EXPLANATORY STATEMENT

Issued by the authority of the Deputy Prime Minister and Minister for Infrastructure, Transport and Regional Development

Civil Aviation Act 1988

Civil Aviation Safety Amendment (Part 119) Regulations 2018

The *Civil Aviation Act 1988 (*the Act) establishes the regulatory framework for maintaining, enhancing and promoting the safety of civil aviation, with particular emphasis on preventing aviation accidents and incidents.

Subsection 98(1) of the Act provides, in part, that the Governor-General may make regulations, not inconsistent with the Act, prescribing matters required or permitted by the Act to be prescribed, or necessary or convenient to be prescribed for carrying out or giving effect to the Act. That subsection also provides that the Governor-General may make regulations for the purpose of carrying out and giving effect to the provisions of the Convention on International Civil Aviation relating to aviation safety, and in relation to the safety of air navigation, being regulations with respect to any other matters to which the Parliament has power to make laws.

Subsection 9(1) of the Act specifies, in part, that the Civil Aviation Safety Authority (CASA) has the function of conducting the safety regulation of civil air operations in Australian territory by means that include developing and promulgating appropriate, clear and concise aviation safety standards and issuing certificates, licences, registrations and permits.

The *Civil Aviation Safety Amendment (Part 119) Regulations 2018* (the Regulations) make amendments to the *Civil Aviation Safety Regulations 1998* (CASR), to substitute a new Part 119 – Australian air transport operators - certification and management. Part 119 of CASR is part of a suite of legislative reform that encompasses the flight operations regulations (Parts 91, 119, 121, 133, 135 and 138 of CASR).

Air operator certificates (AOCs) are issued under section 27 of the Act. The Act contains numerous provisions that prescribe conditions for the issue and retention of an AOC. The Regulations establish a single regulatory framework for AOC applications, certification and management systems, that is designed to enhance the safety of air transport operations.

Most importantly, the Regulations remove the regulatory distinction and treatment between regular public transport (RPT) operations and charter operations. Each will be an "air transport operation" and subject to the same safety standards, but appropriately scaled based on size and complexity of the operations conducted and aircraft used. This is more consistent with international standards and practices and is intended to reduce the accident rate for small aeroplane charter operations which was determined, in the 2017 CASA Risk Profile for this sector, to be 11 times higher than for small aeroplane RPT operations.

The key features of the Regulations are:

- the requirement for all air transport operators to have a safety management system
- the requirement for all air transport operators to have a training and checking system for flight crew and other safety personnel;
- the requirement for a new key person – the Safety Manager – to manage the operator's safety management system and its effectiveness;
- the identification in regulation of minimum qualifications and experience for key personnel, including the Chief Executive Officer, Head of Flying Operations, Head of

Training and Checking, and the Safety Manager, as well as identification of their responsibilities and accountabilities; and

- the requirement for all air transport operators to prepare, maintain and operate in accordance with an exposition prepared by the operator. An exposition is a document, or suite of documents, that specifies the scope of the operations and activities performed by the operator and how the operator complies with the civil aviation legislation. The exposition must include a formal change management process.

The impacts and additional costs related to these safety enhancements fall primarily on current charter operators. Individual operator compliance costs will vary, depending on size and complexity of their operation and how the operator choses to implement the new rules. The costs are considered justified, in view of the much higher accident rate for charter operations compared to RPT operations.

More information on the implications of the changes is set out in the Regulation Impact Statement at **Attachment A**.

Part 119 uses a number of new defined terms which will not take effect until 25 March 2021. The new definitions will be included in the CASR Dictionary following the making and registration, planned for February 2019, of the *Civil Aviation Safety Amendment (Operations Definitions) Regulations 2019.* A draft of these regulations is currently available on the CASA website.

Strict liability offences

There are 21 strict liability offences in the Regulations, which are outlined in the Statement of Compatibility with Human Rights at **Attachment B**. Consistent with the principles set out in the Attorney-General's *A Guide to Framing Commonwealth Offices, Infringement Notices and Enforcement Powers* (September 2011) (the AGD Guide) and the Sixth Report of 2002 of the Senate Standing Committee for the Scrutiny of Bills, *Application of Absolute and Strict Liability Offences in Commonwealth Legislation* (26 June 2002), the strict liability offences are considered reasonable, necessary and proportionate to the objective of ensuring aviation safety. The offences are regulatory in nature and framed to ensure that the administration of aviation activities by an air transport operator are conducted safely, and to serve the legitimate objective of ensuring the integrity of the overall aviation safety regulatory scheme by promoting compliance and deterring non-compliance. The rationale is that people who owe general safety duties should be expected to be aware of their duties and obligations. In the context of the operating rules for air transport operations, a defendant can reasonably be expected to know what the requirements of the law are, and the mental, or fault, element can justifiably be excluded.

For strict liability offences in the Regulations, the prosecution will have to prove only the conduct of the accused. However, where the accused produces evidence of an honest and reasonable, but mistaken, belief in the existence of certain facts which, if true, made that conduct innocent, it will be incumbent on the prosecution to establish that there is not an honest and reasonable mistake of fact.

In practice, any enforcement action contemplated by CASA is subject to the provisions of CASA's 'just culture' policy as set out in its published Regulatory Philosophy.

Consultation

In accordance with section 17 of the *Legislation Act 2003*, CASA developed the Regulations in consultation with aviation community and the public over an extended period of time.

More recent consultations have included publication of a Notice of Proposed Rule Making (NPRM) for Part 119 in 2012, publication of a related NPRM regarding local scenic flights in 2015, consultations on updated drafts of Part 119 and related guidance material published in August 2018 on CASA's website and notified through social and other media, and consultation meetings convened with technical working groups of the Aviation Safety Advisory Panel. CASA took account of the consultation input and made a number of changes to the Regulations to modify provisions where this was necessary, clarity their intent, remove provisions no longer considered necessary and minimise administrative burdens and costs associated with their implementation.

In October 2018 a meeting of a Part 119 technical working group of the ASAP was convened to review the draft of CASR Part 119 and consider CASA's response to the 2018 consultation input. The working group endorsed CASA's actions and responses and indicated its support for CASA to make the Regulations, subject to certain revisions and undertakings from CASA, including undertakings to develop additional guidance material for operators, and to review certain regulatory issues not addressed in the Regulations. The ASAP accepted the working group's recommendations and indicated its support for making Part 119 in its current form, in a letter dated 1 November 2018.

Incorporation by reference

In accordance with paragraph 15J (2) (c) of the *Legislation Act 2003* and subsection 98 (5D) of the Act, the legislative instrument applies, adopts or incorporates matters contained in the following instruments:

- exposition of an Australian air transport operator
- Part 119 MOS.

Subsection 98 (5D) of the Act permits a non-legislative instrument to be incorporated as in force or existing at a particular time or from time to time and may not yet exist when the legislative instrument is made.

Each incorporated document is described below, together with the manner of incorporation and how it may be obtained.

Part 119 MOS:

The Regulations incorporate the Part 119 Manual of Standards (Part 119 MOS) by reference. The Part 119 MOS may prescribe matters specifically for the purpose of the Regulations, as provided for by the Regulations. If a Part 119 MOS is made, it will be a legislative instrument freely available on the Federal Register of Legislation.

Exposition of an Australian air transport operator:

The Regulations incorporate the exposition of an Australian air transport operator. An exposition is a document, or suite of documents, that specifies the scope of the operations and activities conducted by the operator, and sets out the plans, processes, procedures, programs and systems implemented by the operator to comply with the civil aviation legislation. It is prepared by the relevant operator and given to CASA. For Part 119, it is specifically incorporated in relation to an operator's procedures for changing the exposition, compliance

with the exposition generally, chief executive officer experience requirements and responsibilities, head of operations experience requirements and responsibilities, head of training and checking experience requirements and responsibilities, safety manager experience requirements and responsibilities, and certain personnel training requirements.

An exposition is incorporated as the exposition is changed from time to time, in accordance with the definition of "exposition" to be inserted into CASR by the *Civil Aviation Safety Amendment (Operations Definitions) Regulations 2019*.

An exposition is not publicly or freely available. The exposition is proprietary to the operator and will generally include commercial in confidence information about the operator's business. The incorporated requirements of an exposition are at the operator-specific level and apply only to the operator and its personnel. Further, the Regulations require an operator to provide its exposition to personnel who is subject to a requirement in an exposition.

Regulation Impact Statement

A Regulation Impact Statement (RIS) prepared by CASA was assessed by the Office of Best Practice Regulation as compliant with the Best Practice Regulation requirements with a level of analysis commensurate with the likely impacts (OBPR id: 24505). A copy of the Statement is set out in **Attachment A**.

Statement of Compatibility with Human Rights

A statement of Compatibility with Human Rights is set out in **Attachment B**.

Commencement and making

The proposed regulations are a legislative instrument for the purposes of the *Legislation Act 2003*. The provisions of the *Civil Aviation Safety Amendment (Part 119) Regulations 2018* commence on 25 March 2021. Details of the proposed regulations are set out in **Attachment C**.

The Act specifies no condition that needed to be satisfied before the power to make the proposed Regulations may be exercised.

Authority: Subsection 98(1) of the
Civil Aviation Act 1988

Attachment A

Regulation Impact Statement for CASR Parts 119, 121, 133, 135 and 138

Summary

The current regulations applying to commercial passenger, cargo and aerial work operations have not been comprehensively reviewed or updated in over 20 years. During that time there has been considerable technological change and changes to International standards. Combined with recent operational experience within Australia and Australian safety data trends and disparities between types of operations the Australian public sees as largely similar, it is timely to review and update the regulatory requirements.

There are a number of safety improvements identified by CASA that are likely to be beneficial. The most significant improvements relate to businesses undertaking charter flights.

Within commercial passenger operations, the accident rate for low capacity charter is markedly higher than low capacity regular public transport (RPT) flights. The accident rate disparity is approximately 11 to 1 for small aeroplanes.

The ATSB has found that a significant contributing factor to accidents involving charter aircraft has been organisational failures and under developed safety management systems.

The preferred option would create a single regulatory standard for businesses carrying fare paying passengers and cargo. This will remove the current differential in regulatory standards between businesses operating scheduled flights that are publicly available and charter flights. The new single standard will be largely based on the current standards applying to RPT operators and will require businesses currently conducting charter flights to implement;

- *A safety management system (SMS)*; the important elements involve having a safety manager who is responsible for safety and ensuring that safety risks are identified and resolved
- *Improved staff training and management of competency*; with pilots of small aircraft required to undertake bi-annual or annual training and checks for competency

The preferred option would also make changes to the requirements for the fitment of safety equipment, including Terrain Awareness and Warning Systems (TAWS) and weather radar, however, there will not be significant cost impacts associated with these changes.

The aerial work regulations will be streamlined to remove the need for time limited exemptions and clarify the aircraft performance requirements when using helicopters for particular aerial work operations.

Overall the changes within the preferred option are estimated to have a 10-year annualised cost impact of $6.51m.

Background/Problem

The current regulatory requirements that apply to businesses seeking to operate commercial passenger carrying, cargo and aerial work operations are primarily contained in the *Civil Aviation Act 1988, Civil Aviation Regulations 1988* and the Civil Aviation Orders. The operator must be issued with an Air Operator's Certificate (AOC) by CASA under the Act.

To apply for an AOC an applicant must provide an operations manual that outlines the operational procedures of the business including;

- Key personnel being a CEO and Head of Flying Operations and if required the Head of Aircraft Airworthiness and Maintenance Control;
- The employment of suitably qualified pilots assessed by the operator;
- Aircraft equipped with the necessary navigation and safety equipment;
- Management of the continuing airworthiness of aircraft and maintenance; and
- Organisational requirements if required, for an SMS, training and checking and management of pilot fatigue.

Whilst the operations manual is a universal requirement for AOC operators, the specific operational requirements are differentiated both by the nature of the operations and the type of the aircraft used by the business.

CASA undertakes initial entry control to issue an AOC. CASA also undertakes ongoing surveillance to ensure ongoing compliance. The operations manual is an important document which is required to be complied with by the operator's personnel. CASA also has regard to it for surveillance to ensure that the business is following the procedures set out in their operations manual. The current compliance costs with the initial AOC requirements are estimated to be in order of $70 000 for a typical business, with ongoing compliance costs estimated to range from $23 000 for a small single pilot operator to $245 000 for a large charter business employing more than 20 pilots (Appendix 2).

Problem

Whilst the current Act and regulatory requirements have evolved over time, any changes have been *ad hoc* focused on one issue or a limited set of issues and there has been no holistic and comprehensive review within the last 20 years in the light of advancement in technology, changes to international standards and operational experience within Australia.

There are different standards based on whether the flights are charter or RPT. This can result in the same aircraft carrying the same number of passengers (or cargo) having different regulatory standards.

Some regulatory requirements are not aligned to international standards. Australia is subject to audits from the International Civil Aviation Organization (ICAO) and from ICAO member States, including the USA. Whilst there is no immediate threat, failure to maintain parity with international standards over the medium to longer-term may result in Australia's ability to participate in international markets being compromised.

Advancement in technology

In some cases, the current regulations have not fully taken into account the advancements in technology, such as the expansion in the number of flight data recorder parameters and an increase in the sampling rate of those parameters.

Safety

In reviewing the operational experience within Australia, it is apparent that the accident rate within commercial air transport operations is highest for lower capacity aircraft conducting charter flights (ATSB 2018, p.18).

Over the last ten years for aerial work operations there were 326 accidents and 55 deaths. There have been 148 accidents and 16 deaths through the operation of low capacity charter aircraft (ATSB 2018, p. 10), compared to 4 accidents and 2 deaths in low capacity RPT. The accident rate for low capacity charter flights is higher than for low capacity RPT flights (ATSB 2018, p. 17 - 18).

In an analysis of the cause of charter accidents the ATSB found that the most common were: mechanical problems with the aircraft's landing gear (20 per cent), wheels-up, landing (12 per cent), partial and complete power loss/engine failure (14 per cent),

loss of aircraft control (11 per cent), and fuel-related accidents (7 per cent) (p. 17, ATSB 2007). However, in terms of fatal accidents the most likely occurrences were collisions, loss of control and power loss occurrences (p. 19 ATSB 2007). Table 1a provides examples of the types of fatal accidents within the charter sector. (ATSB 2007, p. 54)

In explaining the high accident rate, the ATSB notes that charter flights are generally shorter and that can provide part of the explanation as to why the charter sector has a higher accident rate per flight hour, because in part charter flights have greater exposure to approach and landing accidents per hour flown (ATSB 2018, p. 18).

