Australian Government
Civil Aviation Safety Authority

ADVISORY CIRCULAR
AC 139.C-14 v1.0

Airside vehicle control

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Advisory Circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.

Advisory Circulars should always be read in conjunction with the relevant regulations.

Audience

This advisory circular (AC) applies to:

- All airport users
- Aerodrome operators
- Air Traffic Control
- Airlines and ground handling agencies
- Aviation Rescue and Fire Fighting

Purpose

The purpose of this AC is to provide guidance to efficiently manage airside vehicle operations at all aerodromes. Aerodrome operators may devise procedures commensurate to their operating environment considering the information provided in this document. Aerodrome operators should use the guidance offered in this circular to inform their decision-making process in meeting the requirements of the Part 139 of the Civil Aviation Safety Regulation, and Part 139 Manual of Standards (MOS).

Operators should always consider the context of their own current and future operational environment, and the operational needs of pilots, aircraft operators and associated stakeholders, including but not limited to size and complexity.

It is important to note that this guidance does not create or permit deviations from regulatory requirements.

For further information

For further information, contact CASA's Personnel Licensing, Aerospace and Air Navigation Standards (telephone 131 757).

Unless specified otherwise, all subregulations, regulations, divisions, subparts and parts referenced in this AC are references to the *Civil Aviation Safety Regulations 1998 (CASR)*.

Status

This version of the AC is approved by the Manager, Flight Standards Branch.

Version	Date	Details
v1.0	June 2023	Initial AC.

Contents

1 Reference material

1.1 Acronyms

The acronyms and abbreviations used in this AC are listed in the table below.

Acronym	Description
AC	Advisory Circular
ADP	Airside Driver Permit
AIP	Aeronautical Information Publication
ATC	Air Traffic Control
ATS	Air Traffic Service
ATSB	Australian Transport Safety Bureau
CAR	*Civil Aviation Regulations 1988*
CASA	Civil Aviation Safety Authority
CASR	*Civil Aviation Safety Regulations 1998*
CTAF	Common Traffic Advisory Frequency
ICAO	International Civil Aviation Organization
MOS	Manual of Standards
PANS	Procedures for Air Navigation Services
RMP	Risk Management Plan
SMS	Safety Management System
TSIR	Transport Safety Investigation Regulations, 2021

1.2 Definitions

Terms that have specific meaning within this AC are defined in the table below. Where definitions from the civil aviation legislation have been reproduced for ease of reference, these are identified by 'grey shading'. Should there be a discrepancy between a definition given in this AC and the civil aviation legislation, the definition in the legislation prevails.

Term	Definition
aircraft movement	means one of the following: a. the landing of an aircraft at an aerodrome b. the take-off of an aircraft from an aerodrome a. a touch-and-go manoeuvre of an aircraft at an aerodrome.
aircraft movements	when referred to numerically for an aerodrome, for a financial year, means the numbers of aircraft movements at the aerodrome during the financial year, as compiled by the aerodrome operator or the ATS provider.
airside	means the following areas, access to which is restricted by the aerodrome operator, or by a Federal or State authority, to authorised persons only:

Term	Definition
	(a) the movement area of the aerodrome; (b) where their purpose and use is to directly support aircraft operations — the terrain and buildings adjacent to the movement area, or particular portions of such adjacent terrain and buildings. Note: The word “landside” is used colloquially to denote areas of an aerodrome that are not airside, for example, passenger terminals.
airside driver	means a person who drives or operates an airside vehicle
airside vehicle	means a vehicle, including equipment that is mobile under its own power, that is operated airside under the authorisation of the aerodrome operator.
air transport operation	has the same meaning as in clause 3 of Part 2 of the CASR Dictionary: (1) An air transport operation is a passenger transport operation, a cargo transport operation or a medical transport operation, that: (a) is conducted for hire or reward; or (b) is prescribed by an instrument issued under regulation 201.025. (2) Despite subclause (1), an air transport operation does not include an aerial work operation or a balloon transport operation.
air transport passenger movement numbers	for an aerodrome, for a financial year, means the numbers, published by the Department, of air transport passenger movements at the aerodrome during the financial year, and any reference to air transport passenger movements is a reference to the movements compiled in these numbers.
manoeuvring area	means that part of the aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.
movement area	means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the aprons
NOTAM	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.
Obstacles	means fixed (whether temporarily or permanently) and mobile objects, structures, and parts of such objects and structures, that: (a) are located on an area provided for the surface movement of aircraft; or (b) extend above a defined surface designated to protect aircraft in flight; or (c) stand outside the defined surfaces mentioned in paragraphs (a) and (b) and that have been assessed as being a hazard to air navigation

1.3 References

Legislation

Legislation is available on the Federal Register of Legislation website https://www.legislation.gov.au/

Document	Title
Part 139 of CASR 1998	Aerodromes
Part 139 (Aerodromes) Manual of Standards MOS	Aerodromes

Document	Title
Part 64 of CASR 1998	Authorisations for non-licensed personnel
Part 91 of CASR 1998	General operating and flight rules
Privacy Act 1988	Privacy Act

International Civil Aviation Organization documents

International Civil Aviation Organization (ICAO) documents are available for purchase from http://store1.icao.int/

Many ICAO documents are also available for reading, but not purchase or downloading, from the ICAO eLibrary (https://elibrary.icao.int/home).

