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Overview

This proposal is about the carriage of firefighting personnel using rotorcraft on an operational assignment managed by a State or Territory emergency services agency, in the vicinity of a fireground. The purpose of the operation is to locate the personnel where they are able to carry out their ground-based firefighting related activity.

Following the implementation of the flight operations regulations, operators and emergency services agencies advised CASA about challenges they experience conducting these kinds of operations, where the new rules classified the operation as Air Transport..

For the purposes of this proposal, firefighting personnel are people involved in activities associated with fighting or controlling fires.

In 2023, CASA consulted with industry representatives to gain a better understanding of these challenges. A key feedback theme was that the operational environment of a fireground, using rotorcraft, may be more closely aligned with the aerial work ruleset, including for the transport of personnel. As well as involving operations to locations that are unlikely to be used for typical air transport passenger carrying flights, there is less certainty before flight about the landing site.

CASA is proposing a policy change to the rules for carrying firefighting personnel intended to reduce complexity and provide additional flexibility, with appropriate safety controls. The proposal would result in these firefighting personnel being carried at a lower level of safety assurance when compared to air transport operations. The current rules for carrying aerial work passengers form the basis of this proposal.

During the preparation of the proposal and the consultation artefacts, requests were received to widen the scope of the policy to cover all emergency services. CASA acknowledges these requests and recommends consideration of them be picked up in a subsequent policy activity. This would be informed by the lessons learnt from this proposal, should it be implemented, as well providing appropriate time to consider the wider scope of issues that need to be addressed in relation to those other services. CASA proposes undertaking that work in the first half of 2025.

Why are we consulting

CASA is proposing to allow the carriage of firefighting personnel in rotorcraft, in limited circumstances for firefighting activities, to be conducted by Aerial Work Certificate (AWC) holders where they would currently require an Air Operator's Certificate (AOC).

We invite the community to review the proposed policy change and to tell us of any concerns or challenges they have regarding the change. We also invite industry to highlight any improvements that should be considered for the change or be considered for future development in relation to the carriage of firefighting personnel.

This policy proposal summarises the proposed change—the proposal is mentioned in terms of broad policy or broad action rather than specific wording. The exact wording and legal mechanism, such as, temporary instrument or changes to a MOS, will be addressed during subsequent legislative drafting. An exposure draft will be made available later in 2024 prior to changes coming into effect.

Contents

Reference material	5
Acronyms	5
Definitions	5
References	8
Introduction	9
Background	9
Carriage of personnel	9
Air transport and aerial work operations	10
Policy conclusion	11
Regulatory requirements	12
Firefighting activities	12
Passenger training and safety briefing	12
Changes to operator's operations manuals	12
Aircraft	13
Review and prior consultation activity	14
Previous consultations	14
Further consultation activities	14
Impacts on industry	15
Rotorcraft operators	15
Response agencies	15
Firefighting personnel	15
Implementation and transition	17
Implementation considerations	17
Closing date for comment	
	Acronyms Definitions References Introduction Background Carriage of personnel Air transport and aerial work operations Policy conclusion Regulatory requirements Firefighting activities Passenger training and safety briefing Changes to operator's operations manuals Aircraft Review and prior consultation activity Previous consultations Further consultation activities Impacts on industry Rotorcraft operators Response agencies Firefighting personnel Implementation and transition Implementation considerations



Acknowledgement of Country

The Civil Aviation Safety Authority (CASA) respectfully acknowledges the Traditional Custodians of the lands on which our offices are located and their continuing connection to land, water and community, and pays respect to Elders past, present and emerging.

Artwork: James Baban.

1 Reference material

1.1 Acronyms

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

Table 1. Acronyms

Acronym	Description
AFAC	Australasian Fire and Emergency Services Authorities Council
AOC	Air Operator's Certificate
AWC	Aerial Work Certificate
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulations 1998

1.2 Definitions

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

Table 2. Definitions

Term	Definition
fireground	The area declared by the senior member of the attending fire agency as the 'fire ground'. As a guide, it includes the area involved in the actual fire; the area where fire fighters, appliances, hoses and hydrants are located; and may extend to adjoining properties threatened by the fire. The fire ground is controlled by the fire agency.
emergency service operation	 An operation involving an aircraft to which all of the following apply: a. the operation is conducted by or at the request of, an authority of the Commonwealth, State or a Territory; b. the authority is prescribed by the Part 138 Manual of Standards for the purposes of this paragraph [definitions Part 1; c. the operation is for: i. law enforcement purposes; or ii. the purpose of saving or protecting persons, property or the environment.
Authorities for emergency service operations	The following authorities are each prescribed for paragraph (b) of the definition of emergency service operation in the CASR Dictionary: a. The Australian Federal Police b. The Australian Defence Force; c. The Australian Maritime Safety Authority; d. The Australian Border Force; e. A State or Territory police service; f. A State or Territory fire service; g. A State or Territory emergency service;