It is CASA's assessment that part of the disparity in the accident rate between RPT and charter is due to differences in the type of aircraft and their reliability. To highlight this point approximately 62% of the aircraft registered to RPT operators are powered by more reliable turbine engines compared to only 16% for charter operators.

Mitigators

In addition, it is generally accepted that aircraft accidents rarely have one cause and even if an accident is attributed to pilot actions, it is important to consider the operational environment in which the pilot operates. The US Federal Aviation Administration (FAA) researchers note:

> *It is generally accepted that like most accidents, those in aviation do not happen in isolation. Rather, they are often the result of a chain of events often culminating with the unsafe acts of aircrew (p.1 Wiegman et al, 2005)*

Table 1a: Fatal Charter Accidents reported by the ATSB

The fatal charter accidents included:

- A Partenavia P.68 aircraft impacting terrain while on approach to land (1998).
- A Bell 206L LongRanger helicopter that collided with the sea due to a loss of visual contact in heavy rain (1999).
- Hypobaric incapacitation of the pilot and passengers of a Beech Super King Air 200 following a failure of the aircraft's pressurisation and supplemental oxygen system (2000).
- In-flight structural failure and breakup of a Piper Aerostar 600A aircraft during attempted recovery from a spiral manoeuvre (2000).
- Fuel starvation or interruption to the engine of a Cessna 210 Centurion aircraft (2001).
- A Beech C90 King Air aircraft that suffered a loss of control and impacted power lines following an uncontained engine failure (2001).

- A Piper PA-32 Seminole aircraft that suffered abnormal engine performance shortly after take-off, and subsequently impacted with terrain (2002).
- A Robinson R44 helicopter that was operating with a maximum take-off weight and centre of gravity outside limits, leading to an in-flight loss of control and collision with terrain (2003).
- In-flight loss of control accidents including a Britten Norman BN-2A Islander aircraft that crashed on final approach due to an engine failure (1999), a Cessna 206 Stationair aircraft conducting manoeuvres in darkness with a lack of visual cues (2000), a Cessna 210 Centurion aircraft conducting aerial manoeuvres (2001), a Cessna 206 flying at low level over water in severe weather conditions (2002), a Cessna 172 Skyhawk aircraft that suffered carburettor icing (2003), and a Beech 58
- Baron aircraft that lost control for unknown reasons (2006).
- Collision with terrain accidents (Cessna 185 Skywagon in 1998, Aero Commander 500-S in 2001, Cessna 210 Centurion in 2002, Piper PA-31 Navajo in 2005, Cessna 210 in 2007, Robinson R44 in 2007).

Source: ATSB 2007, p.54

This approach to safety highlights the importance of creating the appropriate organisational safeguards to mitigate against human error. SMS and training in human factors is an important mechanism for ensuring that an operational environment within a business is created that minimises the risk of accidents. The ATSB analysis of aviation accidents has found that poor or non-existent SMSs are a contributing factor to a number of aviation accidents and has advocated for the introduction of SMS for the aviation industry (ATSB 2008).

It is CASA's assessment that in part the accident rate can be attributed to differences in the safety processes adopted by charter operators, with all RPT operators having an SMS, compared to approximately 40% of charter operators.

An important mitigator against accidents is also requiring pilots to be trained to avoid loss of control and to deal with emergencies such as engine failures. Pilot training and competency is maintained at two levels, through the general requirements applying to all pilots under Part 61 of the *Civil Aviation Safety Regulations 1998* (CASR) and through the operator providing training to a company pilot, which can be through a training and checking organisation.

Aircraft safety equipment can contribute to avoiding accidents. The ATSB found in analysing a collision with terrain accident at Lockhart River in 2005, that resulted in 15 fatalities that the accident was most likely a controlled flight into terrain accident and that had the aircraft been fitted with TAWS it is probable that the accident would not have occurred (ATSB 2007a, p. xiv).

Objective

The primary objective is to review to the existing regulatory requirements with the intention of proposing regulatory options that are beneficial to society by reducing the risk of aircraft accidents. The factors that need to be considered in proposing options for change are: safety, regulatory impact and alignment with international standards.

Options

Option 1

Option 1 is to maintain the current distinction between businesses operating RPT and charter services in terms of organisational requirements. The specific operating requirements for aircraft used by AOC holders, including large aeroplanes, small aeroplanes and rotorcraft would remain unchanged.

Organisational requirements

An SMS is an organised approach to managing safety, the key elements include:

- establishing safety policy at the company's management level,
- collecting safety information,
- identifying safety hazards,
- analysing safety risks,
- performing safety investigations,
- developing corrective actions,
- providing safety training;
- monitoring safety performance;
- creating a continuous improvement environment; and
- safety communication.

Under option 1 all RPT operators are required to have an SMS, however, charter and Aerial work operators are not required to have an SMS.

The training and checking organisation is a system of regularly checking the competency of pilots to operate the aircraft and handle and emergencies and to provide relevant training, referred to as proficiency checks.

Under option 1 all RPT operators and charter operators with aircraft Maximum Take-Off Weight (MTOW) >5700kg are required to have a training and checking organisation. Currently charter and aerial work operators operating aircraft MTOW<5700kg are not required to have a training and checking organisation unless directed by CASA.

Terrain Awareness and Warning System

TAWS fitted to an aircraft provides pilots with predictive warning if they are at risk of collision with terrain. TAWS is seen as the most effective way of reducing the risk of controlled flight into terrain accidents and is an ICAO standard for certain aircraft.

The current Australian requirement is for TAWS to be fitted to aeroplanes with a turbine engine(s) operating under Instrument Flight Rules (IFR) and carrying 10 or more passengers or with a MTOW greater than 15000kg.

Weather radar

A weather radar is capable of giving pilots the latest weather information during the flight and will reduce the risk of the flight crew operating in dangerous weather conditions, such as hail, lightning and thunderstorms.

The current requirement is for a weather radar to be fitted to aircraft operating under IFR with 2 pilots that are:

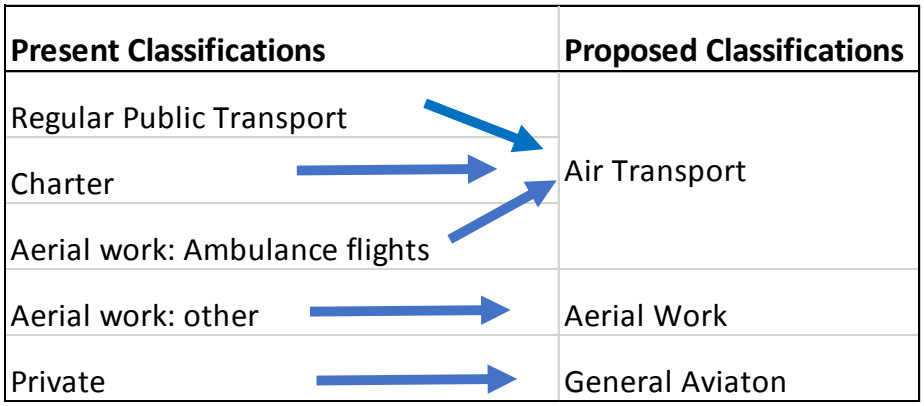
- pressurised with piston engine(s); or
- pressurised with turbine engine(s); or
- unpressurised with turbine engine(s) weighing more than 5700kg.

The requirements under option 1 are summarised in Table A.

Option 2

Option 2 will introduce revised organisational requirements applying to all businesses and revised aircraft operational requirements. The option would revise the operational classifications to eliminate the differences between the current regular public transport, charter and aerial work ambulance flight categories by forming an air transport category. There would be other minor changes to the naming of classifications (Figure 1).

Figure 1: Operational Classifications



Option 2: Organisational Requirements

Option 2 would require all air transport operators to implement:

- An exposition, which is a document or collection of documents that describes the way in which the organisation operates and the procedures they use to meet the requirements of the regulations.
- A SMS will be required by air transport operators and some aerial work operators; and
- Improved staff training and management of competency, with a training and checking system required by air transport operators and some aerial work operators

Option 2 would remove the requirement for aerial work operators to possess an AOC – instead replacing the AOC for aerial work with an aerial work certificate. This replacement permits CASA to remove the requirements for AOCs specified by the *Civil Aviation Act 1988* for certain types of aerial work operators.

Improved staff training and management of competency

Option 2 will require air transport and select aerial work operators to provide a formal training and checking system for flight crew, either internally or contracted to a flight training

organisation (approved under CASR Part 142). This will only be a new requirement for organisations operating aircraft below an MTOW of 5700kg that have not been directed by CASA to have a training and checking organisation. The number of proficiency checks required will depend on the types of operations being conducted by the operator.

Option 2: Aircraft equipment and operational requirements

Option 2: would expand the requirement for TAWS and weather radar to primarily base the requirements on aircraft weight consistent with the standards published by ICAO.

Option 2 will require TAWS to be fitted to aeroplanes weighing more than 5700kg operating under IFR or Night Visual Flight Rules (VFR) for air transport flights. This change will result in an expansion of the requirement to night VFR operations, however, it will not include freight only operations in aeroplanes below 8618kg. It will capture freight only operations in aeroplanes between 8618kg and 15000kg that are not currently captured. The requirement will also apply to aircraft that have a weight greater than 5700kg, but are certified to carry less than 10 passengers.

Option 2 will require a weather radar to be fitted to aeroplanes that operate IFR or night VFR that are:

- pressurised turbine of any weight (single or 2 pilot); or
- pressurised piston weighing more than 5700kg and 2 pilot.

This will expand the requirement from operations under the IFR to capture night VFR operations and it will expand the requirement to include single pilot aeroplanes that are pressurised with a turbine engine(s). However, the proposed change will remove the requirement from aircraft that are unpressurised with turbine engine(s) weighing more than 5700kg. It will also remove the requirement from pressurised aircraft with a piston engine(s) weighing less than 5700kg required to be operated by 2 pilots. The intention of the change is to only apply the requirement to the aircraft that are most likely to be exposed to hazardous weather conditions, with storms carrying the greatest risk to aircraft occurring within the cruising altitude of pressurised aeroplanes.

Option 3

Option 3: Organisational Requirements

Option 3 would require all AOC holders to implement:

- An exposition;
- An SMS; and
- A training and checking system

Option3: Aircraft equipment and operational requirements

Option 3: would expand the requirement for TAWS and weather radar to primarily base the requirements on aircraft weight and passenger capacity consistent with the recommendations published by ICAO.

Option 3 will require TAWS to be fitted to aeroplanes weighing more than 5700kg operating under IFR or night VFR for air transport flights or carrying more than five passengers. This change will result in an expansion of the requirement to night VFR operations, however, it

will not include freight only operations in aeroplanes below 8618kg. It will capture freight only operations in aeroplanes between 8618 and 15000kg that are not currently captured.

Option 3 will require a weather radar to be fitted to aeroplanes that operate IFR or night VFR that are:

- MTOW>5700kg; or
- Have a capacity to carry more than five passengers.

The requirements under Option 3 are summarised in Table A relative to Option 1 (status quo) and Option 2.

Table A: Requirements by Option1

Requirement	***Option 1 (status quo)***	***Option 2***	***Option 3***
Exposition	*no AOC holders*	*Air transport*	*Air transport and aerial work*
SMS	*RPT*	*Air transport (RPT, charter, ambulance) and complex aerial work*	*Air transport and aerial work*
Training and checking	*MTOW>5700kg*	*Air transport (RPT, charter, ambulance) and complex aerial work*	*Air transport and aerial work*
Weather Radar	*IFR, two pilot and pressurised*	*IFR, pressurised and MTOW>5700kg*	*IFR, passenger seats>5 and MTOW>5700kg*
TAWS	*IFR & Seats >9*	*IFR & MTOW>5700kg*	*IFR, passenger seats>5 and MTOW>5700kg*
Helicopter TAWS	*No requirement*	*Passenger seats>9*	*Passenger seats>9*

1: In addition, Options 2 and 3 would require a Life Raft and First Aid kit to be carried for selected flights

Requirements common to Options 2 and 3

In addition to the major organisation requirements of an Exposition, SMS and training and checking system, and the aircraft specific requirements for TAWS and weather radar there are other less significant requirements that are common to both Options 2 and 3.

Life raft

Under Options 2 and 3 operators will be required to carry a life raft if they are operating for a significant distance over water. The requirement is risk based, with the requirement for a life raft based on the reliability of the aircraft. Aeroplanes with two engines are not required to carry a life raft unless they are beyond 100 nautical miles or 30 minutes flying time at normal cruising speed from land. Single engine aircraft will require a life raft when the flight over

water is greater than the gliding distance to a forced landing site, plus the distance the aircraft travels in 5 minutes at normal cruising speed. The relevant staff must also be trained to operate the life raft, with life raft training required every 3 years.

Minimum Equipment List

Under Options 2 and 3 aircraft will be required to be operated in accordance with a Minimum Equipment List (MEL) if the aircraft is operated internationally or if the aircraft is operated within Australia under the IFR and the manufacturer provides a Master MEL for that aircraft. The minimum equipment list outlines the conditions under which the aircraft can be operated without a serviceable part. For example, if the fuel gauge is inoperative then the aircraft may be operated if the fuel level is measured using a dipstick.

There are efficiency benefits for aircraft operators in having a MEL and many operators have one without regulatory compulsion. The safety benefit is clarity and consistency of the condition in which the aircraft is safe to operate. MELs are currently required under the regulations for smaller aeroplanes used in regular public transport operations but not for aircraft used in 'on-demand' charter operations.

Larger aeroplanes

Requirement for two pilots

Option 2 and 3 will require all aeroplanes weighing more than 8618kg or carrying 10 or more passengers to be operated with two pilots when undertaking air transport flights, however, certain aircraft (single engine that have a weight of 8618kg or less and a seating capacity of 10 or more) will be permitted to carry the maximum number of passengers their aircraft can fit with a single pilot if operated under day VFR conditions.