Document	Title
International Civil Aviation Organisation (ICAO) Annex 14	Aerodromes, Vol 1 (Aerodrome Design and Operations)
ICAO Doc 9981	PANS - Aerodromes

Advisory material

CASA's advisory material is available at https://www.casa.gov.au/resources-and-education/publications-and-resources/guidance-material

Document	Title
AC 139.C-01	Aerodrome Manual
AC 139.C-26	Safety management systems for aerodromes
AC 139.C-27	Risk management plans for aerodromes
	Sample aerodrome manual template for Part 139 of CASR

2 Introduction

Airside vehicles are an essential part of airside operations, as vehicles (including mobile plant and equipment) are used by personnel executing activities to support aircraft ground services, passenger services and aerodrome operations. Generally, these vehicles are operated by personnel working for or on behalf of aircraft operators, aircraft ground handling and maintenance organisations, aerodrome operators and other service providers functioning on the airside of the aerodrome.

Airside vehicles are operated by persons deemed suitably competent to drive within the boundary of the aerodrome, known as airside drivers. Airside drivers are those people who drive or operate a vehicle or self-propelled ground servicing equipment (also known as plant) within the airside boundary of an aerodrome, including aircraft parking aprons, aircraft maintenance areas, and the manoeuvring area.

Airside drivers play a fundamental role in airside safety at all aerodromes. Hence their operating protocols and practices need to follow standardised procedures developed by the aerodrome operator that are commensurate with the local operating environment.

Typically, airside drivers face more complex and challenging situations in airside operating environments than they may in other operating environments. Aerodrome configurations, including apron types, types of activities performed on the apron, type of vehicles used, and mix of traffic (including aircraft, ground vehicles and equipment), all add to the complexity of airside vehicle operations.

Each aerodrome has a unique combination of movement areas, terminal precinct layout and features that may present challenges to airside drivers. For instance, an aerodrome may have taxiways that lead to a runway situated in close proximity to an apron, leading to the risk of airside drivers inadvertently operating on the manoeuvring area without appropriate situational awareness. Similarly, an apron may have an aircraft stand taxi lane, that dissects the aircraft parking positions on both sides, where airside drivers may have opportunities to interact with moving aircraft.

Furthermore, the types of vehicles used, and their operational usage is likely to vary significantly commensurate with the services offered at the aerodrome. These differences also make airside driving more complex. For instance, an aircraft push-back or tow tractor operates close to moving aircraft while a fuel tanker, which is larger in size and more difficult to manoeuvre, operates close to stationary aircraft.

Each of these factors existing in isolation, or in combination, can make airside vehicle operations a source of hazards that can potentially affect the safe movement of aircraft or their supporting operations, airport operations and those working at the aerodrome.

To mitigate the risks associated with airside vehicle operations, aerodrome operators should, through their safety management system or risk management plan, consider developing localised procedures and safety measures. The mitigation measures should, as far as reasonably practicable, identify and implement controls designed to reduce risks in the airside operating environment, without introducing additional hazards. Also, appropriate oversight and surveillance mechanisms may be introduced to ensure continued compliance with procedures and risk mitigation measures.

Aerodromes with more than 350,000 air transport passenger movements or more than 100,000 aircraft movements, in a financial year (refer to Chapter 14 of the Part 139 MOS) are required to:

a. Establish a permit system for the airside operation of airside vehicles.
b. Verify the competency of all airside drivers.
c. Actively monitor airside drivers for possession of a licence and compliance with established driving rules.

Risk mitigation programs developed by an aerodrome operator may include:

a. Airside driver training and subsequent issuance of an airside driving permit, licence, or authorisation.
b. Airside vehicle permits, and vehicle condition and maintenance requirements.
c. Documented airside driving rules.
d. Processes for the monitoring of driving standards and initiating remedial actions.

Section 11.14 of the Part 139 MOS requires airside vehicle control procedures, where established, to be included in the aerodrome manual. Detailed guidance on the content of the aerodrome manual is contained in the '*Sample aerodrome manual template for Part 139 of CASR'* of the Part 139 MOS and, if aerodrome operators use the Manual Assessment and Authoring Tool (MAAT) to develop and maintain their manual, templates are also provided in the MAAT.

Procedures and risk mitigation programs associated with an aerodrome operator’s airside vehicle control program should be included or linked to the aerodrome manual and, where appropriate, Safety Management System or Risk Management Plan.

