incident register.

To detect changes in wildlife hazards, reported wildlife observations and the wildlife strike register are reviewed every month by the Manual Controller.

3.11.5 Wildlife hazard assessment

(Part 139 MOS – 11.08(1)(b); 17.02(1))

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

The hazard assessment process is completed in accordance with the procedures set out in the aerodrome's **Hazard Report Form.**

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 the ARO and stored securely at the ARO Office.

3.11.6 Wildlife hazard mitigation

(Part 139 MOS – 11.08(1)(c))

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 the SMS Committee.

Wildlife mitigation permissions are controlled by the Shire of Leonora, in association with nominated animal control officers and is managed by the Airport Accountable Manager. Wildlife mitigation permits are stored securely at the CEO office.

3.11.7 Wildlife hazard reporting (AIP, NOTAM, ATC, UNICOM)

(Part 139 MOS – 11.08(1)(d); 17.05(1))

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

(Part 139 MOS – 11.08(1)(e); 17.01(2))

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

Local authority	Contact
Clover Downs Station	Mt Ida Road
Leonora Racecourse	Ross Norrie – 0409 377 386
Braemore Station	Wayne Taylor - 0417965292
Water Corp	Jason – 0427 664 034

Leonora Airport engages with these local authorities to ensure that future land uses and development proposals can be carefully considered.

Where existing land use presents a potential risk, site visits are conducted to discuss aviation safety concerns and possible mitigations to reduce those risks. Regular site visits are

conducted to ensure mitigations are effective. A record of these sites and the frequency of review is recorded in the table below:

Site	Site inspections
Water Corp Re-use site	Quarterly

3.12 Low-visibility operations (LVO)

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

3.12.1 Low-visibility personnel

(Part 139 MOS – 11.17(1)(e)(i)(ii))

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

3.12.1.1 Runway visibility (RV) assessment personnel

(Part 139 MOS – 23.08)

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

3.12.2 Vehicular traffic in low-visibility operations

(Part 139 MOS – 11.17(1)(b))

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

3.12.3 CNS facilities in low-visibility operations

(Part 139 MOS – 11.17(1)(c))

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

3.12.4 Manoeuvring area inspections in low-visibility operations

(Part 139 MOS – 11.17(1)(d))

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

3.12.5 Measuring runway visibility

(Part 139 MOS – 11.17(1)(a); 23.09(c)(iii)(iv))

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

3.12.6 Communicating visibility measurements to ATC or pilots

(Part 139 MOS – 11.17(1)(a))

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

3.12.7 Transmissometers

(Part 139 MOS – 11.17(2))

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

3.12.8 Low-visibility procedures (LVP)

(Part 139 MOS – Chapter 23)

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

3.12.8.1 Specific circumstances for LVP

(Part 139 MOS – 23.02(c)(i))

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

3.12.8.2 Nominated rate of aerodrome movements

(Part 139 MOS – 23.02(c)(ii))

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

(Part 139 MOS – 23.02(c)(iii))

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

3.12.8.4 Control of airside operations

(Part 139 MOS – 23.02(c)(iv))

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

(Part 139 MOS – 23.02(c)(v))

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

(Part 139 MOS – 23.02(c)(vi))

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

3.12.8.7 Securing airside access and preventing entry

(Part 139 MOS – 23.02(c)(vii))

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

3.12.8.8 Alerting of LVP

(Part 139 MOS – 23.02(c)(viii))

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

3.12.8.9 Coordinating LVP activities with ATC

(Part 139 MOS – 23.02(c)(ix))

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

(Part 139 MOS – 23.02(c)(x))

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

3.12.8.11 Protection of areas for ILS

(Part 139 MOS – 23.02(c)(xi))

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

3.12.8.12 Emergency responses during LVP

(Part 139 MOS – 23.02(c)(xii))

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

3.12.8.13 LVP status

(Part 139 MOS – 23.02(c)(xiii))

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

3.12.8.14 Review of low-visibility procedures

(Part 139 MOS – 23.04)

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

(Part 139 MOS – 11.13(e)(i)(ii))

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

Name	Role	Phone number	After-hours phone number
Paul Warner	Manager of Works & Services	0428 376 154	0428 376 154

3.13.2 Aircraft removal – aerodrome operator & aircraft certificate holder

(Part 139 MOS – 11.13(a))

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.

Leonora 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, Leonora 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, Leonora 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 the Aerodrome Reporting Officer.

3.13.3 Notifying aircraft certificate holder

(Part 139 MOS – 11.13(b))

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 the Airport Accountable Manager.

