

Queensland Health

Aeromedical Aviation Standard

Amendments/revisions of this Standard are recorded below in order of most recent first.

Revision	Date	Description
7	September 2021	Amendments to clause 10.2. Helicopter Performance.
6	August 2021	Amendments to clauses 1 Glossary of Terms; 2 Authority; 3 Purpose; 5 Provider Requirements; 5.1 Overview; 5.2 Air Operators Certificate; 5.2.1 Requirement; 5.2.2 Operational Standard; 5.4 Safety Management Systems; 5.4.1 Scope; 5.4.2 Safety Management System; 5.4.4 Incident Reporting, Department Investigation; 5.5 Quality Management System; 5.5.1 Scope; 5.9 Environmental Management; 6.3 Aircraft Continuing Airworthiness Requirements; 6.3.5 Minimum Equipment List; 7.1. Training; 7.1.1 Flight Crew Training – General; 7.3 Operational Control Flight Following; 7.4 Management of Passengers/Patients; 8 Operational Policies and Procedures; 8.4 Flight Preparation and Planning; 8.9 Weight and Balance a) & c); 8.10 Stabilised Approach and No Fault Go Around; 8.10.1 Aeroplanes Policy Elements; 8.10.2 Helicopter Policy Elements a); 8.11 Flight Data Monitoring; 8.12 Side Facing Seats; 9.2 Aeroplane Performance; 9.2.2 Multi Engine aeroplane greater than 5700 Kg; 9.4 Aeroplane Flight Crew; 9.4.2 Flight Crew Composition; 9.5 Minimum Experience and Recency Requirements; 9.5.1 Flight Crew, Pilots table 6,7,8 & 9; 9.5.2 Alternative Flight Crew Recency; 9.7 Aircrew Training; 9.8 Medical Transport Specialists Training; 10 Helicopters; 10.1 Helicopter Types; 10.2 Helicopter Performance; 10.3 Helicopter Equipment; 10.3.1 General; 10.3.2 table 5, 6, & 7; 10.6 Search and Rescue Operations; 10.7 Helicopter Crew; 10.7.2 Flight Crew Composition; 10.8 Minimum Experience Requirements; 10.8.1 Flight Crew Experience table 2, 3, 4 & 5; 10.8.2 Alternate Flight Crew Recency; 10.9 Flight Crew Training; 10.10 Aircrew Training and Recency; 10.11 Medical Transport Specialist Training and Recency.
5	May 2020	Amendment to clause 9.5. Minimum Experience and Recency Requirements, 9.5.1 Pilots, Note 6.
4	June 2019	Amendments to clause 1 Flight Following System; clause 5.4.4 Incidents, Serious Incident; clause 7.3 Operational Control and Flight Following; clause 9.3.2 Aeroplane Equipment – Other than that legally required for the category of operation; and clause 10.1 Helicopter Types; and clarifications to wording in clauses 6.1, 6.3.7, 8.7 and 8.10.2.
3	November 2018	Standard revised to include helicopter operations and name changed from Aero medical Fixed Wing Aviation Standard to Aeromedical Aviation Standard.
2	September 2017	Revised version.
1	October 2015	Original Issue.

Queensland Health Aeromedical Aviation Standard

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1 Glossary of Terms

Terms used in this Aviation Standard are defined below and, if not defined below, are to be given the generally accepted meaning for the term in the Australian aviation industry or, if the term is not defined below but is defined in Aviation Legislation, the meaning given in the relevant Aviation Legislation.

AC	Advisory Circular
AD	Airworthiness Directive
ADF	Automatic Direction Finder
ADS-B	Automatic Dependent Surveillance Broadcast
Aerodrome	A defined area on land intended to be used either wholly or in part for the arrival, departure and surface movement of the aircraft that meets or exceeds the requirements of CAAP 92-2(2) for the Provider's particular aircraft type and is available for use by the Provider after considering the weather conditions at the relevant time.
Aeroplane	A powered flying vehicle with fixed wings and a weight greater than that of the air it displaces.
Aerial Work Certificate	A Part 138 Certificate granted by CASA for the conduct of Aerial Work Operations.
Aerial Work Operations	The provision of Aviation Services categorised under CASR 138 as aerial work in accordance with the Provider's Aerial Work Certificate.
AFM	Aircraft Flight Manual
AGL	Above Ground Level
Agreement	A written agreement made between the Department and an entity pursuant to which the entity agrees to provide Aviation Services, including any standing offer arrangement.
Aircraft	Aircraft means either an aeroplane or a helicopter compliant with this Aviation Standard and the terms of the Agreement.
Aircrew	Aircrew means a crew member of an aircraft (other than a supernumerary crew member) assigned by the Provider with any or the following: <ul style="list-style-type: none"> i. to assist the pilot in the operation of the aircraft; or ii. to supervise or assist a medical, paramedical or rescue crew member in the performance of his or her duties on the aircraft; or iii. to supervise or assist a patient or passenger on an aircraft; or iv. to operate the winch on the helicopter; or v. to supervise rappelling or sling-load operations; or vi. to use the auto-hover system to position/reposition a helicopter via inputs through an auto-hover trim control (crew hover) during winching; or vii. to undertake any other function or activity to operate or assist in the operation of the aircraft or Role Equipment.

Airport	Definition as per Aerodrome but includes international departure and arrivals with customs and immigration facilities.
Air Transport Operations	The provision of Aviation Services for the movement of passengers or cargo in accordance with the Provider's Air Transport Air Operators Certificate (formerly known as Charter Operations).
ALARP	As Low As Reasonably Practicable
AME	Aircraft Maintenance Engineer
AMO	Approved Maintenance Organisation
AOC	Air Operator's Certificate granted by CASA under section 27 of the <i>Civil Aviation Act 1988</i> (Cth), including Operations Specifications attached to and forming part of the certificate.
ASDA	Accelerate Stop Distance Available
ASDR	Accelerate Stop Distance Required
ASETPA	A single engine turbine powered aircraft approved by CASA.
ATPL	Airline Transport Pilots Licence, Aeroplane ATPL(A), Helicopter ATPL(H)
Aviation Standard Departure Request Risk Management (Safety Case) Template	The template in Attachment 1.
Aviation Legislation	The CAA, CAR, CAO, CAAP, CASR and MOS and any other aviation laws, regulations, publications, codes, guidelines or legislation specified by the Department from time to time.
Aviation Personnel	Aviation personnel are personnel involved in or associated with the aviation industry.
Aviation Services	The meaning given in the Agreement.
Aviation Standard	This Queensland Health Aeromedical Aviation Standard.
Board	A Board of Directors – either executive directors, or non-executive directors are individuals elected by the company to represent and advance their interests. Note: These are not Key Personnel as defined by Section 28 of the <i>Civil Aviation Act 1988</i> .
CAA	<i>Civil Aviation Act 1988</i> (Cth)
CAAP	Civil Aviation Advisory Publications as issued by CASA.
CAO	Civil Aviation Order issued by CASA.
CAR	Civil Aviation Regulations 1988 (Cth)
CASA	The Civil Aviation Safety Authority established under section 8 of the <i>Civil Aviation Act 1988</i> (Cth), as renamed or replaced.
CASR	Civil Aviation Safety Regulations 1998 (Cth) or Civil Aviation Safety Amendment Regulations 2018 (Cth).
CCF	Capability Check Flight

CEO	Chief Executive Officer
Change	Within an organisation, includes, but is not limited to, changes to organisational structure, organisational culture changes and changes to operations or business processes.
Charter Operations	Charter operations conducted in accordance with the Provider's Charter AOC.
Chief Engineer	Licensed AME in charge of an AMO.
Class A Standards	The standards required in CAR Part 4A for class-A aircraft.
Clinical Standard	The document titled 'Clinical Standard for Retrieval Services in Queensland' published by the Aeromedical Retrieval and Disaster Management Branch of the Department.
CPL	Commercial Pilot Licence, Aeroplane CPL(A), Helicopter CPL(H)
Crew	All persons required on-board an aircraft forming part of the operating crew for the intended Task, including pilots, aircrew and Medical Transport Specialists.
DAMP	Drug and Alcohol Management Plan
Dangerous Goods	Materials or items with hazardous properties which, if not properly controlled, present a potential hazard to human health and safety, infrastructure and/or their means of transport.
Department	The State of Queensland acting through Queensland Health.
DME	Distance Measuring Equipment
EGPWS	Enhanced Ground Proximity Warning System
ELT	Emergency Locator Transmitter
ESO	Emergency Services Operation
Flight	The flight of an aircraft performed pursuant to an Agreement.
Flight Crew	A crew member who is a pilot assigned to carry out duties essential to the operation of an aircraft during flight time.
Flight Following System	The provision of electronic surveillance and communication systems transmitting the aircraft's current location that are continuously monitored during the progress of the aircraft conducting a flight, provided in accordance with section 6.6 of this Aviation Standard.
Flight Rules	A set of regulations governing all aspects of civil aviation aircraft operations; for example, IFR and VFR. It is also a term used by pilots and controllers to indicate the type of flight plan an aircraft is flying, such as an IFR or VFR flight plan.
GNSS	Global Navigation Satellite Systems
GPS	Global Positioning System

Ground Handling Procedures	Aircraft ground handling procedures defines the servicing of an aircraft and relevant ground handling operations while it is on the ground and (usually) parked at a terminal gate of an Airport or Heliport.
HAAMC	Head of Airworthiness and Aircraft Maintenance Control
Helicopter	A type of aircraft which derives both lift and propulsion from one or more sets of horizontally revolving overhead rotors. It is capable of moving vertically and horizontally, the direction of motion being controlled by the pitch of the rotor blades.
Heliport	An aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters. Variations include: <ul style="list-style-type: none"> i. elevated heliport means a heliport located on a raised structure on land. ii. helideck means a heliport located on a floating or fixed offshore structure. iii. surface level heliport means a heliport located on the ground or on the water.
HF	High Frequency (Radio)
HLS	Helicopter Landing Site: <ul style="list-style-type: none"> i. an area of land or water, or an area on a structure on land, intended for use wholly or partly for the arrival or departure of helicopters; or ii. a helideck; or iii. a Heliport.
Human Factors Training	Human factors training in its widest definition describes training processes designed to optimise the relationship between people and their activities by the systematic application of the human sciences, integrated within the framework of their (aviation) environment.
IFR	Instrument Flight Rules
ILS	Instrument Landing Systems
Instrument Meteorological Conditions (IMC)	Instrument meteorological conditions is an aviation flight category that describes weather conditions that require pilots to fly primarily by reference to instruments, and therefore under IFR, rather than by outside visual references under VFR.
IPC	Instrument Proficiency Check

Key Aviation Personnel	The people (however they are described) that hold, or carry out the duties of, the following positions in the applicant's organisation: (a) the Chief Executive Officer; (b) the head of the flying operations part of the organisation; (c) the head of the aircraft airworthiness and maintenance control part (if any) of the organisation; (d) the head of the training and checking part (if any) of the organisation; (e) Safety Manager; (f) Quality Manager; and (g) any other position prescribed by the regulations.
Key Aviation Position	As defined in Section 28 of the <i>Civil Aviation Act 1988</i> .
Kg	Kilogram
KPI	Key Performance Indicator
LOFT	Line Oriented Flight Training
Maintenance Control Manual	A manual (Maintenance Control Manual) describing how Regulation 42ZV of the CARs, is to be effected.
Maintenance Controller	Regulation 42ZV of the CARs require the certificate of registration holder of a class A aircraft to employ a person to control the maintenance of the aircraft (Maintenance Controller).
Medical Transport Operation (Medical Transport)	(1) A Medical Transport Operation is an operation: (a) the primary purpose of which is to transport one or more of the following: (i) medical patients; (ii) medical personnel; (iii) blood, tissue or organs for transfusion, grafting or transplantation; or (b) of a kind prescribed by the Part 119 Manual of Standards for the purposes of this paragraph; Note: Other medical supplies (including medical equipment and medicines) might also be transported on an aircraft for a medical transport operation. (2) Despite subclause (1), as operation is not a medical transport operation if the operation is of a kind prescribed by the Part 119 Manual of Standards for the purposes of this subclause.
Medical Transport Operating Site	Is a site for conducting a Medical Transport Operation but does not include: (a) an aerodrome that is used as the helicopter operator's base for the helicopter; or (b) a hospital, or other facility, with a purpose-built Heliport.