3 Airside vehicle and driver requirements

3.1 Airside driver training

3.1.1 Implementing a robust airside driver training program is an effective mitigation measure to control the risks associated with airside vehicle operations.

3.1.2 The objective of an airside driver training program is to set out requirements and guidance to minimise the risk of accidents and injury to persons, as well as damage to aircraft and property, arising from the use of vehicles in airside areas.

3.1.3 An airside driver training program should be commensurate with the size and complexity of airside operations in an aerodrome.

3.1.4 The aerodrome operator should determine the competency requirements and vehicle requirements for each organisation's airside driving needs, and document those requirements. Airside driver training, or airside driver familiarisation, may be provided by the aerodrome operator, ground handling operator, or an authorised third party. Further information about airside driver competencies can be found on the 'Training.gov.au' website, at:

AVIO0020 - Monitor airside access and airside driving.

3.1.5 For aerodromes with scheduled air transport operations, an airside driver must be trained to know and understand the following: (refer to Chapter 14 of the Part 139 MOS):

a. Terminology used to describe movement area as outlined in the Aeronautical Information Publication (AIP).
b. Purpose and location of all airside areas.
c. Hazardous and prohibited airside areas.
d. Significance and meaning of aerodrome visual aids, signs, markings, and aerodrome ground lights.

3.1.6 For aerodromes with no scheduled air transport operations; a driver induction program may substitute formal training, provided that points (a)-(d) in paragraph 3.1.5 are covered in the induction. Refer to Section 3.6 of this AC for more information, and to Appendix D for further information about airside driver induction considerations.

3.1.7 Under Section 14.03(5) of the Part 139 MOS, an airside driver required to use a radio when operating on a runway strip, a runway, a taxiway strip or a taxiway must hold an aeronautical radio operators' certificate issued under Part 64, or equivalent licence, to use an aeronautical radio. The relevant radio frequency must be monitored at all times when on the manoeuvring area.

Note: A person is prohibited from transmitting on a radio frequency of a kind used for the purpose of ensuring the safety of air navigation unless the person is qualified to do so (refer 91.625 of the CASR 1998).

3.1.8 An airside driver training program may also include:

a. Radiotelephony operating procedures, including verification of any certificates or licences required to use aeronautical radios, as required.
b. Airside operating rules and procedures.

c. Emergency procedures (e.g., accidents or vehicle breakdown).
d. Right-of-way requirements, etc.

Note: Refer Appendix 1 for a comprehensive airside driver training framework.

3.1.9 As a further resource, the Department of Employment and Workplace Relations offers information on how people can achieve competence in airside driving. Training information on the following topics may be viewed at 'Training.gov.au' website, as amended from time to time:

a. AVIC4002 - Administer airside driving
b. AVIO0020 - Monitor airside access and airside driving.

3.1.10 Depending on the scale and complexity of the aerodrome and the individual operational requirements of the respective drivers, the training program may be adjusted for local applications.

3.1.11 Where required under section 3.1.5, an aerodrome operator verifying the competency of all airside vehicle drivers should develop such competency checks to include:

a. Vehicle operation in the context of airside driving, including any licences or permits required to use nominated vehicle types.
b. Ability to navigate on the airside and locate different zones.
c. Where required and when requested, the ability to operate radiotelephony equipment.

3.1.12 A competency verification may vary according to the type of vehicle, operation and aerodrome location assessed.

3.2 Airside driver permit

3.2.1 An aerodrome operator may introduce a system of issuing dedicated airside driving licences, permits or authorisations to permit or qualify drivers to operate airside vehicles. Typically, an airside driver is also required to hold a valid State or Territory driver’s licence.

3.2.2 An airside driver permit scheme should be appropriate for the size and complexity of airport operations, and the aerodrome operator should include all relevant procedures in the aerodrome manual.

3.2.3 For complex, busy or large aerodromes, a permit scheme may be categorised into multiple specific airside areas such as roads and aprons, manoeuvring areas excluding runways, manoeuvring areas including runways, or location based. An airside driver's permit would vary according to the type and location of airside access permitted, as established by the aerodrome operator when addressing the requests and needs of each driver's organisation. (Refer to Appendix 1 for airside driver competency framework).

3.2.4 A permit system to operate in certain airside areas may allow a driver to operate on aprons and airside roads. Apron edge taxiways and apron taxi lanes may or may not be included in this level of permit or authority. Unless otherwise specified, or the driver is

escorted by an appropriately qualified person, an airside driver's permit should expressly not permit operations on manoeuvring areas such as taxiways and runways.

3.2.5 A permit for operating in manoeuvring areas may explicitly state whether a driver is permitted to operate on a runway or within the runway strip. No driver should be permitted to operate a vehicle on a runway without prior approval from the aerodrome operator, and entry to the runway should be strictly in accordance with the conditions set by the aerodrome operator. Where ATC is operational, any conditions and instructions from ATC must also be followed.

