

# **Advisory Circular**

Subject: The Carriage of Persons During Aerial Work Operations

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### 1.0 Introduction

(1) This Advisory Circular (AC) is provided for information and guidance purposes. It describes an example of an acceptable means, but not the only means, of demonstrating compliance with regulations and standards. This AC on its own does not change, create, amend or permit deviations from regulatory requirements, nor does it establish minimum standards.

#### 1.1 Purpose

(1) The purpose of this document is to clarify when persons may be carried under Subpart 702 of the *Canadian Aviation Regulations* (CARs) - Aerial Work.

# 1.2 Applicability

(1) This document applies to all Part VII, Air Operating Certificate (AOC) holders. This information is also available to Transport Canada Civil Aviation (TCCA) Headquarters and regional personnel for information purposes.

# 1.3 Description of changes

(1) Not applicable.

# 2.0 References and requirements

#### 2.1 Reference documents

- (1) It is intended that the following reference materials be used in conjunction with this document:
  - (a) Aeronautics Act (R.S.C., 1985, c. A-2)
  - (b) Part I of the Canadian Aviation Regulations (CARs) General Provisions, Subpart I Interpretation
  - (c) Part VII of the CARs Commercial Air Services
  - (d) Part VII, Subpart 702 of the CARs Aerial Work
  - (e) Part VII, Subpart 703 of the CARs Air Taxi
  - (f) Standard 722 of the Commercial Air Services Standard (CASS) Aerial Work
  - (g) Transport Canada Publication (TP) 4711, Vol 2 and 3 Certification Manual

#### 2.2 Cancelled documents

- (1) Not applicable.
- (2) By default, it is understood that the publication of a new issue of a document automatically renders any earlier issues of the same document null and void.

#### 2.3 Definitions and abbreviations

- (1) The following **definitions**, as found in Subpart 101 of the CARs, are used in this document:
  - (a) **Aerial work**: a commercial air service other than an air transport service or a flight training service.

- (b) Air transport service: a commercial air service that is operated for the purpose of transporting persons, personal belongings, baggage, goods or cargo in an aircraft between two points.
- (c) **Flight crew member**: a crew member assigned to act as pilot or flight engineer of an aircraft during flight time.
- (d) Medical evacuation flight: a flight that is carried out for the purpose of facilitating medical assistance and on which one or more of the following persons or things is transported:
  - (i) medical personnel,
  - (ii) ill or injured persons,
  - (iii) human blood products or organs,
  - (iv) medical supplies.
- (2) The following **definitions**, as found in Subpart 600 of the CARs, are used in this document:
  - (a) Aerial inspection: the inspection from an aircraft of crops, forests, livestock or wildlife, the patrolling of pipelines or power lines, a flight inspection or any other operation of a similar nature.
  - (b) **Fire control authority:** a government forestry service or other fire control agency that is responsible for the protection of persons and property from fire. (Section 601.14 of the CARs)
  - (c) **Forest fire area:** an area on the surface of the earth on which standing timber, grass or any other vegetation or buildings are burning.
- (3) The following **definitions** are made for the purposes of this document:
  - (a) **Essential persons**: the absence of these persons would make the aerial work impossible.
  - (b) **Parachute jumping**: synonymous with parachute descents.
  - (c) **Wildfire risk mitigation**: an action regarding preparedness and response that is intended to reduce the probability that a fire will start, spread or do damage to persons or property in the short term.

Note: this is not applicable to long term mitigation measures related to actions that would only reduce risks beyond the current fire season.

- (4) The following **abbreviations** are used in this document:
  - (a) **AC:** Advisory Circular
  - (b) **AGL**: above ground level
  - (c) **AOC:** Air Operator Certificate
  - (d) CARs: Canadian Aviation Regulations
  - (e) CASS: Commercial Air Services Standard
  - (f) **NPA:** Notice of Proposed Amendment
  - (g) SA: Specific Approval
  - (h) **SAR:** Search and Rescue