Medical Transport Specialist	A crew member for a Flight who is tasked with the care of a medical patient or carries out a specified function during the flight relating to a Medical Transport Operation, and who is not: (i) a Flight Crew member for the Flight; or (ii) an Aircrew member for the Flight; or (iii) a passenger; or (iv) a medical patient.
MEL	Minimum Equipment List
MHz	Megahertz
MMEL	The Master Minimum Equipment List (MMEL) is a list established for a particular aircraft type by the organisation responsible for the type design with the approval of the State of Design which identifies items which individually may be unserviceable at the commencement of a flight.
MOS	Manual of Standards as issued by CASA.
MTOW	Maximum Take Off Weight
NDB	Non-Directional Beacon
NVIS	Night Vision Imaging System
OPC	Operator Proficiency Check
Operational Control	The exercise by the Provider of authority over the initiation, continuation, diversion and termination of a flight. The pilot-in-command of the aircraft has the final and ultimate authority over the initiation, continuation, diversion and termination of a flight and for the determination of the acceptability or otherwise of any aspect of the meteorological conditions relating to the flight.
Operational Standards	The standards required of aircraft when performing Charter Operations.
Operations Specification	Operations specification is the regulatory document attached to an AOC defining the approved functions of a Provider.
Patient	Has the meaning given in the Agreement.
PC1	Performance Class 1.
PC2	Performance Class 2.
PC2WE	Performance Class 2 with exposure.
Personnel	Any person or person's performing functions, roles or requirements described in this Aviation Standard in the course of providing any Aviation Services, including any officers, employees, contractors and agents of the Provider.
Provider	An AOC holder engaged directly by the Department or indirectly by an entity that has an Agreement with the Department to provide Aviation Services. If an AOC holder is engaged by an entity other than the Department then all elements of this Aviation Standard are applicable as if the AOC holder was contracted directly by the Department.

QMS	Quality Management System
Quality Policy	A quality policy outlines the set of processes and procedures required for the planning and execution of safe and efficient operations. The system integrates the various internal processes and enables the organisation to identify, measure, control and improve the effectiveness and safety of its activities.
Rescue Operation	means an aerial work operation, tasked and coordinated by a Search and Rescue Body, or self-tasked and coordinated by an ESO, the primary purpose of which is to: <ul style="list-style-type: none"> (a) retrieve persons who are, or are likely to be, in distress; and (b) provide for their initial survival and other needs; and (c) deliver them to a place of safety.
Registered Operator	The registered operator of aircraft as defined by CASR 47.
Regular Public Transport Standards	The standards required of aircraft when performing Regular Public Transport operations.
Retrieval	Has the meaning given in the Agreement.
Role Equipment	Any equipment that is carried in or fitted to an aircraft but is not installed as an aircraft component and is required for a specific airborne operational Task. Aeromedical and role equipment includes fixed equipment and removable equipment utilised in the conduct of the flight.
Search and Rescue Body	Means any of the following: <ul style="list-style-type: none"> (a) a State or Territory police service or the Australian Federal Police; (b) the Australian Defence Force; (c) the Australian Maritime Safety Authority.
Search Operation	Means an aerial work operation, tasked and coordinated by a Search and Rescue Body, or self-tasked and coordinated by an ESO, the primary purpose of which is to locate persons who are, or who are likely to be, lost and in distress.
Search and Rescue Operation	Means an aerial work operation whose primary purpose is a combined search and rescue; and tasked and coordinated by a Search and Rescue Body, or self.
SB	Service Bulletin
SMS	Safety Management System
SOPs	Standard Operating Procedures
SSAA	Safety sensitive aviation activities as defined in CASR 99.015.
SSAA Personnel	Any member of the Personnel who conducts any SSAA for or on behalf of the Provider.
STD	Synthetic Training Device
Task	Has the meaning given in the Agreement.
TAWS	Terrain Avoidance Warning System

TCAS	Traffic Collision Avoidance System
TSO	Technical Service Order
VFR	Visual Flight Rules
VHF	Very High Frequency (Radio)
Visual Meteorological Conditions	Visual meteorological conditions (or VMC) is an aviation flight category in which VFR flight is permitted — that is, conditions in which pilots have sufficient visibility to fly the aircraft maintaining visual separation from terrain and other aircraft.
VOR	VHF Omnidirectional Range
<5700 Kg	Aircraft certified by CASA at less than 5700 Kg maximum take-off weight.
>5700 Kg	Aircraft certified by CASA at greater than 5700 Kg maximum.

2 Authority

This Aeromedical Aviation Standard (hereafter referred to as 'Aviation Standard') is issued by the Department.

This Aviation Standard provides guidance and information on the aviation standards required for the transport of Patients by aeroplanes or helicopters.

This Aviation Standard applies to all Providers.

3 Purpose

The purpose of this Aviation Standard is to provide a reference for the management of aeromedical aeroplane and helicopter aviation services by the Department and to meet the directions issued by the Department, with respect to the obligation to provide a safe, reliable and cost-effective patient transport service.

Aircraft that conduct Medical Transport Operations for the Department may also, when tasked by a suitable authority, perform Search and Rescue Operations. The Department is not a defined Search and Rescue Body and so does not manage the Search and Rescue Operation.

The requirements of this Aviation Standard apply to Search and Rescue Operations when the Search and Rescue Operation utilises Department infrastructure e.g. hospital helipads, however the management of the Search and Rescue Operation remain with the tasking Search and Rescue Body.

The Government of Australia regulates aeromedical aviation services through CASA, the function of which is to enforce standards and requirements for aircraft and the manner in which they are operated and maintained.

CASA provides the minimum requirements and standards for operations, although nothing prevents a Provider or customer from applying requirements more stringent than legislated requirements.

This Aviation Standard seeks to provide instruction on the standards the Department requires of Providers performing Aviation Services, so as to ensure a common understanding of the obligations of the Provider and rights of the Department.

If anything contained in this Aviation Standard defines a lower standard than that required under the regulatory requirements issued by CASA, then the CASA regulations shall take precedence.

Nothing in this Aviation Standard limits any of the Provider's regulatory compliance obligations or duties, under or in connection with the substantive terms of the Agreement to which this Aviation Standard is annexed.

This Aviation Standard enables the Department to plan, develop and fund safe and efficient aeromedical aviation operations that are best suited to the needs of the Department.

In particular, it focuses on:

- a) the requirements of a Provider's SMS and QMS;
- b) how the SMS and QMS interface; and
- c) how the Provider must coordinate with the Department in its operations.

Note: The Agreement provides that, if there is any inconsistency between the Agreement and this Aviation Standard, the terms of the Agreement prevail to the extent of the inconsistency, unless it involves a regulatory compliance conflict.

If there is any conflict between the Provider's ability to comply with this Aviation Standard and the Clinical Standard, then the conflict must be put to, and resolved by, the Department. In an emergency, the captain of an aircraft may resolve the conflict acting in the best interests of the safety of the aircraft and its passengers.

The Department will periodically review this Aviation Standard.
The Provider must comply with any revisions to or replacement of this Aviation Standard by the Department.

Note: The Department has the right under the Agreement to amend this Aviation Standard by notice to the Provider.

4 Departures from this Aviation Standard

Note: The Agreement may provide a mechanism by which the Department can consent to the Provider performing Aviation Services in a manner that departs from aspects of this Aviation Standard (**Departure**). Such consent will be at the discretion of the Department and subject to any terms or conditions specified by the Department with respect to the relevant Departure.

Any deviation from this Aviation Standard will require the Department's written approval and must be submitted on the Aviation Standard Departure Request Risk Management (Safety Case) Template.

Unless expressly stated otherwise in the Agreement, where the Provider wishes to depart from this Aviation Standard, it must first submit a detailed written safety case to the Department in accordance with the requirements of this section. Further guidance may be found in the UK CAA CAP 760, "Guidance on the Conduct of Hazard Identification, Risk Assessment and the Production of Safety Cases".

The Provider must:

- a) consider, assess and document the safety hazards associated with departing from the relevant requirement(s) of this Aviation Standard;
- b) justify how those hazards are mitigated to ALARP;
- c) justify why the Provider should be allowed to depart from the relevant requirement(s) of this Aviation Standard;
- d) present this information to the Department and seek its written consent;
- e) answer any questions the Department may ask of the Provider about the proposed Departure;
- f) provide any information or documents requested by the Department with respect to the proposed Departure; and
- g) at the Department's discretion, consent to an independent review by a Department nominated aviation expert.

The Provider must not perform any Aviation Services that do not comply with this Aviation Standard unless it has the Department's prior written consent and then, subject to any terms or conditions specified by the Department with respect to the Departure. If the Department grants consent to the Provider, the Provider must at all times comply with the terms and conditions (if any) that:

- a) the Provider has put forward in its safety case (unless the Department rejects that term or condition or imposes a term or condition inconsistent with that put forward by the Provider); and
- b) the Department imposes or requires as a condition of its consent.

If the Department lawfully directs the Provider to do or not do something that is a Departure, the Provider must not refuse to comply with that direction solely on the basis that it is a departure from this Aviation Standard. The concept as defined in 4 Departure from this Aviation Standard will apply.

5 Provider Requirements

5.1. Overview

The Department will only accept Aviation Services from Providers who hold the relevant approvals and certificates from CASA to conduct Air Transport Operations including Medical Transport Operations for aeroplane and/or helicopters.

The organisational structures, systems, procedures, staff numbers and proposed aircraft must be of a suitable standard, so the Department is assured that the Provider is fully capable of delivering a safe, compliant and reliable service at all times.

The Department requires Providers to exceed current aviation regulatory minimum standards, in some instances, and provide additional systems and structures that support best practice.

5.2. Air Operators Certificate

5.2.1 Requirement

Providers must hold an AOC and associated Operations Specification authorising charter operations and aerial work operations (air ambulance operations and all other aerial work functions required under the relevant Agreement) for the proposed aircraft.

From 2nd December 2021, unless otherwise deferred by CASA, Providers must hold an AOC and associated Operations Specification authorising Air Transport Operations including Medical Transport Operations. For Providers conducting Search and Rescue operations an Aerial Work Certificate authorising Search and Rescue Operations, is required.

The Provider must be the same entity who holds the AOC issued by CASA.

The Provider named on the AOC must be the Registered Operator for each aircraft used for the Aviation Services and must not use cross-hired aircraft.

5.2.2 Operational Standard

All flights operated for the Department must, at a minimum, be operated to an equivalent level of safety as afforded to those who fly on Air Transport Operations based on the regulations in force at that time.

The use of air transport standards (previously referred to as charter standards) as the baseline for all Aviation Services ensures the level of safety afforded to each Patient is comparable to that of a passenger and better reflects the nature of Aviation Services as predominantly inter-facility transport services rather than first response evacuation services.

