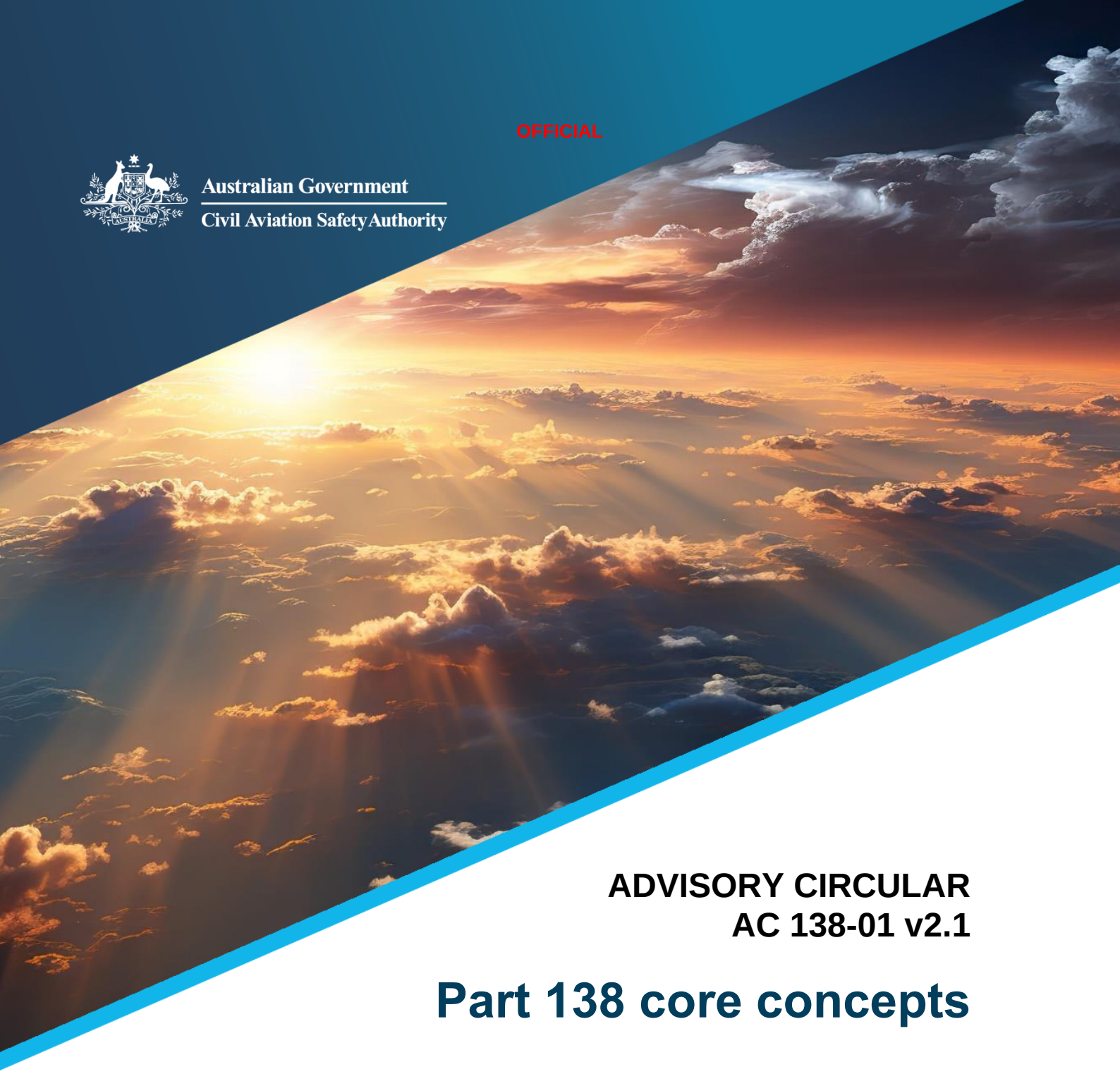
Australian Government
Civil Aviation Safety Authority



ADVISORY CIRCULAR
AC 138-01 v2.1

Part 138 core concepts

File ref: D24/334056

March 2025

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

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

Audience

This advisory circular (AC) applies to:

- pilots and operators currently conducting commercial aerial work operations and transitioning to aerial work operations regulated by Part 138 of the *Civil Aviation Safety Regulations 1998 (CASR)* and the Part 138 Manual of Standards (MOS)
- pilots currently conducting private aerial work operations and transitioning to aerial work operations regulated by Part 138 and the Part 138 MOS.

Purpose

This AC provides high level guidance and explanation regarding Part 138 and its core concepts.

For further information

For further information or to provide feedback on this AC, visit CASA's contact us page.

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

Status

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

> **Note:** Changes made in the current version are annotated with change bars.

Table 1. Status

Version	Date	Details
v2.1	March 2025	Minor updates to exemption instrument identifiers. Minor updates to section 4.1 Overview of requirements for Training and Checking.
v2.0	April 2024	Chapter 4 has been substantially re-written to focus on containing guidance about operator-based training and checking under Part 138 of CASR. This guidance complements dedicated guidance in Multi-Part AC 119-11 and AC 138-02 about training and checking systems, which applies to operators required by the rules, or who voluntarily decide to use, a formal training and checking system. The previous v1.0 chapter 4 SMS content has been moved to a new chapter 5.
v1.1	January 2023	Updated the Legislation, Advisory Material and Forms section. Added a new paragraph 2.3.7 with an example of what is not an aerial work operation.
v1.0	July 2021	Initial AC.

Contents

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 AC are listed in the table below.

Table 2. Acronyms

Acronym	Description
AC	advisory circular
AMC	acceptable means of compliance
AFM	aircraft flight manual
AOC	air operator's certificate
AWZ	Aerial Work Zone
AWZ-RA	Aerial Work Zone Risk Assessment
CAO	Civil Aviation Order
CAR	*Civil Aviation Regulations 1988*
CASA	Civil Aviation Safety Authority
CASR	*Civil Aviation Safety Regulations 1998*
ESO	emergency service operation
GM	guidance material
IFR	instrument flight rules
MOS	Manual of Standards
MTOW	maximum take-off weight
NVIS	night vision imaging system
OEI	one engine inoperative
PIC	pilot in command
SMS	safety management system
T&C	training and checking
VMC	visual meteorological conditions

