

## **ANNEX A**

### **Summary of Air Transport standards that have additional compliance or relief considerations**

## A.1 General principles

The operator will:

- hold an AT AOC in accordance with Part 119 of CASR
- demonstrate compliance with the additional requirements contained in the applicable AT operational rule set (i.e. Part 121,133 or 135 of CASR)
- demonstrate to CASA the ability for compliance with the additional requirements contained in any legislative instrument, or a medical transport-specific CASR subpart, issued for these operations in that category of aircraft
- demonstrate to CASA their ability for compliance with the additional requirements contained in Part 138 of CASR if the operator intends to conduct class D external load operations (e.g. winching and/or rappelling)
- demonstrate to CASA their ability to comply safely with the enhanced criteria, for safety distance between emergency landing areas, devised for medical transport operations, if an operator is an ASEA operator.

## A.2 Operational control

An HMT or AMT operator will have outlined in their exposition a formal policy and standard operating procedures for compliance with Part 121,133 or 135 of CASR in regard to operational control. These documents will include:

- a tasking dispatch risk assessment tool
- an inflight risk assessment and management process (using operational decision point go / no go processes)
- a flight-following procedure and capability that is able to update the pilot on operational matters during flight, if required by the risk management aspects of the operation, or at the next landing point if in flight updates are not required.

For the purposes of the applicable Part of the *Air Transport Operations* suite, MT operators must submit an operational flight plan. This may be submitted via:

- the operator's operational control and flight-following system  
or
- the crew, once inflight, if the flight is of an urgent nature.

## A.3 Communication

In some situations, in addition to all normal communication requirements for the category of the operation, some MT flights may need to carry communication equipment capable of conducting two-way or other communication with:

- the operator's operational control service

- the organisation for whom the MT flight is being conducted
- third parties who may be in attendance at an unprepared helicopter or aeroplane landing site (e.g. ground emergency service personnel).

#### **A.4 Operating minima**

MT flights will be normally operated to the applicable take off, approach and landing, enroute and alternate weather minima outlined in the Aeronautical Information Publication for the category of operation (i.e. Instrument Flight Rules (IFR) or Visual Flight Rules (VFR). Low visibility operational approvals will be available to suitably equipped operators as per the *Air Transport Operations* suite.

Enhanced Vision System (EVS) and NVIS capability approvals will be available for suitably equipped operators and aircraft; these approvals may, in some cases, also allow approach credits (subject to CASA's formal approval of these processes).

#### **A.5 Performance requirements – Helicopter Medical Transport operations**

Rotorcraft Performance Class 3 operations would not be authorised for MT night flights.

HMT operations under day VFR may be operated to Performance Class 3 if the hospital heliport in use has sufficient space to accommodate a safe forced landing (i.e. during the approach and landing or take-off and departure stages of the flight). The flight will be conducted in accordance with Subpart 133.F of CASR for Performance Class 3 operations.

HMT flights conducted under IFR, or at night under VFR, must be operated to Performance Class 1, Performance Class 2, or Performance Class 2 with exposure.

Special considerations for take-off and landing include:

- Helicopters conducting operations to/from a final approach and take-off area (FATO), at a hospital that is located in a populous area and that is used as a HMT heliport or HMT operating base, will be operated in accordance with the requirements of Performance Class 1 or Performance Class 2 with exposure. The exception to this is when the heliport approach and departure pathways provide sufficient safe forced landing areas for Performance Class 2 operations, in which case performance class 2 operations may be used.
- Operations at a HMT operating site (i.e. accident scene) will not be subject to the requirements of the *Air Transport Operations* performance rule set, however the operator must have a Safety Management System (SMS) under Part 119 of CASR. Consequently, operations at these locations will be controlled by a set of risk assessment and mitigation processes as outlined in the operator's exposition, and that is monitored by their SMS. These processes will normally aim to minimise exposure of the crew, passengers, the aircraft and third party persons to unacceptable risk situations

- The HMT operating site must be of sufficient size to meet the performance requirements of the proposed operation and the helicopter and provide adequate clearance from all obstructions. For night operations, the site must be illuminated to enable the site and any obstructions to be identified, by either natural vision or NVIS (if the operator is using that capability).

## A.6 Performance requirements – Aeroplane Medical Transport operations

The AT performance standards applicable to a particular class of aircraft will apply to AMT operations generally. These standards are applicable as follows:

- Part 135 of CASR for aircraft weighing less than 5,700 kg and carrying 9 or fewer passengers
- Part 121 of CASR for aircraft weighing more than 5,700 kg, regardless of passenger numbers.

*Note:* the specified weights are not to be confused with the applicability of Part 135 of CASR, but are additional requirements related to performance.

Aeroplane Medical Transport operators who conduct primary emergency response medical operations (e.g. The RFDS) will note that AMT operating site (i.e. accident scene) operations will not be required to meet the requirements of the applicable *Air Transport Operations* suite. As with HMT operators, AMT operators must have an SMS under Part 119 of CASR; the operations will be controlled by a set of risk assessment and mitigation processes as outlined in the operator's exposition. These processes will normally aim to minimise exposure of the crew, passengers, aircraft and third party persons to unacceptable risk situations.

The AMT operating site must provide adequate clearance from all obstructions. For night operations, the site must be illuminated to enable the site and any relevant obstructions within close proximity to be identified by natural vision. CASA is considering the potential for AMT operators to use aeroplane-based NVIS and EVS.