The current requirement is for all high capacity (not the same as larger aeroplanes) RPT flights to be operated with 2 pilots, for low capacity RPT to conduct operations with 2 pilots when carrying greater than 9 adult passengers and for charter flights to be operated with the number of pilots specified by the aeroplane flight manual. Accordingly, for all current high capacity RPT operators there will be no change in this requirement. However, this will represent a new requirement for current charter operators of single pilot certificated aeroplanes with a passenger seating capacity of more than 10 that operate under IFR.

Underwater locating device

To be consistent with international standards, aircraft with a weight greater than 27 000kg will be required to be fitted with an underwater locating device attached to the aircraft frame. The frequency omitted by this beacon will be different to the frequency of the beacon attached to the flight data recorder and will increase the probability of locating aircraft wreckage in oceanic areas. The impact of the requirement is minimised by imposing the requirement on aircraft that operate over oceans.

Flight data recorder parameters

The current requirements for the parameters and sampling rates that apply to flight data recorders are not consistent with international standards. This situation requires CASA to issue exemptions to aircraft that are fitted with flight data recorders that meet the ICAO standard, but exceed the current outdated Australian requirements.

First aid kit

Operators of all aircraft within air transport will be required to carry a first aid kit for treating passengers.

Requirements for businesses operating helicopters

Option 2 and 3 would introduce the ICAO standard performance model, appropriately adjusted for Australia and based on a 3 Tier Performance class system, that sets the number of passengers that can be carried by each type of rotorcraft in passenger transport.

Performance classes

- Performance class 1 – mandatory for > 19 passengers – can continue flight after a critical failure.
- Performance class 2 – minimum mandatory standard for operations with between 10 and 19 passengers – can continue flight after a critical failure except if this occurs during take-off or late in the landing phase.
- Performance class 3 – limited to 9 or less passengers – in the event of a critical failure may or will be required to make a forced landing.

In addition to the performance classes, Option 2 and Option 3 would introduce:

- A requirement that operations over water have flotation equipment, unless the rotorcraft is capable of operating with one engine inoperative or the flight is in an access lane, or no more than 2 minutes from a safe landing area and are complying with Air Traffic Control instructions.
- Helicopter TAWS (HTAWS) to be fitted to helicopters conducting passenger transport and medical transport flights (excluding freight only flights) operating under the IFR and having a maximum operational seating capacity of more than 9.

Aerial work

Option 2 and 3 will consolidate the existing rules governing aerial work operations into one regulatory part, CASR Part 138. Whilst Part 138 will largely adopt the current requirements applying to aerial work operations there will be some changes that could be viewed as new requirements, these include:

- Reclassification of aerial work operations; The reclassification of aerial work operations will reduce the number of aerial work purposes from the current 41 to three;
- Introduce an operating certificate and remove the need for an AOC described in the background section of this document; The introduction of the Part 138 Certificate will remove the requirement for operators to obtain and maintain an AOC. The requirements of the Certificate will be graduated depending on the complexity of the operation;
- Require a SMS for complex operations; an SMS will be required for complex operations that involve marine pilot transfer and certain of the more complex emergency service operations;

- Require a training and checking system for complex operations that involve marine pilot transfer, and certain of the more complex emergency service operations and when aerial work is conducted in some of the more complex aircraft types;
- Incorporate current exemptions into regulation; A number of aerial work operations are not permitted by the existing regulations and are only permitted by CASA issuing a general or individual exemption; and
- Introduce aircraft performance requirements by risk of operation, Part 138 will introduce performance requirements for operations based on the potential for risk to third party individuals and for operations where aerial work passengers are carried. The requirements will potentially impact on a limited number of Search and Rescue, marine pilot transfer and police/ fire fighting operations using large and complex aircraft.

Impact

The major cost impacts for Option 2 and Option 3 are the organisational requirements of an Exposition, an SMS and training and checking system that will be new requirements for existing charter operators. The following sections outline the cost impact by requirement with a total estimated cost impact for each option provided in a summary section.

Impacted Operators

In order to analyse the nature of the impacted operators CASA has analysed a range of data sources with a focus on the number of pilots employed by the operator and the number of aircraft and aircraft types registered to that operator.

There are currently 786 businesses that hold an AOC to conduct RPT, charter, or aerial work operations using an aeroplane or rotorcraft. There is a significant proportion of operators with an AOC for multiple activities the key points being:

- All RPT operators also hold a charter authorisation on their AOC;
- Of the 505 operators authorised for charter operations, 460 are also authorised in at least one aerial work function; and
- There are only four aerial work operators that are authorised for the air ambulance function that do not currently hold a charter authorisation on their AOC.
- There are 240 aerial work operators (excluding ambulance function) that do not hold a charter authorisation on their AOC.

Table 1: Number of current operators

	Approved operators
RPT	*37*
charter only	*45*
Charter and aerial work	*460*
Aerial work (ambulance, excluding charter)	*4*
Aerial work (other, excluding charter)	*240*

Exposition

In order to meet the exposition requirement operators are likely to be able to use material from their existing manuals, however, it is likely that the operators will need to review these manuals to confirm compliance with the new regulations and identify this compliance for CASA. However, CASA is not proposing that operators will be required to modify their existing manuals to some different form of "exposition standard".

Feedback from organisations that have been required to prepare an entirely new exposition for CASA acceptance (including Flight Training Organisations approved under CASR Part 142 and Maintenance Organisations under CASR Part 145) is that preparing the exposition, including learning about the requirement, interacting with CASA staff and going through the application process requires the full-time effort of one person for approximately one month.

For the exposition requirement under CASR Part 119, CASA has sought to implement the requirement in a more flexible way to reduce the impact on operators when compared to the implementation of previous CASRs. For existing AOC holders with simple operations there will be the ability to provide a short document that essentially identifies the suite of manuals that constitute the operator's exposition. Operators will need to, as a minimum, compare their existing manuals to the new regulatory requirements, make any necessary adjustments (the main common refinements will be the necessity for all air transport operators to possess an approved change management process and include a training and checking and an SMS outlined below) and then inform CASA about these refinements.

This refined approach to the implementation of the exposition requirement will reduce the amount of time that the operator needs to comply with the requirements relative to the compliance time experienced by Part 145 or Part 142 operators. In addition, the change management process will reduce the time that operators interact with CASA for manual amendments, which is approximately once per year for the average operator. Based on five days of full-time effort the exposition requirement is estimated to cost each operator approximately $2 500 when based on a wage rate of $500 per day (Table 2). For the more complex RPT operators it is estimated that they will require further time to develop an exposition, estimated at 20 days and a cost of $10 000 (Table 2).

Table 2: Exposition Cost

Operator size	**Full-time effort (days)**	**Cost per operator**	**Number of operators**	**Cost by type of operator**
Current RPT	20	$10 000	37	$0.37m
Current charter	5	$2 500	505	$1.26m
Ambulance only	5	$2 500	4	$0.01m
Total for Option 2				$1.64m
Aerial work	5	$2 500	240	$0.6m
Total for Option 3				$2.24m

Safety Management System (SMS)

The cost impact of the requirement to develop and maintain a SMS will depend on the operator's current approach to the management of safety. All current RPT operators are required to have a SMS, and there is a significant voluntary compliance among existing charter operators with the SMS requirement. A 2011 CASA survey found that of the current charter operators 40% reported having a fully implemented SMS, 38% have a SMS under development and 22% have no SMS. In addition, analysis of a 2006 CASA surveillance tool found that approximately 45% of charter operators and 35% of aerial work operators have an SMS. Given the lack of recent evidence and to be conservative CASA has assumed that 40% of existing charter operators and 30% of aerial work operators have an SMS. This will result in 305 existing charter operators requiring to implement a SMS under Option 2 and a further 168 aerial work operators under Option 3.

The experiences of other aviation organisations developing a CASA approved SMS indicates that it would take one staff member within a small organisation approximately 1 week of full-time work to utilise the CASA material to develop the SMS structure, processes and a manual, including the associated forms and spreadsheets. For medium and large operators this initial set up would take approximately 2 weeks (Table 2). The operator would also be required to provide initial SMS training to their staff which would involve approximately 4 days of training per staff member. The total cost for SMS implementation is estimated at $3.77m (Table 3) for Option 2. The total for Option 3 includes the additional cost for aerial work operators resulting in a total cost of $4.87m for Option 3. The assumptions underlying the estimation method for the SMS compliance costs are outlined in Appendix 3.

Table 3: SMS set up costs

Operator size	**Set up, manual, training, spreadsheet**	**Number of staff requiring training**	**Total training cost (based $ 1000 training cost per staff member)**	**Total upfront cost per operator (set up plus staff training)**	**Number of operators**	**Total cost by size of operator**
Single pilot	1 week valued at $2 500	1	$1 000	$3 500	83	$0.29m
Small	1 week valued at $2 500	4	$1,000	$6 500	105	$0.69m
Medium	2 weeks valued at $5000	14	$1 000	$19 000	96	$1.83m
Large	2 weeks valued at $5 000	41	$1 000	$46 000	21	$0.97m
Total for					305	$3.77m

Option 2						
Aerial work	1 week valued at $2 500	4	$1 000	$6 500	168	$1.09m
Total for Option 3						$4.87m

Ongoing SMS requirements

Feedback from organisations currently operating a SMS indicates that for the ongoing management of the SMS, the nominated safety manager would likely spend approximately 3 days per year to update and maintain the processes of the SMS.

For the medium to large sized charter operators there will be increased on-going time costs due to maintenance of the SMS processes (hazard/incident reporting, internal audit, safety meetings and safety investigations) which will be undertaken by the person in the safety manager role for approximately 5 to 10 days each year plus an additional 2 days of training for this SMS manager. The assumptions underlying these estimates are outlined in Appendix 2 and on a wage rate of $500 per day which results in an annual estimated compliance cost of $0.76m for Option 2 and $1.09m for Option 3 (Table 4).

Table 4: SMS ongoing maintenance costs

Operator size	**SMS maintenance**	**Training for the SMS manager**	**Total days per year**	**Cost (based on a wage rate of $500 per day)**	**Number of operators**	**Cost by type of operator**
Single pilot	1 day	1 day	2	$1 000	83	$0.08m
Small	2 days	2 days	4	$2 000	105	$0.21m
Medium	5 days	2 days	7	$3 500	96	$0.34m
Large	10 days	2 days	12	$6 000	21	$0.13m
Total for Option 2					305	$0.76m
Aerial work	2 days	2 days	4	$2 000	168	$0.34m
Total for Option 3						$1.09m

For all operators there will be a requirement to provide refresher training on the principles of the SMS and Human Factors and Non-Technical Skills (HF and NTS) to staff, which as outlined in Appendix 3 is based on one day of training per staff member. Based on the number of staff employed by operators this is estimated to cost $1.36m annually for Option 2 and $1.69m for Option 3 (Table 5).

Table 5: Ongoing costs for staff training in SMS, HF and NTS

Operator size	Number of staff requiring training	Annual training cost per staff member	Annual training cost per operator	Number of operators	Total cost by size of operator
Single pilot	1	$500	$500	83	$0.04m
Small	4	$500	$2 000	105	$0.21m
Medium	14	$500	$7 000	96	$0.67m
Large	41	$500	$20 500	21	$0.43m
Total for Option 2				305	$1.36m
Aerial work	4	$500	$2 000	168	$0.34m
Total for Option 3					$1.69m

Safety benefit

These new organisational requirements are important safety enhancements and would bring the regulatory requirements for charter operators in line with current requirements for RPT operators, implement recommendations from the ATSB and comply with international standards set by the ICAO. Within Australia and internationally a leading causal factor of aircraft accidents are human factors and deficient organisational practices. This is why Australia introduced the SMS and HF & NTS requirements for RPT operations in 2009 and why other countries have adopted similar requirements for their entire passenger air transport sector consistent with this proposed option.

Training and Checking

Part 119 will require operators to provide a formal training and checking system for flight crew, either internally or contracted to an approved flight training organisation. Of the 509 AOC holders that CASA estimates will move to the air transport classification, 105 currently have a training and checking organisation approved by CASA.

Pilots of current charter aircraft of MTOW<5700kg that conduct IFR operations will be required under options 2 and 3 to undertake bi-annual training and checks of competency. Under current regulations, these pilots employed by a charter business are only required to undertake an annual check of competency, whereas there is a bi-annual requirement if the same pilot is employed by an RPT operator.

Pilots of current charter aircraft of MTOW<5700kg that conduct VFR operations will be required to undertake an annual check of competency. Under current regulations, these pilots employed by a charter business are only required to undertake a Part 61 flight review once every two years, which is the same requirement for Private Pilots. Pilots currently conducting RPT operations are required to undertake bi-annual checks.

It is assumed for this analysis that the training and checking function would need to be contracted out to a Part 142 operator. The costs associated with this would involve the

development of a training and checking system and documentation and competency checks. The costs are likely to be in the range of $10 000 for production of the documentation based on the feedback of operators who have recently acquired one (Table 6). This will result in a $4.04m industry wide cost when based on 404 air transport operators requiring the system under Option 2 or $6.44m with an additional 240 aerial work operators under Option 3 (Table 6).

Table 6: Training and Checking Requirement set up costs

Operators	**Training and Checking system**	**Number of operators**	**Cost by type of operator**
Option 2	$10 000	404	$4.04m
Option 3	$10,000	644	$6.44m

The costs of undertaking proficiency checks of pilots will vary according to the type of aircraft. As outlined in Appendix 4 the cost is likely to be $1015 for single engine aircraft and $1165 for multiple engine aircraft. To be conservative CASA has assumed that the multiple engine aircraft cost will apply to all additional checks. This results in an industry cost of $3.98m for the 404 operators under Option 2 or including aerial work operators under Option 3 will result in an estimated cost of $4.07m (Table 7). The average number of pilots employed by the impacted operators is based on the reported pilot numbers to a CASA AOC holders survey in 2014.

Safety benefit

The increased frequency of proficiency checks will enhance safety by ensuring that pilots have demonstrated competency for their specific operations and provide a training opportunity for those pilots.