3.2.6 When using a vehicle at a controlled aerodrome, and when ATC is operating, airside ground vehicles operating on runways, runway strips, taxiways, and taxiway strips, must be equipped with at least one aeronautical VHF receiver capable of monitoring the ATC frequency (refer to Chapter 14 of the Part 139 MOS). Drivers should be made aware that ATC may use a signal light to control vehicle entry in the event of a suspected vehicle radio failure.

3.2.7 At controlled aerodromes (including ATC operational and non-operational hours) and at uncontrolled aerodromes, an operator of an airside vehicle transmitting on aeronautical frequencies published in the AIP or NOTAM, as directed by ATC, should:

a. Hold a flight crew licence or be certified under Part 64 of CASR 1998 for use of radiocommunication equipment.
b. Monitor relevant radio frequencies at all times when operating on the manoeuvring area (refer to Chapter 14 of the Part 139 MOS).

3.2.8 At uncontrolled aerodromes, or aerodromes when ATC is not operational, persons operating an airside vehicle on the manoeuvring area should maintain a radio listening watch and monitor the Common Traffic Advisory Frequency (CTAF), or other relevant aeronautical radio frequency.

3.2.9 Where an aerodrome does not meet the requisite number of passenger or aircraft movements, a categorised driver permit system is not a mandatory requirement. However, procedures should be in place for drivers accessing movement areas, such as monitoring published aeronautical radio frequencies when operating on or adjacent to the manoeuvring area.

3.2.10 It is advisable that airside driver permits have a defined validity period as specified by the aerodrome operator. Conditions for airside driver permit renewal such as refresher training, competence checks, etc. should be documented.

3.2.11 Where an airside driver cannot demonstrate suitable competency to the satisfaction of the aerodrome operator, the person should not be permitted to drive airside unless supervised or until competence can be demonstrated.

3.2.12 An airside driver permit system should include the requirements for a driver to disclose to their employer any change of status to their Territory or State driving licence.

Note: The objective of an airside driver's permit process is not to ascertain whether a person is competent to drive where the person holds a valid State or Territory driver's licence. The purpose of the airside driver's permit process is to ensure the person can operate their vehicle or plant on the movement area of the aerodrome in a safe manner.

3.3 Airside vehicle condition, lighting, and maintenance requirements

3.3.1 Vehicles, including motorised ground equipment, should be maintained in a serviceable condition and be suitable for their intended purpose. Each vehicle, or item of equipment, should be assessed to ensure it is safe for the intended airside environment, and whether special conditions are necessary to ensure safe operations.

3.3.2 Aerodrome operators should incorporate procedures in their aerodrome manual to ensure the safe condition of ground vehicles and equipment operating on the airside of the aerodrome (refer to Section 14.03 of the Part 139 MOS).

3.3.3 Serviceability criteria developed by the aerodrome operator for vehicle condition and ongoing maintenance requirements may include, but are not limited to:

a. Specifications for identifiable lights and markings on the vehicle or equipment.
b. Requirements for use of lights and obstruction lights for low-visibility and night operations.
c. Periodic maintenance as per manufacturer requirements and rectification of faults.
d. Periodic inspections and daily checks by qualified personnel, to ensure suitability of vehicles and equipment to be operated airside.

3.3.4 Vehicles operating on the manoeuvring area, including a runway strip, a runway, a taxiway strip or a taxiway, must be equipped with at least one VHF receiver capable of monitoring the CTAF or ATC aeronautical radio frequencies.

Note: The performance requirements of VHF radio communications and types of mobile communication devices used should be carefully considered. See Appendix C for further information.

3.3.5 Vehicles are to be appropriately lit when operating (refer to Section 14.05 of the Part 139 MOS):

a. Within the movement area at night.
b. When low-visibility procedures are in effect.
c. On the manoeuvring area including runways, runway strips, taxiways, and taxiway strips.

3.3.6 The lighting requirements for an airside vehicle operating at an international aerodrome or an aerodrome with scheduled air transport operations, when operating in the manoeuvring area, include the fitting of a dedicated rotating or flashing light, which must be:

a. Yellow or amber in colour.
b. Flash at the rate of 60-90 flashes per minute.
c. Where possible, have a peak intensity of between 40cd and 400cd.
d. Be placed on top of the vehicle to be visible from all directions unless this is impossible.
e. Under such circumstances, additional flashing lights must be provided to ensure visibility from all directions.
f. This flashing light must be operated whether the vehicle is stationary or moving in the manoeuvring area, including daylight hours.

3.3.7 At aerodromes not servicing scheduled air transport operations, airside vehicles operating in manoeuvring areas during daylight hours do not require a flashing light on top of the vehicle. The use of vehicle manufacturer-fitted vehicle hazard warning lights that conform to Australian standards is considered a suitable alternative.