If the certificate of registration is not known to Leonora Airport, details are to be obtained from the pilot, if possible, or if available, from the CASA website via:
https://www.casa.gov.au/aircraft/civil-aircraft-register

3.13.4 Liaising with the ATSB, Defence and ATC

(Part 139 MOS – 11.13(c))

If the disabled aircraft cannot be immediately removed from the movement area, Leonora 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 Leonora 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 Leonora Airport, this notification is expected to occur on the general area frequency should VHF be available on the ground. Once a representative from Leonora 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

(Part 139 MOS – 11.13(d))

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 Leonora Airport, the aircraft operator is required to indemnify Leonora Airport from any adverse consequence resulting from any activities during the recovery process.

Leonora 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)

(Part 139 MOS – 11.09(1); 25.02; 25.03; 25.04)

Although the type and frequency of aircraft operations does not trigger the requirement for a safety management system, an SMS that meets the requirements of section 25.03 of the Part 139 MOS has been prepared and implemented. The SMS is maintained by the Manual Controller and available at the ARO office.

3.14.2 Risk management plan

(Part 139 MOS – 11.09(2); Chapter 26)

Although the type and frequency of aircraft operations triggers the requirement for a risk management plan, an SMS that meets the requirements of section 25.03 of the Part 139 MOS has been prepared and implemented.

4 Aerodrome Emergency Response

4.1 Emergency response personnel

(Part 139 MOS – 11.12(2)(a)-(e))

The following individuals or positions have responsibilities in an aerodrome emergency response:

Individuals / positions	Responsibilities
Manual Controller	Maintaining aerodrome emergency response procedures
Ty Matson	Notifying procedures to initiate an emergency response
Paul Warner	Initiating emergency response actions by aerodrome personnel
Paul Warner	Returning the aerodrome to operational status after an emergency
LEMC	Reviewing the aerodrome emergency plan

4.2 Aerodrome emergency response

(Part 139 MOS – 11.12; Chapter 24)

4.2.1 Aerodrome emergency plan (AEP)

(Part 139 MOS – Chapter 24)

The type and frequency of aircraft operations at Leonora Airport does not trigger the requirement for an aerodrome emergency plan; however an AEP that meets the requirements of Section 24.02 of the Part 139 MOS has been established and implemented.

The AEP is a subsidiary document to this manual and is readily available at the ARO office.

4.2.2 Local / state emergency response plan

(Part 139 MOS – Chapter 24)

An AEP has been established and implemented at Leonora Airport; therefore, this subsection is NOT APPLICABLE.

4.3 Aerodrome emergency procedures

4.3.1 Aerodrome emergency committee

(Part 139 MOS – 11.12(1)(a)(i))

The type and frequency of aircraft operations at Leonora Airport does not trigger the requirement for an aerodrome emergency committee.

An aerodrome emergency committee has not been established, however Leonora Airport emergency response is an agenda item at the Leonora Local Emergency Management Committee (LEMC).

The position of each member applicable to Leonora Airport operations on LEMC is recorded in the AEP which is a subsidiary document to this manual.

The LEMC considers the AEP to ensure an appropriate and commensurate response in the event of a real emergency and has been consulted in:

- preparing and maintaining the aerodrome emergency plan; and
- planning the emergency response arrangements, including emergency preparation, testing and exercising the aerodrome's emergency plan.

The LEMC conducts a review of the aerodrome emergency plan following a test, an exercise, a real activation of the plan, or at least once annually.

Records of each review will be retained and filed by the Accountable Manager who will make it available to those who need it.

4.3.2 Emergency service organisations

(Part 139 MOS – 11.12(1)(a)(ii))

Descriptions of the roles of each emergency service organisation involved in the Leonora Airport AEP are recorded in the table below:

Emergency service organisation	Role description
DFES	Fire and Rescue
WA Police	Emergency Controller
St John Ambulance	Emergency ambulance attendance
WA Health	Hospital – Treatment of patients
LEMC	Emergency Management
Department of Communities	Displaced persons
Emergency Response Team -Genesis Minerals Pty Ltd	Emergency Response

4.3.3 Local emergency planning arrangements

(Part 139 MOS – 11.12(1)(a)(iii))

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

- Quarterly meetings of LEMC, incorporating reviews and testing of emergency arrangements.

4.3.4 Notification and initiation of emergency response

(Part 139 MOS – 11.12(1)(a)(iv); 24.04)

Notification of an emergency will be made without delay.

To ensure agencies respond appropriately, it is important that all information known 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: *ARO office*

4.3.5 Activation, control and coordination of emergency responders

(Part 139 MOS – 11.12(1)(a)(v))

Procedures for activation, control and coordination of aerodrome-based emergency responders during the initial stages of an emergency at Leonora Airport are included in the AEP which is a subsidiary document to this manual.