The provision of Search and Rescue Services under an Aerial Work Certificate is outside the scope of this Aviation Standard, except where that service utilises Queensland Health Infrastructure, such as hospital HLSs.

All additional requirements defined in this Aviation Standard also apply to the Aviation Services.

Note: The Department may give consent for a Provider to engage in operations that do not comply with the requirements of this Aviation Standard, including the requirement to operate at alternate Operational Standards. For this to occur, the Provider must put forward a detailed safety case for the proposed operations in accordance with section 4.

5.3. Key Aviation Personnel

The Key Aviation Personnel of a Provider are critical to the safe and effective operation of the Provider and give the guidance, leadership, and cultural direction that the Provider takes in delivering the Aviation Services.

The Provider must have adequate qualified and trained Personnel to ensure the Aviation Services are performed safely at all times.

5.3.1 Designated Key Aviation Personnel

The Provider must have Personnel designated to the following positions (however titled) that, where applicable, match the relevant descriptions as defined by Section 28 of the *Civil Aviation Act 1988*, as applicable:

- a) Chief Executive Officer (CEO);
- b) Head of Flight Operations;
- c) Head of Airworthiness and Aircraft Maintenance Control (HAAMC);
- d) Maintenance Controllers;
- e) Head of Training and Checking;
- f) Head of Ground Operations;
- g) Safety Manager; and
- h) Quality Manager.

(each a **Key Aviation Person**)

The level to which it is acceptable for a single person to fulfil multiple roles will be commensurate to the size of a Provider.

Each Key Aviation Person must:

- a) have the required knowledge, expertise and qualifications;
- b) have appropriate approvals from CASA to conduct their role, if required; and
- c) be acceptable to the Department.

Each Key Aviation Position shall have:

- a) a detailed job description for each Key Aviation Person specifying the functions they undertake in the Provider's organisation;
- b) KPIs to measure the performance of each person;
- c) details about how the Key Aviation Person interacts with the clinical aspects of the aeromedical service; and
- d) a procedure for transferring a Key Aviation Person's accountability or responsibility to an appropriate person.

In the Safety Interface Document (refer to 5.4.5), the Provider must specify the name of each person who fulfils the role of each Key Aviation Person and advise the Department within 5 days of any change of any Key Aviation Person.

5.3.2 Backup personnel for Key Aviation Personnel

The Provider must have a backup person nominated and trained for each position of Key Aviation Person. The backup personnel must be available to ensure operations are effectively continued if the Key Aviation Personnel are unavailable.

If required by CASA, the backup person must be acceptable by CASA.

In the Safety Interface Document, the Provider must specify the name of each backup person for each role.

5.4. Safety Management Systems

5.4.1 Scope

The Provider must have a safety management system that complies with this Aviation Standard (**Safety Management System**) and CASR 119 once in force. The SMS may be composed of multiple policies or a single overarching policy. The SMS must be integrated, meaning its components work together. The Personnel must understand how the SMS interacts with other systems and standards, including the QMS.

The SMS must be active and effective throughout the Provider's organisation. If required by the Department, the Provider must demonstrate the SMS is implemented, functioning and operating effectively.

5.4.2 Safety Management System

The Provider's SMS may be commensurate with the size and complexity of the Provider's operations.

The SMS must provide for a functioning system that includes the following elements across each matter detailed in this Aviation Standard:

- a) Leadership commitment – Active involvement from all levels of the Provider.
- b) Policy that clearly define lines of safety accountability throughout the organisation, including:
 - i. a direct accountability for safety on the part of senior management;
 - ii. documents and communicates safety responsibilities, accountabilities and authorities throughout the organisation;
 - iii. define the levels of management with authority to make decisions regarding safety risk tolerability; and
 - iv. includes a “Just Culture” and “Non-punitive” statement.
- c) Documented procedures – Formal procedures to ensure the effective management of safety-related issues.
- d) An administrative structure that provides for the delivery and review of SMS activities.
- e) Personnel and competence – Appropriately trained personnel to manage and administer the SMS, audits, investigations and safety matters.
- f) Safety communication and training - A well-defined safety communication and training program in place for all personnel.
- g) Safety reporting and investigation – see section 5.4.4.
- h) Management of Change – A defined procedure to assess and manage the risks associated with change.
- i) Hazard and risk management – see section 5.4.3.

- j) Safety assurance – An internal audit program and a process to review the effectiveness of the SMS.
- k) Senior management review – A defined meeting and review process to ensure the Board and executive management understand and are up to date with the SMS and day-to-day operation of the Provider.

On the Department's request, the Provider must demonstrate to the Department's satisfaction the SMS effectively oversees the areas listed in this section.

Note: CASA provides guidance on an SMS in AC 119-01.

5.4.3 Hazard and Risk Management

The Provider's SMS must contain hazard identification and risk management processes that:

- a) identify and address generic, flight-specific, aeromedical-specific and location-specific hazards; and
- b) ensure all hazards can be understood and risks mitigated to ALARP.

The identified hazards should be recorded in a hazard register (**Hazard Register**) in a format that:

- a) shows the risk assessment score assigned to each hazard;
- b) links the hazards to specific controls and management measures;
- c) provides a document reference for the control and recovery measure;
- d) assigns a responsible individual to each control; and
- e) follows process that ensures measures+ taken are effective.

The Provider's hazard identification and risk management processes must also be integrated in the Provider's QMS and be covered by its provisions, such as its reporting processes, investigation process, change management processes and quality review processes.

5.4.4 Incident Reporting

The Provider's SMS must regulate how the Provider:

- a) identifies incidents;
- b) creates reports on incidents; and
- c) notifies the Department of incidents.

Any reports required under this section must identify corrective action and provide deadlines for that action.

For clarity, notification under this Aviation Standard is separate to notifications of clinical incidents under the Clinical Standard.

Incidents

The Provider must identify, and create reports on, any event, incident, accident or non-standard occurrence related to the Aviation Services that may disrupt Aviation Services or jeopardise safety (**Incidents**).

Incidents may include, but are not limited to:

- a) landing other than at the intended destination and/or other than normal alternative requirements or Task revision;
- b) cancelling a flight other than at the Department's request;
- c) an aircraft systems issue that requires the use of an abnormal procedures checklist;

- d) minor injury to any person;
- e) any event that affects the operational safety or integrity of the aircraft;
- f) any event which is unexpected or is not regarded as a normal and usual occurrence; or
- g) ground damage to an aircraft.

Note: Reports should be generated and managed under the Provider's SMS.

The Provider must report all incidents to the Department as specified within the agreed terms and conditions of the Agreement(s) between the Department and the Provider.

Serious Incident

The Provider must identify, and create reports on, any Incident that results in:

- a) the death of any person;
- b) loss of an aircraft or any other aircraft of the Provider;
- c) damage with a potential repair cost of more than \$10,000;
- d) any SSAA Personnel member being stood down from duties under the Drug and Alcohol Management Plan (DAMP) under section 0; or
- e) injury or illness to any person as a result of the operation of an aircraft, (**Serious Incident**) irrespective of whether the incident involved the Department.

Note: Reports should be generated and managed under the Provider's SMS.

The Provider must report all incidents to the Department as specified within the agreed terms and conditions of the Service Agreement(s) between the Department and the Provider.

Department investigation

The Department may engage an independent aviation adviser to review any Incident or Serious Incident reports submitted to the Department. The Provider must cooperate and assist with any such review. The Provider must allow the independent aviation adviser access to any records or information, as required, to assist the Department to understand the nature of the Incident or Serious Incident and the actions taken by the Provider to prevent reoccurrence. The Department may consider Australian Transport Safety Bureau Section 32 requirements.

5.4.5 Safety Interface with the Department

Prior to commencing any Aviation Services, the Department and the Provider must jointly prepare and agree on a safety interface document that complies with this Aviation Standard (**Safety Interface Document**).

The Safety Interface Document must detail:

- a) how the Provider will report to the Department on safety-related events, including those matters detailed in this Aviation Standard;
- b) how the Provider and the Department will share data to improve safety management;
- c) the KPIs for assessing the Provider's safety management and SMS;
- d) notification process for any changes to the SMS personnel complement; and
- e) an arrangement for periodic meetings with the Provider.

5.5. Quality Management System

5.5.1. Scope

The Provider must have a QMS that complies with this Aviation Standard (**Quality Management System**).

The QMS must manage and fully integrate all areas of the Provider's business and operations that could impact flight safety in the provision of Aviation Services.

Before providing Aviation Services to the Department, the QMS must be certified by an independent, qualified organisation to ISO AS/NZS 9001:2015 or later standard.

5.5.2 Quality Management System

The Provider's QMS must consist of:

- a) a Quality Policy that manages all areas of the Provider's business;
- b) KPIs that provide measurable guidance on the state of the QMS;
- c) an annual internal evaluation and audit program that covers all areas of the Aviation Services, with emphasis on safety-critical areas;
- d) auditing processes, procedures and tools; and
- e) a documented and resourced QMS training program.

Processes and procedures required under this Aviation Standard must be audited at least annually under the Provider's QMS.

5.5.3 Interface with Safety Management System

The QMS must interface with the SMS. This means both systems must coordinate the matters they regulate and coordinate their reporting requirements, and ensure each system has an awareness of the other system and other operational and business activities of the Provider.

5.6. Drug and Alcohol Management

The Provider must have a DAMP that:

- a) complies with the requirements of CASR Part 99;
- b) covers all of the Personnel, contractors and sub-contractors who perform SSAA;
- c) provides for regular training of all SSAA Personnel; and
- d) requires pre-deployment testing and random testing of all Aviation Personnel who provide Aviation Services.

The Department may require the Provider to conduct random drug and alcohol testing on any Personnel directly or indirectly involved in performing the Aviation Services.

5.7. Aviation Emergency Response Plan

5.7.1. Scope

The Provider's SMS must have an aviation emergency response plan that:

- a) documents the initial and subsequent actions of all SSAA Personnel during an emergency;
- b) requires regular training for all SSAA Personnel;

- c) requires regular exercises to test the appropriateness of the plan; and
- d) includes up-to-date contact information for the Provider including for each location from which the Aviation Services are performed, or emergency response may be sought, to ensure any aviation emergency can be handled in a planned and considered way from any location.

Note: Under the Provider's SMS, the aviation emergency response plan should be reviewed at least annually.

5.7.2. Annual Exercise

The Provider must conduct an annual aviation emergency response exercise (**Aviation Emergency Response Exercise**) that considers an aviation-specific scenario that will test the Provider's ability to respond to an aviation emergency.

Under its SMS, the Provider must create a report on its performance in the Aviation Emergency Response Exercise.

The scenarios used must change each year.

On the Department's request, the Provider must provide copies of the Aviation Emergency Response Exercise reports to the Department.

Queensland Government agencies (including the Department) may elect to either jointly participate in or observe the Provider's Aviation Emergency Response Exercise. The Provider must provide sufficient prior notice of an Aviation Emergency Response Exercise to the Department to allow for Queensland Government agencies' (including the Department's) involvement.

5.8. Business Continuity Plan

5.8.1. Scope

The Provider must have a business continuity plan that:

- a) accommodates the needs of the business after significant events, being events that have material ongoing impacts on operations; and
- b) details how the Provider intends to manage each function of the business and manage the situation until operations are restored to business as normal.

Exercise

The Provider must conduct an annual business continuity exercise that considers specific scenarios that will test the Provider's ability to respond to a business continuity event (**Business Continuity Exercise**).

The Business Continuity Exercise may be conducted jointly with the Aviation Emergency Response Exercise.

