

Airport Operating Standard

Staging and Storage of Ground Support Equipment and Unit Load Devices





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Introduction

This Standard and the procedures described within may be amended from time to time by Perth Airport Pty Ltd (PAPL) on recommendation of the Perth Airport's Airfield Operations Management Committee (AOMC) in consultation with the Ramp Safety Committee. Any changes and updates to this Standard will be communicated through a distribution of a Perth Airport Notice (PAN) and via the Ramp Safety Committee meeting.

It is the responsibility of each operator to keep informed of any amendments and use the most current version of this Standard, which is available on the Perth Airport's [website](#). For major and significant changes, PAPL will endeavour to provide sufficient notification of changes to aircraft operators and ground handling agents if such changes originated from PAPL. Any changes to this Standard resulting from CASA changes to regulations will be advised by a PAN without prior consultation with the Ramp Safety Committee.

Operators must perform the Airside Services in the most environmentally responsible manner practicable and which otherwise mitigates any harm to the Environment, or risk of any harm being caused to the Environment.

The Standard includes:

- Responsibilities
- Airside Operating Licence
- Equipment Staging Areas
- Equipment Storage Areas
- Ground Power Unit Areas
- Storage of Unit Load Devices (ULDs)
- Incorrect Parking of Equipment
- Securing Equipment
- Maintenance and Repair of Equipment.

The Standard is designed to be read in conjunction with the *Perth Airport Operating Protocol (AOP)* and the following AOS:

- Airside Safety & Driving
- Aircraft Turnaround.

The above documents are available via the Perth Airport [website](#).



Responsibilities

Perth Airport Pty Ltd

PAPL is responsible for producing this Standard as well as consulting with stakeholders as necessary to determine operating requirements and necessary restrictions.

PAPL's Airfield Operations team has the day-to-day responsibility for implementation of this Standard. PAPL may also close a parking bay when Ground Support Equipment (GSE) has not been removed from the bay prior to the next aircraft's arrival.

Aerodrome Operators

Airside operators are responsible for complying with this Standard and for notifying PAPL of any incidents, near misses or faults.

The operator must ensure:

- That they hold a current Airside Operators License (AOL) with PAPL.
- That only those personnel that are suitably trained and qualified perform operational duties regarding GSE and ULDs.
- All personnel involved in the operation of GSE and ULDs are briefed on their individual responsibilities.
- GSE is marked or branded so that it is clearly identifiable as belonging to the operator.
- That all motorised equipment (excluding equipment that has a motor purely to operate the equipment once in place) holds and displays a current Authority for Use Airside (AUA).
- That personnel operating motorised equipment hold and display a current Authority to Drive Airside (ADA).
- Personnel are instructed on the hazards associated with aircraft movements and aircraft turnarounds.
- Each ULD containing Dangerous Goods which requires a hazard label, must have the label clearly displayed on its exterior, as an indication that Dangerous Goods are contained within the unit.

Airside Operating Licence

There are different types of areas where active and non-active GSE can be staged and/or stored at Perth Airport. Some of these areas are common-use, and some are leased to operators for the exclusive storage of their GSE equipment. Other areas, such as equipment clearance areas, are time limited for the purpose of staging prior to servicing an aircraft.

In all cases, operators are required to have an Airside Operating Licence (AOL) with PAPL. The AOL is an agreement between the operator and PAPL to provide airside services at the Airport. Airside services are defined as activities performed or services delivered airside including (but not limited to) ground handling services, catering, cleaning, refuelling, engineering and transport operations (including the use of vehicles).

Operators must:

- Ensure that its GSE is stored so as not to affect the availability of positions or hinder the movement of passengers and GSE of other operators.
- Not impede the access of other operators to any equipment staging or storage area that they are allocated to use.
- Not use equipment that does not belong to them without the permission from the owner.
- Co-operate with other operators in common use equipment staging and storage areas.
- Comply with any reasonable direction that PAPL staff gives an operator concerning the operators use of an equipment staging and/or storage area.
- Manage the stowage and use of Equipment, and comply with all requirements related to Clearance Areas, in accordance with the applicable Operational Procedures and any lawful direction from PAPL.