4.3.6 Aerodrome emergency facilities

(Part 139 MOS – 11.12(1)(a)(vi))

The facilities and emergency equipment that are available at Leonora Airport in the event of an emergency are included in the AEP which is a subsidiary document to this manual.

4.3.7 Access and management of assembly areas

(Part 139 MOS – 11.12(1)(a)(vii))

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

Initially controlled by attending ARO, then by the arrival of WA Police, people are managed at the Muster Point in the Terminal Carpark.

4.3.8 Response to a local stand-by event

(Part 139 MOS – 11.12(1)(a)(viii))

The procedures to respond to a local stand-by event are included in the AEP which is a subsidiary document to this manual, as well as described below:

Receive emergency call
Record call details
Call 000 Provide details of; • Aircraft operator and type • Registration • Number of people on board • Dangerous cargo (If any) • Location • ETA • Nature of the Problem
Notify the Air Service Operator if possible
Evacuate airport as required

Open airport access gates
Post a sentry or security guard at the access gates
Obtain a copy of the passenger and freight manifests from ground handling agent
Provide Incident Controller with a manifest
Provide airside escort service to emergency services vehicles
Continue to relay information from pilot or reporting party to Incident Controller
Elevate to full emergency as required
Notify Police of standown
Notify the Air Service Operator of stand down
Attend a de-brief conducted by the Incident Controller immediately following the stand down notification

4.3.9 Initial response to full emergency

(Part 139 MOS – 11.12(1)(a)(ix))

The procedures to respond to a full emergency at, or in the immediate vicinity of the aerodrome, are included in the AEP which is a subsidiary document to this manual, as well as described below:

Receive emergency call
Record call details
Call 000 Provide details of; Aircraft operator and type Registration Number of people on board Dangerous cargo (If any) Location ETA Nature of the Problem
Notify the Air Service Operator if Possible
Evacuate area as required
Open airport access gates
Post a sentry or security guard at the access gates
Obtain a copy of the passenger and freight manifests from ground handling agent
Provide Incident Controller with the manifests
Notify ATSB (Australian Transport Safety Bureau)
Inspect – Mark – Report – Repair – Inspect – Cancel NOTAM

4.4 Readiness of emergency facilities, access points & assembly areas

(Part 139 MOS – 11.12(1)(b))

The arrangements for keeping aerodrome emergency facilities, access points and assembly areas (if any) in a state of readiness are described in the **Daily Serviceability Checks**.

4.5 Emergency responder preparedness

(Part 139 MOS – 11.12(1)(c))

4.5.1 Site inductions for emergency responders

(Part 139 MOS – 11.12(1)(c)(i))

The aerodrome has an aerodrome emergency plan; therefore, this subsection is NOT APPLICABLE.

4.5.2 Emergency response training

(Part 139 MOS – 11.12(1)(c)(ii))

To ensure airport personnel and off-aerodrome responders are adequately trained in responding to an emergency, an initial and ongoing cyclic training programme has been established.

A register of training modules is:

- Maintained by: LEMC Chairperson
- Available at: Shire of Leonora Server

Training records are:

- Maintained by: LEMC Committee
- Available at: Shire of Leonora Server

4.5.3 Emergency exercises

(Part 139 MOS – 11.12(1)(c)(iii))

A full-scale emergency exercise is conducted at intervals not exceeding two (2) years. Partial emergency exercises are held in each intervening year.

Following each exercise, a debrief is held to obtain feedback from volunteers and responding organisations. Records of these reviews are:

- Retained by: Manual Controller/LEMC
- Stored securely at: ARO office and Shire of Leonora Server.

4.6 Post-emergency return to operational status

(Part 139 MOS – 11.12(1)(d))

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 or PANS-OPS)

- 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. Leonora Airport ensures all hazards are identified and appropriately assessed prior to the commencement of restricted operations. In completing this assessment and to ensure the ongoing integrity of CNS and MET equipment, communication navigation and surveillance systems specialists are consulted by: Works Safety Officer.

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)

(Part 139 MOS – 11.12(1)(e); 24.05(2))

The aerodrome emergency plan is to be reviewed:

- following a test or exercise
- after the occurrence of a real emergency that requires activation of the aerodrome emergency plan
- at least once annually.

Documented evidence of each review is:

- Retained by: Manual Controller
- Stored securely at: ARO office

4.8 Monitoring local emergency planning arrangements

(Part 139 MOS – 11.12(1)(e))

The aerodrome has an AEP; therefore, this section is NOT APPLICABLE.

Appendix A. Aerodrome Maps

A1 Site Plan