1.2 Definitions

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

Table 3. Definitions

Term	Definition
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. **Note:** The Part 138 MOS does not, as at publishing v2.1 of this AC, include any further operations to be aerial work operations.
aerial work operator	means the holder of an aerial work certificate.
air crew member	means a crew member for a flight of an aircraft (other than a flight crew member) who carries out a function during the flight relating to the safety of the operation of the aircraft, or the safety of the use of the aircraft.
crew member	a person is a crew member of an aircraft if the person is carried on the aircraft and is: a. a person: i who is authorised by the operator of the aircraft to carry out a specified function during flight time relating to the operation, maintenance, use or safety of the aircraft, the safety of the aircraft's passengers or the care or security of any cargo which may affect the safety of the aircraft or its occupants; and (ii) who has been trained to carry out that function; or b. a person who is on board the aircraft for the purpose of: i giving or receiving instruction in a function mentioned in subparagraph (a)(i); or ii being tested for a qualification associated with a function mentioned in subparagraph (a)(i); or c. a person authorised by CASA under these Regulations, or by the operator, to carry out an audit, check, examination, inspection or test of a person mentioned in paragraph (a) or (b).
flight crew member	means a crew member who is a pilot or flight engineer assigned to carry out duties essential to the operation of an aircraft during flight time.
limited aerial work operator	means an operator who conducts a limited aerial work operation.
non-normal exercise	means an aircraft flight that involves the simulated failure of a vital system.
operational safety-critical personnel	for an Australian air transport operator, an aerial work operator or a balloon transport operator: a. means personnel carrying out, or responsible for, safety-related work,

Term	Definition
	including: i personnel carrying out roles that have direct contact with the physical operation of aeroplanes, rotorcraft or Part 131 aircraft used in the operator's Australian air transport operations, aerial work operations or balloon transport operations; and ii personnel carrying out roles that have operational contact with personnel who operate aeroplanes, rotorcraft or Part 131 aircraft used in those operations; and iii personnel described as operational safety-critical personnel in the operator's exposition or operations manual; but b. does not include personnel who are employed or engaged by the operator (whether by contract or other arrangement) and are engaged in: i the provision of continuing airworthiness management services for aeroplanes, rotorcraft or Part 131 aircraft used in the operator's Australian air transport operations, aerial work operations or balloon transport operations; or ii carrying out maintenance on an aeroplane, rotorcraft, Part 131 aircraft or aeronautical product on behalf of an approved maintenance organisation.
operator	of an aircraft, means: a. if the operation of the aircraft is authorised by an AOC, a Part 141 certificate or an aerial work certificate—the holder of the AOC or certificate; or b. otherwise—the person, organisation or enterprise engaged in aircraft operations involving the aircraft.
personnel	a. for an Australian air transport operator, an aerial work operator or a balloon transport operator, includes any of the following persons who have duties or responsibilities that relate to the safe conduct of the operator's Australian air transport operations, aerial work operations or balloon transport operations: i an employee of the operator; ii a person engaged by the operator (whether by contract or other arrangement) to provide services to the operator; iii an employee of a person mentioned in subparagraph (ii); or b. for an ASAO, includes any of the following persons who have duties or responsibilities that relate to the safe performance of the ASAO's approved functions: i an employee of the ASAO; ii a person engaged by the ASAO (whether by contract or other arrangement) to provide services to the ASAO; iii an employee of a person mentioned in subparagraph (ii); iv a person appointed by the ASAO to perform an approved function on behalf of the ASAO.
task specialist	1. A task specialist, for an aerial work operation, means a crew member for a flight: a. who carries out a function for the flight relating to the aerial work operation; and b. who is not a flight crew member or an air crew member for the flight.

Term	Definition
	2. Despite subregulation (1), a task specialist: a. includes a crew member of a kind prescribed by the Part 138 Manual of Standards for the purposes of this paragraph; and b. does not include a crew member of a kind prescribed by the Part 138 Manual of Standards for the purposes of this paragraph. **Notes:** 1. Section 3.02 of the Part 138 MOS specifies a flight crew member to be a task specialist where they are the only crew member on an aircraft conducting a task specialist operation. 2. Section 3.02 of the Part 138 MOS specifies an air crew member to be a task specialist if the air crew member is required to carry out a task specialist function on the flight and they has been trained and found competent to carry out the function. 3. Section 3.02 of the Part 138 MOS specifies that a person is a task specialist during a flight conducted solely to position for a subsequent task specialist operation, where the person is carried in order to be the task specialist for the subsequent operation.
vital system	means a system whose simulated failure in flight would adversely affect the safety of the aircraft as compared to normal operation.

1.3 References

Legislation

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

Table 4. Legislation references

Document	Title
Part 91 of CASR	General Operating and Flight Rules
Part 133 of CASR	Australian Air Transport Operations - Rotorcraft
Part 137 of CASR	Aerial Application Operations
Part 138 of CASR	Aerial Work Operations
Part 91 MOS	Part 91 (General Operating and Flight Rules) Manual of Standards 2020
Part 133 MOS	Part 133 (Australian Air Transport Operations - Rotorcraft) Manual of Standards 2020
Part 138 MOS	Part 138 (Aerial Work Operations) Manual of Standards 2020
CAO 48.1 Instrument 2019	**Note:** This CAO has no specific topic title. It contains requirements and limits relating to flight crew fatigue.
CASA EX67/24	Part 91 of CASR - Supplementary Exemptions and Directions Instrument 2024
CASA EX72/24	Part 138 and Part 91 of CASR - Supplementary Exemptions and Directions Instrument 2024

Document	Title
CASA EX73/24	Flight Operations Regulations - SMS, HFP&NTS and T&C Systems - Supplementary Exemptions and Directions Instrument 2024

Advisory material

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

Table 5. Advisory material references

Document	Title
AC 1-01	Understanding the legislative framework
AC 1-02	Guide to the development of expositions and operations manuals
AC 1-03	Transitioning to the flight operations regulations
AC 11-04	Approvals under CASR Parts 91, 103, 119, 121, 129, 131, 132, 133, 135, 138 and 149 (including MOS)
AC 91-13, 133-09 and 138-06	Night vision imaging - helicopters
AC 91-19, 121-04, 133-10, 135-12 and 138-10	Passenger safety information
AC 119-07 and 138-03	Management of change for aviation organisations
AC 119-11 and 138-02	Training and checking systems
AC 138-05	Aerial work risk management
Part 138 AMC/GM	Acceptable Means of Compliance / Guidance Material (Aerial Work Operations)
	Head of training and checking guide
	Part 133, Part 135 and Part 138 sample training and checking manuals and associated guide **Notes:** 1. This package consists of 3 documents: the Part 133, Part 135 and Part 138 sample training and checking manual (contains content relevant to multiple kinds of crew members), the Part 133/135/138 sample training and checking manual (limited to flight crew member content only) and the Guide to Part 133/135/138 sample training and checking manuals. 2. These document are available on the CASA webpage 'Industry compliance templates'.
	Part 138 sample operations manual template (Mustering) and associated guide **Note:** This sample document is available on the CASA webpage 'Industry compliance templates'.
	Safety manager guide
	CASR Flight Operations sample exposition / operations manual and associated guide **Notes:**

Document	Title
	1. This sample document is available on the CASA webpage 'Industry compliance templates'. 2. This sample applies to Part 133, Part 135 and Part 138 operators.