Term	Definition
	h. A State or Territory parks, wildlife or forestry service;i. A State or Territory surf lifesaving service.
aerial work operation	 (1) An aerial work operation means one or more of the following (and each of the following is a kind of aerial work operation): a. an external load operation; b. a dispensing operation; c. a task specialist operation; d. an operation of a kind prescribed by the Part 138 Manual of Standards for the purposes of this paragraph. (2) An external load operation means carrying or towing a load outside an aircraft in flight and includes training for such an operation. (3) A dispensing operation means dropping or releasing any substance or object from an aircraft in flight and includes training for such an operation. (4) A task specialist operation means carrying out a specialised activity using an aircraft in flight and includes training for such an activity. (5) Despite subregulation (1), an aerial work operation does not include the following: a. a medical transport operation; b. an external load operation involving winching a person, if the operation is conducted as part of an air transport operation; c. glider towing; d. a person undertaking a parachute descent; e. an aerial application operation (including any external load operation undertaken as part of that operation) to apply fire retardants (including water), or oil or chemical dispersants, if the operation is conducted by a person holding a civil aviation authorisation under Part 137 to undertake the operation; f. any other aerial application operation; g. any other operation of a kind prescribed by the Part 138 Manual of Standards for the purposes of this paragraph.
aerial work passenger	means a person in a class of persons prescribed by the Part 138 Manual of Standards for the purposes of this definition Aerial work passengers - classes of persons (1) The following classes of persons are prescribed for the definition of aerial
	work passenger in the CASR Dictionary: a. persons: i. present for a purpose, other than mere convenience or enjoyment, that is reasonably and closely associated with the purpose of the operator's aerial work operations; and ii. mentioned in the operations manual in a section describing: (A) why the person is present; and (B) the procedures for the person's safety and personal awareness of risks;
	Note Examples of persons mentioned in paragraph (1) (a) include persons whose absence would be likely to do any of the following: (a) increase the risks associated with the operation; (b) make the operation longer in duration; (c) result in the operation being frustrated or incomplete; (d) result in training and checking objectives not being accomplished; (e) result in safety information not being collected for the operator's safety management system. b. persons carried on positioning flights. Note See the definition of positioning flight in subsection 1.04 (6).

Term	Definition	
	 (2) The following classes of persons are also prescribed for the definition of aerial work passenger in the CASR Dictionary: a. persons rescued as part of search and rescue operations; b. restricted persons if the flights are conducted as part of emergency service operations; c. emergency service operation personnel if the flights are conducted as part of emergency service operations; d. marine pilots, when being transferred to or from ships requiring the services of a marine pilot. Note See also section 11.06. 	
air transport operation	 (1) An air transport operation is a passenger transport operation, a cargo transport operation or a medical transport operation, that: a. is conducted for hire or reward; or b. is prescribed by an instrument issued under regulation 201.025. (2) Despite subclause (1), an air transport operation does not include an aerial work operation or a balloon transport operation. 	
passenger transport operation	 (1) A passenger transport operation is an operation of an aircraft that involves the carriage of passengers, whether or not cargo is also carried on the aircraft. (2) Despite subclause (1), an operation is not a passenger transport operation if the operation is: a. an operation of an aircraft with a special certificate of airworthiness; or b. a cost-sharing flight; or c. a medical transport operation; or d. if the registered operator of an aircraft is an individual—an operation of the aircraft: i. that involves the carriage of that individual; and ii. does not also involve the carriage of other passengers; or e. if the registered operator of an aircraft is an individual—an operation of the aircraft: i. that involves the carriage of that individual; and ii. involves the carriage of other passengers; and iii. for which no payment or reward is made or given in relation to the carriage of the other passengers or cargo 	

1.3 References

Legislation

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

Table 3. Legislation references

Document	Title
Part 119	Australian air transport operators - certification and management
Part 133	Australian air transport operations - rotorcraft
Part 138	Aerial work operations
CASR	Dictionary

Advisory material

CASA's advisory materials are available at https://www.casa.gov.au/publications-and-resources/guidance-materials

Table 4. Advisory material references

Document	Title
AMC/GM Part 138	Acceptable Means of Compliance and Guidance Material - Aerial Work Operations - Part 138 of CASR

2 Introduction

2.1 Background

State and territory governments provide a range of emergency services and engage a wide range of public and private sector organisations, personnel and volunteers to carry out assignments under their control. The use of aircraft for tasks related to firefighting is vital to protecting communities.