Table 7: Training and checking requirement ongoing costs

Operators	**Cost per check**	**Number of pilots**	**Check cost per year**	**Number of operators**	**Cost by type of operator**
Single Pilot	$1,165	1	$1,165	128	$0.15m
2 to 5 pilots	$1,165	3.5	$4,078	168	$0.68m
6 to 20 pilots	$1,165	11.5	$13,398	75	$1.01m
20+	$1,165	33	$38,445	32	$1.25m
Total Option 2					$3.09m
Aerial work	$1,165	3.5	$4,078	240	$0.98m
Total for Option 3					$4.07m

Aeroplane specific requirements

Terrain Awareness and Warning System (TAWS)

The new requirement will impact primarily on aeroplanes weighing more than 5700kg with a piston engine(s) and aeroplanes with turbine engine(s) weighing more than 5700kg, but carrying less than 10 passengers. The other potential impact is on non-IFR that operate night VFR and current medical transport only aircraft weighing more than 5700kg.

There are currently 348 aeroplanes on the Australian aircraft register that are piston powered with an MTOW greater than 5700kg or are turbine powered with a MTOW less than 15000kg, but greater than 5700kg.

Of the aircraft on the aircraft register, 132 are registered to an operator authorised to conduct RPT, charter or air ambulance operations. As the current TAWS fitment requirement applies to aircraft operated carrying more than 10 passengers in RPT or charter it is necessary to consider the seating configuration of the aircraft. It is estimated that of the current 132 aircraft registered to an RPT or charter operator, 65 are configured with more than 10 seats and would currently be required to be fitted with TAWS. These include aircraft such as the Beechcraft 1900, Dornier 228 and 328, Embraer 120 and Fairchild Metroliner SA227 (excluding those in freight configuration).

The TAWS requirement will therefore potentially require 67 aircraft currently on the aircraft register to be fitted with TAWS in order to operate within the air transport category. CASA has contacted a sample of the operators of these aircraft and determined that there is already TAWS fitted to 49 aircraft. This results in approximately 18 aircraft that would be required to be fitted with TAWS at an estimated cost of $21 000 per aircraft (Table 8).

For option 3, TAWS would be required for aircraft with 6 or more passenger seats. The types of aircraft that are within this category include, the piston powered AeroCommander 680, Beech 95 and Cessna 421 and the turbine powered aeroplanes that include the Cessna 208, Fairchild SA 226 and Pilatus PC 12. CASA estimates that there are approximately 323 of these types of aircraft. Based on 323 aircraft within the six to nine seat range and the 18 aircraft with MTOW>5700kg of option 2 this would result in an estimated cost impact of $7.2m for 341 aircraft (Table 8).

Table 8: Terrain Awareness Warning System costs

	Purchase[1]	**Number of aircraft**	**Total upfront cost**
Option 2	$21,000	18	$0.38m
Option 3	$21,000	341	$7.2m

1: Estimated fitment cost based on feedback from two Avionics Businesses and a small sample of operators who have recently fitted GNSS to their aircraft with ADS-B. The cost is based on a unit cost of $12 000, $2000 for installation, $4000 for an Engineering Order and Supplementary Type Certificate if required and $1000 for training of an average of 3 pilots per operator.

Weather Radar

CASA has analysed the operators and aircraft likely to be affected by the change to requirement for the fitment of weather radar. The impact of the new requirement will be on single pilot pressurised turbine powered aeroplanes that are currently not required to be fitted with a weather radar when operated in RPT, charter or air ambulance. These aircraft undertaking flights in the air transport category under option 2 will require a weather radar.

Currently there are 304 aeroplanes that are registered to an RPT, charter or ambulance flight operator that are turbine powered, pressurized and could be operated with a single pilot. The most common types of aircraft are the King Air B200, Cessna Citation, Cessna Conquest, Global Express, PC12, Lear Jet 35s and single pilot Metro Liners.

CASA has analysed a random sample of 30 of the 304 aircraft to determine if a weather radar is currently fitted. Based on information contained in the maintenance control and operations

manuals of the aircraft, or from contacting the operator, CASA estimates that 237 of the 304 aircraft are already fitted with a weather radar. For the remaining 67 aircraft it is possible some of these are already fitted with weather radar, however, to be conservative CASA has estimated that there are 67 aircraft that would be required to be fitted with a weather radar.

The cost of fitting weather radar is estimated at $34,000 based on feedback from an avionics business that fits weather radar and from a small number of operators that have recently fitted a weather radar to their aircraft. This results in an estimated industry wide cost impact of $2.28m for this Option 2 (Table 9). Under option 3, with an additional 323 aircraft within the six to nine seat category the estimated cost is $13.26m (Table 9).

Table 9: Weather radar costs

	Purchase[1]	**Number of aircraft**	**Total upfront cost**
Option 2	$34,000	67	$2.28m
Option 3	$34,000	390	$13.26m

1: The cost is based on a unit cost of $25 000, $2000 for installation, $4000 for an Engineering Order and Supplementary Type Certificate if required and $1000 for training of an average of 3 pilots per operator.

Weather radar provides for a significant improved ability for aircraft to avoid entering a thunderstorm or areas of severe turbulence associated with thunderstorms that in the worst scenario can lead to structural damage to an aircraft that results in an accident and loss of life.

Common requirements Options 2 and 3

Two pilots for 10 plus seat aircraft

Aircraft types impacted

The requirement for two pilots when operating a 10 plus seat aircraft will be a new requirement that will potentially impact on an aircraft with a single engine weighing less than 8618kg that are capable of carrying more than 9 passengers. Based on the current aircraft registered in Australia the only aircraft that is within this category is the Cessna 208B, known as the Grand Caravan. There are currently 71 Cessna Grand Caravans registered, with 35 registered to operators authorised for RPT, 23 to charter operators and 13 in aerial work or private.

The current RPT and aerial work operators will not be impacted by this requirement and the evidence from existing charter operators is that these aircraft are operated under the VFR and therefore would not be impacted by the requirement, or if they are operated under IFR they are already operated with two pilots.

Life Raft

A small number of businesses (approximately 20) operating 40 single engine aircraft up to 25 miles from land would be required to fit a life raft costing approximately $4 000 per aircraft, with an approximate industry wide cost of $160 000. These operators would also need to provide 3 yearly proficiency training and checking of staff, with the training estimated to cost $1 100 per person, with annualised industry cost of approximately $20 000.

The life raft requirement would increase the likelihood of passengers surviving a ditching of an aircraft. There have been a number of accidents involving the ditching of an aircraft for

which the passengers survive the initial ditching and having the life raft will increase their chances of survival.

Requirement for a first aid kit

A first aid kit will be required to be carried in each aircraft. A first aid kit meeting the regulatory requirements costs $50. During consultation with affected aircraft operators, the evidence indicates that at least half already carry a first aid kit meeting the regulatory requirements. If half of the 1750 small aeroplanes are required to be fitted with a first aid kit costing $50 this will have an industry wide cost of $43 750.

Rotorcraft Impact

Helicopter Terrain Awareness and Warning System (HTAWS)

The option 2 requirement will require helicopters that have the capacity to carry 10 or more passengers that are operated within air transport under the IFR to be fitted with an HTAWS. There are currently 1404 helicopters on the Australian aircraft register that are registered to an operator currently undertaking charter or ambulance flights. Of these aircraft CASA has identified 196 that would have the potential for a maximum operator seating capacity of 10 or more, with these 196 consisting of 14 models (Table 10).

Of the 196, based on current usage approximately 84 are not used under the IFR for an air transport flight and therefore would not be impacted by this requirement. Of the remaining 112, based on industry feedback, 74 are already fitted with HTAWS, this leaves 38 helicopters, of which some may be operated in the air transport category. Based on feedback from the operators of these aircraft, approximately 26 are not used in air transport and therefore CASA estimates that approximately 12 Helicopters would require the fitment of HTAWS.

The estimated cost for the fitment of HTAWS is estimated at $48 000 based on feedback from avionics businesses that fit HTAWS to these types of aircraft. That is a unit cost of $35 000, installation of $7000 including an Engineering Order and STC if required, plus training of 6 pilots at average cost of $1 000 per pilot. Based on 12 aircraft this results in an estimated cost of $0.58m.

Table 10: Helicopters with a seating capacity of 10 plus

Model	**Number**	**Seats**	**Used in air transport IFR**	**HTAWS fitment**
Augusta AW139	45	15	Yes	100%
Bell 412	30	14	Yes (but MOPSC <= 9)	
Kawasaki BK117	29	10	Yes (but MOPSC <= 9)	
Sikorsky S-92	22	19	Yes	100%
Sikorsky S-76	14	12	some	
Bell 212	12	15	some	
Bell 205	12	14	No	
Eurocopter EC225	10	19	No	

Eurocopter AS365	11	12	Yes (but MOPSC <= 9)	
Bell 214B	3	14	No	
Augusta AW189	3	19	Yes	100%
Eurocopter AS.332L	2	19	Yes	100%
Eurocopter EC 175	2	16	Yes	100%
Bell 421EPI	1	13	Yes	

Performance classes

The introduction of performance requirements for rotorcraft formalise the current requirements specified in the Rotorcraft Flight Manual into regulation. The regulations replace the current policy letter requiring operators to insert a performance supplement in their operational documentation. There are likely to be no additional costs as the new legislative requirement will replace an existing policy letter.

Overall impact

Costs

The overall cost impact for the changes is annualised over a 10-year period to be $6.51m for Option 2 and $10.35m for Option 3 (Table 11).

The impact of Option 2 on a typical business is primarily based on the requirement for an existing business undertaking charter flights to implement an SMS and training and checking for their pilots, indeed over 90% of the estimated $6.51m cost is attributed to these two requirements. Option 3 includes additional costs primarily due to broader application of requirements for SMS, training and checking, TAWS and weather radar.

For a small charter operator the upfront cost is estimated at $6500 to implement a SMS and $10 000 to implement training and checking. In order to see these costs in context, CASA has estimated the existing compliance costs with the initial AOC requirements to be in order of $70 000 for a typical business (Appendix 2).

The ongoing compliance cost estimated for a small operator is $2000 for SMS and $2000 for training and checking. To put this compliance cost in perspective, CASA has estimated the current compliance cost for these operators to be approximately $23 000 (Appendix 2).

Table 11: Total Cost for Option 2 and Option 3 by requirement

	Option 2		**Option 3**	
Requirement	One off upfront cost	Annualised cost	One off upfront cost	Annualised cost
Exposition	$1.64m	$0.16m	$2.24m	$0.22m
SMS (upfront)	$3.77m	$0.38m	$4.87m	$0.49m
SMS (annual maintenance)	$0.76m	$0.76m	$1.09m	$1.09m
SMS (annual training)	$1.36m	$1.36m	$1.69m	$1.69m
Training and checking manual	$4.04m	$0.40m	$6.44m	$0.64m

Training and checking (annual)	$3.09m	$3.09m	$4.07m	$4.07m
TAWS	$0.38m	$0.04m	$7.161m	$0.72m
HTAWS	$0.58m	$0.06m	$0.58m	$0.06m
Life Raft fitment (upfront)	$0.16m	$0.02m	$0.16m	$0.02m
Life Raft training (annual)	$0.02m	$0.02m	$0.02m	$0.02m
First Aid Kit	$0.04m	$0.00m	$0.04m	$0.00m
Weather radar	$2.28m	$0.23m	$13.26m	$1.33m
Total		$6.51m		$10.35m

Appendix 3 provides further information on how the cost estimates were derived for the safety management system and training and checking requirements.

Safety benefits

Options 2 and 3 will reduce the risk of accidents. As highlighted by the ATSB the cause of accidents is difficult to attribute to a single factor, therefore it is difficult to make estimations as to the extent of the risk reduction. Individually, the equipment fits will reduce the risk of accidents and/or mitigate the extent of the injuries:

- TAWS will reduce the risk of controlled flight into terrain accidents
- Weather radar will reduce the risk of accidents from pilots flying into adverse weather conditions
- Life raft improve the chances of survival should an aircraft ditch

The requirements for an SMS will address the organisational settings that provide a mitigation against organisational factors that can attribute to accidents.

The increased frequency of proficiency checks will enhance safety by ensuring that pilots have demonstrated competency for their specific operations and provide a training opportunity for those pilots.

In terms of the scale of the potential safety benefits, the ATSB estimates that each year for charter operators there are approximately 15 accidents, resulting in 1.6 fatalities, 2 serious injuries and 15 written-off or substantially damaged aircraft. Using a value of statistical life of $4.5m, a serious injury value of $0.26m and an average aircraft value of $1m[1], these accidents result in a $22.5m cost to society each year.

The US experience provides an illustration of the possible safety improvements for establishing common safety standards of charter and scheduled services. In the US scheduled (Part 135 Commuter) and charter operators (Part 135 On Demand) are required to meet the same regulatory standards. In the US the charter accident rate is only 1.2 times higher than the scheduled service accident rate, instead of 4.5 times higher as is currently the case in Australia.

[1] Based on the 2014 VSL published by OBPR (PM&C 2014) and indexed by CPI. Serious injury value of 5.75% of VSL based on Table 2-2 (FAA 2004). Aircraft value is a CASA assumption based on Table 5-5 (FAA 2004).

If imposing the same regulatory standards on charter operators in Australia was to reduce the charter accident rate so that it was only 1.2 times higher than the scheduled service accident rate this benefit would amount to a 75% reduction in the charter accident rate. With the average annual cost of charter accidents valued at approximately $22.5m, this equates to a safety benefit of $16.9m.

Consultation

Formal Consultation

CASA has developed this regulatory proposal working with the aviation industry over a five-year period. CASA formed an industry working group consisting of affected businesses and associations representing those businesses and pilot associations to assist in reviewing the existing regulations and proposing revised regulations.

A notice of proposed rule-making was published for each Regulatory Part outlining the broad changes over the current operational parts and the proposed terminology to be used in the regulations in order to seek feedback from stakeholders.

In response to the consultation CASA made a number of changes to the proposed regulatory requirements. The initial consultation proposed TAWS and weather radar applicability requirements consistent with Option 3, that is aircraft carrying 6 or more passengers. In response to the initial consultation, CASA revised the requirements to base the requirement on an MTOW>5700kg, with this requirement consulted on in 2018.