1.4 Forms

CASA's forms are available at http://www.casa.gov.au/forms

Table 6. Forms

Form number	Title
	Aerial Work Operations CASR Part 138
	Non-significant changes CASR Parts 119, 131 and 138
	FOR Transition - Training and checking system (Parts 119, 133, 135 and 138 of CASR)

2 Overview of Part 138

2.1 Scope, content and general principle of the Part

2.1.1 Part 138 and its associated MOS bring together the certification, operational, procedural and safety risk management requirements affecting aerial work operations. Part 138 applies to aerial work operations conducted by aeroplanes and rotorcraft.

> **Note:** A number of the Part 91 rules still apply during the conduct of an aerial work operation. Further information on the legislative framework is available in AC 1-01 - Understanding the legislative framework.

2.1.2 The Part 138 rules are based on the risk inherent to the activity being undertaken, from simple aerial work tasks with a single pilot, to complex aerial work tasks involving the use of multi-crew transport category aircraft.

2.1.3 Under the *Civil Aviation Regulations 1988* (*CAR*) and Civil Aviation Orders (CAO) that applied prior to the commencement of Part 138, aerial work activities were largely regulated through a series of bespoke exemptions and permissions. The Part 138 rules should significantly reduce the need for exemptions due to the inclusion of nationally consistent and transparent standards, many of which are outcome-based.

2.2 When must an operator hold an aerial work certificate?

2.2.1 Under the CAR and CAO that applied prior to the commencement of Part 138, operators who conducted aerial work operations for a commercial purpose were required to hold an air operator's certificate (AOC). Except for operators conducting a limited subset of aerial work operations, under Part 138 all operators conducting aerial work operations are required to hold an aerial work certificate in place of an AOC.

2.2.2 Regulation 138.030 outlines who is required to hold an aerial work certificate to conduct aerial work operations. In the Part 138 MOS this kind of person is called an aerial work certificate holder. In the Part 138 regulations or in the CASR dictionary, this person is called an aerial work operator. Subregulation 138.030(2) specifies the exceptions to the general requirement to hold an aerial work certificate when conducting an aerial work operation.

> **Note:** See AC 1-03 for a description of how an existing aerial work AOC holder transitions to becoming an aerial work certificate holder.

2.2.3 The operations encompassed by subregulation 138.030(2)—those that don't require an aerial work certificate—are similar to the operations that, before 2 December 2021, were described by paragraph 2(7)(d) of CAR as 'private operations'. In the Part 138 MOS, these operations are called limited aerial work operations. In Part 138 there are only a limited number of rules that do not apply to these operations and limited aerial work operators will need to be familiar and comply with the regulations and MOS content that are applicable to their operation.

2.3 Classification of aerial work activities

2.3.1 The kinds of operations that constituted 'aerial work for commercial purposes' were previously described in paragraph 206(1)(a) of CAR. This paragraph listed the activities considered to be aerial work and included activities determined to be 'substantially similar' to the prescribed

activities. To provide clarity to the industry, the combination of prescribed activities and substantially similar activities became a list of 42 unique aerial work activities that were identified in the Air Operator's Certificate Handbook and, when conducted for commercial purposes, required the issue of an AOC.

2.3.2 Under the new rules applying from 2 December 2021, an **aerial work operation** is defined in regulation 138.010 as one of three core activities:

- **dispensing operations** - dropping or releasing any substance or object from an aircraft in flight and includes training for such an operation. An example of a dispensing operation is incendiary dropping or dropping of baits.
- **external load operations** - carrying or towing a load outside an aircraft in flight and includes training for such an operation. Examples of external load operations are banner towing by an aeroplane or a helicopter sling load operation.
- **task specialist operations** - carrying out a specialised activity using an aircraft in flight and includes training for such an activity. An example of a task specialist operation is a low level weed survey or pipeline inspection.

2.3.3 An aerial work flight may involve one, or a combination of any of the above activities. In practical terms, all previous aerial work activities are transitioning across under the CASRs to become task specialist operations as their primary activity with further specialisation reflected, as necessary, in the dispensing and external load classifications.

2.3.4 Part 138 also introduces the term **emergency service operation** (ESO) which is defined in the CASR Dictionary. An ESO is any one of, or a combination of, the aerial work operations to which all of the following additional requirements apply where the:

a. operation is conducted by, or at the request of, an authority of the Commonwealth, a State or a Territory.

b. authority is prescribed by the Part 138 MOS for the purposes of this paragraph.

c. operation is for:

i. law enforcement purposes

or

ii. purpose of saving or protecting persons, property or the environment.

2.3.5 Aerial work operations which are also ESO's are given special consideration in the Part 138 rules.

2.3.6 Also, specific regulatory provision has been made for external load operations conducted as part of medical transport operations under Part 133 and aerial application operations conducted under Part 137. These operations are not, by definition, aerial work operations[1].

2.3.7 A commonly misunderstood concept is whether a task specialist operation is being conducted. For a task specialist operation to be conducted, the aircraft must carry out a specialised activity in-flight, as distinct from the aircraft carrying a person from place to place who performs a specialised activity.

Example:

A surveyor is carried onboard a helicopter for the purpose of obtaining multiple soil samples or geolocation readings over short distances. Although the helicopter may land every several hundred meters for the purpose of the soil sample or other reading, the helicopter does not carry out any activity other than moving the person from location to location with a normal landing at each new location.

[1] See subregulation 138.010(5).

As the helicopter does not carry out any specialised activity in-flight and the purpose of the flight is passenger carriage, these flights are a CASR Part 133 passenger transport operation where the operator must hold an Australian air transport AOC.

2.4 Part 138 interactions with Part 91

2.4.1 Part 91 and its associated MOS consolidate the general operating and flight rules. They replace a significant number of CARs, CAOs, supporting instruments and exemptions. The Part 91 rules cover matters such as minimum heights, required fuel, the safety of persons on board and much more[2].

2.4.2 Many aerial work operations could not be conducted if they had to be compliant with all the Part 91 rules. For example, regulation 91.267 would prevent the carrying out of low level close-proximity operations such as mustering. To enable appropriate alleviations from the Part 91 rules, regulation 91.035 disapplies multiple Part 91 rules when a particular Part 138 rule is being complied with. Additionally, regulation 138.375 disapplies the Part 91 minimum height rules subject to the conditions specified in Chapter 9 of the Part 138 MOS.