Equipment Staging Areas

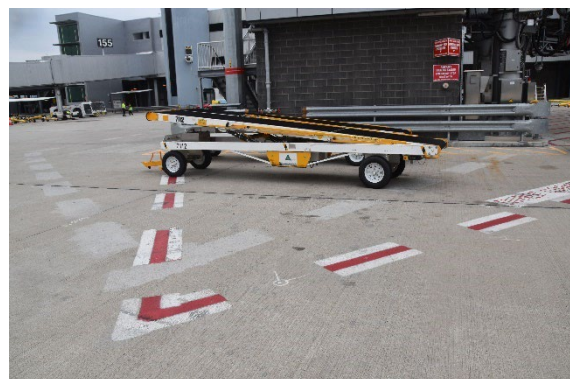
Marking

Designated equipment staging areas are marked in one of two ways:

Equipment Clearance Areas

Equipment clearance areas are defined by a **broken red line (with contrasting white edging either side to aid visibility)**, where vehicles and equipment can be staged.

Equipment may remain within the equipment clearance area unless another ground handler is servicing the next flight, in which case equipment must be removed no later than 45 minutes prior to the next flight.



Equipment Clearance Lines



Equipment clearance lines are broken red lines (dashed) and may be found on the T1 Domestic apron. This line is marked with the aircraft parking position that it is protecting. You must remain behind this line when aircraft are arriving at and departing from the bay indicated on the marking. This line is strictly prohibited for pre-staging GSE unless the operator remains with the equipment at all times.

Staging Requirements

GSE may only be staged in designated equipment clearance areas under the following conditions:

- Where there is more than one airline company, Ground Handling Agent (GHA) or operator utilising a bay over the day, staging of their equipment on the allocated bay may only commence 45 minutes prior to the arrival of the aircraft it is going to service and subject to the bay being vacant of any previous aircraft.
- All equipment should remain within the designated staging areas (i.e., within equipment clearance areas) until the aircraft arrives. However, the use of adjacent bays for positioning of equipment/vehicles may occur subject to bay availability and provided the equipment/vehicle is not left unattended.
- Where there is more than one airline company, GHA or operator utilising a bay over the day, the airline, GHA or operator may negotiate with the Airport Control Centre (ACC) for early staging of the bay on a case-by-case basis only.
- Where there is more than one airline company, GHA or operator utilising a bay over the day, the airline, GHA or operator may negotiate with the ACC for its equipment to remain on the bay, if the next aircraft scheduled on the bay is to be serviced by that airline or GHA.

Please refer to [Appendix A](#) for the locations of multi-user equipment staging and storage areas for Terminal 1.

Equipment Storage Areas

Marking

Operators may leave Active Equipment in areas designated by PAPL as common use equipment areas or “Equipment Storage Areas”. Operators must manage the storage and use of Active Equipment in accordance with the applicable [Operational Procedures](#) and any direction from PAPL. Designated equipment storage areas are marked with a solid red line where GSE vehicles, plant or equipment may be stored. They are provided on most aircraft parking bays, with dedicated off-apron leased storage areas elsewhere.

Ensure brakes are applied and equipment is secured within these areas.

Common use/multi-user equipment storage areas are provided for the parking of GSE typically required for loading/unloading baggage and freight or positioning aircraft such as baggage tugs, belt loaders and pallet loaders.

Typical road vehicles such as passenger vehicles and high-lift trucks are not permitted to be stored in equipment storage areas. These vehicles are to be stored landside or in licensed premises airside. Short term parking/staging of such vehicles is permitted in Equipment Storage Areas, providing the vehicle is required to operate on that bay (with equipment clearance area conditions applicable) and it is not impacting the movement of GSE permitted to park in the area (e.g., tow motors, belt loaders, pallet loaders etc.)