Under its SMS, the Provider must create a report on the performance of the Provider in the Business Continuity Exercise.

The scenarios used must change each year.

On the Department's request, the Provider must provide copies of the Business Continuity Exercise reports to the Department.

The Department may elect to either jointly participate in or observe the Provider's Business Continuity Exercise. The Provider must provide sufficient prior notice of a Business Continuity Exercise to the Department to allow for the Department's involvement.

5.9. Environmental Management

The Provider must have environmental policies and practices that comply with local and national regulatory requirements.

A Provider with an AS/NZS 14001:2015 or later standard or equivalent system, will generally meet this requirement.

5.10. Insurance

Note: The Agreement requires the Provider to maintain various insurance policies which may include third party passenger liability and carrier's liability insurance to cover property damage, injury, illness or death. The Provider must maintain the insurance policies required by the Agreement, including maintaining the minimum monetary insurance coverage.

If required by the terms of the Agreement, particular insurance policies must name the Department as an additional insured party.

5.11. Audit

In addition to any rights or obligations of the parties under an Agreement with respect to audit and inspection, the Provider must allow the Department (or a person nominated by the Department) to audit and inspect the Provider from time to time to determine compliance with this Aviation Standard at any time.

- a) The Provider must provide all assistance requested by the Department, including access to all aircraft, records, personnel and facilities to the Department's auditors during the audit.
- b) The Department will endeavour to ensure the audit and/or inspection is scheduled so it does not unreasonably impact the daily operations of the Provider.
- c) Any audit reports created during any audit or inspection process are the property of the Department. The Department may share audit reports with the Provider at its absolute discretion.
- d) If the audit or inspection uncovers any non-compliance with the Agreement, this Aviation Standard or any Aviation Legislation the Provider must remedy the non-compliance(s) in accordance with any timeframes specified by the Department.
- e) If the Department consider there to be any fundamental, serious significant non-compliance(s), the Department may have a right under the relevant Agreement to suspend the Aviation Services or terminate the Agreement.
- f) If any external auditor or CASA provides the Provider with any report or results from an audit, inspection or surveillance of the Provider, the Provider must provide the Department with the report and/or results within 7 days of receiving them.

6. Aircraft

6.1. Overview

All aircraft operated by the Provider for the Department must be under the full Operational Control of the Provider at all times.

Each aircraft must be less than 15 years old, with total times and total cycles commensurate with age, at the time the first Aviation Service is performed using the aircraft under any awarded Agreement.

An aircraft must not be used for Aviation Services unless the Department has consented in writing to the aircraft being used to perform Aviation Services.

- a) Consent is deemed to have been given where the aircraft has been assessed and/or approved in accordance with the terms of any awarded Agreement.
- b) If a Provider wishes to use an alternative aircraft after the award of any Agreement, the Department will require a suitable lead time to conduct an audit and the Provider must not use the alternative aircraft to perform any Aviation Services other than in accordance with a written amendment to the applicable Agreement agreed between the parties to that Agreement or such other written consent given by the Department.

In considering whether to provide the consent in paragraph (b) above, the Department may consider any matters it considers relevant including but not limited to:

- i. aircraft registration;
- ii. serial number;
- iii. aircraft type;
- iv. total time in service;
- v. total cycles in services;
- vi. a detailed operational history;
- vii. a detailed maintenance history including back to birth traceability for the aircraft and traceability for the components;
- viii. clinical capability; and
- ix. equipment fit.

At its absolute discretion, the Department may refuse any previously consented aircraft, or any newly requested aircraft from being used to perform Aviation Services.

Note: The Provider may request the Department give consent to use an older aircraft by putting forward a safety case in accordance with the procedure noted in section 0 of this Aviation Standard for any aircraft that exceeds 15 years of age.

6.2. Aircraft Medical and Role Equipment

The aircraft is capable of carrying sufficient medical equipment appropriate to the identified Task. All aircraft of the same type should be outfitted in the same manner as far as is possible.

- a) All equipment and supplies will be properly secured to the extent that they will not break free in turbulence or in an accident;
- b) medical equipment must function without interfering with the aircraft's avionics, electronics, nor should the avionics or electronics interfere with the functioning of the medical equipment;
- c) no item in the cabin should be positioned so as to cause an injury to the occupants;
- d) no item should be positioned in such a manner that restricts access or egress in an emergency, nor restrict access to emergency equipment; and
- e) normal access to the cabin should allow manoeuvring of the Patient without compromising Patient stability or the functioning of medical equipment.

6.2.1. Aircraft Medical and Role Equipment Maintenance

The Provider must have an aeromedical and Role Equipment maintenance schedule and procedures that address the following:

- a) all aeromedical and Role Equipment must be installed and maintained in accordance with approved procedures to ensure aeromedical and special Role Equipment conform with the requirements of CASR Part 21 or a valid engineering order;
- b) the continued airworthiness of all aeromedical and Role Equipment must be maintained through a documented System of Maintenance;
- c) fitted aeromedical and Role Equipment must not impact on the airworthiness of the aircraft;
- d) any limitations caused by the aeromedical equipment must be appropriately managed; and
- e) aeromedical and Role Equipment includes fixed equipment and removable equipment utilised in the conduct of the flight.

Note: The Agreement details what aeromedical and Role Equipment is required in aircraft providing the Aviation Services.

6.3. Aircraft Continuing Airworthiness Requirements

6.3.1. Head of Airworthiness and Maintenance Control

The HAAMC and/or Maintenance Controller must have no less than 2 years' experience in a maintenance control role and must be independent of the Provider's maintenance provider(s).

The HAAMC must be employed by the AOC holder and report directly to the CEO.

6.3.2. Engineers

The Chief Engineer of the Provider's maintenance provider must have no less than 5 years post licence experience, with no less than 2 years' experience licenced on the type of aircraft.

Engineers certifying for maintenance tasks must have no less than 2 years' experience on the type of aircraft.

Note: The term type, in this clause, refers to the make and model of a particular aircraft as noted in CASR 66 MOS Appendix IX "Type rating endorsement". If the aircraft does not have a CASR 66 type rating, then it refers to the make and model of the aircraft.

6.3.3. Maintenance Standards

The Provider must maintain the aircraft in accordance with an approved System of Maintenance to Class A Standards, regardless of any lesser regulatory requirements that may exist.

6.3.4. System of Maintenance

Each aircraft utilised by the Provider for Aviation Services must have a system of maintenance that complies with this Aviation Standard (**System of Maintenance**).

The System of Maintenance must be approved by CASA.

Aircraft and associated Role Equipment used for Aviation Services must be maintained by a CASA-approved maintenance provider:

- a) in accordance with the aircraft's System of Maintenance; and
- b) so they are compliant with all relevant manufacturer issued mandatory AD's and SB's issued by the national airworthiness authority of the manufacturer's country of origin or by the country where the aircraft is registered.

The System of Maintenance must:

- a) ensure each aircraft is always within the manufacturer's airworthiness limitations, inspection schedules, overhaul schedules, calendar retirement dates and is compliant with all mandatory ADs and SBs;
- b) require the aircraft to be maintained in an airworthy condition by approved, trained and competent Personnel; and
- c) manage the airworthiness of the aircraft, considering any fitted or required aeromedical and Role Equipment.

6.3.5. Minimum Equipment List

The Provider must have an approved MEL for each aircraft the Provider intends to utilise to provide Aviation Services. The MEL must be based on an MMEL and must include a target time limitation for repairing defects.

All equipment installed on an aircraft must be operational unless there is an exemption provided under a MEL system or via an approved permissible unserviceability issued by CASA or an authorised person under CASR 21.007.

Where an aircraft is required to be equipped with certain items, as noted in 9.3.2 or 10.3.2 the operation of an aircraft in accordance with approved MEL is an acceptable means of dispatch for the aircraft and is not a breach of the minimum equipment levels, whilst the Provider is satisfied the reduction in equipment does not impact the safety of operations.

6.3.6. Control of Maintenance

The Provider shall have a Maintenance Control Manual detailing how the Provider will control all aspects of aircraft maintenance, including a system of certification.

The Provider must ensure no person or organisation performs maintenance on the Provider's aircraft, engines, components or parts unless the person or organisation has suitable facilities, equipment, personnel and approvals to conduct the maintenance.

The Provider must have a system of surveillance and audit for all maintenance activities.

Third party contractor audit results will be made available when requested.

Note: The Agreement requires the Provider to be responsible for its contractors. This means the Provider is liable for its maintenance contractor's actions and standard of service.

6.3.7. Manuals, Documentation and Records

The Provider's maintenance control procedures must ensure:

- a) only CASA-approved maintenance operations manuals and expositions or Maintenance Control Manuals are used;
- b) all applicable maintenance and airworthiness personnel have access to, and operate in accordance with, Maintenance Control Manuals; and,

- c) if the Provider utilises external maintenance providers, each maintenance provider has the Maintenance Control Manuals.

The Provider must have a document control system that ensures all documentation and technical data required by CASA or otherwise under this Aviation Standard is current and valid.

The Provider must:

- i. maintain a list of all organisations approved by CASA to perform maintenance on the Provider's aircraft, engines, components or parts, including their locations;
- ii. audit each maintenance provider it engages;
- iii. have a written contract in place for the provision of maintenance services with each maintenance provider it engages;
- iv. ensure any maintenance providers have a QMS including trained auditors;
- v. ensure no new or used parts are installed unless they meet the applicable airworthiness standards;
- vi. ensure the aircraft logbook is maintained for all aircraft operations;
- vii. maintain records of the total time in service of the aircraft, engines and other life limited components;
- viii. maintain records of AD's and SB's including their accomplishment for each aircraft;
- ix. ensure back to birth traceability is maintained for the aircraft and traceability for the components; and
- x. train its Crew in maintenance requirements.

6.3.8. Duplicate / Independent Inspections

All maintenance tasks that require a duplicate / independent inspection, including all flight controls and engine controls must be conducted by appropriately licensed and experienced type-rated engineers.

Note: This means the use of pilots to conduct duplicate / independent inspections is not authorised.

6.3.9. Tooling and Calibration System

The Provider must ensure procedures are in place to control the calibration and use of all tools including personal tools.

Provider must ensure procedures are in place to account for all tools used during the maintenance, including personal tools, prior to the aircraft's release to service.

6.3.10. Facilities

The Provider must ensure adequate facilities are available to conduct maintenance at all times.

The Provider must ensure suitable facilities for the storage of parts, equipment and tooling, are available and utilised. The facilities must be secure and prevent the deterioration or damage to any stored items.

6.3.11. Parts

The Provider must ensure procedures are in place to:

- a) manage the shelf life of all parts;

- b) ensure only approved and serviceable parts are fitted to any aircraft, including aeromedical and Role Equipment;
- c) ensure the traceability of all parts; and
- d) ensure unserviceable or rejected parts are quarantined and cannot be refitted to any aircraft.

6.3.12. Engine Trend Monitoring

The Provider must ensure each aircraft has an automatic engine trend monitoring system from which engine data is automatically or manually downloaded on completion of each day of flying.

The Provider must have a system or procedure to monitor and assess the engine trend data, which must be reviewed at intervals defined in the System of Maintenance.

6.3.13. Helicopter Vibration Monitoring

The Provider must ensure each helicopter has an automatic vibration monitoring system, data from which is automatically or manually downloaded on completion of each day of flying.

The Provider must have a system or procedure to monitor and assess the vibration data, which must be reviewed at intervals defined in the System of Maintenance.

7. Operations

7.1. Training

The Provider must maintain a register of all training and checking events including the currency of the requirements for all Personnel who directly or indirectly provide Aviation Services.