3.3.8 At any aerodrome, vehicles connected to an aircraft (e.g. towing), including gliders, are exempted from fitting a flashing light on top of the vehicle during daylight hours. However, a condition of this exemption is that standard manufacturer-fitted vehicle hazard warning lights that conform to Australian standards are operated.

3.3.9 Additional lights must be provided on airside vehicles when lights cannot be fitted on top of the vehicle, to ensure visibility from all directions (refer to Section 14.05 of the Part 139 MOS).

3.3.10 Lighting requirements are also exempted on:

a. non-motorised aircraft servicing equipment used only on an apron
b. an airside vehicle or equipment escorted by another vehicle, which escort vehicle is compliant with the aerodrome operator vehicle requirements.

3.4 Airside vehicle permit

3.4.1 For aerodromes with more than 350,000 air transport passenger movements or more than 100,000 aircraft movements, the aerodrome operator must establish a process for issuing permits, or authorisations for ground vehicles and motorised equipment operating within the airside environment (refer to Section 14.02 of the Part 139 MOS).

3.4.2 When issuing vehicle permits, aerodrome operators may specify the conditions that vehicles and equipment should meet. Such conditions may be determined by the aerodrome operator according to local requirements.

3.4.3 Such requirements or conditions can include:

a. Specifications for vehicles used both airside and non-airside to be registered under State or Territory requirements.
b. Procedures for inspecting vehicle/equipment, or a system to ensure vehicle serviceability, prior to issuing permits.
c. Displaying vehicle permits on vehicles or equipment.
d. Conditions or limitations for operations including access to different areas in the airside.
e. Circumstances when a vehicle may not be taken airside at regulated aerodromes (for example, refer to Regulation 123 of the Airport (Control of On-Airport Activities) Regulations 1997)
f. Insurance requirements.

3.4.4 Airside vehicle permits may have a fixed validity as determined by the aerodrome operator. The conditions for renewal should also be established and documented in the aerodrome manual.

3.5 Airside driving rules

3.5.1 Aerodrome operators should establish speed limits for airside vehicles on the movement area and have systems to monitor and enforce traffic rules, including speed limits (refer to Section 14.03 of the Part 139 MOS).

3.5.2 Aerodrome operators may apply different speed limits across different locations within an airside environment. Speed limits may be determined based on the complexity of the location, hazards identified as per local procedures, proximity to aircraft, etc. or as a part of a risk mitigation program.

3.5.3 Aerodrome operators must establish procedures to ensure airside vehicles that are not involved in the servicing of the aircraft are not driven:

a. Underneath an aircraft.
b. Within 3m of lateral clearance or within 1m of overhead clearance of any part of an aircraft (refer to Section 14.03 of the Part 139 MOS).

3.5.4 Aerodrome operators may establish and publish further rules for airside vehicle operations appropriate to their local conditions, including:

a. Keeping left or to the right-hand side of two-way roads, usually the same as local driving rules.
b. Avoiding vehicles being left unattended with engines running in the vicinity of aircraft, to prevent overheating and consequent fires.
c. Having doors and shutters closed on ground vehicles when they are operated airside to reduce injury risks and prevent FOD in the movement area.
d. Specifying an airside driver's responsibility to ensure safe clearance from other aircraft, vehicles or buildings while operating airside vehicles, including any part under tow.
e. Usage of obstruction lights in manoeuvring areas; and movement areas under low-visibility conditions and during the night.
f. Parking restrictions at different airside locations.
g. Giving way to aircraft when under power, about to taxi, being pushed back or under tow at all times.
h. Ensuring right-of-way to emergency vehicles when they are responding to an emergency (i.e., operating under lights and/or sirens).
i. Maintaining a minimum safe distance from operating aircraft to avoid exposure to jet blast, propeller wash or downwash.
j. Where deemed necessary, avoiding the need to reverse a vehicle in movement areas unless necessitated during servicing an aircraft, and using a person external to the vehicle to provide guidance to any reversing vehicle.
k. Prohibitions on the use mobile phones and other electronic devices when driving, in accordance with local State and Territory public road use requirements.

3.5.5 An aerodrome operator may publish more specific traffic rules appropriate to local conditions. Traffic rules are usually published in the aerodrome manual. If traffic rules are published as a separate document, that document should be referenced in the aerodrome manual.

3.5.6 Where available, ATC may be responsible for:

a. Controlling the movement of vehicles in the manoeuvring area.
b. Controlling the movement of taxiing aircraft and aircraft under tow on apron areas, unless arrangements are in place for such activities to occur outside ATC control.
c. Providing pushback clearances at some controlled aerodromes.
d. Providing signal lights to airside drivers where a radio communication failure has occurred.