Informal consultation

CASA has presented the draft options to affected businesses through informal consultation. Some of the key comments made during this consultation from affected businesses were that:

- Charter businesses are operating in a difficult market place with many not profitable
- The proposed option would impose a cost on charter businesses which may result in some choosing to withdraw from the charter flight industry
- Strict liability offences in the regulations is unnecessary (CASA has responded to industry comments about strict liability by publishing an explanation of strict liability provisions and how they are administered (treated) by CASA).

Strict liability offences arise in a regulatory context where, for reasons such as public safety and the public interest in ensuring that regulatory schemes are observed, the sanction of criminal penalties is justified. They also arise in a context where a defendant can reasonably be expected to know what the requirements of the law are, and the mental, or fault, element can justifiably be excluded.

The rationale is that people who owe general safety duties should be expected to be aware of their duties and obligations.

For strict liability offences in this regulation, the prosecution will have to prove only the conduct of the accused. However, where the accused produces evidence of an honest and reasonable, but mistaken, belief in the existence of certain facts which, if true, would have made that conduct innocent, it will be incumbent on the prosecution to establish that there was not an honest and reasonable mistake of fact.

The inclusion of strict liability in certain offences in this regulation is consistent with the principles set out in the Attorney-General's *Guide to Framing Commonwealth Offices, Infringement Notices and Enforcement Powers* (September 2011) and the Sixth Report of 2002 of the Senate Standing Committee for the Scrutiny of Bills, *Application of Absolute and Strict Liability Offences in Commonwealth Legislation* (26 June 2002).

Implementation and Review

The changes will be formally implemented by making of Parts 119, 121, 133, 135 and 138 in the *Civil Aviation Safety Regulations 1998* and an individual Manual of Standards for each of Parts 121, 133, 135 and 138. The commencement date will be 25 March 2021, which will allow operators approximately two years to prepare for the new rules. CASA will be publishing transitional arrangements in 2019 that address extended compliance periods between 2022 and 2024 for the provisions related to new aircraft equipment (that includes the requirements for weather radar and TAWS), new training and checking and new SMS requirements.

Prior to implementation of the new Parts, CASA plans to conduct an extensive education, training and communication program for both affected industry personnel and internal staff. This will be supplemented by the development and distribution of appropriate support tools to assist with the introduction of the initiatives, including sample materials that will reduce operator costs to update their documentation.

Review

CASA will monitor and review the new regulations on an ongoing basis during the transition phase, with careful consideration given to the feedback from the regulated organisations and their members and CASA will make any necessary changes to internal processes or the regulatory requirements.

The key information that CASA will be collecting during the transition is feedback from the regulated organisations as to the reasonableness of the requirements and whether the requirements reflect the original intent.

An important way that CASA will monitor the effectiveness of regulations, including safety performance, is surveillance of the organisations to ensure that they are implementing their processes documented in their Exposition or Manuals.

CASA will continue to monitor accident and incident data, including from the ATSB. This data will help inform any future changes required to the regulations, CASA procedures or the manuals or expositions of organisations.

The regulatory changes will be subject to a post-implementation review in 2025, which is one year after the end of the compliance date for all provisions. Prior to 2025 there will be on-going monitoring of the performance of the charter operators to assess how the new regulations are performing. This monitoring will be undertaken through the CASA field officers and CASA's industry oversight programs.

Conclusion

Australia has historically applied a lower regulatory safety standard to charter flights compared to RPT flights. The basis for a lower standard is difficult to sustain with evidence that charter flights can operate the same types of aircraft carrying the same number of passengers on the same routes. In effect the only difference is whether the flight is scheduled and generally available to the public.

Recent operational experience has highlighted the higher accident rate for charter flights relative to RPT flights, with a significant difference in the smaller aeroplane air transport industry sector where the disparity is 11 to 1. Overall, the charter accident rate is approximately 4.5 times higher than the comparable scheduled service accident rate. Whilst part of the higher accident rate could be explained by the differences in the operations involved, the relative accident rate difference is not as dramatic in countries that regulate the two operations the same. In the US where charter and RPT services are regulated the same the charter accident rate is only 1.2 times higher.

A key motivating factor for the creation of the air transport category is to address the relatively high accident rate for charter operations.

CASA is proposing to create a single air transport category including both current RPT and charter services. The standards for air transport would generally be the current standards for RPT services and therefore they will be relatively unaffected by the new Parts. Approximately 500 charter businesses would be required to:

- Implement a safety management system
- Increase the frequency of pilot training and competency checks

Option 2 is the preferred option because the requirements are consistent with International Standards and recommendations from the ATSB, with a lower annualised compliance cost impact when compared to Option 3. CASA estimates that the 10-year annualised cost impact of the proposed changes under Option 2 is $6.51m.

References

ABS (Australian Bureau of Statistics) 2006: *Census of Population and Housing*, catalogue number 2068.0, ABS, Canberra.

ABS 2007, *Counts of Australian Businesses, including Entries and Exits, June 2003 to June 2007, catalogue number 8165.0*, ABS, Canberra.

ATSB 2007, *Aviation Research and Analysis Report – AR-2007-057*, Canberra

ATSB 2007a, Collision with Terrain, 11 km NW Lockhart River Aerodrome, 7 May 2005, VH-TFU, SA227-DC (Metro 23), Canberra.

ATSB 2008, *Learning From Poor Safety Management Systems, http://www.atsb.gov.au/media/24563/sia281008.pdf*

ATSB 2018, *Aviation occurrence statistics: 2007 to 2016*, Canberra.

Australian Government 2007, *Best Practice Regulation Handbook*, Canberra

BITRE (Bureau of Infrastructure, Transport and Regional Economics) 2010, *Domestic airline on time performance February 2010*, Canberra

FAA 2000, *Terrain Awareness and Warning System; Final Rule , Docket No. 29312,* Washington

FAA 2014, *Economic Values for FAA Investment and Regulatory Decisions, A Guide*, Washington

PM&C 2014, *Best Practice Regulation Guidance Note Value of statistical life*, Canberra.

Wiegmann, D., Faaborg, T., Boquet, A., Detwiler, C., Halcomb, K. & Shappell, S. (2005) *Human error and general aviation accidents: A comprehensive, fine-grained analysis using HFACS* (Report Number DOT/FAA/AM-05/24). Washington DC: Office of Aerospace Medicine

Skyservice Airlines Inc 2006, *Safety Management System,* Presentation to the Civil Aviation Authority of Singapore

Appendix 1: Explanation of minor regulatory changes

Aerial work changes under CASR Part 138 that will not be a significant impact

Reclassification of operations

The reclassification of aerial work operations will reduce the number of aerial work purposes from the current 41 to three. For new applicants or operators with multiple authorisations the reduction in the number of the operational categories will reduce the number of categories that require separate approval from CASA. This will provide an administrative saving for these affected operators.

Currently aerial work operators would require a specific CASA assessment to include an additional aerial work purpose on their AOC. The new three categories will potentially result in a simpler approval process for operations within a specific aerial work category, as the risk mitigating aspects of the category have been highly standardised.

Part 138 Certificate

The introduction of the Part 138 certificate will remove the requirement for operators to obtain and maintain an AOC. The requirements of the certificate will be graduated depending on the complexity of the operation. Complex operations, such as dedicated police, SAR and marine pilot transfer operations, will be required to meet comparable requirements to current AOC requirements, so in effect the Part 138 certificate will not be a significant change for these types of operations.

However, for non-complex operations the Part 138 certificate will potentially provide a simplification in terms of obtaining an initial certificate because CASA will not be required to impose the requirements specified in the *Civil Aviation Act* for the issue of an AOC. For example, entry control will potentially (dependant on the experience and previous history of the nominated person), not involve a specific assessment of the head of operations, rather the nominated person for this position could just be approved by CASA based on their history of operations.

The operating certificate will also open the possibility of a generic CASA approved or developed operations manual for specific types of operations, for example an acceptable means of compliance (AMC) based mustering manual could be developed by the relevant association and assessed by CASA once. After this initial CASA assessment of the operating procedures these procedures could then be adopted by operators at low cost and require minimal CASA assessment.

SMS

A safety management system will be required for complex operations that involve marine pilot transfer and more complex emergency service operations. This requirement will not be a significant impact because a larger majority of the current operators already have a SMS in place that would meet the proposed requirements. Many operators have reported to CASA that customers through formal contract terms require a SMS or that there are insurance or other business benefits from having a SMS.

Training and checking

Training and checking will be required for complex operations that involve marine pilot transfer, and more complex emergency service operations and when aerial work is conducted

in more complex aircraft types. This requirement will not be a significant impact because the current operators undertaking these types of operations in most cases are required to already undertake training and checking of their pilots that would meet the proposed requirements.

Incorporate current exemptions

Some aerial work operations are required to obtain an approval or exemption, for example, external sling load, and most aerial work operations which require operations at low levels below that specified in CAR 157 of the Civil Aviation Regulations.

Part 138 will incorporate the current exemptions into legislation by adopting the conditions that are currently specified in the exemptions in a Manual of Standards. This will mean that there will be no change in the requirements that operators must meet in order to undertake the operation, however, the incorporation of the exemptions into Part 138 could provide a cost saving, particularly where an individual exemption was previously needed for the operation.

In the above situation operators will no longer incur the cost of applying for an exemption and there is likely to be a reduction in the number of CASA assessments required for individual operations.

Performance requirements

Part 138 will introduce performance requirements for operations based on the potential for risk to third party individuals and for operations where aerial work passengers are carried. The requirements will potentially impact on some high-end SAR, marine pilot transfer, police and firefighting operations.

For rotorcraft, the impact for some operations will be minimal because the current operations are already undertaken in types of rotorcraft that will meet the performance requirements, however in other cases this impact may require a reconsideration of how the operation is managed or resourced from an equipment perspective. There may be a limited number of police operations involving low-level operations over populous areas that are currently undertaken in a single-engine rotorcraft that may require the adoption of a more conservative operational strategy or possibly the use of a multi-engine aircraft.

Appendix 2: Current Compliance Costs for Commercial Operators

Section 27 of the *Civil Aviation Act 1988*, read with regulation 206 of the *Civil Aviation Regulations 1988* requires RPT, charter and aerial work operators to hold an AOC. In order to obtain and maintain an AOC the significant requirements are:

- Develop an Operations Manual. An important function of the manual is to outline how the operator will comply with the relevant regulatory requirements and be used by staff as a reference for decision making and to outline what processes they must follow. An operations manual can be in order of 300 to 400 pages.
- Appoint key personnel, currently a CEO, Head of Flying Operations and if required Head of Aircraft Airworthiness and Maintenance Control.
- CASA interviews with key personnel and a check flight with the CEO and Head of Flying Operations.
- Comply with the aviation legislation
- Submit variations to the operations manual
- Ensure pilot flight reviews are undertaken as required by CASR Part 61 and competency checks or training specified in the operations manual.
- Comply with pilot flight and duty limits to manage fatigue.
- Undertake aircraft maintenance, which in the case of current charter aircraft requires an inspection after 100 hours of operation.
- Engine overhaul based on the manufacturer specified requirements, typically after every 2000 hours of flying.

CASA has surveyed a number of businesses that have recently obtained an AOC, or varied their existing AOC or have been subject to ongoing surveillance. The purpose of the survey was to determine the time and resource cost involved in complying with the AOC requirements. The major findings were:

- The average time to prepare the manual was approximately 12 weeks of full-time work for one person
- Some businesses contracted out the preparation of the operations manual at an approximate cost of $10 000
- 2 days to complete other associated paperwork with the application, including the application form
- 1 day for a CASA site visit and inspection of premises
- 1 day for each interview of key personnel
- 1 day for a check flight with the Head of Flying Operations
- 10 days for other miscellaneous requirements, including corresponding with CASA
- CASA assessment fees of $12 000
- 1 day to complete associated paperwork for aircraft registration, including the initial application form and compiling supporting documentation

Table A1 provides the estimated costs associated with initial AOC application process with the estimated costs based on a wage rate of $500 per day. For the issue of an initial AOC the compliance cost is estimated at approximately $70 000.

Table A1: Current Compliance Costs for an Initial AOC

	Time to complete	**CASA fees**	**Total cost**
Initial approval			
AOC application	6 to 12 months	$12 000	$12 000
Operations Manual	3 months		$45 000
Interactions with CASA	2 weeks		$10 000
Interview with Chief Pilot	1 day		$500
Interview with CEO and HAAMC	1 day		$500
Inspection of premises	1 day		$500
Check flights	1 day		$1 000
Aircraft registration	1 day	$130	$390
Total			$69 890

Ongoing requirements

The compliance costs associated with maintaining an AOC include ensuring that any change to the operational procedures of the business that requires a change to operations manual is submitted to CASA and approved. Feedback from AOC holders is that the time associated with varying the operations manual would take approximately 4 hours and require the payment of $300 in CASA fees, resulting in an annual cost of $550 for one change per year (Table A2).

A CASA audit of the AOC holder generally involves an onsite inspection, which is typically completed in one day with a further day of preparation. If the AOC holder was to be audited once every two years this would result in an annualised cost of $500.

In order to ensure that the pilots employed by the AOC holder remain current they must undertake a flight review and a review for any endorsement held by the pilot that is used for the operations of the AOC holder, for example if the pilot undertakes aerial application for the AOC holder, this endorsement must be maintained with a review once per annum.

The frequency of flight reviews for pilots depend on the type of aircraft operation. For a single engine pilot in a small aeroplane or helicopter operating day VFR this would require a flight review once every 2 years at an estimated cost of $1015 (Table A2). For the pilot operating a multiple engine aircraft the flight review is once per year at an estimated cost of $1165 (Table A2). Most pilot ratings, including the commonly held instrument rating, require a review once per annum in order to maintain currency and would typically be done as part of pilot a flight review. Therefore if the pilot is authorised to operate a single engine aeroplane and holds and instrument rating, these pilots would be required to have an annual Instrument Proficiency Check.

Whilst not part of the current review of the requirements applying to AOC holders, the aircraft airworthiness standards impose a cost on operators. A charter operator must undertake 100 hourly inspections to maintain a Certificate of Airworthiness. The typical cost of 100 hourly inspection is $2 000.