The Provider must ensure all Personnel receive integrated Human Factors Training in line with the elements described in CAAP SMS 2 and 3.

Note: Under the Provider's QMS, the training and checking register should be audited at least annually.

7.1.1. Flight Crew Training - General

The Provider must have a flight crew training program that ensure all pilots are provided with initial, recurrent, proficiency and additional training as required appropriate to their assigned tasks and responsibilities.

Where an approved STD is available for the aircraft type, the flight crew training program must ensure that all Crew undertake training and checking in the STD.

The STD training should include LOFT (or Training and Checking System Equivalent) that has been developed to provide realistic exercises that relate to the Aviation Services. The LOFT or Training and Checking System Equivalent programs should be developed after reviewing the information provided by the flight data monitoring program to ensure any deviations from SOPs are captured in the training program.

The Provider's training must include the technical, operational and ground training elements required for aeroplane and helicopter operations listed in Section 9 Aeroplanes and Section 10 Helicopters.

7.1.2. Engineer and Maintenance Control Training

The Provider must have engineer and maintenance control training procedures that:

- a) ensure any maintenance organisation carrying out work for the Provider provides all Personnel with initial, recurrency and any additional training appropriate to their assigned tasks and responsibilities;
- b) ensure all Aviation Personnel involved in maintenance control are provided with initial, continuation and additional training appropriate to their assigned tasks and responsibilities; and
- c) require, at a minimum, training in the following areas:

All Engineering and Maintenance Control staff	Frequency
Systems of Certification and Regulatory Changes	Annual
SMSs	Annual
QMS	Annual
Emergency Response Training	Annual
Aircraft Technical Knowledge by type	2 years
Dangerous Goods Awareness	2 years
Human Factors	2 years
Aviation Security	2 years
Drug and Alcohol Management Plan	2 years
Fatigue Management	2 years

7.1.3. Ground Staff assigned with SSAA

The Provider must ensure all ground staff SSAA Personnel are trained to conduct their duties.

The Provider's training for ground staff SSAA Personnel must include, at a minimum, the following technical, operational and ground training elements including SMS, QMS and Human Factors Training.

SSAA Ground Staff Training	Frequency
Aeromedical Operations	Annual
SMSs	Annual
Emergency Response Training	Annual
Ground Handling Training	Annual
Human Factors	2 years
Dangerous Goods Awareness	2 years
Aviation Security	2 years
Drug and Alcohol Management	2 years
Fatigue Management	2 years

7.1.4. Aircraft Specific Training

Additional training elements required for aircraft specific training and for specialised operations and are listed in Section 9 Aeroplanes and Section 10 Helicopters.

7.2. Fatigue Management

The Provider must have a fatigue management plan (**Fatigue Management Plan**) that manages the fatigue levels of the Provider's:

- a) Flight Crew
- b) Aircrew
- c) maintenance control staff; and
- d) SSAA Personnel.

The Fatigue Management Plan may use hard time limits such as those provided by regulation or risk-based methodology. The Provider must generate regular reports about the suitability of the application of its Fatigue Management Plan.

Note: Reports should be generated, managed and audited under the Provider's QMS.

The Fatigue Management Plan, as it relates to pilots, must be approved by CASA for operations as a charter operation.

A copy of the Fatigue Management Plan, including any subsequent revisions, must be provided to the Department.

7.3. Operational Control and Flight Following

The Provider must have Operational Control and GPS Flight Following or ADS-B Systems that comply with this Aviation Standard (**Operational Control and Flight Following Systems**).

The operational control system and flight following systems must include the provision of staff who are on duty to monitor each flight and ensure:

- a) only appropriately qualified pilots are provided to operate each aircraft;
- b) only appropriately qualified SSAA Personnel are permitted to perform Aviation Services;
- c) only appropriately certified, authorised, maintained and equipped aircraft are permitted to perform Aviation Services;
- d) each Aviation Service is authorised by the Provider;
- e) a system of communication with Department is in place that allows for the coordination of all Aviation Services;
- f) a record of each flight including the names of each person on the aircraft, the aerodromes operated to or from and the times of the operations are scheduled and achieved is maintained; and
- g) whilst the aircraft and Crew are providing Aviation Services, the GPS Flight Following System, or ADS-B, monitors the progress of the flight.

The Flight Following System must ensure the Provider maintains contact at all times with each aircraft in flight by whichever radio, satellite communication or mobile phone other methods are appropriate for the area of operation.

The aircraft must be equipped with a position tracking and reporting system, which must be used to monitor each flight, with a minimum position reporting time of 2 minutes.

The Flight Following System must provide the capability to access the aircraft position at all times and this information must be monitored by the Providers trained ground staff who can initiate the emergency search and rescue response plan in the event of distress or loss of communications.

The Flight Following System shall provide updates of the progress of flight as requested by the Department, with timely updates to ensure the coordination of ground transport services for each flight.

The Provider must give the Department access to the satellite-based position tracking systems and Flight Following Systems at all times.

7.4. Management of Passengers / Patients

The Provider must not carry any person, being a passenger, escort or non-operating staff member of either the Provider or the Department, on a flight other than pursuant to a Task or with the prior approval of the Department, which may be arranged through Retrieval Services Queensland (RSQ).

The Provider must not unreasonably refuse carriage of any person specified by the Department in a Task or as otherwise permitted under the relevant Agreement made with the Provider.

The Provider must have a passenger management procedure that:

- a) detail the control, loading and management of persons, including Patients, travelling on all flights; and
- b) include procedures for the carriage of persons in lawful custody, the carriage of disturbed Patients and the carriage of persons suffering or suspected to be suffering from a contagious disease.

The Provider must maintain a record of all persons on board any Flight (**Manifest**) and ensure a list of the names on the Manifest is held by the Providers Personnel allocated to flight following duties.

If due to the nature of the Medical Transport Operation the name of a Patient is not readily available and the on scene medical staff require transport urgently then conducting a Flight without the name of the Patient is acceptable. In this instance the Manifest, held by the Provider's Personnel conducting flight following duties, shall note a John/Jane Doe so the correct count of person on Board is always known.

The Provider must retain all Manifests for not less than 90 days after the flight.

7.5. Ground Handling

The Provider must have a Ground Handling Procedures:

- a) that encompass the ground handling events likely to be encountered when conducting the Aviation Services;
- b) for fuelling the aircraft while Patients are on-board;
- c) for replenishing aeromedical stores and equipment; and

- d) for decontaminating the aircraft in the event of a medical waste spill. This must include the requirement to conduct an inspection to ensure the continued airworthiness of the aircraft after the spill.

All Personnel involved with ground handling must be trained and certified by the Provider as competent in the Ground Handling Procedures.

7.6. Fuel Supplies

The Provider must have fuel supply procedures that regulate the control, management and uplift of all fuel.

Note: Under the Provider's QMS, the fuel supply processes should be audited at least annually.

7.7. Dangerous Goods

The Provider must have a CASA approval to carry Dangerous Goods to allow the conduct of aeromedical operations.

The Provider must carry Dangerous Goods in accordance with its CASA approval.

8. Operational Policies and Procedures

8.1. General

The Provider must have documented procedures that define the controls and audit requirements for all operational data and procedures provided to the Crew.

Note: The Provider's QMS prescribes procedures to audit data.

8.2. Operational Procedures Documents

The Provider must have documented and approved procedures for all Personnel regarding the operations of the aircraft and its associated systems.

The Provider must control its documents, so as to ensure only current documents are available for use by the Personnel.

Note: The Provider's QMS will prescribe procedure to audit its documents regularly.

8.3. Fuel

The Provider must have a fuel management policy that provides detailed guidance to the pilots for the calculation of the minimum departure fuel required (**Fuel Management Policy**). The Fuel Management Policy must include information to allow the accurate calculation of the minimum fuel required for the flight and shall take into account the following items:

- a) Taxi fuel;
- b) Departure allowance;
- c) Flight fuel – including flight fuel at a sea level cabin altitude;
- d) Arrival allowance;
- e) Diversion to alternate (if applicable);

- f) Fuel allowance for depressurisation (if applicable);
- g) Fuel allowance loss of an engine (if applicable);
- h) Variable reserve;
- i) Fixed reserve;
- j) Holding fuel (if applicable); and
- k) Contingency fuel.

The Fuel Management Policy shall require a variable reserve of no less than 10% and a fixed reserve of no less than 30 minutes for all flights, regardless of aircraft type, Flight Rules and class of operation, unless legislation requires a greater variable reserve or fixed reserve.

The Fuel Management Policy must require the Provider to review the fuel usage records for each aircraft. The Provider must have a system to detect, update and amend fuel burn rates.

The Fuel Management Policy must contain procedures to ensure the Provider maintains an operational fuel used log (**Fuel Log**) that records the fuel on-board at take-off, fuel burnt during a sector, fuel remaining at the end of the sector after landing and any fuel up-lifted prior to the next sector. The Fuel Log must be kept for a period of 90 days after the completion of each flight.

Note: Under the Provider's QMS, the Fuel Management Policy and fuel records should be audited at least annually.

8.4. Flight Preparation and Planning

A Provider of Aeroplane Aviation Services must ensure all operations are conducted in accordance with IFR requirements and an IFR flight plan is lodged with Airservices Australia for each sector.

The Provider of Helicopter Aviation Services must ensure all operations are conducted in accordance with IFR requirements and an IFR flight plan is lodged with Airservices Australia for each sector, unless the Task can be safely conducted under VFR or NVIS and can afford an equal level of safety and is operationally required to complete the assigned Task.

The Provider's procedures and systems must:

- a) ensure that any overwater operation including to an island, drying reef, vessel or platform is planned with an alternate location available that is not a remote island, drying reef, vessel or platform;
- b) ensure all flight plans, navigations logs and other flight records (**Flight Records**) are kept for no less than 90 days after the flight has been completed;
- c) ensure any procedures or systems used to create Flight Records are controlled; and
- d) have procedures to ensure the Provider advises the Department of any reductions to payload or restrictions of flights as a result of the actual conditions at the time of the flight.

Note: Under the Provider's QMS, the Flight Records should be audited regularly.

8.5. Adverse Weather

The Provider must have procedures to manage the impact of adverse weather events. The procedures must define weather conditions that have the potential to impact normal aircraft operations or cause disruptions to Aviation Services.

The Provider must provide the Department with a formal written process as to when flying operations should be restricted or temporarily halted due to adverse weather events.

The adverse weather procedures must manage the following events as a minimum:

- a) Extreme weather events including cyclones;
- b) Extreme winds;
- c) Thunderstorms;
- d) Microbursts
- e) Dust storms;
- f) Bush fires;
- g) Lightning avoidance;
- h) Significant turbulence;
- i) Fog;
- j) Extreme hot and cold weather;
- k) Ground icing conditions; and
- l) Flooding including its impact on Airport or HLS accessibility.

8.6. Airport and HLS data

The Provider shall maintain a register of all Airports and HLS that are available for use in Aviation Services.

The Provider shall have a procedure documented to allow for the assessment of a new Airport or HLS not included in the Providers register.

A Helicopter Provider shall have a procedure defined to establish the minimum requirements for a remote HLS for use in urgent situations, to ensure the safety of the operation when operating to unprepared HLS's.

Note: Under the Provider's QMS, the Airport and HLS data records should be audited regularly.

8.7. Operating Minima - IFR Operations

The Provider shall specify a procedure to review the published Airport/HLS departure and landing minima, including required climb gradients, to ensure the aircraft is capable of operating to the published limitations.

The Provider must confirm compliance with CASA requirements and/or the AFM performance parameters for the determination of take-off minima from runways where no take-off minima is specified.