In order to deliver a service, an agency contacts an aircraft operator, which is registered with the agency as being available and capable of conducting a type of emergency service assignment; in this case, one connected with firefighting. Often the operator will launch the operation having received limited information about the assignment, particularly if the nature of the assignment is urgent. Details can change after the mission commences and, depending on circumstances, subsequent assignments can be allocated. Reacting promptly to these call-outs is vital. One of those assignments is carriage of personnel.

2.2 Carriage of personnel

The carriage of personnel for hire or reward is ordinarily an Australian air transport operation, which requires the operator to hold an AOC. AOCs are administered under Part 119 of the *Civil Aviation Safety Regulations* 1998 (CASR) and provide the highest level of safety and are in line with community expectations. However, there are many circumstances where passengers are carried as a private or aerial work operation rather than as air transport. In both cases, the safety standards are reasonable and acceptable for the specific circumstances but lower than for air transport, with less rigorous risk controls applied. Similar approaches are taken with other modes of transport where controls for transport used by the general public are the most rigorous.

The circumstances being addressed in this proposal are limited to those that fit into the definition of air transport using rotorcraft and where the carriage of the personnel is directly and closely linked to a ground-based firefighting activity. To avoid any doubt, this proposal does not involve re-classifying other passenger carrying activities already classified as aerial work where the operator must hold an AWC, such as:

- firefighting personnel are to be rappelled from a helicopter at the fireground
- personnel exit the helicopter while it is hovering
- · personnel are involved in a task specialist activity.

Circumstances included in this proposal are limited to moving personnel in and around the vicinity of a fireground. The purpose of the operation is to clearly position the personnel on the ground to support a firefighting activity as described in the following examples and mostly would be to or from a staging area:

- a location whey they undertake firefighting tasks
- a property which is at risk or support of local people is needed
- a place adjacent to ground equipment being used for preparing fire breaks or other similar tasks
- moving personnel to another closely located staging area or fireground
- an area where backburning or control burning is taking place,
- returning personnel from the fireground to the staging area at the end of a shift.

Activities associated with containing the fire, control lines, mopping up and other related duties could be included.

Examples of what wouldn't be included are:

activities which would be for convenience or do not directly support a firefighting purpose

- moving personnel where the purpose of the operation is consistent with the air transport rules and doesn't require the alternative protections which Part 138 provides
- an operation the purpose of which is to assess, monitor or observe activities which are not task specialist operations that are already accommodated by the aerial work rules (such as mapping, fireground control, and surveillance).

AWCs are administered under Part 138 of the *Civil Aviation Safety Regulations 1998* (CASR). Many other fireground activities fit within the definition of *aerial work operation*, including dispensing operations such as dropping fire suppressant or incendiaries, task specialist operations such as mapping and air attack control, and transporting items suspended below the rotorcraft (known as external load operations).

2.3 Air transport and aerial work operations

The differences between the air transport and aerial work rulesets reflect the acceptability of exposure to risk, and methods of mitigation, that are appropriate for the different operations.

In some situations, passengers can be carried on aerial work operations, but different arrangements may apply. For example, the passenger may require additional and more detailed pre-flight briefings than those for air transport passengers.

In many aerial work cases, passengers are expected to have a higher awareness of the risks associated with the operation, be willing to participate with the knowledge of the risks, as well as how to contribute to their own safety, such as how to move safely around the aircraft on the ground.

As is often the case, awareness of risk relies on being familiar with the circumstances and, for aerial work operations, those involved are expected to be familiar with the nature of the operations compared to regular passengers flying with airlines whether using large or small aircraft. To contrast this, medical transport passengers are usually unfamiliar with the circumstances and therefore are provided additional support for the flight.

The following is a summary of the areas of differentiation between air transport (other than medical transport) and aerial work operations:

- Air transport operations are more routine whereas aerial work operations are more likely to be changeable, due to the type of operation.
- The air transport departure and arrival locations are more certain compared to aerial work.
- Aerial work operations involve the use of an aircraft for a wide range of special purposes which involve
 risk. Without that risk, the operation can be conducted under the ordinary operating rules and if it involves
 hire or reward then it is air transport.
- Risk associated with aerial work operations is more variable and requires more immediate tactical control
 methods that are appropriate for the particular operation.
- Passengers using air transport are not expected to be familiar with associated risk and are assumed to be uninformed participants.
- Passengers involved in aerial work operations are expected to be informed about the associated risk.
- Passengers on air transport flights are closely managed by the operator during boarding the aircraft, inflight and on arrival.