## A.7 Approved Single Engine Aircraft

Operational requirements, such as the nature of the route structure applying to MT operations for operators using Approved Single Engine Aeroplanes (ASEA), will need to be considered and incorporated into the relevant Parts of the *Air Transport Operations* suite.

CASA will base the new criteria on a modernised concept of the current ASETPA<sup>1</sup> criteria and will develop them in consultation with ASEA operators, using risk assessment and hazard management procedures that incorporate the latest capabilities of ASEA.

The ASEA safety distance criteria for approved operators may need to be redefined.

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<sup>1</sup> Approved Single Engine Turbine Powered Aeroplane

## **A.8 Crew**

### **A.8.1 Selection**

The operator shall establish criteria for the selection of flight crew members for the MT task, considering previous experience.

### **A.8.2 Experience**

CASA may wish to add experience criteria over those for AT operations for certain MT operations, this is under consideration.

### **A.8.3 Crew composition – helicopters**

#### *A.8.3.1 Day flight*

The minimum crew for day operations will be one pilot and one HMT aircrew member.

#### *A.8.3.2 Night flight*

The minimum crew for night operations will be:

- two pilots
- or
- one pilot and one HMT aircrew member to assist the pilot with those tasks specified in the operator's exposition related to operation of the helicopter, taking into account the following:
  - Go/No go decision making processes
  - the flight-following system used for the duration of the HMT mission
  - the aircraft's minimum equipment list
  - crew qualification, recency and recurrent training status
  - standard operating procedures, including crew coordination
  - actual weather and specific task minima
  - additional considerations due to specific local conditions.

### **A.8.4 Crew composition – aeroplanes**

The crew composition will be stipulated by the operator in their exposition and will be, as a minimum, compliant with Approved Flight Manual criteria. However, operators conducting aeroplane operations into complex landing areas may wish to include additional flight crew to mitigate risks. In such cases, the operator's training and checking processes must encompass multi-crew cooperation training.

*Note:* CASA has yet to determine aeroplane NVIS and EVS minimum crew requirements.

### A.8.5 Training and checking

Flight Crew training and checking must be conducted in accordance with the requirements of the applicable Subpart N of CASR (i.e. 121N, 133N or 135N) and the detailed syllabus in the operator's exposition.

The operator's training and checking syllabus for MT operations must cover both day and night operations if there is the potential for operations to be conducted during both the day and the night.

Medical Transport flight crew must undertake additional training and checking as required for the specific HMT/AMT operation. For example:

- winching and advanced winching training
- NVIS training and checking
- specific HMT heliport or AMT aerodrome performance or aerodrome procedure training.

For HMT aircrew members, training programs will comply with the requirements of Divisions 133.O.2 and 133.O.3 of CASR, with additional elements for:

- required knowledge of the HMT working environment and equipment
- winch and rappelling qualifications and competencies, if carried out by the operator
- crew coordination
- TEM training in the operator's procedures, to minimise the risks associated with en-route transit in low visibility conditions
- required knowledge of the operator's procedures for selection of HMT operating sites, and approach and departure profiles
- required understanding of helicopter performance and limitations in the HMT operational environment.

For MT medical crew training:

- Operators who assign medical crew to MT flights are required to ensure that assigned staff are trained and able to comply with the *Air Transport Operations* rule set, bearing in mind the manner in which the rules relate to those tasks or functions for which the crew member is responsible (as stated in the operator's exposition).
- The training and competency checks required of medical crew will be outlined in the operator's exposition, and must include training and checking to ensure the crew member holds a valid annual emergency and safety proficiency check as is required by the applicable Subpart N or Subpart O of the operational CASRs.
- The operator's training and check record system must include an up-to-date record of the training and checking for every medical crew member assigned for duty by the operator.

## **A.9 Briefing of medical passengers and other personnel**

### **A.9.1 Medical passenger**

Prior to any MT flight, or series of flights, medical passengers who are directly involved with the medical care or support of an ill or injured person must be briefed to ensure that they:

- are familiar with the MT working environment and equipment
- can operate medical and emergency equipment held on-board (as applicable to the medical aspects of their role as a medical passenger on the aircraft)
- are able to take part in normal and emergency entry and exit procedures.

For a medical passenger who is a patient on the aircraft, a briefing of the applicable elements outlined above will only need to be conducted if their age and medical condition makes this practicable, and they are able to assist in such situations.

### **A.9.2 Ground emergency service personnel**

The operator must ensure that ground emergency service personnel who have duties associated with the operation of the aircraft are familiar with the:

- MT working environment and equipment
- risks associated with ground operations at an MT operating site.

The operator may use third party providers, such as an ambulance service training school, to conduct this familiarisation training; however, the operator's SMS must include the requirement for monitoring ongoing compliance with delivery of familiarisation training in its taskings.

## **A.10 Operating base facilities**

If crew members are required to be on standby at an operating base, the operator must provide suitable accommodation close to each operating base. This provision will support operators in complying with the requirements of their system for fatigue management (see Section A.11).

At each operating base, operators must also provide the pilots with:

- a facility to obtain current and forecast weather information
- satisfactory communications to suit the requirements of the MT task.

## **A.11 Fatigue management**

Provisions for fatigue risk management of AT operations are currently implemented through Civil Aviation Order (CAO) 48.1. CASA is reviewing the requirement for additional considerations and relief measures relating to fatigue risk management for MT operations and seeks industry comment on possible options at Question 1 of the NPRM Response Form.