2.4.3 Recognising that the absence of certain Part 91 rules could result in a lower level of aviation safety assurance, Part 138 compensates by setting out a series of safety risk management processes that require an aerial work operator to manage the risks of their aerial work operations. The requirement to manage risk is fundamental to Part 138 and is achieved both directly within the legislation, for example, by specifying particular performance requirements for carriage of aerial work passengers at night, and by requiring an operator to conduct a risk assessment specific to their operations together with implementing procedures to mitigate the identified risks. These steps are designed to ensure that the operation is within the operator's capabilities and that it can be carried out safely.

2.4.4 Under this legislative scheme, if aerial work is not being conducted during the flight, the disapplication of the Part 91 rules does not apply and the pilot needs to comply with the Part 91 requirements. For example, a ferry flight would need to comply with Part 91 requirements irrespective of whether the aircraft operator is the holder of an aerial work certificate.

2.5 Change management

2.5.1 Under the rules prior to 2 December 2021, all changes to an authorisation on an AOC required submission of a *Form 1214 - Application for Variation*, and approval by CASA before the change could be implemented.

2.5.2 With the commencement of Part 138, an operator will be able to conduct many activities within a specific kind of aerial work operation (note the previous explanation of the 3 kinds of aerial work operations) without prior approval by CASA.

2.5.3 For example, if an operator conducted 'weed surveys' under the old rules, this activity needed to be specifically authorised by the AOC. If the same operator wanted to commence conducting 'fauna surveys', the operator would have needed to have this change assessed by CASA and added to their AOC. Under Part 138, the aerial work certificate will not include this level of detail—it only mentions the 3 kinds of aerial work operations. Consequently, no change to the aerial work certificate would be required as both types of survey are task specialist operations. Instead, the operator will need to determine whether or not the change to their aerial work operations (i.e. the addition of a new activity) is a significant change.[3]

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[2] Refer to Part 91 - General operating and flight rules | Civil Aviation Safety Authority (casa.gov.au) for more detail on Part 91.

[3] See the definition of this term in regulation 138.012 and Multi-Part AC 119-07 and AC 138-03 Management of change for aviation organisations.

2.5.4 Certain activities significantly alter the risk profile of an operator's operations and these kinds of changes to or addition of activities, along with certain administrative changes fundamental to the authorisation of an operator, constitute significant changes. If the change is a significant change then CASA pre-approval would be required, but not necessarily require an adjustment to the aerial work certificate itself. Where the change is not significant, the operator can add the relevant new procedures to their manuals and commence the new activity. In accordance with the process in their manual for notifying CASA of non-significant changes, the operator would notify CASA of the changes to the operations manual and the additions would be subject to CASA's normal surveillance processes.

2.6 Part 138 transitional arrangements

2.6.1 Part 138 is included in CASA's regulatory reform program, which is migrating CAR into the CASR. This program of work consolidates the operational and flight rules and the certification and management aspects for different types of operators.

2.6.2 Part 138, together with its MOS, commenced on 2 December 2021 and replaced a large number of individual rules and instruments. However, some of the new measures will be deferred to a later date.

2.6.3 Aerial work operations no longer require an AOC and existing aerial work authorisations on AOCs were deemed on 2 December 2021 to be authorisations on an 'aerial work certificate'. No new physical aerial work certificates were automatically issued to existing aerial work AOC holders, with such certificates to be provided on the first occurrence of certificate renewal or the occurrence of a significant change that impacts on the content of the aerial work certificate itself.

2.6.4 Some new Part 138 rules are temporarily subject to delayed compliance dates. For further detail, refer to AC 1-03 - Transitioning to the flight operations regulations.

3 Explanation of key Part 138 rule topics

3.1 Risk management

3.1.1 Regulation 138.370 requires an operator to conduct a risk assessment as outlined in the Part 138 MOS. Chapter 13 of the Part 138 MOS provides details regarding the:

- risk criteria that an aerial work operator must meet to conduct an aerial work operation
- risk assessment and mitigation processes which must be undertaken by the operator
- matters need to be considered when assessing the risks against the risk criteria
- processes pilots and operators need to follow when managing risk
- risk assessment and related requirements for preparation of an aerial work zone risk assessment (AWZ-RA).

3.1.2 Chapter 13 of the Part 138 MOS applies to all Part 138 operations. Specific sections of the chapter apply to all operators - whether they are limited aerial work operators or aerial work certificate holders. The provisions of the chapter are designed to recognise the differences in organisational structure, process and procedure between limited aerial work operators and aerial work certificate holders without reducing the safety benefits of the operational risk assessment requirements specified.

3.1.3 To assist with understanding with risk and the risk assessment process AC 138-05 - Aerial work risk management planning provides further detail.

3.2 Aerial work zone

3.2.1 Aerial work zones are only relevant to a specific subset of the flights over populous areas or public gatherings.

3.2.2 Specifically, an aerial work zone (AWZ) is the area of land or water beneath the flight path of the aircraft and the aerial work operation, where the aircraft is flown below the minimum height required for a populous area or public gathering, and there is risk to people or property not associated with the operation[4].

3.2.3 Under the CAR/CAO rules that applied prior to 2 December 2021, if an operator needed to fly at a low height over populous areas or public gatherings, a general or specific permission was required under regulation 157 of CAR and, in the case of a public gathering, a separate permission was also required under regulation 156 of CAR.

3.2.4 Under the Part 138 rules, the Part 91 minimum height rules for populous areas or public gathering can be switched off if aerial work operations are conducted in an AWZ with appropriate risk controls.

3.2.5 **Aerial Work Zone Risk Assessment (AWZ-RA).** There are special risk assessment requirements for operations in AWZ. Section 13.09 of the Part 138 MOS states that, before conducting an AWZ operation, the operator must prepare and document an AWZ-RA and, in certain circumstances, obtain CASA approval of the plan prior to conducting the operation. Even if a CASA approval is not required, the AWZ-RA must still be prepared and kept by the operator.

[4] Refer to Part 138 MOS, section 1.05 for the full definition.

3.2.6 To assist with understanding with the risk assessment process for an AWZ-RA, AC 138-05 Annex C - Sample risk assessment process - aerial work certificate holder operating in an aerial work zone (AWZ) provides further detail.

3.3 Persons permitted onboard during aerial work operations and other flights under Part 138

3.3.1 Two categories of persons may be on board a flight which is either one or any combination of the 3 aerial work operations[5]:

a. crew members[6] (defined in the CASR dictionary and includes flight crew members, air crew members, task specialists and others)

b. passengers that meet the requirements to be an aerial work passenger.