In addition, the maintenance requirements applying to charter aircraft require the engine to overhauled according to the manufacturer's time limits, typically every 2000 hours. The engine overhaul costs are typically in the order of $50 000 (Table A2).

Table A2: Ongoing AOC holder Compliance Costs

Ongoing requirements	**Time to complete**	**CASA fees**	**Total cost**	**Annualised cost**
Variations to manuals	0.5 days	$300	$250	$550
Comply with audits	2 days		$1 000	$500
Pilot flight reviews (single engine, once every 2 years)	1 day		$1 015	$500
Pilot flight reviews (multi-engine, once per year)	1 day		$1 165	$1 165
Aircraft maintenance (100 hourly inspection in charter)	1 day		$2 000	$8 000
Engine overhaul every 2000 hours	1 week		$50 000	$12 500

The total cost of ongoing compliance will vary according to the number of pilots employed, hours flown and number of aircraft operated. For a current AOC charter operator employing 3 pilots, operating 2 single engine aircraft with a total of 1500 flight hours annual, the annual cost would be approximately $46 128 (Table A3). This currently assumes that all operators employ multiple engine rated pilots.

Table A3: Compliance Cost by size of Operator

Operators	**Number of pilots**	**Number of Aircraft**	**Variation to manuals**	**Comply with audits**	**Flight Reviews**	**Aircraft Maintenance**	**Engine Overhaul**	**Total**
Single Pilot	1	1	$550	$500	$1 165	$8 000	$12 500	$22 715
2 to 5 pilots	3.5	2	$550	$500	$4 078	$16 000	$25 000	$46 128
6 to 20 pilots	11.5	5	$550	$500	$13 398	$40 000	$62 500	$116 948
20+	33	10	$550	$500	$38 445	$80 000	$125 000	$244 495

Appendix 3: Cost Impact for implementing and maintaining a Safety Management System

Upfront Costs

For small charter organisations employing less than 20 safety sensitive staff, it is anticipated that there is a requirement for the organisation to develop, implement and maintain a safety management system, and a program for training and assessing operational staff in human factors principles and non-technical skills. Training time for initial staff SMS induction training would be approximately 4 hours, with a further one to two days to set-up SMS process forms and spread sheets. A typical HF & NTS course would run for approximately 2 days. Therefore, the total SMS and HF & NTS training implementation for the organisation would be approximately five days.

For a medium-sized charter organisation employing between 20 to 50 personnel, the training time/costs would be similar to the smaller organisations, however, there would be an additional 2 days required for the safety manager/designate to ensure SMS process forms and spread sheets are fully integrated within the organisation's SMS. Induction would be ½ a day for all personnel, plus a 2-day HF & NTS course for all safety sensitive staff. Total SMS and HF & NTS training requirements for the organisation would be approximately 6 ½ days (1/2 – SMS induction and 2 – HF & NTS for all personnel plus 4 days for the safety manager/designate).

For larger charter organisations, employing more than 50 staff, the time cost will be similar to the small/medium organisations, however, the development and implementation of the SMS would take approximately 2 further days for the safety manager/department, plus an extra half a day to cover initial SMS induction training for all safety sensitive staff. Therefore, total SMS and HF & NTS training requirements would be approximately 9 days (2 x ½ day – SMS induction courses and 2 days – HF & NTS to cover all personnel plus 6 days for the safety manager/department).

On-going Costs

For the smaller charter organisations there will be an on-going requirement to provide staff with refresher training to cover both the organisation's SMS and HF & NTS principles and processes. This could be accomplished by 1 day per year for refresher training covering SMS and HF & NTS for all personnel. An additional 2 days per year is required to maintain/amend SMS policies and processes for the safety manager/designate. Therefore, the on-going requirement for SMS and HF & NTS would be approximately 3 days per year.

For the medium-sized charter organisations there will be increased on-going time costs due to maintenance of the SMS processes (hazard/incident reporting, internal audit, safety meetings and safety investigations) which will be undertaken by the person in the safety manager role. Approximately 5 to 10 days per year would be required by the safety manager/designate to maintain the SMS plus additional induction training as required, and approximately 1 day per year for all safety sensitive staff to cover SMS and HF & NTS refresher training requirements.

For the larger charter organisations there will be additional full-time time and costs for the safety department to cover the on-going maintenance and amendment of SMS processes including: safety reporting processes, safety meeting coordination, safety investigations similar to the medium organisations, however, larger in scale. The on-going training time/cost for the safety department to cover SMS and HF & NTS induction and refresher

training would be in the order of 24 days per year (based on 2 days per month, noting probable staff turn-over), as well as all safety sensitive staff having 1 day per year to cover refresher training for SMS and HF & NTS principles and processes.

Assumptions

- Small to medium organisations would most likely have a person in the safety manager role as a part-time appointment (a secondary duty) to maintain the organisation's SMS procedures, policies and processes
- HF & NTS training for the larger organisations would be carried out internally
- SMS induction and refresher training is carried out internally for all organisations
- Refresher training is an annual event for all safety sensitive personnel
- Time and cost considerations are approximate only, noting that each organisation will have SMS training and process requirements specifically 'tailored' for their operations

Appendix 4: Cost of flight reviews and operator proficiency checks

The cost of flight reviews is determined by the aircraft operating costs and the opportunity cost of staff time.

The typical operating cost for a single engine aircraft weighing less than 5700kg such as a Cessna 172 is approximately $250 per hour. For multi-engine aircraft weighing less than 5700kg, the weighted average operating cost is approximately $350 per hour.

The other significant cost of the review is the opportunity cost for the two pilots valued at $80 per hour, which represents the hourly rate of a $135 000 salary.

Table 4: Flight Review costs for single engine aircraft <5700kg

Aircraft based cost components	
Aircraft operating costs per hour[1]	$250
Value of 1.5 hours of aircraft use	$375.0
Pilot time[2]	640
Total review cost	$1 015.0

1: Average costs obtained from a survey of affected aircraft operators

2: Four hours for two pilots valued at $80 per hour

Table 5: Competency Check costs for multi-engine aircraft <5700kg

Aircraft based cost components	
Aircraft operating costs per hour[1]	$350
Value of 1.5 hours of aircraft use	$525.0
Pilot time	640
Total review cost	$1 165.0

1: Average costs obtained from a survey of affected aircraft operators

2: Four hours for two pilots valued at $80 per hour.

Attachment B

Statement of Compatibility with Human Rights

Prepared in accordance with Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011

Civil Aviation Safety Amendment (Part 119) Regulations 2018

This Legislative Instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011.*

Overview of the Disallowable Legislative Instrument

The Legislative Instrument (the Regulations) amends the *Civil Aviation Safety Regulations 1998* (CASR) to introduce a new Part 119 which provides a regulatory framework for the certification and management of Australian air transport operators.

Subpart 119.A makes provision for applicants for, and holders of, Air Operator Certificates (AOCs) that authorise the operation of aeroplanes or rotorcraft for Australian air transport operations. It provides that Australian air transport AOCs are required, and the compliance requirements with Australian air transport AOCs and conditions of Australian air transport AOCs. It also provides for approvals made by CASA for this Part. Further, it provides the required materials for a reference library, as well as the issue of a Manual of Standards for this Part.

Subpart 119.B prescribes the procedural requirements for Australian air transport AOCs.

Subpart 119.C prescribes the requirements for changes relating to Australian air transport operators.

Subpart 119.D prescribes the requirements for personnel and the air transport organisation.

Subpart 119.E provides the training and checking requirements for operational safety-critical personnel.

Subpart 119.F prescribes the safety management system requirements and requirements for disclosure of the source of operational flight data for flight data analysis programs.

Subpart 119.H prescribes the requirements for expositions for Australian air transport operators.

Subpart 119.J prescribes the record and document requirements for personnel training and checking, flight crew licences and the retention period for documents.

Subpart 119.K prescribes offence provisions for dealings in relation to cancelled, suspended, varied, pending or refused civil aviation authorisations and the maximum period for use of foreign registered aircraft in Australian territory.

Non-compliance with a number of the stated requirements in Subparts 119.A to 119.K is an offence of strict liability under the Regulations.

Human rights implications

The Regulations engage the following rights:

- the right to a fair trial and fair hearing in Article 14 of the *International Covenant on Civil and Political Rights* (ICCPR)
- the right to protection against arbitrary and unlawful interference with privacy in Article 17 of the ICCPR
- the right to work under Article 6 (1) of the International Covenant on Economic, Social and Cultural Rights (the ICESCR).

The right to a fair trial and fair hearing: presumption of innocence

Article 14 of the ICCPR provides that in the determination of a criminal charge, everyone shall be entitled to a fair and public hearing by a competent, independent and impartial tribunal established by law. Further, in criminal proceedings, people are entitled to a range of protections including minimum guarantees as set out in Article 14(3) and following of the ICCPR.

The presumption of innocence in Article 14(2) imposes on the prosecution the burden of proving the charge and guarantees that no guilt can be presumed until the charge has been proven beyond reasonable doubt. For the charge to be proven beyond reasonable doubt, the legal and evidential burden is on the prosecution.

Strict liability offence provisions

There are 21 offences of strict liability prescribed in the Regulations that apply in relation to conduct by Australian air transport operators and their personnel.

Strict liability offences engage the presumption of innocence through the imposition of liability without the need to prove fault. A strict liability offence will not impermissibly limit the right to the presumption of innocence if the offence pursues a legitimate aim and is reasonable, necessary and proportionate to that aim.

Nature of strict liability provisions

Subpart 119.A provides offence provisions regulating compliance with Australian air transport AOCs.

Subpart 119.C provides offence provisions for improper handling of changes relating to Australian air transport operators.

Subpart 119.E provides offence provisions for training in human factor principles and non-technical skills.

Subpart 119.H provides offence provisions for Australian air transport operators not meeting a requirement of the operator's exposition and failing to provide a member of the operator's personnel with relevant parts of the exposition.

Subpart 119.J provides offence provisions regulating record and document keeping practices of Australian air transport operators.

Subpart 119.K provides offence provisions in relation to cancelled, suspended, varied, pending or refused civil aviation authorisations, and the maximum period for use of foreign registered aircraft in Australian territory.

Reasonableness, necessity and proportionality

The strict liability offences relate to administrative and safety requirements that must be adhered to by Australian air transport operators and their personnel to ensure the integrity of the aviation safety system. The imposition of strict liability offences in the amendments limits

the right to the presumption of innocence. However, the limitation is necessary to ensure that persons given functions under law to administer Australian air transport operations act in accordance with the requirements of Part 119. The limitation also ensures that CASA retains oversight over such those operations as is necessary to ensure the safety of air navigation.

Further, the defence of honest and reasonable mistake, as set out in section 9.2 of the *Criminal Code Act 1995*, will be available to the defendant in all offence provisions. If relied upon, this is an evidential burden on the defence to prove, on the balance of probabilities, that the accused had an honest and reasonable mistaken belief of fact which, if those facts existed, would not have constituted an offence.

The strict liability offences in this instrument are considered reasonable, necessary and proportionate to the objective of ensuring aviation safety. The offences are regulatory in nature, in other words their aim is to insist on reasonable compliance with regulated safety standards by those conducting activities which are otherwise intrinsically or potentially unsafe unless such high standards of compliance are met. Not having to prove fault in the relevant circumstances aims to provide a strong deterrent. To this extent, and in this context, they are consistent with other safety-focussed regulatory regimes and do not unreasonably or impermissibly limit the presumption of innocence. The offences are designed to achieve the legitimate objective of ensuring the safety and integrity of the aviation system for the benefit of the aviation industry and the public.

The strict liability offences are also proportionate in that they fall at the lower end of the penalty scale, not exceeding 50 penalty units, and are otherwise consistent with the guidance set out in *A Guide to Framing Commonwealth Offences, Infringement Notices and Enforcement Powers*, September 2011.

The right to a fair trial and fair hearing: right to an effective remedy

A person affected by decisions under the Regulations has rights of merit review in accordance with regulation 201.004 of CASR, in addition to administrative law rights under the *Administrative Decisions (Judicial Review) Act 1977* (Cth) and general principles of Australian administrative law. As such, the rights of persons under the Regulations are linked to existing mechanisms that promote an individual's right to an effective remedy.

Privacy

The right to the protections against arbitrary and unlawful interferences with privacy, contained in Article 17 of the ICCPR, provides that no one shall be subjected to arbitrary or unlawful interference with his or her privacy, nor to unlawful attacks on their honour and reputation. The right to privacy may be engaged when personnel information is collected, used and stored.

Regulation 119.195 includes a scheme for the protection of the identity of an individual who is the source of operational flight data under an operator's flight data analysis program. Subregulation 119.195(3) limits the disclosure of the identity of such an individual to other persons who have responsibilities for the analysis of the flight data and associated matters. Subregulation 119.195(5) provides for the disclosure of the identity of the individual with the individual's consent, with CASA approval, or as required by law. Subregulation 119.195(3) also requires that an operator's program ensure that no punitive action is taken against an individual providing relevant data. The arrangements are intended to balance the legitimate objective of accessing individuals who may have safety-critical information with the right of the individual to be protected from repercussions if the source of relevant data is identified. The provision does not require the disclosure of the identity of an individual disclosing

relevant data, but ensures that the individual is subject to protections. In this situation the provision promotes the right to privacy of the individual.

Subpart 119.J requires an Australian air transport operator to maintain records of flight crew members, cabin crew members, air crew members, medical transport specialists, members of the operator's personnel who perform ground duties and a copy of a flight crew members flight crew licence and medical certificate (regulations 119.225 and 119.235). Personnel records about a person are required to be disclosed to the person or otherwise with the person's authority (regulation 119.230). For safety regulatory purposes, personnel records are required to be retained by an operator for 3 months (regulation 119.240), operational documents including passenger list are required to be retained by an operator for 3 months (regulation 119.245), and journey logs that contain limited personal information are required to be retained by an operator for 6 months (regulation 119.250).

The provisions in Subpart 119.J variously ensure that individuals have access to their own information, and can transfer records between employers, or ensure that documents are created and remain in existence for a reasonable period for the purposes of safety analysis and improvement, and for compliance monitoring and the investigation of possible breaches of safety requirements.

The protections afforded by the *Privacy Act 1988* continue to apply to all of the provisions of Part 119 mentioned above.