Perth Airport may allocate equipment storage areas to Operators or specific equipment where equipment storage needs to be managed for safe and efficient operations. Please refer to [Appendix A](#) for the locations of allocated equipment staging areas at Terminal 1.

Operators may store, park or maintain equipment at the Airport, but only in an area that is subject to a valid lease, sub-lease or licence with PAPL or a third party and which allows the operator to store, park or maintain their equipment there.

Equipment Storage Areas are not to be used for the storage of an Operators Inactive Equipment at any time (see also [Incorrect Parking of Equipment](#) section).



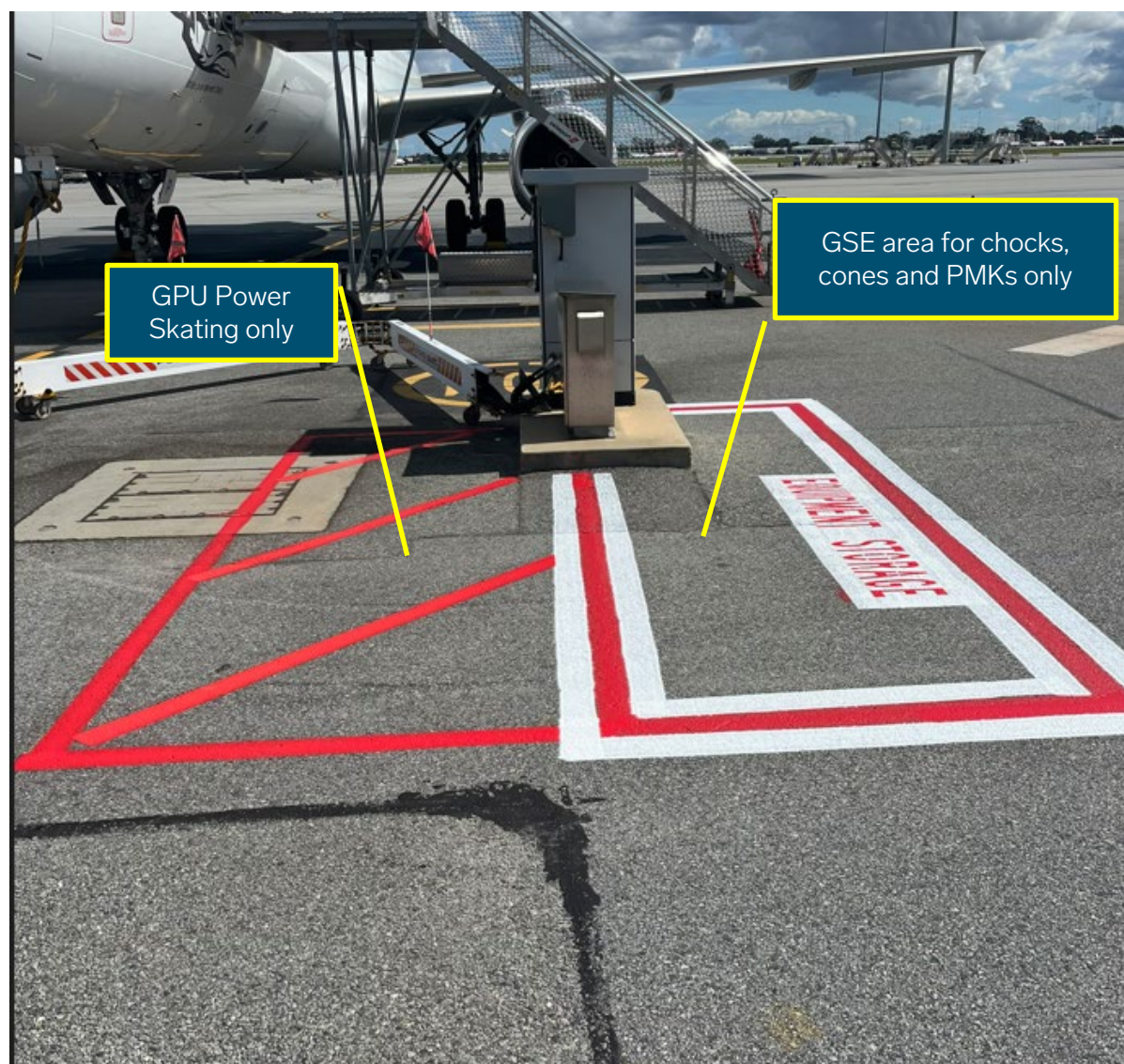


Ground Power Unit Areas

There are two types of designated Ground Power Unit (GPU) marking areas provided at Perth Airport.

Fixed GPU Areas

These areas are located at Bays 201 – 214 at Terminal 2 and marked with a solid red line and red hatches inside and must only be used for the storage of power skates. No other GSE, including chocks, cones, and Passenger Marshalling Kits (PMK), may be placed inside the fixed GPU marked areas. There are designated areas marked as 'Equipment Storage' located next to the fixed GPU marked areas, and these areas can be used for the storage of chocks, cones, or PMKs. Refer to the image below illustrating the usage of these two areas.



Pre-Staged GPU Areas

These dedicated areas are marked with a solid red line, where a mobile GPU may be pre-staged prior to aircraft arrival at Terminals 3/4 (refer to [Appendix B](#)) and other locations noted in [Appendix C](#). A mobile GPU may remain in this area unless it conflicts with other GSE movements during Aircraft Turnaround activities.

On bays 12 and 17, there are two GPU areas provided for narrowbody and widebody aircraft due to apron separation distances required between the aircraft and the GPU. The GPU designated area at Bay 13 can be used for a mobile GPU required to service both narrowbody and widebody aircraft (except B788/789 aircraft types).

Operating Requirements