3.3.2 A positioning flight for an aerial work operation is:

a. a flight of an aircraft to position aerial work cargo, or an aerial work passenger, in order to prepare for and carry out an aerial work operation; and

b. a flight to reposition or remove aerial work cargo or an aerial work passenger on completion or cancellation of an aerial work operation, or of that part of the operation, to which a positioning flight related.

3.3.3 A **flight crew member** is defined in the CASR dictionary and includes crew members who perform any duty essential to the operation of an aircraft during flight. Examples of a flight crew member include a pilot or a flight engineer.

3.3.4 An **air crew member** is defined in the CASR dictionary and includes crew members who carry out a function during the flight relating to the safety of the aircraft. Examples of air crew members include a loadmaster and a winch operator. Air crew members, due to their safety-related role, require more wide-ranging training and assessment than a task specialist.

3.3.5 A **task specialist** is defined in the CASR dictionary and includes crew members who carry out a function for the flight relating to the aerial work operation (as distinct from a safety related role). Examples of a task specialist would include a camera operator that operates an external camera pod or an aerial shooter used in an animal culling operation. A task specialist will require training to be inducted into the operation and to ensure they are competent in carrying out their assigned function as a member of the operator's crew.

3.3.6 Part 138 MOS section 3.02 describes the kinds of flight crew members and air crew members who are, for the purposes of the aerial work operation, also task specialists. This allows these persons to perform a dual role in the aircraft for the aerial work operation. For example, a mustering pilot whilst being the flight crew member (pilot) for the flight is also for the purposes of the task specialist operation being carried out (mustering) the task specialist for the flight as well.

3.3.7 An **aerial work passenger** is defined in section 2.02 of the Part 138 MOS. In general, these are persons who are closely associated with the purpose of the aerial work operation. Their presence in the aircraft must not be for mere convenience or enjoyment. Examples of such persons would include:

- Personnel involved in carrying out or supporting a mustering activity carried on a positioning flight before or after the mustering operation, such as ground based personnel to assist with refuelling or for opening and closing of gates etc. and yarding of stock for the mustering operation.

5 Certain positioning flights are also considered to be aerial work operations.

6 For a full definition Refer to Flight Operations Regulations - Consolidated Dictionary Part 1.

- Persons employed by or working under an arrangement with the pastoral company or property owner carried on a positioning flight before or after the mustering operation, such as the manager of the property to be mustered being carried to assist in hazard identification and identification of the property boundaries.
- The second of two marine pilots being carried on the same rotorcraft to two ships for marine pilotage duties. In this case both marine pilots are aerial work passengers for the marine pilot transfer (MPT) task specialist operation. The first operation carrying two aerial work passengers from the MPT base to the ship 1, and the second flight one aerial work passenger from ship 1 to ship 2.

3.3.8 Additionally, the definition also includes several classes of persons who are, for the purposes of Part 138, prescribed as aerial work passengers:

- Persons rescued as part of search and rescue operations
- Restricted persons if the flights are conducted as part of emergency service operation
- Emergency service operation personnel if the flights are conducted as part of an aerial work operation which also meets the definition of an emergency service operation
- Marine pilots, when being transferred to or from ships requiring the services of a marine pilot.

3.3.9 For items (a), (b), (c) and (d) of paragraph 3.3.8, like the general context outlined in paragraph 3.3.7 of this AC, in each case the carriage of the aerial work passengers must be associated with the aerial work operation, including a positioning flight before or after an associated (related) aerial work operation.

3.3.10 Some examples of aerial work operations (including positioning flights) carrying these prescribed aerial work passengers are:

- A person who was apprehended by police officers who were carried as either task specialists or aerial work passengers on a police support, task specialist and external load operation, where the apprehending officers were flown in at low level and then hover exited from a rotorcraft in the vicinity of the person. The person then becomes a restricted person and is carried on a positioning flight to a ground base of operations, so the person can then be carried by police ground transport.

> **Note:** The carriage of the restricted person from the ground base of operations to a city police station would not be a further positioning flight and would be an air transport operation unless a further aerial work operation was also to be carried out.

- Ground based firefighters carried on a positioning flight from a fire base of operations to a clearing to assist with the external load operations of equipment into the clearing, and then to carry out firefighting operations.
- The carriage of firefighters from a fire base of operations to a position to be winched into a place on the ground to take part in active firefighting operations, and the retrieval of the firefighters from in the same circumstances.

3.3.11 Only aerial work certificate holders are permitted to carry aerial work passengers. If an aerial work operator carries aerial work passengers, the operator's operations manual must include a section describing why the person or class of persons is present and the procedures for the person's safety and awareness of risks associated with the operation.

3.3.12 Appendix A to this AC includes some suggested operations manual content for some of the less complex examples of aerial work passenger carriage as described above. All operators who intend to carry aerial work passengers must review the circumstances of their intended carriage and outline in their operations manual the procedures described in section 3.3.11 of this AC as it relates to their operation.

3.3.13 In most circumstances aerial work passengers do not require training before their carriage on an aerial work operation or a positioning flight, but they will in all cases (except for some notable situations, such as a person being rescued) require a safety briefing prior to the flight. Despite this, of necessity some aerial work passengers must also be trained prior to doing specific things on an aerial work operation.

3.3.14 Additional tasks such a hover exit or entry of a rotorcraft, or where an aerial work passenger (who is not a person being rescued) is winched into or out of a place as a class D external load, are examples of such situations where additional training will be needed. Operators must consider the specific circumstances of the way aerial work passengers will be carried and include appropriate procedures in the operations manual to address these matters.

3.4 Rotorcraft performance

3.4.1 In some circumstances, the Part 138 rules require a rotorcraft to have one-engine inoperative (OEI) accountability to mitigate the risk of an aerial work operation, such as flights below the minimum height over a populous area.

3.4.2 **Single-engine rotorcraft - OEI accountability**, for the flight of a single-engine rotorcraft, means:

a. operating in accordance with a performance class of Performance Class 3 (PC3) as defined by the Part 133 MOS

or

b. operating by day in visual meteorological conditions (VMC) in accordance with the requirements of the rotorcraft's aircraft flight manual (AFM) and with the capability to:

   i. remain clear of obstacles

   ii. reach a suitable forced landing area

   iii. conduct a forced landing into the area without causing a hazard to persons or property on the ground in the area

or

c. operating at night in VMC using night vision imaging systems (NVIS) and able to comply with the requirements mentioned in paragraph (b) as if they applied.