To the extent that the regulations in Subpart 119.J limit the rights protected under Article 17 of the ICCPR, the limitations are necessary to protect the rights of individuals or the integrity of the safety regulatory scheme. They are also reasonable and proportionate to ensure the proper administration and enforcement of Australia's aviation safety system, including because only limited periods are specified for the retention of the prescribed records.

The right to work

The Regulations may engage the right to work that is protected under Article 6 (1) of the International Covenant on Economic, Social and Cultural Rights (the ICESCR). This right includes the right of everyone to the opportunity to gain their living by work which they freely choose or accept.

The right to work may be engaged by subregulation 119.105 (2) under which CASA may, by written notice given to an Australian air transport operator, direct the operator to remove any of the operator's key personnel from the person's position if satisfied that the person is either not carrying out their prescribed safety responsibilities, or, if the person is the chief executive officer (CEO), the person is not properly managing the prescribed safety matters for which he or she is responsible and therefore accountable. Under subregulation 119.105 (4) and (5), an Australian air transport operator commits a strict liability offence if CASA gives the operator a direction under subregulation 119.105 (2) and the operator does not comply with the direction within the time specified in the written notice.

An Australian air transport operator's key personnel, in particular its CEO, have fundamental and critical responsibilities which go to ensure the safety of the operator's operations. For example, under regulation 119.130, the CEO has responsibilities and accountabilities in relation to the safety management system, the safety policy, safety performance, adequacy of organisation, structure finances and personnel for the operations undertaken, compliance with aviation safety laws, and accountability to CASA.

Under regulation 119.135, as a key person, the head of flying operations (HFO) has responsibilities to safely manage flying operations. Under regulation 119.150, the head of training and checking (HT&C) has responsibilities to safely manage flight crew training and

checking. Under regulation 119.160, the safety manager (SM) has responsibilities to manage the safety management system and the fatigue risk management system. Under regulations 119.125 (for the CEO), 119.135 (for the HFO), 119.145 (for the HT&C), and 119.155 (for the SM), key personnel must satisfy prescribed requirements to ensure that they are highly qualified and experienced for the performance of their crucial roles.

Failure by any of the key personnel to properly and prudently discharge their responsibilities would place the safety of flying operations, flight crews, passengers and persons and property on the ground in jeopardy. A key person must be removed and replaced if he or she fails, for whatever reason, to properly and prudently discharge their responsibilities. Given the nature and status of the persons involved most responsible operators will take prompt removal action of their own initiative in the interests of the safety of their operations.

However, in the interests of aviation safety CASA requires power to direct the removal of a key person where there is a failure to discharge their safety responsibilities under the regulations, regardless of any action that an operator may or may not have taken.

This is, in the circumstances, a reasonable, necessary and proportionate requirement under aviation safety law to ensure compliance with the regulations and the integrity of the aviation safety system. The right of relevant persons to the opportunity to gain their living by work is recognised, however, that right would be lost if the person fails to carry out their responsibilities in such a safety-critical industry as aviation. Accordingly, any potential limitation on the right to work is necessary, reasonable and proportionate in achieving the aim of protecting and improving aviation safety.

Conclusion

This legislative instrument is compatible with human rights and, to the extent that it may limit human rights, those limitations are reasonable, necessary and proportionate to ensure the safety of aviation operations and to promote the integrity of the aviation safety system.

Attachment C

Details of the *Civil Aviation Safety Amendment (Part 119) Regulations 2018*

Section 1 – Name of Regulations

Section 1 provides that the title of the Regulations is the Civil Aviation Safety Amendment (Part 119) Regulations 2018.

Section 2 – Commencement

Section 2 provides for the commencement of the proposed Regulations on 25 March 2021.

Section 3 – Authority

Section 3 provides that the proposed Regulations are made under the *Civil Aviation Act 1988.*

Section 4 – Schedule(s)

Section 4 provides that each instrument that is specified in a Schedule to this instrument is amended or repealed as set out in the applicable items in the Schedule concerned, and any other item in a Schedule to this instrument has effect according to its terms.

Schedule 1 - Amendments

Civil Aviation Safety Regulations 1998

Item 1 Part 119

This item repeals the existing Part 119 – Air operator certification—commercial air transport – and substitute a new Part 119 – Australian air transport operators—certification and management. The Part comprises 10 Subparts listed in a Table of contents.

The new Part 119 of CASR applies to Australian air transport operators of aeroplanes or rotorcraft.

Subpart 119.A—General

This Subpart prescribes the general requirements for Australian air transport operators.

Regulation 119.005 provides that Part 119 of CASR makes provision for applicants for, and holders of, AOCs that authorise the operation of aeroplanes or rotorcraft for Australian air transport operations.

Regulation 119.010 – Definition of *Australian air transport operation*

Subregulation 119.010(1) provides for the circumstances in which an operation is an Australian air transport operation. The circumstances are the following:

- an air transport operation conducted by an Australian operator using a registered (i.e. Australian) aeroplane or rotorcraft;
- an air transport operation conducted by an Australia operator on flights into, out of or in Australian territory using a foreign aeroplane or rotorcraft;
- an air transport operation conducted by an Australian operator using an aeroplane or rotorcraft as provided for under the Australia New Zealand Aviation mutual recognition agreements;
- an air transport operation conducted by a foreign operator using a foreign aeroplane or rotorcraft on a flight wholly within Australia that is not part of an international flight; and
- an operation using an aeroplane or rotorcraft of a kind that is prescribed in the Part 119 Manual of Standards.

Subregulation 119.010(2) provides for the circumstances in which an operation is not an Australian air transport operation. The circumstances are the following:

- the operation of an aeroplane or rotorcraft under a permission under section 25 (Non-scheduled flights by foreign registered aircraft) of the Act;
- the operation of an aeroplane or rotorcraft under a permission under section 27A (Permission for operation of foreign registered aircraft without AOC) of the Act; or
- an air transport operation authorised by a New Zealand AOC with Australia New Zealand Aviation privileges that is in force for Australia; and
- an operation of an aircraft to which Part 129 of CASR applies.

Regulation 119.015 – Definition of *Australian air transport AOC* and *Australian air transport operator*

Subregulation 119.015(1) provides that the definition of an *Australian air transport AOC*, is an AOC that authorises the operation of an aeroplane or rotorcraft for an Australian air transport operation.

Subregulation 119.015(2) provides that the definition of an *Australian air transport operator* is a person who holds an Australian air transport AOC.

Regulation 119.020 provides the definition of a *significant change* for an Australian air transport operator in Part 119. The definition would be made up of the circumstances in which a *significant change* arises as prescribed in paragraphs 119.020(a) to (c).

Regulation 119.025 – Approvals by CASA for Part 119

Subregulation 119.025(1) provides that if a provision of Part 119 refers to a person holding an approval under regulation 119.025, the person may apply to CASA, in writing, for the approval.

Subregulation 119.025(2) states that CASA must grant the approval, subject to regulation 11.055 of CASR.

Subregulation 119.025(3) provides that subregulation 11.055(1B) applies to the granting of an approval for the experience requirement for the head of flying operations under paragraph 119.135(3)(a) or the head of training and checking under paragraph 119.145(3)(a).

Regulation 119.030 provides that the flying or operation of an aeroplane or rotorcraft for an Australian air transport operation is a prescribed purpose for subsection 27(9) of the Act. This prescription would require the operation to be conducted under the authority of an AOC.

Regulation 119.035 – Prescribed position—safety manager

Subregulation 119.035(1) provides the requirement for an Australian air transport operator to have a safety manager.

Subregulation 119.035(2) provides that the position of safety manager is prescribed for the purposes of paragraph (e) of the definition of *key personnel* in subsection 28(3) of the Act.

Regulation 119.040 prescribes, under paragraph 28BH(2)(b) of the Act, the required material for an Australian air transport operator's reference library.

Regulation 119.045 provides that, for the purposes of subsection 98(5A) of the Act, CASA may issue a Manual of Standards for Part 119 to prescribe certain matters, required or permitted by CASR to be prescribed by the Part 119 Manual of Standards; or necessary or convenient to be prescribed for carrying out or giving effect to Part 119.

Regulation 119.050 – Australian air transport AOC required

Subregulation 119.050(1) provides that a person who conducts an Australian air transport operation contravenes this subregulation if they do not hold an Australian air transport AOC that authorises them to conduct the Australian air transport operation.

Subregulation 119.050(2) provides that a contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.055 – Compliance with Australian air transport AOCs

Subregulation 119.055(1) provides that a person contravenes this subregulation if the person conducts an Australian air transport operation and the person holds an Australian air transport AOC that authorises the person to conduct the Australian air transport operation but conducts the operation in a way that contravenes the AOC.

Subregulation 119.055(2) provides that a contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.060 – Compliance with conditions of Australian air transport AOCs

Subregulation 119.060(1) provides that an Australian air transport operator contravenes this subregulation if the operator contravenes a condition of its Australian air transport AOC.

Subregulation 119.060(2) would provide that a contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Subpart 119.B—Australian air transport AOCs

This Subpart prescribes contents of the application, conditions for issue, approval of expositions and conditions for the conduct of an Australian air transport operation.

Regulation 119.065 – Application

Subregulation 119.065(1) provides that a person may apply to CASA for the issue of an Australian air transport AOC.

Subregulation 119.065(2) sets out requirements for an application for an Australian air transport AOC.

Subregulation 119.065(3) provides that the application must be accompanied by a copy of the applicant's proposed exposition and signed by the person appointed, or proposed to be appointed, as the applicant's chief executive officer.

Regulation 119.070 – Conditions for issue

Subregulation 119.070(1) sets out the conditions that CASA must be satisfied of before issuing an Australian air transport AOC to an applicant.

Subregulation 119.070(2) provides considerations that CASA must take into account when issuing an Australian air transport AOC, without limiting the matters that CASA may otherwise consider in determining whether the applicant can conduct Australian air transport operations safely and in accordance with its exposition and the civil aviation legislation (in accordance with paragraph 119.070(1)(b)).

Subregulation 119.070(3) provides the considerations that CASA may take into account when issuing an Australia air transport AOC, in deciding whether a person is a fit and proper person under paragraphs 119.070(1)(c) to (e).

Regulation 119.075 states that, if CASA issues an Australia air transport AOC to the applicant, CASA is taken to have also approved the applicant's proposed exposition.

Regulation 119.080 – Conditions of an Australian air transport AOC

Subregulation 119.080(1) sets out the conditions that apply under paragraph 28BA(1)(b) of the *Civil Aviation Act 1988* when an Australian air transport AOC is issued to an operator.

Paragraph 110.080(1) (a) sets out the condition that operators must comply with directions issued to the operator and other obligations imposed by CASA under the CAR and the CASR.

Paragraph 119.080(1)(b) sets out the condition for key personnel to comply with Part 119, directions and other obligations imposed by CASA and the civil aviation legislation.

Paragraph 119.080(1)(c) sets out the condition that each key personnel position must be filled.

Paragraph 119.080(1)(d) sets out the condition that the operator's personnel must comply with the civil aviation legislation.

Paragraph 119.080(1)(e) sets out the condition that, if the operator is an individual, the individual must be the operator's chief executive officer.

Paragraph 119.080(1)(f) provides the circumstances under which the positions of chief executive officer and safety manager may be occupied by the same person.

Paragraph 119.080(1)(g) provides the circumstances under which the positions of head of flying operations and safety manager may be occupied by the same person.

Paragraph 119.080(1)(h) sets out the condition that the operator must be the registered operator of an aeroplane or rotorcraft operated under the AOC, unless the operator holds an approval for the aeroplane or rotorcraft under regulation 119.025.

Subregulation 119.080(2) states the periods that apply for subparagraphs 119.080(1)(f)(ii) and (g)(i). The period is either: no more than 7 consecutive days for each unforeseen circumstance; or, if the operator holds an approval under regulation 119.025, the period mentioned in the approval for the circumstance.

Subpart 119.C—Changes relating to Australian air transport operators

This Subpart prescribes the circumstances in which a change in an Australian air transport operator's name would be notifiable to CASA and the process of application and approval in making changes. This Subpart also prescribes CASA's authority to remove, include, revise or vary an Australian air operator's exposition or require removal of an operator's key person in certain circumstances.

Regulation 119.085 – Changes of name etc.

Subregulation 119.085(1) provides that an Australian air transport operator contravenes this subregulation if it makes any of the changes mentioned in subregulation 91.085(2) and does not advise CASA before making the change. It provides that the operator must amend its exposition to reflect the change and provide notice of the change to CASA, along with a copy of the amended part of the exposition, before the change is made.

Subregulation 119.085(2) defines what constitutes a change for subregulation 119.085(1).

Subregulation 119.085(3) provides that a contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.090 – Application for approval of significant changes

Subregulation 119.090(1) provides that an Australian air transport operator contravenes this subregulation if the operator makes a significant change, other than a significant change mentioned in subregulation 119.090(2), and CASA has not approved the significant change.

Subregulation 119.090(2) provides that an Australian air transport operator contravenes this subregulation if: the operator makes a significant change that would be the permanent appointment, or the acting appointment for a period of greater than 35 days, as any of the operator's key personnel of a person previously authorised to carry out the responsibilities of the position in the circumstances mentioned in subparagraph 119.205(1)(e)(iv); and the operator does not apply to CASA for approval of the change within 7 days after the change is made.

Subregulation 119.090(3) provides the requirements for an application for approval of a significant change. The application must be in writing, set out the change and be accompanied by a copy of the amended part of the operator's exposition with the change clearly identified.

Subregulation 119.090(4) provides that a contravention of subregulation (1) or (2) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.095 – Approval of significant changes

Subregulation 119.095(1) provides that CASA may approve a significant change for an Australian air transport operator only if satisfied that the requirements mentioned in section 28 of the Act and subregulation 119.070(1) will continue to be met.

Subregulation 119.095(2) provides that CASA is taken to have also approved the changes to the operator's exposition covered by the application in approving the significant change.

Regulation 119.100 provides that an Australian air transport operator contravenes subregulation 119.100(1) if the operator makes a change, and the change is not made in accordance with the process described in the operator's exposition for making changes. A contravention of subregulation 119.100(1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.105 – CASA directions relating to exposition or key personnel

Subregulation 119.105(1) provides that CASA may direct an Australian air transport operator to remove, include, revise or vary information, procedures or instructions in their exposition. CASA is required to be satisfied that it is necessary in the interests of aviation safety to make a direction and is required to give written notice to the Australian air transport operator.