During discussions with stakeholders on this proposal, helicopter operators have told us that the aerial work rules are more suitable than the air transport rules for conducting operations associated with firefighting activities, including carrying firefighting personnel in the vicinity of the fireground. They say the risk controls in the aerial work rules are more suitable and adequately support the required missions. Similarly, the operational environment of the fireground may be more closely aligned with aerial work and involve operations to locations that are unlikely to be used for typical air transport passenger carrying flight.

Mention has been made of fatigue management rules being a problem for pilots and operators. It is worth noting the same fatigue rules in Civil Aviation Order 48.1 (CAO 48.1) apply to pilots whether they are conducting air transport operations for emergency service authorities (ie those referred to in this proposal) or aerial work operations.

2.4 Policy conclusion

CASA's regulatory philosophy has been used to carefully consider the suitability of both the air transport and aerial work rules for the carriage of firefighting personnel in rotorcraft for hire or reward. Having discussed the policy concept with stakeholders including the Australasian Fire and Emergency Services Authorities Council (AFAC) and operators, a conclusion has been reached that an acceptable level of safety can be achieved using the aerial work rules in cases where the operation and passengers are like those typical of aerial work.

In this proposal the interests of the passengers are a priority. The nature of the operations is probably less certain or more variable than an air transport operation, so the passengers need to be aware of the accompanying risks and be informed about their participation, expectations and responsibilities. With preparatory training and increased awareness each passenger would be sufficiently informed and be able to consent to participation as an aerial work passenger.

These considerations are underpinning the proposal to provide flexibility for these cases.

3 Regulatory requirements

CASA proposes to allow the carriage of firefighting personnel for hire or reward in rotorcraft under the aerial work rules in limited circumstances, where the activity and participants are like those typical of aerial work.

Under the previous rules in force before CASR Parts 119, 133 and 138 came into force, these operations would have been classified as charter operations.

3.1 Firefighting activities

Passenger carriage, in accordance with the aerial work rules, would be permitted where the operator has been assigned a firefighting operation and the rotorcraft is being used for that purpose. It would involve carrying firefighting personnel to a proposed location where they would carry out their ground-based activities. There must be a direct and immediate relationship between the flight and the person performing ground-based firefighting-related activities.

Flights from a staging area to and from a fireground, and between nearby firegrounds or staging areas, would be included. However, flights between staging areas associated with firegrounds that are not close would remain under the air transport rules as there would be no need for the flexibility rules in Part 138.

An included flight would need to be conducted by, or at the request of, a fire or emergency service agency, or a parks and wildlife service which has responsibilities in relation to the containment of fires, in accordance with established emergency service procedures.

3.2 Passenger training and safety briefing

Passengers would need to receive training prior to being carried. This training aims to provide knowledge that is typical of what other aerial work passengers receive, and would at least cover the following:

- · the different risks of participation compared to air transport
- common safety around rotorcraft knowledge, including the nature of the landing site compared to what might be expected of an air transport operation
- safety information for the type of aircraft the passenger is carried in
- general embarkation/disembarkation processes
- · safe carriage of equipment.

Training would be conducted prior to any emergency response to ensure the trainees are not under additional pressure to participate, and understand they have the right to refuse transport under this lower level of safety assurance. The training could be completed as an annual activity depending on circumstances such as full-time employees of a fire management agency or perhaps volunteers involved with a rural fire service.

Preflight safety briefings would be in addition to the generic training described above.

These passengers would be willing to participate in the operation in the same way as other existing kinds of aerial work passenger.

Workplace health and safety requirements apply to the carriage of these passengers.

3.3 Changes to operator's operations manuals

To conduct carriage under the aerial work rules, operators would be required to have in their Operations Manual and implement the following:

an approved Safety Management System (SMS)

- processes to ensure the personnel have completed appropriate pre-flight training
- an approved Training and Checking System (TCS).
- procedures to ensure they conduct these operations according to the existing rules for carrying aerial work passengers.

3.4 Aircraft

The aircraft that could be used for these operations would need to comply with the aerial work rules of Part 138 of CASR including the carriage of aerial work passengers. This proposal isn't considering the use of restricted category aircraft or carrying more than 9 passengers.

The proposed changes would not affect the carriage of aerial work passengers under the current rules, nor prevent the carriage of firefighting personnel under the air transport rules.