- Areas marked as 'NARROW BODY GPU ONLY' (or 'GPU ONLY') must be used for pre-staging a GPU to service Code C aircraft (e.g., B737, A320, A321, A319).
- Areas marked as 'WIDE BODY GPU ONLY' must be used for pre-staging a GPU to service Code E aircraft (e.g., A330, B787) with the exception of Bay 13 where the GPU area must not be used for pre-staging a GPU prior to a B787 arrival.
- If a GPU marked area is designed for a narrowbody aircraft, it must not be used for pre-staging a GPU required to service a widebody aircraft (e.g., Bay 12, 14 and 17).
- If there are two GPU areas on a bay designed for both narrowbody and widebody aircraft, the airline or GHA must ensure that a mobile GPU required for narrowbody aircraft is removed prior to the arrival of a Code E/widebody aircraft at that bay.
- No other GSE or supporting equipment should be placed inside GPU marked areas.
- A mobile GPU may be placed in another area on the bay for aircraft servicing in accordance with airline operator procedures and the IATA Ground Operations Manual (IGOM) requirements, but it must not be pre-staged prior to aircraft arrival unless it is located inside the equipment storage area or within the pre-staged area marked by the equipment clearance line.
- For GPU pre-staging within the dedicated GPU marked areas or other area on the bay (as per the previous requirement), the airline/GHA must set parking brake/chock the GPU.

Below are examples of GPU marked areas usage.





Storage of Unit Load Devices (ULDs)

Empty ULDs can be hazardous to passengers, staff, equipment and aircraft when left unsecured.

Because of the high risk of ULDs being blown around, they must always be secured either on a dolly/low profile and within a GSE Area, or within a racking system or on a roller bed within a leased area when not in use.

ULDs must not be stored directly on the ground under any circumstances.

Incorrect Parking of Equipment

If an operator fails to vacate Equipment from a Clearance Area when directed by PAPL to do so or impedes the access of other operators to any Clearance Area, or their use of Equipment in that Clearance Area to perform their services in that Clearance Area, then PAPL may remove, relocate or dispose of that Equipment.