3.4.3 **Multi-engine rotorcraft - OEI accountability**, for the flight of a multi-engine rotorcraft, means:

a. operating in accordance with a performance class of Performance Class 2 with exposure (PC2WE) or higher performance class as described in the Part 133 MOS or

b. during the take-off, take-off and initial climb, en route, and approach and landing and baulked landing, phases of a flight, as applicable, doing all of the following:

   i. operating in accordance with the requirements of the rotorcraft's AFM Category A performance supplement

   ii. remaining clear of obstacles

   iii. using en route performance to fly to a suitable OEI landing area at or above the minimum height for the flight.

or

c. operating OEI with the capability to do all of the following:

   i. remain clear of obstacles

   ii. reach a suitable forced landing area

   iii. conduct a landing using the power available in the remaining engine within its operating limits.

3.5 Classes of external load

3.5.1 The Part 138 MOS defines five classes of external load operations that group together similar types of external loads.

Class A

3.5.2 A Class A external load:

- is not a person
- is external to the rotorcraft
- is not carried in an approved cargo rack or a sealed receptacle
- is not jettisonable
- cannot move freely
- does not extend below the landing gear.

3.5.3 An example of a Class A load would be a load carried on an external fixed platform from which the load has the potential to fall off if not properly secured, such as equipment carried for powerline maintenance operations.

Class B

3.5.4 A Class B external load:

- is not a person
- is external to the rotorcraft
- is jettisonable
- may extend below the landing gear
- carried on the rotorcraft's belly hook or winch
- is lifted off the surface and carried in flight.

3.5.5 An example of a Class B external load would be building supplies carried on a cargo net at the end of a strop attached to the belly hook of the rotorcraft.

Class C

3.5.6 A Class C external load:

- is not a person
- is external to the rotorcraft
- is jettisonable
- remains in contact with the surface.

3.5.7 An example of a Class C external load would be a powerline that is pulled off a reel and over power poles.

Class D

3.5.8 A Class D external load is:

- a person
- carried external to the aircraft

- carried by a rotorcraft.

3.5.9 An example of a Class D external load would be positioning a person on or at a transmission wire using a fixed line attached to the rotorcraft's belly hook or winching a person on board from land or water.

Class E

3.5.10 A Class E external load is:

- carried by an aeroplane
- an external load operation
- jettisonable
- picked up and towed.

3.5.11 An example of a Class E external load would be banner towing operation by an aeroplane.

3.5.12 Chapter 15 of the Part 138 MOS outlines the rules for conducting external load operations.

4 Training and checking

4.1 Overview of requirements

Notes:

1. The circumstances (activities) that require an operator to have a formal training and checking system in Part 138 are different to those previously required by regulation 217 of CAR prior to 2 December 2021. As a transitional measure, if an operator was not required to hold a CAR 217 approval under the old rules for a particular aircraft or operation but is required to use a Part 138 training and checking system for the aircraft or operation under the new rules, then they are temporarily permitted to not comply with the new rules[7].
2. This temporary measure is ending in 2025, with specific dates advised to relevant operators. Operators have been notified by CASA about the necessary steps for them to implement the deferred requirements.
3. Readers are reminded that the defined phrase 'aerial work operator' means an operator required to hold an aerial work certificate, and that the phrase 'limited aerial work operator' is referring to an operator conducting aerial work operations that is not required to hold an aerial work certificate.
4. Under subregulation 138.550(2) of the CASR, the training or checking of an air crew member must be done by an individual who meets the requirements of Chapter 24 of the Part 138 MOS. Through the combined effect of paragraph 138.125(1)(c) of the CASR, paragraph 4.02(1)(c) of the Part 138 MOS, and subsections 4.03(7) and 4.04(7) of the Part 138 MOS, certain operators, who are, in effect, aerial work certificate holders, must have a formal training and checking system if they are conducting the training or checking of air crew members.
5. For the definition of *operator* refer to Part 1 of the CASR dictionary.

4.1.1 Part 138 of CASR places training and checking obligations on **ALL** operators conducting aerial work. These obligations are scaled for aircraft and operations of different complexities, with the rules also enabling some operators to voluntarily use a more formal training and checking system if that is useful to them.

4.1.2 By virtue of the training and checking rule requirements, and the option to voluntarily use a formal training and checking system, operators will fit in one of the categories listed below. Any aircraft or operation mentioned in the list below solely relates to an aircraft used to conduct an aerial work operation or an operation conducted as an aerial work operation. The categories are:

- an operator not required to hold an aerial work certificate (AWC)
- an AWC holder not required to use a formal training and checking system for any of their aircraft and operations, and who does not voluntarily elect to use a formal training and checking system
- an AWC holder not required to use a formal training and checking system for any of their aircraft and operations, but who elects to voluntarily use a formal training and checking system for some or all of their aircraft and operations
- an AWC holder required to use a formal training and checking system for some of their aircraft or operations, but who is not required to use a formal training and checking system

[7] See the exemption in Part 10 of CASA EX73/24.

for their other aircraft or operations, and who does not voluntarily extend their required training and checking system to include some or all of these other aircraft or operations

- an AWC holder required to use a formal training and checking system for some of their aircraft or operations, but who has other aircraft or operations and decides to voluntarily extend their mandatory system to include some, but not all, of these other aircraft and operations
- an AWC holder required to use a formal training and checking system for some of their aircraft or operations, but who has other aircraft or operations and decides to voluntarily extend their mandatory system to include ALL of these other aircraft and operations
- an AWC holder required to use a formal training and checking system for all their aircraft and operations.

4.1.3 The relevant training and checking obligations are in the following rules:

- to determine if a formal training and checking system must be used: regulation 138.125 of CASR and section 4.02 of the Part 138 MOS
- if the operator chooses to voluntarily extend their required formal training and checking system to include other aircraft or operations: section 4.03 of the Part 138 MOS
- if the operator chooses to voluntarily use a formal training and checking system when they are not required to: section 4.04 of the Part 138 MOS
- for flight crew members of aircraft and operations under a formal training and checking system: regulation 138.130 of CASR
- for operational safety-critical personnel, who are not flight crew members, for aircraft and operations under a formal training and checking system: regulation 138.135 of CASR
- for all flight crew members, whether under a formal training and checking system or not: Subpart 138.N of CASR (regulations 138.475 through 138.505 inclusive) and Chapter 23 of the Part 138 MOS
- for all air crew members: Division 138.P.1 of CASR (regulations 138.535 through 138.550 inclusive) and Chapter 24 of the Part 138 MOS
- for task specialists, whether under a formal training and checking system or not: Division 138.P.2 of CASR (regulations 138.575 through 138.590 inclusive) and Chapter 25 of the Part 138 MOS.