3.5.7 Any airside driving procedures established by the aerodrome operator are to be included in the aerodrome manual, or subsidiary material. Refer to AC 139.C-01 - Aerodrome manual, for further information.

3.6 Induction training

3.6.1 At an aerodrome without scheduled air transport operations, a driver induction program may be provided by an aerodrome operator where a formal airside driver training program is not practical. The induction training topics should include at least (refer to Section 14.01 of the Part 139 MOS):

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

3.6.2 Two forms of driver induction training may be considered:

a. a full induction program where drivers are permitted to routinely operate on the apron and select portions of the manoeuvring area
b. a specific induction program in cases where drivers are visitors or require short-term access to selected portions of the movement area.

3.6.3 The content of an induction program may vary depending on the nature of aircraft operations at the aerodrome, the nature of airside operational activities the drivers may perform at an aerodrome and the type of vehicles to be used. Some variations may also occur between situations where the aerodrome operator provides the induction training or where the training is provided by third parties engaged or authorised by the aerodrome operator.

3.6.4 Prerequisites that an aerodrome operator may require prior to a driver being eligible for induction may include:

a. State or Territory driver licence currency.
b. State or Territory driver licence endorsement for vehicle type.
c. Minimum age requirements for those using self-propelled ground servicing equipment (also known as plant) where the aerodrome operator has elected to not require State or Territory driver licences to use such equipment.
d. Where applicable, security clearances and identification requirements.
e. A minimum training or education suite the person should undertake as part of the induction. This may include:
    i. A document package of information the driver must read and acknowledge (the information covered in a document package could range from a single page to

a booklet, depending on the range of risk the aerodrome operator is intending to manage through the induction program).

ii. A formal or semi-formal face-to-face induction program where drivers are provided information and can demonstrate knowledge and understanding of airside driving requirements specific to the range of activities the aerodrome operator permits the driver to perform at the aerodrome.

iii. An online package where the driver can access information provided by the aerodrome operator on generic and specific requirements, knowledge and understanding of airside rules the aerodrome operator has determined the driver should be able to demonstrate.

3.6.5 The induction program may be delivered as a stand-alone program to an existing employee or combined with other induction or recurrent training required by the aerodrome operator, such as occupational (workplace) health and safety, security and any other matter deemed necessary by the aerodrome operator.

3.6.6 Information on those drivers successfully inducted by the aerodrome operator or authorised third parties should be recorded by the aerodrome operator through their normal document retention process, within suitable consideration of the *Privacy Act 1988*.

3.6.7 The aerodrome operator should ensure a process to ensure information used for driver induction training, including that used by delegated authorities, is always maintained as accurate and current. (Appendix 2 includes airside driver records to be maintained by aerodrome operators).

3.7 Monitoring driving standards

3.7.1 Operators of larger and busier aerodromes meeting the criteria outlined in Section 2.1.9 of this advisory circular must actively monitor compliance with airside driving requirements (refer to Chapter 14.02 of the Part 139 MOS).

3.7.2 The operators of other aerodromes with light, medium or heavy traffic density (refer to Chapter 3.01 of the Part 139 MOS) that do not meet the requirements of Chapter 14.02 of the Part 139 MOS may also develop driver monitoring standards commensurate with the level of risk identified through the aerodrome's safety management system or risk management plan.

3.7.3 Aerodrome operators may consider various methods to monitor the speed of vehicles on the aerodrome. Speed monitoring devices, traffic speed control strategies and third-party traffic management oversight are options available to ascertain whether vehicles are appropriately operated when on an apron, or the manoeuvring area.

3.7.4 The aerodrome operator, and organisations authorised to use vehicles or equipment in the movement area, are responsible for monitoring vehicle serviceability including periodic vehicle inspections.

3.7.5 Vehicle inspections should generally include:

a. Criteria for the overall vehicle or equipment suitability for intended operations.

b. A system for the recording of faults and corrective maintenance actions.

c. A requirement to check safety equipment including seat belts, restraint devices, first aid and emergency equipment prior to the use of the vehicle.
d. A requirement for operators to ensure vehicles are in good working order and fit for purpose before each use.
e. Daily inspection records, and updating of vehicle logs, etc.

3.7.6 Vehicle inspection criteria are determined by the aerodrome operator and published for awareness among stakeholders as well as referenced in the aerodrome manual to ensure compliance.

3.7.7 The vehicle owner or operator should ensure the availability of:

a. Adequate maintenance facilities.
b. Competent maintenance personnel.

3.7.8 Aerodrome operators should determine suitable procedures to ensure the identification and management of non-compliances with airside driving and vehicle requirements, up to and including the revoking of airside permits for vehicles or drivers.

3.7.9 Where regular non-compliance by airside drivers is identified, the aerodrome operator should also review the driver induction program to ensure it remains fit for purpose.