# 3.0 Background

### 3.1 Amendments to the Flight Crew Member Fatigue Management Regulations

- (1) Due to amendments to the CARs (which came into effect on 12 December 2022) regarding Flight Crew Member Fatigue Management, there has been increased scrutiny on the carriage of persons during Subpart 702 operations.
- (2) CARs Subpart 702 Aerial Work, now has different flight time and duty time limitations from the other Part 7 subparts; operators require a better understanding of the differences between the subparts.
- (3) It has become apparent that there is widespread misunderstanding when determining which subpart is applicable to certain flights, particularly in relation to carrying persons. This AC is intended to help operators determine which subpart is applicable.
- (4) The CARs and CASS provide the sole source for Subpart 702 requirements. Local interpretations of these requirements as they pertain to the contents of this Advisory Circular subject matter are no longer supported.
- (5) Through the Notice of Proposed Amendment (NPA) process, the CASS has been amended to change paragraphs 722.16(b) and (c) to better reflect the intentions of the Standard to allow for real world situations with regards to where persons can be carried under Subpart 702 of the CARs.

# 4.0 Regulatory review: Persons that may be carried during Subpart 702 – Aerial Work

(1) This information is reflected in *Appendix A – Flowchart to determine if Subpart 702 (Aerial Work) applies.* 

Reference	Text	Notes
Subsection 700.02(2) of the CARs	Subject to subsections (3) and (4), no person shall, unless the person holds and complies with the provisions of an air operator certificate that authorizes the person to do so, operate an aeroplane or helicopter to conduct aerial work involving  (a) the carriage on board of persons other than flight crew	Basic premise: no person may be carried on board who is not a flight crew member during aerial work.  Exception: Persons may be carried if they meet the criteria found in Section 702.16 of the CARs.
Paragraph 702.16(a) of the CARs	members;  No air operator shall allow a person who is not a flight crew member to be carried on board an aircraft unless  (a) the person's presence on board is essential during the flight;	Persons who are essential to the aerial work during the flight may be carried. (See definition for "essential", above)  No Specific Approval (SA) is
	essential during the flight;	No Specific Approval (S required.

Paragraph 702.16(b) of the CARs	(b) the air operator is authorized in its air operator certificate to permit parachute descents <b>and</b> the person is a parachutist; or	Parachutists may be carried.  Note: The AOC must permit parachute descents (i.e., it must be indicated on the AOC).  No SA is required.
Paragraph 702.16(c) of the CARs	(c) the air operator  (i) is authorized in its air operator certificate to carry a person, and  (ii) complies with the Commercial Air Services Standard.	Other persons may be carried if the SA for "Carriage of Persons" is issued, and CASS 722.16 is complied with.
Paragraph 722.16(a) of the CASS	The standards for authorization to carry persons other than flight crew members and persons essential during flight are:  (a) the person is a flight crew member trainee, is a person undergoing training for essential duties during flight or is an air operator employee aircraft maintenance technician;	Flight crew member trainee, essential person trainee, and aircraft maintenance technicians may be carried.  (See definition for "essential".)  SA is required.
Paragraph 722.16(b) of the CASS	(b) the flight is under the direction and control of a fire control authority and the person is required for wildfire management as determined by the Fire Control Authority and is required:  (i) to access or action an active wildfire, or  (ii) to access an area for the purpose of wildfire risk mitigation	Persons that the Fire Control Authority determines are required for the purpose of the wildfire operations may be carried to access the fire, to action the fire, or to mitigate the risk of fire.  SA is required.
Paragraph 722.16(c) of the CASS	(c) the person is being carried to and from an aerial work site, performs an essential function in connection with the aerial work operation and is necessary to accomplish the aerial work operation;	Persons may be transported both to and from the aerial work site if they are essential to accomplishing the aerial work at the aerial work site.  Note: This does not extend to those who are not essential to the aerial work.  SA is required.

Paragraph 722.16(d) of the CASS	(d) during helicopter external load operations, persons not essential during flight are carried only in conjunction with a Class D load,	Persons may be carried as part of a Class D load operation (i.e., persons being rescued by hoisting etc.)  SA is required.
Paragraph 722.16(d) of the CASS cont'd	except for crew members undergoing training,	Crew members undergoing training during external load operations may be carried.  SA is required.
Paragraph 722.16(d) of the CASS cont'd	or fire fighters carried only in conjunction with a Class B load consisting of equipment necessary to fight fires within a forest fire area;	Fire fighters may be carried in conjunction with a Class B load within a forest fire area. For example: bucketing.
		In this case, the fire fighters are also considered essential persons, and can also be carried to and from the aerial work site (i.e., the forest fire area), as per paragraph 722.16(c).
		SA is required.