4.1.4 Limited aerial work operators, in relation to flight crew members, only need to ensure that pilots of Australian registered aircraft in the aerial work operation are authorised under Part 61 of CASR, or under the relevant foreign rules for the pilots of foreign registered aircraft. These operators are recommended to pay particular attention to whether the pilots are compliant with regulation 61.385 of CASR, in addition to holding any required licence, rating and endorsement for a particular activity.

4.2 Which operators are required to have a Part 138 training and checking system?

4.2.1 For detailed guidance on training and checking systems, read Multi-Part AC 119-11 and AC 138-02.

4.2.2 An aerial work operation involving the use of any of the following aircraft, or the conduct of any of the following operations, must have a formal training and checking system:.

1. an operation transporting marine pilots
2. multi-engine transport category certified rotorcraft with a maximum take-off weight of more than 3175 kg

3. multi-engine aeroplanes with a maximum take-off weight of more than 5700 kg
4. turbine-engine aeroplanes (other than turbine-engine propeller-driven aeroplanes with a maximum take-off weight of 5700 kg or less)
5. an operation using offshore airborne radar approach procedures in accordance with section 8.6 of the Part 173 MOS
6. an operation using the descent and operational procedures set out in Division 3. 4 or 5 of Chapter 9 or the Part 138 MOS, that is not a task specialist operation for the purposes of frost protection of agricultural crops
7. an operation for the purposes of training and checking air crew members under Chapter 24 of the Part 138 MOS
8. an operation using a multi-engine rotorcraft with a maximum take-off weight above 3175 kg that is type certificated in the restricted category
9. an operation that is an NVIS operation.

Note: Items 1 to 4 of the above list are found in regulation 138.125 of CASR. This regulation also allows the Part 138 MOS to require other operations to also have a training and checking system. Items 5 to 9 on the list above are specified in section 4.02 of the Part 138 MOS.

4.3 Voluntary extension of a mandatory training and checking system

4.3.1 An operator who already has a Part 138 training and checking system can voluntarily extend this system to include other aircraft or operations by complying with the requirements of section 4.03 of the Part 138 MOS.

4.3.2 Why would an operator do this?

- It might permit a more effective and efficient use of the functionality and capability of an operator's existing system.
- It might lead to better use of resources within the operator's existing system.
- It might lead to better training outcomes as the relevant personnel are subject to an operator's training and checking system processes and procedures from early in their employment with the operator.
- It would allow the operator to use a wider range of training and checking staff.

4.3.3 As CASA must approve these extensions, the operator must apply for the approval, which is therefore also a significant change for the operator under paragraph 138.012(d) of CASR.

4.3.4 When applying for this approval, the operator must ensure their submission complies with regulations 138.130 and 138.135 of CASR, as well as relevant Part 138 MOS requirements.

4.3.5 For detailed guidance on training and checking systems, read Multi-Part AC 119-11 and AC 138-02.

4.4 Voluntary adoption of a training and checking system

4.4.1 An operator who doesn't have a Part 138 training and checking system can voluntarily adopt such a system for any or all of their aircraft or operations by complying with the requirements of section 4.04 of the Part 138 MOS.

4.4.2 Why would an operator do this?

- It might permit a more effective and efficient use of the functionality and capability of an operator's existing system.
- It might lead to better use of resources within the operator's existing system.
- It might lead to better training outcomes as the relevant personnel are subject to an operator's training and checking system processes and procedures from early in their employment with the operator.
- It would allow the operator to use a wider range of training and checking staff.

4.4.3 As CASA must approve this adoption, the operator must apply for the approval, which is therefore also a significant change for the operator under paragraph 138.012(d) of CASR.

4.4.4 Operators should note that they will also need to nominate a Head of Training and Checking key person, who must meet the relevant requirements of regulations 138.100 and 138.105 of CASR.

4.4.5 When applying for this approval, the operator must ensure their submission complies with regulations 138.130 and 138.135 of CASR, as well as relevant Part 138 MOS requirements.

4.4.6 For detailed guidance on training and checking systems, read Multi-Part AC 119-11 and AC 138-02.

4.5 Training and checking of crew members

4.5.1 Flight crew member training and checking

4.5.1.1 For detailed guidance on this topic, read Multi-Part AC 119-11 and AC 138-02.

4.5.1.2 Flight crew members are defined as pilots or flight engineers. Noting the rarity of flight engineers in aircraft used for aerial work operations in Australia, this guidance is focused on pilots, with the general concepts being also applicable to flight engineers.

4.5.1.3 Flight crew member training and competency are determined via 2 regulatory pathways—the licensing scheme (for Australian registered aircraft this scheme is specified in Part 61 of CASR) and the operator based scheme (outlined in Part 138 of CASR). Often there is overlap between the training sequences and units of competency for these schemes, but this is not always the case.

4.5.1.4 Operators are particularly recommended to review the Part 61 requirements, or the equivalent foreign rules for a foreign-registered aircraft, for their flight crew members. This is because sometimes the Part 61 rule will allow, either with specific approval or automatically without approval, the successful completion of an operator proficiency check to satisfy a relevant Part 61 event.

4.5.1.5 Where automatic recognition is not possible, or not available via specific approval, it is still possible for a single flight to meet both the licensing scheme and the operator scheme requirements, provided the relevant matters for both schemes are covered during the flight, and the person conducting the competency evaluation also meets both sets of requirements.

4.5.1.6 Chapter 23 of the Part 138 MOS specifies that the following flight crew training and checking events must be carried out:

- general emergency training and competency (similar to the CAO 20.11 competencies that existed for charter and RPT operations before 2 December 2021)
- conversion training and proficiency checks
- differences training (if required by Part 61)
- recurrent training and checking

- remedial training and checking.

4.5.1.7 Operators are reminded that, although Division 2 of Chapter 23 of the Part 138 MOS (qualification as pilot in command (PIC)) technically applies to both aerial work certificate holders and limited aerial work operators, the current content is not relevant to limited aerial work operators because both Class D external load operations and marine pilot transfer operations must be carried out by an aerial work certificate holder.

4.5.1.8 These requirements have only small variations for aerial work certificate holders using a training and checking system and those that are not using such a system. These variations include the:

- time before the next recurrent proficiency check
- level of detail specified in the operator's procedures can vary slightly, as operators not using a training and checking system don't have to comply with regulations 138.130 and 138.135 of CASR, but this is highly dependent on the complexity of the operations being performed by the operator
- kinds of persons who can conduct flight crew training and checking.