4 Reporting accidents and incidents

Incidents or accidents leading to property damage or injuries may occasionally occur within an airside environment. An aerodrome operator should investigate such occurrences, consistent with the aerodrome's safety management system or risk management plan, to identify root causes and implement mitigation measures.

At aerodromes with 50,000 or more air transport passenger movements or with 100,000 or more aircraft movements, the aerodrome operator must have a safety management system (SMS) (refer to Chapter 25 of the Part 139 MOS). AC 139-16 - Safety management systems for aerodromes, provides further information.

At aerodromes with 25,000 or more air transport passenger movements or with 20,000 or more aircraft movements, the aerodrome operator must have a risk management plan (RMP), which is used to ensure that aviation safety risks associated with the aerodrome's activities are reduced to a level that is as low as reasonably practicable (refer Chapter 26 of the Part 139 MOS). AC 139.C-27 - Risk management plans for aerodromes, provides further information.

CASA also recommends the implementation of an SMS or RMP at smaller aerodromes that are not directly required by regulation to have such programs, in a manner commensurate with their scope of operations, to help ensure risks related to airside vehicle control are identified, mitigated, and suitably controlled.

Where an aerodrome operator has established an SMS or RMP, the reporting of incidents or accidents, other than those reportable to the Australian Transport Safety Bureau (ATSB) following *Transport Safety Investigation Regulations 2021*, should be in accordance with the aerodrome operator's SMS or RMP.

If a reportable incident involves an aircraft, it must be reported to the ATSB in accordance with *Transport Safety Investigation Regulations 2021*. The aerodrome operator should define procedures to report airside occurrences such as incidents and accidents. The procedure may include staff members or staff positions responsible to receive reports, information to be included in reports, notice to ATC where available, and when reports should be formally submitted through the ATSB's occurrence notification system at https://www.atsb.gov.au/mandatory/asair-form.

Appendix A

Framework for an Airside Vehicle Driver training program

Where required, an airside vehicle driver training program framework should be derived by the aerodrome operator through a training needs analysis. Training may be provided by an aerodrome operator or authorised third party. The training framework should be commensurate with local conditions, operational requirements, and the individual driver's driving scope.

Generally, the training framework is agreed upon between the organisation engaged to train personnel, and the ground vehicle operator, within the requirements specified by the aerodrome operator. The aerodrome operator should also provide induction materials and provide information on the level to which airside drivers should be able to demonstrate competence.

The following table offers the topics that can be included in the airside driving framework. ICAO Doc 9981 Part II Appendix 1 to Chapter 9 offers more comprehensive information on these topics.

Table 1: Framework for an Airside Vehicle Driver training program

Airside roads and aprons — Airside Driving Permits (ADP)	Manoeuvring area — ADP (Both including and excluding Runways) Includes topics from 'Airside Roads and Aprons – ADP' (Column 1)	Manoeuvring area — ADP (Both including and excluding Runways) Radiotelephony
• Airside Driving Permit – Overview • National/State-level licencing requirements • Aerodrome regulations and requirements • Aerodrome geography • Personal responsibilities • Vehicle safety standards • Airside traffic rules • Hazards and safety-related issues • ATC/aerodrome operator roles • Security procedures • Emergency procedures • Penalties for non-compliance • Practical training (including visual familiarisation)	• Air Traffic Services. • Aerodrome geography (with more emphasis on knowledge of the meaning of signs, markings and lighting used in manoeuvring areas. • Nav-Aid equipment, protection zones (ILS-protected areas where applicable), and description of runway strips, cleared and graded areas and taxiway strips). • Hazards and safety-related issues relating to manoeuvring area driving. • Emergency procedures. • Aircraft familiarization. • Practical training.	• Hierarchy of message priority. • Phonetic alphabet (standard pronunciation and using standard phraseologies as per AIP). • Aircraft, ATS and vehicle call signs. • Read-back of clearances and safety-related information. • Readability scale. • Vehicle breakdown procedure. • Radio failure procedure. • Transmitting techniques. • Portable radios. • Certification requirements radio use requirements (Part 61 or Part 64).

Aerodrome operators may perform competency checks, or request competency checks, of airside drivers based on the training framework and the scope of operations requested for the individual driver.

Appendix B

Airside Vehicle Driver record keeping

Note: As personal information is included in Airside Driver Permit Records, requirements of the Privacy Act 1988 and other organisation requirements should be always adhered to.

B.1 Record keeping

A suitable means should be provided for the secure storage of information relating to Airside Driver Permits. The information should include:

a. identification number
b. name
c. date of birth
d. employer or organisation
e. name of training organization
f. name of trainer
g. date of completion of training
h. date of validation
i. assessment results
j. date of revalidation
k. infringement notices
l. type of permit held
m. driving history (accidents/incidents)
n. State or Territory licence checks
o. any required medical evidence
p. copies of self-declarations of fitness or approved declarations by an occupational health practitioner.