The Provider shall specify procedures for the return to land at an Airport, in accordance with the applicable CASA standard for the aircraft type in the event a return is required. This requirement relates specifically to remote operations.

8.8. Operating Minima - VFR Operations (Helicopters only)

The Provider shall specify a procedure to review each HLS and determine suitable visibility and cloud base limits to ensure the safe operation from the HLS, including for NVIS operations.

The Provider shall specify procedures for the return to land at an HLS in the event of an engine or other system failure prevents to safe onwards flight. This shall include a procedure for the return to land at an HLS under NVIS and a subsequent return is required without NVIS.

8.9. Weight and Balance

The Provider must have documented and controlled weight and balance control procedures that require the Provider to:

- a) complete a CASA-approved load sheet, either manual or electronic for each sector of the Aviation Services;
- b) keep the completed load sheet for 90 days after the respective flight has been completed;
- c) ensure actual weights of all people and equipment are used in creating the load sheet, whenever possible. If the actual weight of a Patient from a Medical Transport Operating Site is unknown then a reasonable estimate may be used, if the medical staff advise that delay to secure the actual weight would impact the outcomes to the Patient; and
- d) ensure all aircraft used in the Aviation Services are reweighed at intervals that do not exceed three years, or more frequently if required.

Note: Under the Provider's QMS, the weight and balance procedures should be audited regularly.

8.10 Stabilised Approach and No Fault Go Around

The Provider must have a stabilised approach policy that complies with this Aviation Standard (**Stabilised Approach Policy**).

The stabilised approach policy must be based on the requirement for all flights to be stabilised above a defined minimum height in Instrument Meteorological Conditions and Visual Meteorological Conditions in accordance with the below as applicable to the aircraft type and performance category.

8.10.1. Aeroplanes Policy Elements

A Stabilised Approach Policy must include the following elements:

- a) The minimum stabilised approach height for IMC and VMC conditions is stated;
- b) The aircraft is on the correct flight path;
- c) For runway aligned approaches the aircraft is aligned with the runway;
- d) Only small changes in heading and pitch are required to maintain the correct flight path;
- e) The aircraft speed is stable and within defined limits;
- f) The aircraft is in the appropriate configuration for the type of approach being conducted;
- g) The aircraft sink rate is stable and within defined limits;
- h) The power setting is appropriate for the aircraft configuration and not below minimum power for the approach as defined by the aircraft flight manual;
- i) All briefings and checklists have been completed;
- j) If flying, an instrument approach the aircraft should be within 1 dot for ILS/VOR/GNSS approaches or 5 degrees for NDB approaches;
- k) Unique approach procedures or abnormal operations requiring a deviation from normal criteria should be briefed prior to commencing the approach; and
- l) A go around will be conducted if the approach is not stable.

8.10.2. Helicopter Policy Elements

A Stabilised Approach Policy must include the following elements:

- a) The minimum stabilised approach height for IMC and VMC conditions is stated;
- b) The helicopter should be on the correct ground track (or ground alignment) for the intended landing site;
- c) The helicopter speed is stable and within defined limits;
- d) Established a descent profile of between 3° and 12°;
- e) The helicopter sink rate is stable and within defined limits and no greater than 500'/min;
- f) All briefings and checklists have been completed;
- g) If flying an instrument approach, the aircraft should be within 1 dot for ILS/VOR/GNSS approaches or 5 degrees for NDB approaches;
- h) The axis of the helicopter does not have to be aligned until about 100' AGL to facilitate a controlled approach; and
- i) A go around will be conducted if the approach is not stable.

Unique approaches or abnormal operations requiring a deviation from normal criteria should be briefed prior to commencing the approach. Where a special approach and departure procedure is documented in the operations manual suite for the HLS, this will supersede the standard approach criteria.

The Provider must have a documented non-punitive go around policy that supports the Crew in executing a go around, if they feel there is any reason that prevents a safe landing.

8.11 Flight Data Monitoring

Flight data monitoring or flight operations quality assurance programs provide valuable information to a Provider about the health and standards of the Provider's flight operations.

The Provider must have a flight data monitoring program that reflects CAAP SMS 4-(0) and must include, at a minimum:

- i) the process to download the flight data, including maximum times between downloads;
- ii) a documented analysis procedure;
- iii) a confidentiality agreement between the Provider and the Crews to define how the data is protected and utilised;
- iv) a documented event communication procedure;
- v) a documented data review and reporting requirement; and
- vi) KPIs for the program.

The data gathered must be utilised in the development of training and checking programs, including LOFT or equivalent training and checking systems and the enhancement of the Provider's SMS.

Note: The Provider may request the Department give consent for aircraft with no flight data recorders, or Providers with a single aircraft providing Aviation Services to have in place a documented program to ensure the outcomes defined in CAAP SMS-4 are achieved without the requirement for electronic monitoring by putting forward a safety case in accordance with the procedure noted in section 4 of this Aviation Standard.

8.12 Side Facing Seats

The Provider must limit the use of side facing seats to times when operational essential to complete the Task.

Any side facing seats must be equipped with a CASA approved forward side shoulder harness and any occupant must use a CASA approved forward side shoulder harness during Flight.

8.13 Restraint of Crew During Flight

The Provider must have a restraint of medical and aircrew procedure that ensures the safety of all Personnel while providing care to the Patient or conducting specialised operations.

The procedure should include the use of seats belts or other approved restraint systems that would allow essential medical intervention or the conduct of specialised operations to occur during all stages of flight.

8.13.1. Approved restraint systems other than seat belts

When a ‘lanyard restraint system’ is in use, the wearer must be able to unclip the harness/lanyard with one hand in all circumstances, including ditching. The practical use of the release of the restraint system must be tested annually for each Crew member and should be included in under water escape training, for helicopter operations.

8.14 Portable Electronic Devices

The Provider must have a portable electronic device policy that regulates the portable electronic devices allowed to be used during flight.

The policy must manage lithium batteries carried with portable electronic devices on-board flights.

A policy is required to ban all e-cigarettes, either in the cabin or the luggage compartments.

9 Aeroplanes

9.1. Aeroplane Types

The Department requires the highest level of air safety possible and so the Department shall give priority to using the aircraft type higher in the list below when selecting Aviation Services (where an aircraft type is not available for a particular retrieval, the Department may require the use of the next aircraft-type on the list):

- a) Multi engine turbine powered transport category aircraft;
- b) Multi engine turbine powered normal or commuter category aircraft; and
- c) Approved Single Engine Turbine Powered Aircraft (ASEPTA).

Multi engine piston powered aircraft and non-ASEPTA single engine aircraft must not be utilised for Aviation Services.

9.1.1. Multi Engine Aeroplanes

Multi engine turbine aircraft certified and/or operated to transport category standards are to be utilised for the Aviation Services, unless otherwise approved in writing by the Department.

Multi engine turbine powered normal and commuter category certified aircraft are acceptable but must be operated to standards equivalent to transport category unless otherwise approved in writing by the Department.

Note: The Provider may request the Department give consent to use an aircraft certified to normal or commuter category standards by putting forward a safety case in accordance with the procedure noted in section 4 of this Aviation Standard. The

Provider must demonstrate they are still able to operate the aircraft to an equivalent level of safety, as that required for transport category standards.

9.1.2. Single Engine Aeroplanes

Single engine aeroplanes shall not be used for the Aviation Services with the exception of certain single engine turbine powered aircraft that may be used as an alternate to normal category aircraft, but only after a detailed safety case and risk assessment has been provided to the Department. The safety case must be in accordance with the procedure noted in section 4 of this Aviation Standard.

The aircraft must be equipped, maintained and operated by the Provider to Air Transport Standards for Medical Transport Operations, including route, safe alternate limitations, training of Crew and maintenance requirements.

9.2. Aeroplane Performance

9.2.1. Multi Engine aeroplane less than 5700 Kg

A Provider who uses or intended to use aircraft less than 5700 kg MTOW must appropriately assess the operating performance of their multi engine aircraft for each flight and take into account the possible emergencies that could occur and the flight characteristics for the particular aircraft under those conditions.

The Provider will take into consideration the Accelerate Stop Distance Available (ASDA) and the Accelerate Stop Distance Required (ASDR) assessing Airport suitability, to ensure that sufficient distance is available if a take-off is rejected.

The Provider will consider the single engine climb limitations at each location that would allow the aircraft to climb to lowest safe altitude after an engine failure and proceed to an alternate Airport or return to land at the departure point.

Note: For aeroplanes below 5700 kg, where either the data to calculate ASDA is not available or the AFM does not provide sufficient data to calculate the ASDR the Provider may request the Department give consent to a particular operation by putting forward a detailed safety case noting how the operations will achieve a risk as low as reasonably practicable, in accordance with the procedures noted in section 4 of this Aviation Standard

9.2.2. Multi Engine aeroplane greater than 5700 Kg

All multi engine aircraft greater than 5700 kg MTOW must be operated in accordance with CAO 20.7.1b and from 1 December 2021 CASR 135.345(1) and CASR 135.350(1).

9.2.3. Single Engine aeroplane

From 1 December 2021 single engine aeroplanes shall conform to CASR 135.240 and CASR 135 MOS chapter 8.

9.2.4. Audit and control of performance data

The Provider must have documented procedures that control and audit the performance data provided to the Crews in relations to the matters detailed in sections 9.2.1, 9.2.2 and 9.2.3.

Note: The Provider's QMS must prescribe procedures to audit data provided by external suppliers.

9.3. Aeroplane Equipment

9.3.1. General

The Provider must provide Aircraft that are equipped to meet IFR operational standards. The Aircraft shall be operated to IFR requirements unless dispatch is allowed under the MEL, in accordance with 6.3.5.

9.3.2. Aeroplane Equipment – Other than that legally required for the category of operation

Aeroplanes providing Aviation Services must be equipped in accordance with the following table:

	Aircraft >5700 Kg	Aircraft <5700 Kg	ASETPA
Equipped to IFR standards	Yes	Yes	Yes
Equipped for flight into known icing or forecast	Yes	Yes	Yes
Autopilot	Yes	Yes	Yes
2 VHF transceivers	Yes	Yes	Yes
HF radio	Yes	Yes	Yes
Satellite telephone ¹	Yes	Yes	Yes
Mobile telephone	Yes	Yes	Yes
406 MHz ELT manufactured to TSO 126	Yes	Yes	Yes
GPS Satellite Flight Following or ADS-B ²	Yes	Yes	Yes
Intercom ³	Yes	Yes	Yes
Passenger address system	Yes	Yes	Yes
Cockpit voice recorder	Yes	Yes	Yes
Flight data recorder ^{5,6}	Yes	If Available ⁴	If Available ⁴
Radio altimeter	Yes	Yes	Yes
2 GNSS (TSO C146)	Yes	Yes	Yes
2 VOR/ILS	Yes	Yes	Yes
2 DME ⁴	Yes	Yes	Yes
2 ADF ⁴	Yes	Yes	Yes
EGPWS or TAWS	Yes	Yes	Yes
TCAS I or II	Yes	Yes	Yes
Engine monitoring system	Yes	Yes	Yes
Weather radar (colour)	Yes	Yes	Yes
Installed emergency locator transmitter	Yes	Yes	Yes
Survival equipment (suitable for route flown)	Yes	Yes	Yes

1. Must be accessible from both the cabin and pilots station. Pilots must be able to utilise the system through their normal systems without impacting other radio communications.
2. The system must be capable of continuous monitoring and reporting of the position of the aircraft.
3. The intercom must allow communications from the cabin to the pilots, cabin to ground via radio or satellite phone and pilot to pilot. The pilots must have the ability to disconnect the cabin if required. The cabin must have headsets with the headsets being noise cancelling headsets if cabin noise is likely to disrupt communications.

