

AERONAUTICAL INFORMATION CIRCULAR 1/16

PILOT PROCEDURES WHEN INTENDING TO OPERATE AN AIRCRAFT ABOVE 250 KNOTS INDICATED AIRSPEED BELOW 10,000 FEET ABOVE SEA LEVEL IN CANADIAN DOMESTIC AIRSPACE

Introduction

Transport Canada has identified an increase of pilots requesting to or intending to operate at airspeeds above 250 knots indicated airspeed (KIAS) below 10,000 feet above sea level (ASL), which would exceed the speed limit set out in *Canadian Aviation Regulations* (CAR) subsection 602.32 provided below.

CAR 602.32

1. Subject to subsection (2), no person shall:
 - a) *operate an aircraft at an indicated airspeed of more than 250 knots if the aircraft is below 10,000 feet ASL; or*
 - b) *operate an aircraft at an indicated airspeed of more than 200 knots if the aircraft is below 3,000 feet above ground level (AGL) within 10 nautical miles of a controlled aerodrome unless authorized to do so in an air traffic control clearance.*
2. A person may operate an aircraft at an indicated airspeed greater than the airspeeds referred to in subsection (1) if the aircraft is being operated in accordance with a special flight operations certificate – special aviation event issued pursuant to section 603.02.
3. If the minimum safe airspeed for the flight configuration of an aircraft is greater than the airspeed referred to in subsection (1), the aircraft shall be operated at the minimum safe airspeed.

Purpose of the Circular

This aeronautical information circular (AIC) reminds pilots of the purpose of a recent amendment to CAR subsection 602.32 regarding the speed limitation of 250 KIAS below 10,000 feet ASL. It clarifies the intent of the amendment to the regulation, and provides guidance for reporting intentions when pilots are required to or intend to operate above the limitation of 250 KIAS below 10,000 feet ASL.

Background

It is important to note that in November 2010, Transport Canada amended subsection 602.32 of the CARs by removing the provision for pilots to exceed 250 KIAS “*where the aircraft is being operated on departure.*”

This action was based on a risk analysis of high speed aircraft departures below 10,000 feet ASL that highlighted an increased risk to aviation safety when aircraft are operating above 250 KIAS where migratory birds are located. The analysis stated the following:

“The increase in large flocking bird populations coupled with the anticipated growth of the fleet of aircraft that could depart at high speed will result in an increased risk to aviation safety. The likelihood and severity of damage to aircraft and injury to crew and passengers resulting from bird strikes are directly related to the speed at which an aircraft travels at the moment of impact. For example, a 20% increase in indicated airspeed, from 250 knots to 300 knots, would result in a 44% increase of impact force on the aircraft’s airframe. Because of energy management issues, consequences resulting from bird strike damage are the most severe during the departure phase of flight.”

The amendment to CAR subsection 602.32 was intended to provide the following benefits:

- limit the likelihood of bird strikes resulting in severe aircraft damage;
- reduce the likelihood of flight delays and cancellations;
- reduce the likelihood of legal expenses and damage settlements resulting from flight delays and cancellations;
- reduce aircraft down time caused by bird strike-related maintenance;
- reduce the risk of mid-air collision under 10,000 feet ASL in airspace where uncontrolled traffic may find themselves in the path of the high-speed departure aircraft; and
- harmonize the Canadian regulations with American regulations under the Federal Aviation Authority.

For these reasons, pilots are encouraged to carefully consider the need for exceeding the 250 KIAS limitation. However, if the “*minimum safe speed*” for the flight configuration of the aircraft is above 250 KIAS, pilots are referred to CAR subsection 602.32 (3), which contains the following provision:

“Where the minimum safe speed for the flight configuration of an aircraft is greater than the speed referred to in subsection (1) or (2), the aircraft shall be operated at the minimum safe speed.”

Exceeding 250 KIAS below 10,000 feet ASL for reasons other than maintaining the “*minimum safe speed*” for the flight configuration would be in violation of CARs and would require air traffic control (ATC) to file an Aviation Occurrence Report to Transport Canada.

These changes will be published in a future version of the *Transport Canada Aeronautical Information Manual* (TC AIM – TP14371E).

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Notifying Air Traffic Control

On departure, when intending to operate at speeds exceeding 250 KIAS below 10,000 feet ASL, pilots must notify the departure controller on initial contact of the reason for this action.

ATC requires this information for the following reasons:

- for operational considerations regarding other traffic, particularly in potential overtake situations; and
- so that ATC will know the request or notification of intent to operate above the speed limitation is for “*minimum safe speed*” requirements and therefore ATC will not file an aviation occurrence report.

Phraseology of “*minimum safe speed XXX*” is encouraged and ATC will acknowledge.

Example:

Montreal Centre, ACA123, minimum safe speed 270kts

As ATC are **not authorized** to approve a speed in excess of 250 KIAS below 10,000 feet ASL, the phraseology “*request high speed climb*” **should not** be used.

Regulatory Actions

If pilots report or operate at a speed over 250 KIAS and do not state that it is for minimum safe speed, ATC will file an aviation occurrence report to the Civil Aviation Daily Occurrence Reporting System (CADORS) for Transport Canada’s review as prescribed in CAR 807.01.



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