Subregulation 119.105(2) provides that CASA may direct an Australian air transport operator to remove any of their key personnel if CASA is satisfied that the person is not carrying out the responsibilities of the position. CASA may direct an operator to remove the chief executive officer if they are not managing matters for which the person is accountable. CASA is required to give written notice to the operator of this direction.

Subregulation 119.105(3) provides that a notice under this regulation must state the time within which the direction must be complied with.

Subregulation 119.105(4) provides that an Australian air transport operator contravenes this subregulation if CASA gives the operator a direction under regulation 119.105 and the operator does not comply with the direction within the time stated in the notice.

Subregulation 119.105(5) provides that a contravention of subregulation (4) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Subpart 119.D—Organisation and personnel

This Subpart prescribes requirements for the management of an Australian air transport operator's organisational structure and personnel, including the qualifications and experience required by key personnel and their responsibilities and accountabilities.

Regulation 119.110 – Organisation and personnel

Subregulation 119.110(1) provides that an Australian air transport operator must maintain an organisational structure that effectively manages its Australian air transport operations.

Subregulation 119.110(2) provides that if any of the operator's key personnel carries out a responsibility of their position in a way that contravenes the operator's exposition or Subpart 119.D, the operator contravenes this subregulation.

Subregulation 119.110(3) provides that a contravention of subregulation (2) is an offence, with a maximum penalty of 50 penalty units.

Regulation 119.115 – When key personnel cannot carry out responsibilities

Subregulation 119.115(1) provides that an Australian air transport operator must tell CASA of any instance in which key personnel cannot carry out, or is likely to be unable to carry out, the person's responsibilities for a period longer than 35 days. An operator contravenes this subregulation if they do not tell CASA of the matter within the time mentioned in subregulation 119.115(2).

Subregulation 119.115(2) provides two circumstances with different notice periods for key personnel unable to carry out responsibilities. If there is not another person authorised to carry out the responsibilities for all, or part of the period, the operator is required to notify CASA within 24 hours after the operator becomes aware of the matter. If another person were authorised to carry out the responsibilities for all or part of the period, the Australian air transport operator is required to notify CASA within three days of becoming aware of the matter.

Subregulation 119.115(3) provides that a contravention of subregulation (1) is an offence, with a maximum penalty of 50 penalty units.

Regulation 119.120 provides that an Australian air transport operator must ensure that a person appointed as any of the operator's key personnel must first have completed any training that is necessary to familiarise the person with the responsibilities before the appointment is made. The responsibility of this familiarisation of key personnel rests with the Australian air transport operator.

Regulation 119.125 provides the experience that a chief executive officer of an Australian air transport operator must have.

Regulation 119.130 provides the responsibilities that a chief executive officer of an Australian air transport operator has. The chief executive officer is accountable to the operator and CASA for ensuring these responsibilities are carried out effectively.

Regulation 119.135 set outs the qualifications and experience required by a head of flying operations of an Australian air transport operator. To demonstrate their suitability, CASA may by written notice given to the head of flying operations or the proposed head of flying operations, direct the person to undertake an assessment. This assessment is conducted by CASA, or a person nominated by CASA and may include assessment in an aeroplane, rotorcraft or flight simulation training device.

Regulation 119.140 provides the responsibilities that a head of flying operations of an Australian air transport operator has in managing flying operations.

Regulation 119.145 sets out the qualification and experience requirements for a head of training and checking of an Australian air transport operator. To demonstrate their suitability, CASA may, by written notice given to the head of training and checking, or proposed head of training and checking, direct the person to undertake an assessment. This assessment is conducted by CASA, or a person nominated by CASA and may include assessment in an aeroplane, rotorcraft or flight simulation training device.

Regulation 119.150 provides the responsibilities that a head of training and checking of an Australian air transport operator has to manage the training and checking activities of the operator for the operator's flight crew.

Regulation 119.155 set outs the experience and other qualifications required for a safety manager for an Australian air transport operator.

Regulation 119.160 provides the responsibilities of a safety manager of an Australian air transport operator to manage the operator's safety management system, including the maintenance and continuous improvement of the fatigue risk management system, if any.

Regulation 119.165 provides for CASA to direct that key personnel have stated additional qualifications or experience. Subregulation 119.165(4) sets out the considerations that CASA must have regard to when deciding to issue such a direction.

Subpart 119.E—Training and checking for operational safety-critical personnel

This Subpart prescribes the training and checking system requirements for Australian air transport operators for flight crew and other operational safety-critical personnel.

Regulation 119.170 – Training and checking system

Subregulation 119.170(1) provides that an Australian air transport operator must have a training and checking system.

Subregulation 119.170(2) provides the requirements of the training and checking system in relation to flight crew and cabin crew.

Subregulation 119.170(3) provides additional training and checking system requirements for cabin crew.

Subregulation 119.170(4) provides additional training and checking system requirements for operational safety-critical personnel who are not flight crew or cabin crew, for the aircraft and operations referred to in subregulation 119.170(5).

Subregulation 119.170(5) describes the aircraft and operations for which the additional training and checking requirements for operational safety-critical personnel mentioned in subregulation 119.170(4) apply.

Subregulations 119.170(6) and (7) requires an operator to use individuals employed by the operator to do the checking of flight crew for specified larger aeroplanes and rotorcraft.

Subregulation 119.170(8) excludes the operation of this regulation for training that is authorised Part 141 flight training, and training or checking that is an authorised Part 142 activity for the operator.

Regulation 119.175 provides that an Australian air transport operator must have a program for training and assessing operational safety-critical personnel in human factor principles and non-technical skills.

Regulation 119.180 – Training in human factors principles and non-technical skills for flight crew etc.

Subregulation 119.180(1) provides that an Australian air transport operator contravenes this subregulation if a person who is a member of the operator's personnel mentioned in subregulation 119.180(2) contravenes subregulation 119.180(3).

Subregulation 119.180(2) prescribes the members of the operator's personnel that subregulation 119.180(3) applies to.

Subregulation 119.180(3) provides that a person included in subregulation 119.180(2) must not carry out a duty of the person's position unless the person meets the requirements in the operator's exposition about training in human factor principles and non-technical skills.

Subregulation 119.180(4) provides that a contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.185 – Training in human factors principles and non-technical skills for other operational safety-critical personnel

Subregulation 119.185(1) provides that an Australian air transport operator contravenes this subregulation if a person who is a member of the operator's personnel mentioned in subregulation 119.185(2) contravenes subregulation 119.185(3).

Subregulation 119.185(2) provides that the personnel are operational safety-critical personnel other than personnel mentioned in subregulation 119.180(2).

Subregulation 119.185(3) provides that the person must meet the requirements in the operator's exposition about training in human factors principles and non-technical skill within three months after being appointed to their position.

Subregulation 119.185(4) provides that an Australian air transport operator contravenes this subregulation if a member of the operator's personnel performs a duty that is described in the operator's exposition as a duty that requires training in human factors principles and non-technical skills and the person does meet the requirements of the exposition.

Subregulation 119.185(5) provides that a contravention of subregulation (1) or (4) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Subpart 119.F—Safety management

This Subpart sets out the requirement for an Australian air transport operator to have a safety management system, and the components and elements of the system. Operators operating certain larger aeroplanes and rotorcraft are required to incorporate a flight data analysis program in their safety management system.

Regulation 119.190 requires an Australian air transport operator to have a safety management system that is appropriate for the size, nature and complexity of their operations and addresses the matters prescribed in subregulation (2).

Regulation 119.195 – Flight data analysis program requirements

Subregulations 119.19(1) and (2) requires the operators of specified larger aeroplanes and rotorcraft to have a flight data analysis program.

Subregulation 119.195(3) sets out the requirements of the flight data analysis program.

Subregulation 119.195(4) provides that the provision of the flight data analysis program by an appropriate person other than the operator does not compromise the operator's responsibility to provide and ensure the effectiveness of the program.

Subregulation 119.195(5) identifies the circumstances under which the identity of a person who is the source of data (the *identified person*) may be disclosed.

Subpart 119.G—Personnel fatigue management

Subpart 119.G would be reserved for future use.

Subpart 119.H—Expositions for Australian air transport operators

This Subpart prescribes the requirements of an Australian air transport operator's exposition, the requirement for an operator to provide relevant exposition material to its personnel prior

to their carrying out the duties which relate to the exposition, and requirements for the operator and operator personnel to comply with the exposition.

Regulation 119.205 provides the requirements for content of an Australian air transport operator's exposition. It is an offence of strict liability, with a maximum penalty of 50 penalty units, if the exposition does not include the specified content.

Regulation 119.210 provides that an Australian air transport operator contravenes this regulation if they do not meet a requirement of their exposition. This is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.215 – Providing personnel with exposition

Subregulation 119.215(1) provides the circumstances in which failing to provide a member of the Australian air transport operator's personnel with the operator's exposition contravenes this subregulation.

Subregulation 119.215(2) provides that a contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.220 – Compliance with exposition by personnel

Subregulation 119.220(1) provides that a member of an Australian air transport operator's personnel contravenes this subregulation if the member does not meet a requirement of the operator's exposition in relation to the safe conduct of the operator's operations, being a requirement to which the member is subject.

Subregulation 119.220(2) provides that an air transport operator contravenes this subregulation if a member of the operator's personnel does not meet a requirement of the operator's exposition in relation to the safe conduct of the operator's operations, being a requirement to which the member is subject.

Subregulation 119.220(3) provides that a contravention of subregulation (1) or (2) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Subpart 119.J—Records and documents

This Subpart prescribes the requirements for the making and keeping of records and documents by an Australian air transport operator.

Regulation 119.225 – Personnel training and checking records—making records

Subregulation 119.225(1) provides that a person who is a member of an Australian air transport operator's personnel that undertakes an activity, obtains a qualification or certificate, or gains flying experience, must have a record of this training made by the operator within 21 days of the training. The record is required to include when the activity was undertaken, the qualification or certificate obtained, or the flying experience gained, and whether it was successfully completed if it was training or a check, flight test, flight review or assessment of competency. If these records are not made within 21 days of the training, the operator contravenes this subregulation.

Subregulation 119.225(2) provides the activities, qualifications, certificates and flying experience for specified members of the operator's personnel, which require recording under subregulation 119.225(1).

Subregulation 119.225(3) provides that a contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.230 – Personnel training and checking records—availability of records

Subregulation 119.230(1) providse that an Australian air transport operator contravenes this subregulation if they make a record about a person under regulation 119.225, that person requests the record be made available to them, and the operator does not make the record available to the person within seven days after receiving the request.

Subregulation 119.230(2) provides that an Australian air transport operator must provide a copy of a person's records to another Australian air transport operator if requested providing they hold a written authority for release of the records from the person to whom the records pertain. The regulation is contravened if the copy of the records is not provided to the other Australian air transport operator within seven days after receiving the request.

Subregulation 119.230(3) provides that a contravention of subregulation (1) or (2) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.235 – Copies of flight crew licences and medical certificates

Subregulation 119.235(1) provides that an Australian air transport operator contravenes this subregulation if a person who is a flight crew member of the operator's personnel exercises a privilege of the person's flight crew licence for the operator, and the operator does not have a copy of that person's flight crew licence and medical certificate.

Subregulation 119.235(2) provides that a contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.240 provides the required retention periods for types of personnel records in column 1 of the table. If an Australian air transport operator does not keep the records for the minimum period mentioned in column 2 of the table, they contravene subregulation 119.240(1). Contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.245 – Retention periods for flight-related documents

Subregulation 119.245(1) provides that an operator must keep a document mentioned in subregulation 119.245(2) for any flight of an aeroplane or rotorcraft conducted under the operator's Australian air transport AOC for at least three months after the end of the flight.

Subregulation 119.245(2) provides the relevant flight documents for the purposes of subregulation 119.245(1).

Subregulation 119.245(3) provides that a contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Regulation 119.250 – Retention periods for other flight-related records

Subregulation 119.250(1) provides that an operator must keep a record that is a journey log for the flight of an aeroplane or rotorcraft, if the record is not made in the aeroplane or rotorcraft flight technical log. The operator is required to keep the record for at least six months after the end of the flight.

Subregulation 119.250(2) provides that an operator must keep for at least six months a record that is made under Part 121 of CASR for the results of the verification of the accuracy of the weight and balance data generated by a computerised system that is not fitted to the aeroplane.

Subregulation 119.250(3) provides that a contravention of subregulation (1) or (2) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Subpart 119.K—Miscellaneous offences

This Subpart provides for contraventions by an Australian air transport operator with respect to cancelled, suspended, varied, pending or refused civil aviation authorisations, and the use of foreign registered aircraft in Australian territory.

Regulation 119.255 – Dealings in relation to cancelled, suspended, varied, pending or refused civil aviation authorisations

Subregulation 119.255(1) provides that if an Australian air transport operator enters into an agreement with another person and commits an act mentioned in subregulations 119.320(2), (4), (6) or (8), the operator contravenes this subregulation unless the operator holds an approval under regulation 119.025 of CASR to do the act.

Subregulations 119.255(2), (4), (6) and (8) provide for acts in relation to a cancelled, suspended, varied, pending and refused authorisation which constitute a contravention of subregulation 119.255(1).

Subregulations 119.255(3), (5) and (7) are related application provisions.

Subregulation 119.255(9) provides that a contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.

Subregulation 119.255(10) provides the definitions of *cancelled authorisation*, *employ*, *suspended authorisation* and *varied authorisation* for this regulation.

Regulation 119.260 – Maximum period for use of foreign registered aircraft in Australian territory

Subregulation 119.260(1) provides that an Australian air transport operator contravenes this subregulation if, in any 12 month period, the operator uses a particular foreign registered aircraft to conduct Australian air transport operations for a total of more than the number of days mentioned in subregulation (2).

Subregulation 119.260(2) would provide the number of days referred to in subregulation 119.260(1).

Subregulation 119.260(3) would provide that a contravention of subregulation (1) is an offence of strict liability, with a maximum penalty of 50 penalty units.