4. May be omitted if two serviceable TSO C146 GNSS are available.
5. The flight data recorder must be able to be utilised for flight data monitoring program if the equipment is a legal requirement.
6. The fitment of a flight data recorder is required if such a system is a legal requirement for the aircraft type.

9.4. Aeroplane Flight Crew

9.4.1. Age limits

The Provider must not utilise pilots who are more than 65 years of age for the conduct of Aviation Services without the express consent of the Department.

Pilots over 60 years of age must not operate as pilot in command of an aircraft unless:

In multi crew operations, the second pilot qualified in accordance with this Standard, is less than 60 years of age: or

In single pilot operations a second pilot qualified in accordance with this Standard, is assigned to crew the flight at the time of the relevant flight and is less than 60 years of age: or

In single pilot operations a pilot over 60 years of age has proven competence in accordance with the Providers CASA approved single pilot training and checking system within the previous 6 months.

9.4.2. Flight Crew Composition

The Provider must not allow pilots to operate more than two types of aircraft for Aviation Services.

Where a type or class rating provides coverage for multiple aircraft models, the Department counts them as different types if they have different operational characteristics including but not limited to engine limitations, airspeed limitations, performance limitations or avionics installations.

The Provider shall ensure a full description of each aircraft is provided to the Department, as required under clause 6.1.

9.5. Minimum Experience and Recency Requirements

9.5.1. Flight Crew

Pilots providing Aviation Services must have the following experience.

Note: For the avoidance of doubt, while pilots are receiving initial line training the minimum hour requirements below need not be complied with, however compliance is required before a pilot is cleared to line operations and Available for a Task.

Command	All Operations
Minimum Experience	
License Type	ATPL ^{1,2}
Instrument Rating	5 Renewals
Total Hours	3000
Total Command	2000

Command	All Operations
Minimum Experience	
Total Command Multi Engine	2000 ³
Total Turbine Time	1000 ⁴
Total Night Command	200
Command on Type	100 ^{7,10}
Recency⁸	
Total Hours last 90 days	50 ⁵
Time on type last 90 days	10 ⁵
Time on type last 28 days	5 ⁶

Co-Pilot	All Operations
Minimum Experience⁹	
License Type	CPL
Instrument Rating	Current
Total Hours	1000
Total Command	750
Total Command Multi Engine	500
Recency⁸	
Total Hours last 90 days	50 ⁵
Time on type last 90 days	10 ⁵
Time on type last 28 days	5 ⁶

- CASA approved single pilot aircraft can be operated by a CPL holder, for single pilot operations, if the Provider has a CASA approved conversion syllabus for the particular aircraft type to address the knowledge differences between a CPL and ATPL.
- All multi crew operations require an ATPL
- Not applicable if operating single engine turbine powered aircraft.
- 1000 hours turbine time may be reduced to 500 hours if the Provider has a CASA approved check and training system to ensure the competence of the pilot in turbine operations.
- If 90-day requirements are not achieved, an operational proficiency check can be substituted for this requirement.
- If 28-day requirements are not achieved, a line check or supervised flight by a training captain can be substituted for this requirement.
- Command on type may be reduced to 50 hours if the pilot has more than 100 hours on a similar type. Similar types would be B200 /B350.
- Alternate recency requirements as per 9.5.2.
- Co-pilot minimum experience requirements are only applicable when required for operational, regulatory OR contractual required. Use of co-pilots when not regulatory, operationally or contractually required shall be in accordance with the Providers head of flight operations approval. Note recency and training requirements noted in this Standard do apply at all times.
- The command on type may be reduced if the Provider has a CASA approved conversion training program for the type which includes endorsement training, line training and the pilot is checked by no less than two separate check pilots during the transitions process. The Providers head of flight operations shall confirm that the pilot meets all other relevant requirements of this Aviation Standard and is deemed competent to operate the type.

9.5.2. Alternate Flight Crew Recency

Recency requirements noted in 9.5.1 may be substituted for the following requirements for Providers who have CASA approved training systems with no less than 4 training events per calendar year, spaced nominally at 90-day intervals.

A pilot who is checked to line and Up To Date with the CASA approved training program the following recency requirements apply:

Recency	
Total Hours last 90 days	50 ^{1,2}
45-day recency	3 sectors including 3 hours including 1 hour at night, if the flight is to be flown at night, on Type. ³

1. 50 hour requirement may be reduced to 40 hours if the head of flight operations is satisfied the reduction in recent experience will not impact the safety of operations.
2. If not achieved an operational proficiency check can be substituted for this requirement.
3. If not achieved a supervised line flight can be substituted for this requirement.

Note: **Up To Date** means a pilot has satisfactorily completed all required (as above) training and checking events with the last training event being completed within the last 120 days. If the pilot is not Up To Date then the recency requirements noted in 9.5.1 remain in force.

9.6. Flight Crew Training

The Provider's training must include the following technical, operational and ground training elements.

All pilots	Frequency
Aircraft training and checking	
IPC	Annual
OPC	Annual and no closer than 4 months before or after an IPC by type
Line Check (maybe conducted on Aviation Services)	Annual by type
Night Check	Annual by type
Night Recurrency	3 take-offs & landings every 90 days
Aircraft Emergency Procedures	Annual by type
In aircraft training sessions	Two per annum per type
Aeromedical Operations including ground handling	Annual
All pilots Ground Training	
Aircraft Technical Knowledge by type	Annual
EGPWS/TAWS/TCAS Procedures by type ¹	Annual
Avoidance of Controlled Flight Into Terrain ¹	Annual
Adverse weather operations ¹	Annual

All pilots	Frequency
Aircraft training and checking	
Aeromedical and Role Equipment	Annual
SMS	Annual
Emergency Response Training	Annual
Dangerous Goods Awareness	2 years
Human Factors Training	2 years
Crew Resource Management	2 years
Fatigue Management	2 years
Aviation Security	2 years
Drug and Alcohol Management	2 years

1. May be conducted as part of a simulator-based training program.

9.7. Aircrew Training

The Provider must ensure all Aircrew are trained to conduct their duties.

The Providers training for Aircrew must include, at a minimum, the following technical, operational and ground training elements including SMS, QMS, and Human Factors Training.

Aircrew	Frequency
Aircraft Emergency Procedures Check	Annual
Aircraft Technical Knowledge	Annual
Aeromedical Operations	Annual
SMSs	Annual
Aeromedical and Role Equipment	Annual
Emergency Response Training	Annual
Ground Handling Training	Annual
Human Factors	2 years
Crew Resource Management	2 years
Dangerous Goods Awareness	2 years
Aviation Security	2 years
Drug and Alcohol Management	2 years
Fatigue Management	2 years

9.8. Medical Transport Specialists Training

The Provider must ensure all Medical Transport Specialists are trained to conduct their duties.

The Providers training for Medical Transport Specialists must include, at a minimum, the following technical, operational and ground training elements including SMS, QMS, and Human Factors Training.

Medical Transport Specialists	Frequency
Aircraft Emergency Procedures	Annual
Aircraft Technical Knowledge	Annual
Aeromedical Operations	Annual
SMSs	Annual
Aeromedical and Role Equipment	Annual
Emergency Response Training	Annual
Ground Handling Training	Annual
Human Factors	2 years
Crew Resource Management	2 years
Dangerous Goods Awareness	2 years
Aviation Security	2 years
Drug and Alcohol Management	2 years
Fatigue Management	2 years

10. Helicopters

10.1. Helicopter Types

All operations shall be conducted in multi engine turbine helicopters that are certified to normal or transport category, category A performance and IFR requirements.

10.2. Helicopter Performance

The Department expects all operations to be conducted so that the use of the helicopter does not increase the risk of harm to the Patient or wider community beyond a level that is ALARP.

The overall performance objective is to ensure that in the event of an engine or other systems failure the helicopter can safely continue flight and land without causing damage to the helicopter, any person or structure.

The provider must conduct Medical Transport and Aerial Work services in accordance with the performance class requirements prescribed in CASR Parts 133 and 138. PC2WE operations require specific instruments of approval from CASA, and may only be conducted in accordance with the conditions stipulated in the relevant instrument of approval, and in accordance with the regulations.

10.3. Helicopter Equipment

10.3.1. General

The Provider must provide aircraft that are equipped to meet IFR operational standards. The Aircraft shall be operated to IFR requirements unless dispatch is allowed under the MEL, in accordance with 6.3.5.

VRF operations conducted in accordance with section 7.4 shall comply with the IFR equipment requirements or the MEL.

10.3.2. Helicopter Equipment

Helicopter aircraft providing Aviation Services must be equipped in accordance with the following table:

	All Helicopters
Equipped to IFR standards	Yes
NVIS	Yes
Autopilot	Yes
2 VHF transceivers	Yes
HF radio ¹	Yes
Satellite telephone ²	Yes
Mobile telephone	Yes
Fixed 406 MHz ELT manufactured to TSO 126	Yes
GPS Satellite Flight Following	Yes
Intercom ³	Yes
Passenger address system	Yes
Passenger Briefing Cards	Yes
Cockpit voice recorder	Yes
Flight data recorder	If Available
Radio altimeter with audio/visual alert	Yes
2 GNSS (TSO C146)	Yes
2 VOR/ILS	Yes
2 DME ⁴	Yes
2 ADF ⁴	Yes
EGPWS or TAWS	Yes
TCAS I or II	If Available
Engine monitoring system	Yes
Helicopter Vibration Monitoring System	Yes
Weather radar (colour)	Yes
Survival equipment (suitable for route flown)	Yes
Aircraft First Aid Kit	Yes
Fire Extinguisher	Yes
Upper Torso Restraints	Yes
Helicopter flotation system ⁶	Yes
Rafts ⁵	Yes
Life Jackets ^{5,6}	Yes
Underwater Locator Beacon sonar transmitter (Pinger) ⁶	Yes
Instantaneous Vertical Speed Indicator (IVSI)	Yes
Altitude Voice Alerting System	Yes
Emergency Exit Lighting System	Yes
Night Search Light to the standard, SX16 Nite Sun, a Trakka 800 or a search light. ⁷	Yes

1. Maybe omitted if not required for operations over the flight route and a serviceable satellite phone is available.
2. Must be accessible from both the cabin and pilots station. Pilots must be able to utilise the system through their normal systems without impacting other radio communications.
3. The intercom must allow communications from the cabin to the pilots, cabin to ground via radio or satellite phone and pilot to pilot. The pilots must have the ability to disconnect the cabin if required. The cabin must have headsets with the headsets being noise cancelling headsets if cabin noise is likely to disrupt communications.
4. May be omitted if two serviceable TSO C146 GNSS are available.
5. Not required unless conducting overwater operations.
6. Constant wearing of life jackets for offshore operations.
7. Not required for daylight operations or night operations under NVIS and the search light is not required for the Task.

10.4. Night Vision Imaging System (NVIS)

The helicopter must be equipped, and the Provider must be approved by CASA to conduct night vision operations.

Night vision equipment for a helicopter for use in an NVIS operation must be approved by CASA.

The Provider's operations manual must include instructions to pilots, aircrew and other personnel involved in the conduct of night vision operations.

All NVIS devices shall be managed and maintained in accordance with a documented system of maintenance.

10.5. Winching

The Provider must be approved by CASA to conduct winch and/or hoist operations in a helicopter.

The helicopter flight manual must include the relevant approved supplements specifying the appropriate operating criteria.