4 Review and prior consultation activity

4.1 Previous consultations

As part of policy development, CASA carried out the following consultation activities:

- a. Conducted meetings with a small group of operators in September 2023 to gather information about the operational challenges being faced by firefighting operators regarding the transport of personnel, and about the nature of fireground operations. A further meeting with some of the operators who had attended the earlier meetings was conducted on 12 October 2023 to validate our understanding and discuss broad policy options.
- b. Met with the Aviation Safety Group of the Australasian Fire and Emergency Services Authorities Council (AFAC) in late 2023 to understand passenger-carrying challenges from the fire agency perspective and to discuss policy options.
- c. Validated the proposed policy with the AFAC Aviation Safety Group in meetings held on 8 May and 9 July, 2024.

4.2 Further consultation activities

An Exposure Draft of relevant legal instruments will be made available later in 2024 prior to changes coming into effect.

5 Impacts on industry

5.1 Rotorcraft operators

Operators who have an AWC and an air transport AOC would be able to access increased flexibility in fireground operations by conducting more operations under the aerial work ruleset. Aerial work operators who do not hold an air transport AOC may be able to offer increased services to fire agencies under this proposal.

To conduct operations under this policy, operators will need to make changes to their operations manual or exposition. This would include details about how they will ensure passengers have received the required training. Operators may alternatively continue to conduct these operations under the existing rules as air transport.

Rotorcraft operators would be affected by the proposal in several ways.

- 1. Many of the operators conduct air transport and aerial work operations. The impact on these operators would be to reduce operational complexity especially in relation to managing flight crew and flight planning. For example, operational procedures might be able to be simplified, rotorcraft performance preflight planning requirements would be less restrictive, and the management of the operations would be seamless where the aircraft is being used for these operations and other aerial work roles.
- 2. Operators that only conduct aerial work operations would benefit from the proposal because they would be able to conduct these operations under the proposal. However, this could be commercially detrimental to the operators that also conduct air transport operations due to greater competition.

5.2 Response agencies

The potential impact on agencies would depend on which firefighting personnel they elect to move around firegrounds by rotorcraft. Where agencies currently only arrange transport for aviation-trained personnel, such as trained rappelling ground firefighting crews, they may see benefit from operators having increased flexibility without any additional action, other than addressing the training issue, where the option to rappel the ground firefighting crew is not needed or an option due to the configuration of the rotorcraft.

Where agencies request an operator to carry firefighting personnel who are not currently aviation trained, in future, additional training of their staff and volunteer cohorts would be required if those operators want to access the benefits available through the proposal. This training is expected to be similar to other programs typically conducted by fire and emergency service agencies for their firefighting crews, and it is envisaged that this could be conducted by either the agency or by an operator. Agencies may also elect to not transport passengers under this policy, with operations continuing under the current arrangements. It is important to note the operator would ultimately be responsible for ensuring the required training has been done. Details on the arrangements would need to be incorporated into the operator's operations manual.

Agencies will need to understand the ramifications arising from this proposal including how their present arrangements with operators might be impacted and potential coordination and control measures needed to accommodate the changes.

5.3 Firefighting personnel

There will be a change to the level of safety protection of firefighting personnel when transported under this policy.

Personnel who are not already aviation trained would be required to undergo additional training, which would provide information about risk differences between aerial work and air transport operations and measures they can take to assist in providing for their own safety.

These personnel would benefit from a faster and less onerous transport experience where an air transport operator isn't available and only ground options are available.

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Proposed change to policy on carriage of personnel involved in firefighting activities

Training would be the responsibility of the operator who would need to have details of the training incorporated into its operations manual. The training would be consistent with the training that is given to aerial work passengers and relevant to the type of aircraft being used and any special circumstances such as avoiding hazards associated with the landing site and exiting the aircraft. Consideration could be given to recognising relevant training conducted by a Registered Training Organisation for the staff and volunteers of a fire control agency for this purpose.

A pre-flight safety briefing would be required.

6 Implementation and transition

6.1 Implementation considerations

CASA is working towards a commencement date of Q1 2025 prior to the 2025/2026 fire season. This date range is dependent on when CASA gains the necessary drafting resources and the time required to draft and consult on the final changes.

Operators will need to make changes to their exposition/operations manual to take advantage of the policy. CASA approval of those changes would be required and normal fees would apply.

No transition period will be required.

7 Closing date for comment

CASA will consider all comments received as part of this consultation process and will incorporate changes to the regulation as appropriate. Comments on the draft new policy should be submitted through the online response form by midnight 10 October 2024.