### 4.1 Frequently asked questions

Note: The Flow chart in Appendix A can be used to help determine the relevant subpart.

#### (1) Fire fighting

- (a) When flying a Bird Dog aircraft with an Air Attack Officer onboard, conducting a loaded patrol with firefighters, or a flight for day base positioning with fire fighters, are these flights regulated under Subpart 702 of the CARs?
  - (i) Yes. If the flights are under the direction and control of the fire control authority for the purpose of wildfire risk mitigation paragraph 722.16(b) of the CASS.
- (b) Can flights around fires with local stakeholders, such as landowners, farmers or local politicians be conducted under Subpart 702 of the CARs?
  - (i) Yes. If the flights are under the direction and control of a fire control authority and the persons are required for wildfire management decisions or risk mitigation.
  - (ii) No. If the flights are only a courtesy to the stakeholders and the flights have no bearing on wildfire management.
- (c) Are firefighters always carried under Subpart 702 of the CARs?
  - (i) Not always. If they are conducting work **other than** for the purpose of wildfire management, and they are **not** essential to aerial work, the flight is regulated under a higher subpart.
  - (ii) Examples of flights that are **not** under Subpart 702 of the CARs:

- (A) Moving firefighters to or from camps that have no significance to any fire fighting or fire risk mitigation would not be considered aerial work.
- (B) Flights with firefighters who are not essential to aerial work assisting with flood operations, or fisheries work;
- (C) Flights with radio technicians or other personnel that are working on regular maintenance or upgrades to infrastructure that are not associated with short term wildfire risk mitigation.

## (2) Aerial inspection

- (a) If a person declares themselves to the pilot as essential because they wish to conduct an inspection of an area prior to landing at their destination, is this automatically considered "Aerial Inspection," and regulated under Subpart 702 of the CARs?
  - (i) No. Aerial Inspection and Surveillance is a technical inspection. It must be conducted by trained personnel and typically result in the making of a report. It does **not** extend to any passenger viewing or sightseeing from an aircraft.
    - Note: No ride-along passengers are permitted during aerial inspections under Subpart 702 of the CARs since all persons onboard are required to be essential to the aerial work.
  - (ii) Examples of aerial inspections regulated under Subpart 702 of the CARs include, but are not limited to:
    - (A) a wildlife biologist inspecting wildlife,
    - (B) a farmer inspecting crops or livestock,
    - (C) powerline technicians conducting a powerline inspection,
    - (D) a person trained to inspect pipelines conducting a pipeline inspection,
    - (E) an RPF (Registered Professional Forester) or forest technician conducting a forest inventory flight, or
    - (F) an emergency services employee inspecting an area for flood damage.

### (3) General questions

- (a) If 3 persons are flown by helicopter into an aerial work site, but only 2 are essential to the aerial work itself, can this flight be under Subpart 702 of the CARs?
  - (i) No. Only persons necessary to accomplish the aerial work operation are permitted to be flown to the aerial work site, as per paragraph 722.16(c) of the CASS.
- (b) If a flight includes activities that are **only** permitted under Subpart 702 of the CARs, such as hover-exit or low-level flight, does that classify the flight as aerial work?
  - (i) No. Activities such as hover-exit, or low-level flight do not determine the regulatory subpart of a flight. The flight must already be conducted under Subpart 702 rules prior to conducting any activity that is only permitted under Subpart 702 of the CARs.
- (c) The Canada-United States-Mexico Agreement (CUSMA) provides types of aerial work that do not appear in the CARs or CASS. These types of aerial work are listed in the CUSMA SA on the Air Operator Certificate. Can we use the CUSMA aerial work types to define Subpart 702 of the CARs?
  - (i) No. CUSMA states that it does not overrule a regulation from any of the countries that are signatories. The CARs will always take precedence.