PAPL may charge the operator for the costs of removal, relocation or disposal of that Equipment for which the operator is liable to pay. Such removal, relocation or disposal is at the operator's risk and PAPL will not be liable for any costs (including damage to Equipment, removal, storage or disposal fees) associated with it.

Incorrectly parked equipment can be reported to the ACC on [\(+61\) 8 9478 8572](tel:+61894788572).



Securing Equipment

Operating Requirements

All GSE should be secured when parked on the apron.

Rolling stock, such as dollies or barrows, must have some form of braking system or chocks applied when they are detached from a tug. An automatic braking system to stop rolling stock which has uncoupled during transit is highly recommended.

All ULD's must be secured on dollies, low profiles, roller beds or racking. ULD's are not to be left unsecured on the ground under any circumstances and any found will be removed at the Operators cost.

When parked, high lift vehicles and mobile stairs must have their stabiliser legs lowered.

In anticipation of strong wind conditions, where wind (including gusts) greater than 40 knots (74km/h) are forecast, the following should occur:

- Equipment such as mobile stairs, Disabled People Loader (DPL) and maintenance stands should be laid on their side, hitched together or relocated to an area away from aircraft & airport infrastructure (if possible)
- High lift vehicles lowered and stabilisers deployed
- Mobile stairs lowered with stabilisers deployed
- Dollies with containers loaded on them should have the park brake set, where fitted. If a park brake is not fitted, dollies should either be chocked or connected in a train with at least one dolly chocked if not connected to a tug that has its brakes applied
- Empty ULD's must have the curtain closed and secured
- Airside drivers transporting dollies loaded with empty containers should use extra caution during strong winds conditions. The minimum distance within an aircraft they are not servicing must be adhered to:
 - 15 metres within a refuelling aircraft (except when travelling on a marked airside road)
 - 3 metres when not being refuelled.

Tie Down Blocks

Concrete tie-down blocks are designed and engineered to withstand the harsh weather conditions and the dangerous uplift of high wind speeds.

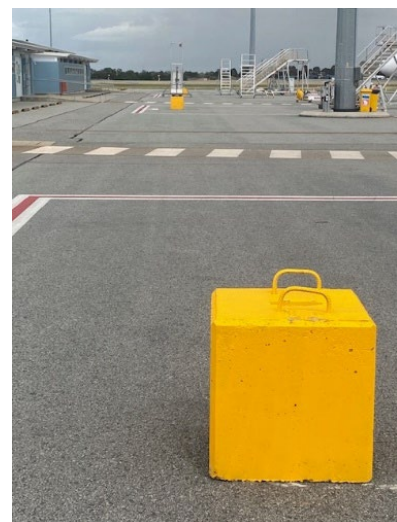
Reinforced concrete can withstand high winds and protect GSE, vehicles, aircraft, buildings and structures from damage and people from injuries.

PAPL provides concrete tie down blocks throughout the Airport to assist operators in securing their equipment, however they are not available in all locations. In these situations, the operator is to ensure the equipment is secure by use of other means.

Operators should also monitor weather forecasts and ensure equipment is secure ahead of strong wind forecasts (not necessarily a wind warning).

When using the provided tie down blocks, the operator is responsible in selecting an appropriate tether for the equipment to be secured and that the selected tethering method complies with the Work Health and Safety (WHS) regulations, ensuring that it is visible and clear from trip hazards.

Concrete tie-down blocks must be painted [reflective yellow](#), regardless of who supplied them.



Clear access must be maintained around all electrical distribution boards when installing or positioning concrete tie-down blocks in their vicinity. A minimum of 1.0 m of unobstructed clearance must be provided in front of the board at all times. Additional clearance requirements may apply depending on the configuration of the electrical installation. For further information, refer to *AS/NZS 3000:2018 – Electrical Installations (Australian/New Zealand Wiring Rules)*.