4.5.1.9 Although paragraph 23.10(1)(a) of the Part 138 MOS permits an operator's Head of Operations, where the operator is an aerial work certificate holder who is not using a training and checking system for an aircraft or operation, to conduct an in-flight proficiency check, operators are cautioned that the conduct of non-normal exercises (see definition at the beginning of this AC) by persons untrained in the conduct of training and checking in these sequences is subject to significant risk. Operators must set their requirements for these persons to perform a training and checking role in an appropriate manner that maintains aviation safety.

4.5.1.10 For a Part 138 operator that is not required to have a training and checking system, a person can carry out the general emergency training and competency assessment after meeting the operator's training and assessment requirements for the role and being nominated in the operator's operations manual.[8]

4.5.2 Crew other than flight crew training and checking

4.5.2.1 For detailed guidance on this topic, read Multi-Part AC 119-11 and AC 138-02.

4.5.2.2 The crew members other than flight crew members commonly used in aerial work operations, and for which specific requirements exist in the Part 138 MOS, are air crew members and task specialists.

4.5.2.3 For operators required to have a formal training and checking system, the requirements for the system for these persons are contained in regulation 138.135 of CASR and Chapters 24 and 25 of the Part 138 MOS.

4.5.2.4 As outlined in a Note at the beginning of this chapter, the training and checking of air crew members must be conducted by an aerial work certificate holder with a formal training and checking system.

4.5.2.5 Chapter 24 of the Part 138 MOS deliberately matches many of the air crew member training and checking requirements to the requirements for flight crew members, noting the higher safety criticality of these roles.

4.5.2.6 Chapter 25 of the Part 138 MOS provides operators with outcome-based requirements for the training and checking of task specialists.

4.5.2.7 Depending on the complexity of the task specialist's role, their training and the determination of their competency, for a simple operation, might take the form of a pre-flight briefing by the PIC, providing that the operator is satisfied such a briefing can adequately cover the relevant procedures and confirm the task specialist is competent to carry them out.

[8] Subsection 23.10(1)(c) of the Part 138 MOS.

4.6 Training and checking of operational safety-critical personnel other than crew members

4.6.1 For detailed guidance on this topic, read Multi-Part AC 119-11 and AC 138-02.

4.6.2 *Operational safety-critical personnel* is a defined term with a broad scope. The persons encompassed within this definition include all crew members, as well ground staff that have direct contact with the physical operation of the aircraft or have operational contact with the persons operating the aircraft.

4.6.3 For operators required to have a formal training and checking system, the requirements for the system for these persons are contained in regulation 138.135 of CASR.

4.6.4 Depending on the complexity of the task being performed by the person, the method of training the person and determining their competency could be done by a briefing being delivered by an appropriate person, followed by appropriate questioning to ascertain the person's recollection and understanding of the briefing. As always, the operator needs to be satisfied that the training and competency determination adequately covers the relevant procedures and confirms the person is competent to carry them out.

5 Safety management systems

5.1 Regulation 138.140 of CASR requires aerial work certificate holders who conduct one or more of the following operations or use one of the following aircraft to have a safety management system (SMS) that covers ALL of their aerial work operations:

- an operation transporting marine pilots
- multi-engine transport category rotorcraft with a MTOW of more than 3 175 kg
- multi-engine aeroplanes with a MTOW of more than 5 700 kg
- an aeroplane powered by a turbofan or turbojet engines.

5.2 Operators required by this rule to have an SMS for their aerial work operations, but who held an aerial work AOC before 2 December 2021, and have not modified their pre-2 December 2021 aerial work operations to commence any of the listed trigger events in regulation 138.140 of CASR after 2 December 2021, are temporarily not required to comply with regulation 138.140 of CASR[9].

5.3 These operators were required to submit their SMS Implementation Plan to CASA before 3 April 2023.

5.4 The date by which these operators must submit their SMS Manual and nominate a Safety Manager has not yet been set. For more information on these temporary transitional arrangements, refer to AC 1-03 - Transitioning to the flight operations regulations (casa.gov.au).

5.5 Further information on the development of an operator's SMS can be found on the CASA website.

[9] See the exemption in Part 4 of CASA EX73/24.

Appendix A
Sample clauses

A.1 Sample operations manual clauses

Sample operations manual clause for aerial passengers in relation to a mustering operation:

- [Sample Operator] aerial work passengers carried in connection to mustering operations are limited to the persons or classes of persons mentioned in the next paragraph.
- [Sample Operator]'s personnel involved in carrying out or supporting a mustering activity including a positioning flight:
  - Ground based personnel carried to and moved around the property being mustered to assist with refuelling and coordination of the mustering operation.
  - Persons employed by or working under an arrangement with [Sample Operator]'s client:
    - » The manager of the property to be mustered to assist in hazard identification and identification of the property boundaries.
    - » Moving the client's ground-based personnel to assist with opening and closing of gates and yarding of stock.
  - A maintenance engineer.
- [Sample Operator] is not approved for Australian Air Transport operations and the following are examples of people who are not aerial work passengers and cannot be carried by [Sample Operator]:
  - Drilling rig operators wanting to be transferred out to the drill rig on crew change days to save time and avoid driving on rough bush tracks.
  - Fisherman looking to access a remote part of the property.

Sample operations manual clause for aerial work passengers carried in connection to firefighting operations are limited to the following persons or classes of persons:

- [Sample Operators]'s personnel involved in carrying out or supporting aerial work operations associated with firefighting operations including a positioning flight.
  - Ground based personnel carried to and from the staging area to assist with refuelling and refilling the helicopter with fire retardant.
- Emergency service personnel involved in carrying out or supporting firefighting operations, including a positioning flight.
- Emergency Service personnel tasked with observing and coordinating the firefighting relief effort.
- Persons being evacuated from the fire front to be delivered to a place of safety.
- A maintenance engineer.

> **Note:** Aerial Work passengers are not permitted to be carried in Sample Operator's aircraft certified in the Restricted Category.

A.2 Sample aerial work passenger briefing clauses

The flight is to comply with the minimum height requirements in [section of operations manual] until the aerial work operation commences, and it is operationally necessary to descend below the minimum height

providing the risk assessment process in *[section of operations manual]* has been carried out and the risk remains acceptable.

When an aerial work passenger is carried, they are to be briefed by the pilot before they board the aircraft for the flight on the following matters:

- Entry and egress from the helicopter.
- Special precautions if the engine is running.
- Seat belts and harnesses.
- Communications.
- Emergency and survival equipment including ELT.
- Precautions and limitations in relation to cockpit controls.
- Securing loose items in doors off operations.
- The brace position in the event of an emergency landing.
- That the operation is not conducted to an air transport standard. There is an elevated level of risk in the conduct of aerial work operations compared to air transport operations. (Not required for persons rescued).