CHAPTER 24 TAKE-OFF PERFORMANCE

24.01 Purpose

For subregulation 91.795 (1), this Chapter prescribes requirements relating to take-off performance for a flight of an aircraft.

24.02 Take-off performance for aeroplanes

(1) The pilot in command of an aeroplane during and after take-off must ensure that, until the aeroplane reaches the minimum height for the flight in accordance with regulation 91.265, 91.267, 91.277 or 91.305 (as applicable), the aeroplane has the performance to clear all obstacles by a safe margin.

(2) For subsection (1), the pilot in command must determine the performance of the aeroplane from any 1 of the following:

(a) the AFM;

(b) the manufacturer's data manual (if any);

(c) other data approved under Part 21 of CASR for the purpose.

(3) For subsection (2), the pilot in command must take the following into account:

(a) the take-off distance available;

(ab) the type of runway surface, and the runway surface condition, if available;

(b) the pressure altitude and temperature;

(c) the gradient of the runway in the direction of the take-off;

(d) the wind direction, speed and characteristics;

(e) the take-off and en route weather forecast;

(f) the obstacles in the vicinity of the take-off flight path.

24.03 Take-off performance for rotorcraft — general

(1) The pilot in command of a rotorcraft during and after take-off must ensure that, until the rotorcraft reaches the minimum height for the flight in accordance with regulation 91.265, 91.267, 91.277 or 91.305 (as applicable), the rotorcraft has the performance to clear all obstacles by a safe margin.

(2) For subsection (1), the pilot in command must determine the performance of the rotorcraft from any 1 of the following:

(a) the AFM;

(b) the manufacturer's data manual (if any);

(c) other data approved under Part 21 of CASR for the purpose.

(3) For subsection (2), the pilot in command must take the following into account:

(a) the take-off distance available;

(ab) the type of runway surface, and the runway surface condition, if available;

(b) the adequacy of the size of the departure and planned destination aerodromes and any alternate aerodromes;

(c) the pressure altitude and temperature;

(d) the gradient of the take-off and initial climb stage of the flight;

(e) the climb flight path;

(f) either:

(i) the wind direction, speed and characteristics — if known; or

(ii) zero wind — if the matters mentioned in subparagraph (i) are unknown;

(g) the take-off and en route weather forecast;

(h) the obstacles in the vicinity of the flight path.

24.04 Take-off performance for rotorcraft — Category A rotorcraft within populous areas

(1) This section applies to a rotorcraft that:

(a) is a Category A rotorcraft which is not being operated in accordance with its Category B supplement in the AFM (the ***rotorcraft***); and

(b) takes off from a place in a populous area that is both of the following (the ***relevant HLS***):

(i) a non-certified aerodrome (including an HLS);

(ii) an aerodrome that is not used for the regular take-off or landing of aircraft.

(2) The pilot in command of the rotorcraft may take off from the relevant HLS only if:

(a) the performance of the rotorcraft is sufficient to comply with the Category A procedure for take-off and initial climb at the relevant HLS; and

(b) in the event that an engine becomes inoperative — the pilot in command can ensure that the rotorcraft will maintain an obstacle clear climb gradient until 1 000 ft above the take-off surface.

Note 1 In the event of an engine failure, the Category A procedure allows for a rejected take-off within take-off distance available. If the critical engine failure occurs after the take-off decision point, the Category A procedure allows for flight clear of persons and property.

Note 2 ***Category A rotorcraft*** is defined in section 1.07.

24.05 Take-off performance for rotorcraft — Category B rotorcraft within populous areas

(1) This section applies to a rotorcraft that:

(a) is a Category B rotorcraft (the ***rotorcraft***); and

(b) takes off from a place in a populous area that is both of the following (the ***relevant HLS***):

(i) a non-certified aerodrome (including an HLS);

(ii) an aerodrome that is not used for the regular take-off or landing of aircraft.

(2) The pilot in command of the rotorcraft may take off from the relevant HLS only if:

(a) the performance of the rotorcraft is sufficient to:

(i) avoid obstacles during the take-off and initial climb stage of the flight; and

(ii) autorotate or fly clear of persons or property in the event of an engine failure; and

(iii) where the area is a confined area for the rotorcraft — hover out of ground effect for the take-off; and

(b) as far as practicable, the pilot in command provides for a planned take-off profile that minimises time within the avoid area of the HV curve.

Note For the ***avoid area of the HV curve*** — see section 1.07.