Storage & Handling of Engine Oil

Aircraft engine oils and other similar substances must be stored in the provided oil storage cabinets and comply with storage and handling requirements of the Safety Data Sheet (SDS) and the Australian Standard *AS 1940:2017 (incorporating amendments 1:2019 and 2:2021) – The storage and handling of flammable and combustible liquids*.

Oil cans must not be stored on top of the oil cabinets.





Maintenance

Maintenance and Repair of Equipment

Operators must ensure that all of their Equipment is safe when properly used and is maintained in good working order at all times.

Maintenance and repair of equipment is only to be carried out in an operator's Proprietary Area, designated workshop or offsite from the airport. The only exception to this requirement is if an operator's equipment breaks down on the Apron and repairs are a genuine attempt to return it to service immediately. If it is not possible to return the equipment to service then it must be immediately removed from the Apron to a Proprietary Area, designated workshop or offsite from the Airport.

Definitions & Acronyms

Term	Definition
Active Equipment	Any Equipment that is: (a) necessary for the Licensee to perform Airside Services (b) is in current and regular use by the Operator; and (c) is owned or leased by the Operator, or validly used by the Operator or the Operator's personnel in accordance with any Usage Agreement, but does not include Equipment that is Inactive Equipment
Airfield Duty Manager (ADM)	Perth Airport employee responsible for airfield safety including oversight of the airfield, Airport Operations Officers (AOO) and Works Safety Officers (WSO).
Airside services	Activities performed or services delivered airside including, but not limited to, ground handling services, catering, cleaning, refuelling, engineering and transport operations (including the use of vehicles).
Disabled People Loader (DPL)	GSE designed to assist people with mobility issues to board/disembark aircraft parked on a stand-off bay without the need to use stairs.
Equipment Clearance (Staging) Area	A designated area where equipment can be staged prior to the arrival or departure of an aircraft. Defined by a broken white/red/white line.
Ground Power Unit (GPU)	Either a fixed or mobile unit which can be connected to the electrical system of an aircraft while on the ground to provide either 120V AC or 28V DC power.
Equipment Storage Area	A designated area where equipment can be stored for a longer period, not related to aircraft activity.
Ground Support Equipment (GSE)	Equipment that is owned, leased or licensed and operated by an airside operator for the servicing of an aircraft. GSE includes, but is not limited to, container loading vehicles, belt loaders, high lift trucks, cabin cleaning vehicles, refuelling vehicles, toilet trucks, water trucks, container dollies, tow bars, mobile stairs, push-back tugs, baggage tugs, baggage scanners, ground power units, catering vehicles, engineering service vans and rolling stock, as well as non-motorised equipment such as ladders, steps and tow bars.
Inactive Equipment	Any Equipment the Operator owns or leases, or uses in accordance with any Usage Agreement, that: (a) is not in current and regular use by the Operator. (b) is surplus to the Operator's current operational requirements. (c) is redundant, ceases to function, is broken down or in a state of disrepair. (d) prevents the efficient use of the shared infrastructure of the Airport (by its location, condition or otherwise); or (e) PAPL deems to be Inactive Equipment.
Perth Airport Notice (PAN)	A notice issued by PAPL to communicate temporary or permanent changes to airport operations, services or facilities, or other information relevant to airport stakeholders.
Unit Load Device (ULD)	A pallet or container used to consolidate loads onto a widebody aircraft.



Further Enquiries, Contacts & Emergencies

Further Enquiries

If you have any questions in relation to this Standard, please contact:

General Manager Operations
Perth Airport Pty Ltd
PO Box 6
Cloverdale, Western Australia, 6985

Phone: (+61) 8 6278 8325

For proposed changes or enquiries relating to this Standard, please email document.controller@perthairport.com.au.

Changes will be considered by the Ramp Safety Committee and Airfield Operations Management Committee.