- (d) Is aerial work "working with an aircraft", and therefore anyone who is working with the aircraft can be deemed an essential person?
  - (i) No. The premise of an essential person is that they are essential "during the flight", as per paragraph 702.16(a) of the CARs. Other persons that can be carried with a specific approval are listed in Section 722.16 of the CASS.
- (e) Since the "Sightseeing" definition is: "aerial work in the course of which passengers are disembarked at the point of departure", is it regulated by Subpart 702 of the CARs?
  - (i) No. As per Subsection 702.01(2) of the CARs: "This Subpart does **not** apply in respect of ...**aerial work involving sightseeing operations**."
- (f) If a person is being carried to and from an aerial work site (as per paragraph 722.16(c) of the CASS) and they are "necessary to accomplish the aerial work operation", what if they are being flown to the site a few days before the aerial work begins? For example: Heliportable drill-rig employees are flown to operate the drill for a few days before they become essential to moving the drill rig by helicopter. Are the flights on the days where no aerial work occurs regulated under Subpart 702 or 703 of the CARs?
  - (i) If the persons carried are essential to the aerial work within a reasonable time, they can be carried to and from the site under Subpart 702 of the CARs.
  - (ii) The standard does **not** reference a timeframe, only a location (aerial work site) and the role the persons must play (essential).

#### (4) Search and rescue

- (a) Is a Search and Rescue (SAR) flight regulated under Subpart 702 of the CARs or a higher subpart?
  - (i) The "**Search**" is a Subpart 702 activity, with the trained SAR technician conducting an aerial inspection.
    - (A) In addition, the flight to and from the search area is covered under paragraph 722.16(c) of the CASS, since the SAR techs are essential, and the search area is an aerial work site.
  - (ii) The "**Rescue**" is considered a Medical Evacuation (Medevac). It is regulated under the operator's applicable subpart higher than Subpart 702, and the fatigue regulations applicable to Medevac flights apply. (See sections 700.100 to 700.135 of the CARs)
  - (iii) If hoisting occurs, then the flights with a SAR technician onboard to and from the aerial work site are permitted under Subpart 702 of the CARs as per paragraph 722.16(c) of the CASS.
  - (iv) Hoisting the person being rescued (Class D external load) is permitted under Subpart 702 as per paragraph 722.16(d) of the CASS.
  - (v) If no search occurs because the rescue location is known, and no hoisting occurs, then the higher subpart of the CARs applies with the Medevac Fatigue regulations in effect. (See Sections 700.100 to 700.135 of the CARs)
  - (vi) A flight to position an aircraft before or after a Medevac flight is considered to be part of a Medevac flight, as per Subsection 700.100(3) of the CARs.

# 5.0 Information management

(1) Not applicable.

# 6.0 Document history

(1) Not applicable.

## 7.0 Contact us

For more information, please contact:

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We invite suggestions for amendments to this document. Submit your comments to:

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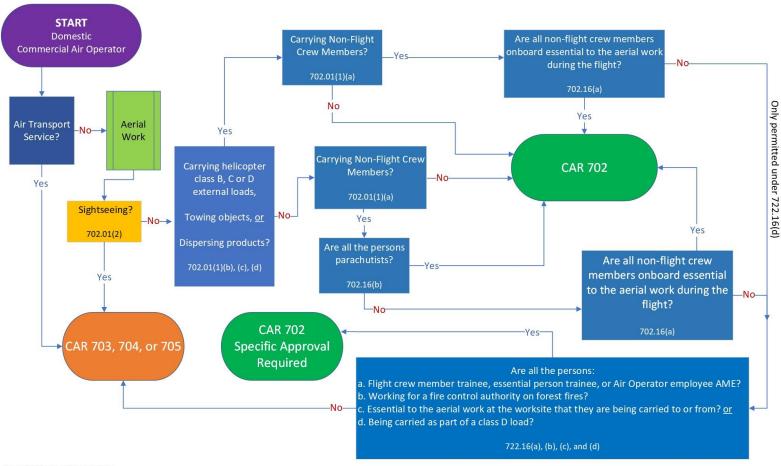
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# Appendix A - Flowchart to determine if Subpart 702 (Aerial Work) applies

Disclaimer: This flow chart is only intended as an aid to determine whether a flight is regulated under 702 or 703 CARs subpart, and is not intended to be comprehensive or all encompassing. The CARs always takes precedence.



#### **DEFINITIONS FROM CARs**

Aerial Work means a commercial air service other than an air transport service or a flight training service;

Air Transport Service means a commercial air service that is operated for the purpose of transporting persons, personal belongings, baggage, goods or cargo in an aircraft between two points; Flight Crew Member (FCM) means a crew member assigned to act as pilot or flight engineer of an aircraft during flight time;

Fire Control Authority means an official of a government forestry service or other fire control agency that is responsible for the protection of persons and property against fire.

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