The Provider's operations manual must include instructions to pilots, aircrew/winch operators and other personnel involved in the conduct of winching operations.

The helicopter should have an approved flight manual supplement outlining the operation, limitations, and emergency procedures of the helicopter and hoist during hoisting operations.

10.6. Search and Rescue Operations

The Provider must be approved by CASA to conduct Search and Rescue Operations in a helicopter in accordance with the relevant legislation in force at that time.

The Provider's operations manual must include instructions to pilots, aircrew/winch operators and other personnel involved in the conduct of Search and Rescue Operations, as appropriate.

The helicopter should have an approved flight manual supplement outlining the operation, limitations, and emergency procedures of the helicopter and hoist during hoisting operations.

Search and Rescue Operations will be tasked by a Search and Rescue Body and the helicopter released by the Department to conduct the Search and/or Rescue Operations.

The operating standards for the Search and/or Rescue Operation shall be in accordance with the CASA requirements or those provided by the Search and Rescue Body and under their authority and oversight.

Where a Rescue Operation utilises Queensland Health HLS, the provisions of this Aviation Standard with regard to PC2 or PC2WE for the use of the HLS shall apply.

10.7. Helicopter Crew

10.7.1. Flight Crew Age Limits

The Provider must not utilise pilots who are more than 65 years of age for the conduct of Aviation Services without the express consent of the Department.

Pilots over 60 years of age must not operate as pilot in command of an aircraft unless:

- in multi crew operations, the second pilot qualified in accordance with this Standard, is less than 60 years of age; or
- in single pilot operations a pilot over 60 years of age has proven competence in accordance with the Providers CASA approved single pilot training and checking system within the previous 6 months.

10.7.2. Flight Crew Composition

The Provider must not allow pilots to operate more than two types of aircraft for Aviation Services.

Where a type or class rating provides coverage for multiple aircraft models, the Department counts them as different types if they have different operational characteristics including but not limited to engine limitations, airspeed limitations, performance limitations or avionics installations.

The Provider shall ensure a full description of each aircraft is provided to the Department, as required under clause 6.1.

10.8. Minimum Experience Requirements

10.8.1. Flight Crew Experience

Note: For the avoidance of doubt, while pilots are receiving initial command line training the minimum hour requirements below need not be complied with, however compliance is required before a pilot is cleared to line operations and Available for a Task.

Command	All Operations
Minimum Experience	
License Type	CPL ATP (H) preferred
Instrument Rating	2 Renewals

Total Hours	2500 ¹
Total Command Helicopter	1500
Total Turbine Time Helicopter	1200
Total Night Command	100
Command on Type	100 ⁶
Recency⁴	
Total Hours last 90 days	50 ²
Time on type last 90 days	10 ²
Time on type last 28 days	5 ³
Winching	3 in 90 days
NVIS	1 hour incorporating 3 take-offs, circuits and landings in last 90 days

Co-Pilot	All Operations
Minimum Experience⁵	
License Type	CPL
Instrument Rating	Current
Total Hours	500
Total Command	100
Total hours contract type	50 ⁶
Recency⁴	
Total Hours last 90 days	50 ²
Time on type last 90 days	10 ²
Time on type last 28 days	5 ³
Winching	3 in 90 days
NVIS	1 hour incorporating 3 take-offs, circuits and landings in last 90 days

1. May be between 2,000 and 2,500 hours, provided that the pilot has substantial aeromedical experience and more than 200 hours night flying experience or other equivalent experience as agreed between the parties.
2. If 90-day requirements are not achieved, an operational proficiency check can be substituted for this requirement.
3. If 28-day requirements are not achieved, a line check or supervised flight by a training captain can be substituted for this requirement.
4. Alternate recency requirement as per 10.8.2
5. Co-pilot minimum experience requirements are only applicable when required for operational, regulatory or contractual required. Use of co-pilots when not regulatory, operationally or contractually required shall be in accordance with the Provider's head of flight operations approval. Note recency and training requirements noted in this Standard do apply at all times.
6. The command or total hours on type may be reduced if the Provider has a CASA approved conversion training program for the type which includes endorsement training, line training and the pilot is checked by no less

than two separate check pilots during the transitions process. The Providers head of flight operations shall confirm that the pilot meets all other requirements and is deemed competent to operate the type.

10.8.2. Alternate Flight Crew Recency

Recency requirements noted in 10.8.1 may be substituted for the following requirements for Providers who have CASA approved training systems with no less than 4 training events per calendar year, spaced nominally at 90-day intervals.

A pilot who is checked to line and Up To Date with the CASA approved training program the following recency requirements apply:

Recency	
Total Hours last 90 days	50 ^{1,2}
45-day recency	3 sectors including 3 hours including 1 hour at night, if the flight is to be flown at night, on Type. ³

1. 50 hour requirement may be reduced to 40 hours if the head of flight operations is satisfied the reduction in recent experience will not impact the safety of operations.
2. If not achieved an operational proficiency check can be substituted for this requirement.
3. If not achieved a supervised line flight can be substituted for this requirement.

Note: **Up To Date** means a pilot has satisfactorily completed all required (as above) training and checking events with the last training event being completed within the last 120 days. If the pilot is not Up To Date then the recency requirements noted in 10.8.1 remain in force.

10.8.3. Aircrew Experience

A person acting in the position of aircrew or winch operator on a helicopter engaged in winching and/or night vision operations shall have satisfactorily completed a course of training for winching and/or night vision operations, as appropriate, and has been certified by an approved person and recorded in his/her log book.

An aircrew member shall have completed a formal and recorded training scheme commensurate to their role, in accordance with the procedures contained in the Providers operations manual.

10.9 Flight Crew Training

The Provider's training must include the following technical, operational and ground training elements.

All pilots	Frequency
Aircraft training and checking	
IPC	Annual
OPC	Annual and no closer than 4 months before or after an IPC
Line Proficiency Check (maybe conducted on Aviation Services)	Annual
Night Proficiency Check	Annual

All pilots	Frequency
Night Recency	3 take-offs & landings every 90 days
Aircraft Emergency Procedures	Annual by type
In aircraft training sessions	Two per annum per type
Aeromedical Operations including ground handling	Annual
Night Vision Proficiency Check	Annual
Winching	Annual
Underwater Escape Training	3 years
All pilots Ground Training	
Aircraft Technical Knowledge by type	Annual
Aeromedical and Role Equipment	Annual
EGPWS/TAWS/TCAS Procedures by type ³	Annual
Avoidance of Controlled Flight Into Terrain ³	Annual
Adverse weather operations ³	Annual
SMS	Annual
Emergency Response Training	Annual
Dangerous Goods Awareness	2 years
Human Factors Training	2 years
Crew Resource Management	2 years
Fatigue Management	2 years
Aviation Security	2 years
Drug and Alcohol Management	2 years

1. If 90-day requirements are not achieved, an operational proficiency check can be substituted for this requirement.
2. If 28-day requirements are not achieved, a line check can be substituted for this requirement.
3. May be conducted as part of a simulator-based training program.

10.10 Aircrew Training and Recency

The Provider must ensure all Aircrew are trained to conduct their duties.

The Providers training for the Aircrew must include, at a minimum, the following technical, operational and ground training elements including SMS, QMS, and Human Factors Training.

Aircrew	Frequency
Aircraft Emergency Procedures Check	Annual
Aircraft Technical Knowledge	Annual
Aeromedical and Role Equipment	Annual
Aeromedical Operations	Annual
SMSs	Annual
Emergency Response Training	Annual
Ground Handling Training	Annual

Aircrew	Frequency
Human Factors	2 years
Dangerous Goods Awareness	2 years
Aviation Security	2 years
Drug and Alcohol Management	2 years
Fatigue Management	2 years
Search Light	2 years
Winching	Annual
NVIS	For less than 50 hours NVIS experience – 6 monthly; or For more than 50 hours NVIS experience – 12 monthly,
Underwater Escape Training	3 years
Recency	
NVIS	1 hour incorporating 3 take-offs, circuits and landings in last 3 months or NVIS CCF in last 3 months
Winching – if to be conducted	3 within 90 Days

10.11 Medical Transport Specialist Training and Recency

The Provider must ensure all Medical Transport Specialist are trained to conduct their duties.

The Providers training for the medical crew must include, at a minimum, the following technical, operational and ground training elements including SMS, QMS, and Human Factors Training relevant to the operations.

Medical Transport Specialist	Frequency
Aircraft Emergency Procedures Check	Annual
Aeromedical and Role Equipment	Annual
Aircraft Technical Knowledge	Annual
Aeromedical Operations	Annual
SMSs	Annual
Emergency Response Training	Annual
Ground Handling Training	Annual
Winching	Annual
Human Factors	2 years
Crew Resource Management	2 years
Dangerous Goods Awareness	2 years

Medical Transport Specialist	Frequency
Aviation Security	2 years
Drug and Alcohol Management	2 years
Fatigue Management	2 years
Underwater Escape Training	3 years
Recency	
Winching – If to be conducted	3 in 90 Days

Attachment 1

Aviation Standard Departure Request Risk Management (Safety Case)

Aviation Standard Departure Request - Part 1 Departure Description

Internal Reference Number:

<p>This template provides a standardised means to apply to the Department for a Departure from the Aviation Standard in accordance with the requirements of Part 4 of the Aviation Standard.</p> <p>Organizations wishing to apply for a Departure from any part of the Aviation Standard must provide the information below to the Department and must receive written approval for the Departure prior to operating under a Departure.</p>	
Organisation making request:	
Prepared by:	
Contact email:	
Contact telephone:	
Part of the Aviation Standard from which relief is requested:	
Nature of Departure requested:	
Reason for Departure with the Standard:	
Impact if the Departure is not approved:	
The undersigned support this Departure and accept that the case provided will ensure a safety outcome "As Low As Reasonably Practicable" (ALARP) and at least equal to the requirements in the Aviation Standard.	
Signature of Safety Manager:	
Signature of the relevant Responsible Manager:	
Signature of the CEO:	
Date of application:	

**Aviation Standard Departure Request – Part 2
Risk Management (Safety Case)**

Internal Reference Number:

Details of risk assessment carried out
Persons participating in risk assessment
Risk assessment techniques applied
Define how this Departure will provide an outcome with a risk ALARP as compared to the Aviation Standard

**Aviation Standard Departure Request – Part 2
Risk Management (Safety Case)**

Internal Reference Number:

Define the timeline for implementing any risk mitigations required to achieve the ALARP outcomes of this Departure

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**Aviation Standard Departure Request – Part 2
Risk Management (Safety Case)**

Internal Reference Number:

Hazard / Risk	Managed by SMS	Control Measures	Mitigation Measures	Residual risk against SMS	Person Responsible for ALARP Management
List the hazards or risks assessed as being affected by the deviation.	If the risk is managed in an existing risk register, provide details here.	List any measures taken to prevent the hazard or risk from occurring.	List any measures taken to mitigate against loss should the hazard or risk occur.	Provide an assessment of the residual risk against the Provider's SMS criteria	Name of person responsible for managing and reviewing the risk.

**Aviation Standard Departure Request – Part 2
Risk Management (Safety Case)**

Internal Reference Number:

Hazard / Risk	Managed by SMS	Control Measures	Mitigation Measures	Residual risk against SMS	Person Responsible for ALARP Management

Provide additional pages as required

**Aviation Standard Departure Request – Part 3
Queensland Health Review**

Internal Reference Number:

Departmental use only	
Departure from the Aviation Standard is / is not granted on the following basis:	
Person Acknowledging the Departure:	
Initial Issue Date:	
Review Period:	