Important Contacts

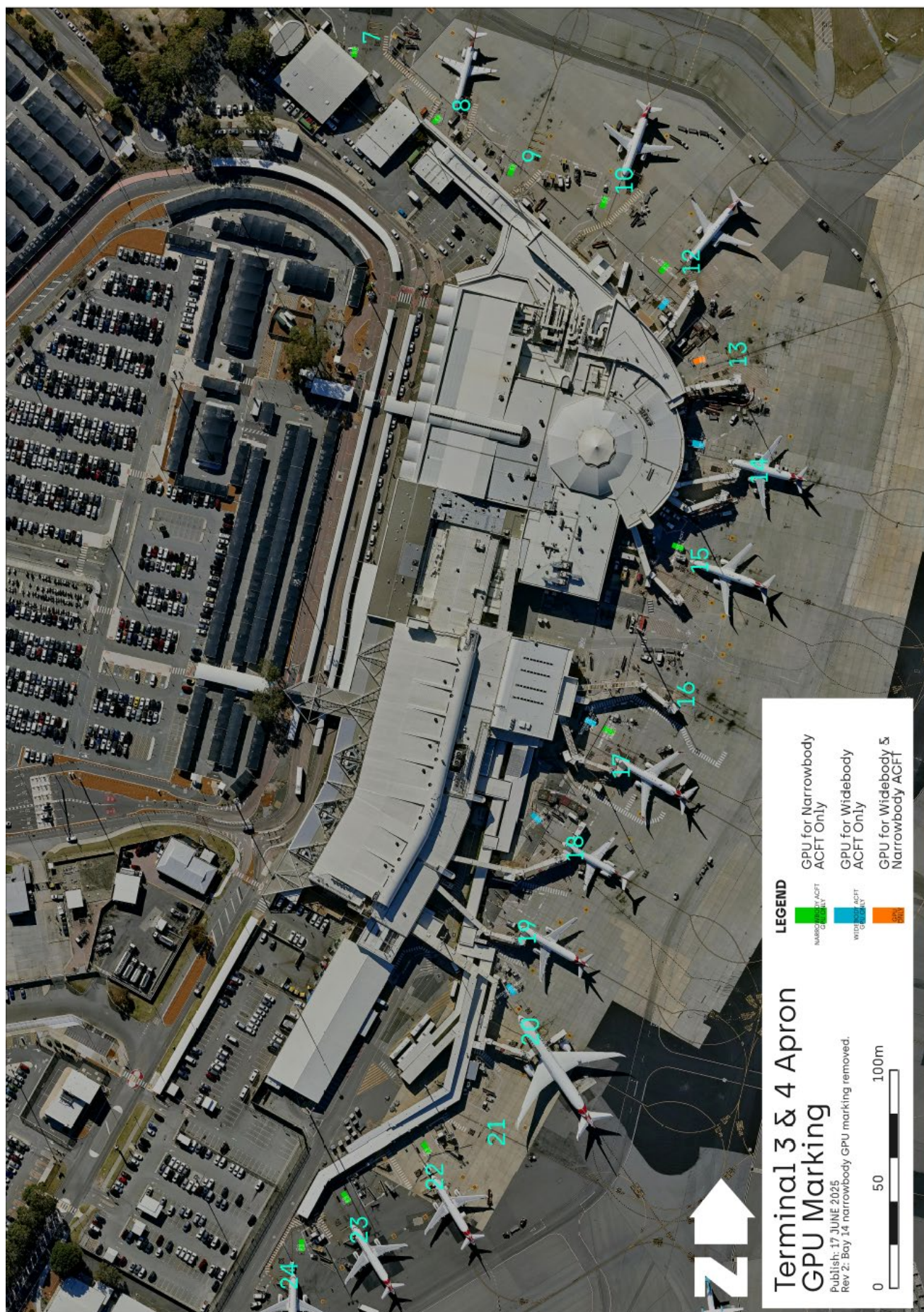
Airport Control Centre.....	Phone: (+61) 8 9478 8572
Head of Airfield Operations.....	Phone: (+61) 8 9478 8441
.....	Mobile: (+61) 407 087 360
Airfield Duty Manager (ADM)	Phone: (+61) 8 9478 8424
.....	Mobile: (+61) 8 419 195 790

Emergencies

In case of a life-threatening emergency contact 000 first, then the ACC on (+61) 8 9478 8500.