The information described above may be kept in any suitable format and should be made readily available for audit purposes.

Appendix C

Radio communication device considerations

Radio communication devices included in this list of considerations include:

- VHF Transceivers
- VHF Transmitter
- VHF Receiver

Note: the user of aeronautical radio communication devices should be appropriately certified under Part 64 of the CASR. This excludes those authorised to transit on published aeronautical radio frequencies under Part 91.625 of the CASR.

Fixed mounted radios are those that are wired into the vehicle electrical systems, and do not source their primary source of power from their own battery. Fixed mounted radios typically offer greater range and advanced functionality.

Handheld radio transceivers are portable devices that can be held in hand or carried in a pocket or bag. Handheld radio transceivers generally receive and transmit for a limited range, but they provide flexibility for use in multiple vehicles or outside of the vehicle altogether. Cradles and other devices fitted to vehicles to provide power and external antenna input may not provide the same range as fixed mounted radios.

Power Source

Fixed-mounted radio transceivers are powered by the vehicle 's electrical system. They are connected to the vehicle 's power supply and do not require their own batteries. Handheld transceivers, on the other hand, are powered by built-in batteries that need to be periodically charged or replaced.

Antenna

Fixed-mounted transceivers have dedicated, externally mounted antennas that are permanently attached to the vehicle. These antennas are optimized for the specific frequencies used in aviation communication. Handheld transceivers have built-in antennas that are typically smaller and less powerful than those used in fixed-mounted units. The range and performance of handheld transceivers may be more limited compared to fixed-mounted units due to the size and design of the antenna.

Functionality and Controls

Fixed-mounted transceivers often have more advanced functionality and controls, larger displays, and more extensive communication capabilities. They may include features such as frequency management, digital communication protocols, and automatic squelch control. Handheld transceivers, while offering essential communication functions, usually have simpler controls and a more compact design.

Regulatory Compliance

Both fixed-mounted and handheld transceivers need to comply with the regulatory requirements of the Australian Media and Communications Authority (ACMA) for aeronautical communication. However, fixed-mounted transceivers are typically subject to more stringent certification and installation standards guidelines. Handheld transceivers may have less onerous certification requirements due to their portable nature.

Appendix D

Airside driver induction considerations

An airside driver induction program is a training program designed to educate drivers who operate vehicles within the movement area of an airport. The induction program aims to ensure that drivers understand the specific terminology, areas, hazards, and visual aids relevant to their operations.

The following outline includes the key components typically included in an airside driver induction program:

- Terminology used to describe the movement area:
  - Runway:
    - A designated surface on which aircraft take off or land.
  - Taxiway:
    - A designated surface used by aircraft for taxiing between the runway and terminal areas.
  - Apron:
    - The area where aircraft are parked, loaded, or unloaded.
  - Runway Holding Position:
    - A designated location where aircraft wait before entering a runway or taxiway.
  - Aircraft parking position / Stand:
    - A parking position for aircraft on the apron, often equipped with ground services.
- Purpose and location of all airside areas:
  - Runway:
    - The primary area for aircraft take-off and landing.
  - Taxiway:
    - Used by aircraft to travel between the runway and terminal areas.
  - Apron/Ramp:
    - The area where aircraft are parked, refuelled, boarded, or unloaded.
  - Hangar:
    - A building where aircraft are stored, maintained, or repaired.
- Hazardous or prohibited areas on the airside:
  - Hotspots:
    - Where hotspots exist, information about locations on the airfield with a higher risk of runway incursions or collision.
  - Safety Zones:
    - Where safety zones exist, information about designated areas around aircraft where specific safety protocols must be followed.
  - Prohibited Areas:
    - Where prohibited areas exit, information about off-limits to unauthorized personnel due to safety or security concerns, such as maintenance areas or restricted zones.
- Significance of aerodrome visual aids and signs:
  - Runway Markings:
    - Painted lines, numbers, and symbols on the runway surface that guide pilots during take-off and landing.
  - Taxiway Markings:
    - Similar to runway markings, these help pilots navigate the taxiways.

- Signage:
  - Where signage has been provided, information about signs placed throughout the airfield that provide direction, information, and warnings to pilots, vehicle operators, and pedestrians.
- Aerodrome Lighting:
  - Where lighting is provided, information about illuminated lights on runways, taxiways, and aprons that enhance visibility during night operations and adverse weather conditions.

The airside driver induction program should ensure that drivers are sufficiently familiar with these elements to maintain safe and efficient operations within the movement area of the airport.

Aerodrome operators should determine the period over which a driver's training remains sufficiently effective to manage their risks and require refresher training as necessary. An aerodrome operator may elect to authorise third parties such as aerodrome-based operators of ground handling or maintenance organisations to deliver airside driver induction and training programs, however training records should be kept by, or be accessible, to the aerodrome operator for all airside drivers.