Appendix A Terminal 1 GSE Map





Appendix C GPU Pre-Staging Areas

Bay	Operational Requirements	Restrictions
NA1 (Network Aviation)	Refer to Apron Plan	GPU must be staged inside marked area to ensure apron separation distances
NA2 (Network Aviation)	Refer to Apron Plan	
NA6 (Network Aviation)	Refer to Apron Plan	
NA7 (Network Aviation)	Refer to Apron Plan	
NA8 (Network Aviation)	Refer to Apron Plan	
505	Refer to Apron Plan	
506	Refer to Apron Plan	
507	Refer to Apron Plan	
508	Refer to Apron Plan	

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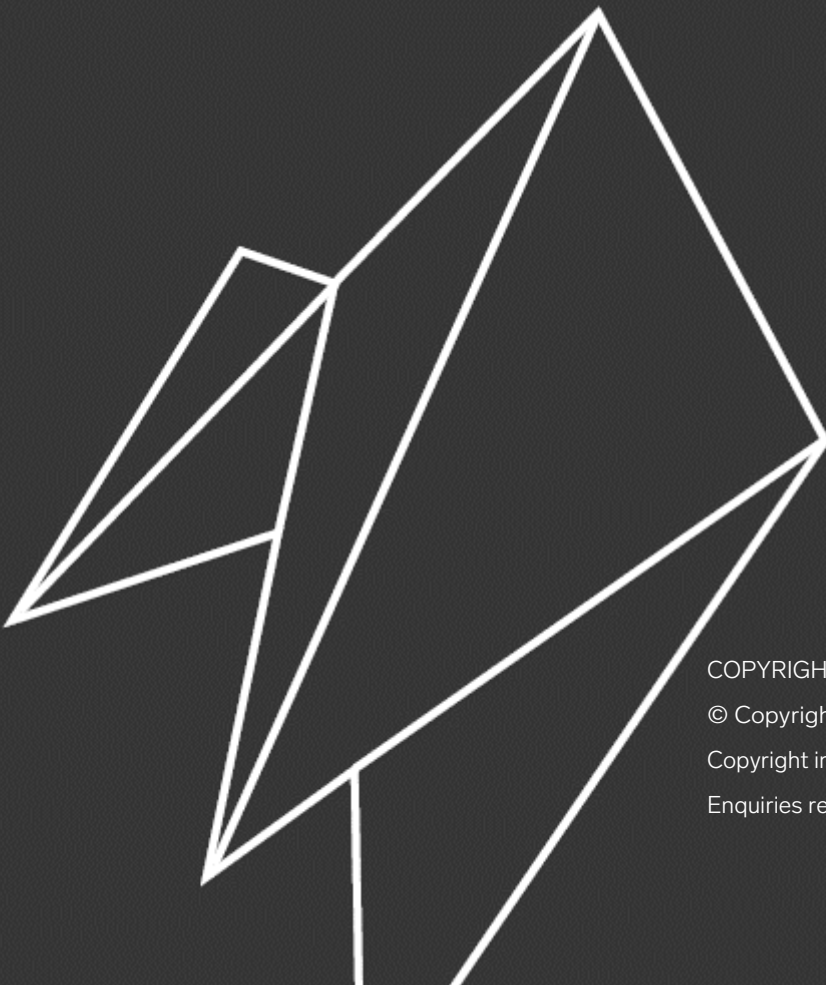
Perth Airport Pty Ltd

Level 2, 2 George Wiencke Drive Perth Airport WA 6105

PO Box 6, Cloverdale WA 6985

Phone: 61 8 9478 8888

Website: perthairport.com.au



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