

## SECTION R AERIAL APPLICATION RATING

### Appendix R.1 Aerial application rating and aerial application endorsement flight test

#### 1. Flight test requirements

An applicant for an aerial application rating flight test must demonstrate the following:

- (a) knowledge of the topics listed in clause 2, which are relevant to the endorsements that are being assessed during the test;
- (b) ability to conduct the activities and manoeuvres mentioned in clause 3, within the operational scope and under the conditions mentioned in clause 4, to the competency standards required under section 12 of this MOS, which are relevant to the endorsements that are being assessed during the test.

#### 2. Knowledge requirements

For paragraph 1 (a), the topics are the following topics:

- (a) privileges and limitations of an aerial application rating and the aerial application endorsement included in the test;
- (b) proficiency check requirements;
- (c) limitations of GNSS;
- (d) wind effect at low level and associated flying conditions;
- (e) analysis of actual and forecast weather relevant to application operations;
- (f) the effect of mountainous terrain on airflow and associated flying conditions;
- (g) assessment of the geographical characteristics of the area of flying operations to ensure safe completion of the task;
- (h) the hazards associated with low flying and how to identify them prior to and during a low-level operation;
  - (i) the effects of extreme environmental conditions on pilot health and performance;
  - (j) the effects of fatigue and physical health on pilot performance;
- (k) risk assessment techniques;
- (l) managing risks at low level;
- (m) aircraft performance, including where appropriate for the category of the aircraft used for the test:
  - (i) maximum rate turning;
  - (ii) minimum radius turning;
  - (iii) best angle of climb;
  - (iv) best rate of climb;
  - (v) 1 engine inoperative performance and helicopter manoeuvring (if applicable).

#### 3. Activities and manoeuvres

*Note* For paragraph 1 (b), the flight test includes all of the following activities and manoeuvres. The sequence set out here is not necessarily intended to direct the order of activities and manoeuvres.

##### 3.1 Pre-flight

*Note* The relevant competency standards are in unit codes AA1 and AA2.

- (a) plan an application operation;
- (b) identify hazards and manage risks;
- (c) ensure the performance capability of the aircraft being used is adequate for the operation;
- (d) consult with and brief stakeholders;
- (e) perform pre-flight actions and procedures.

##### 3.2 Ground operations, take-off, departure and climb

*Note* The relevant competency standards are in unit codes LL-A or LL-H (as applicable).

- (a) complete all relevant checks and procedures;
- (b) plan, brief and conduct take-off and departure procedures.

### 3.3 En route cruise

*Note* The relevant competency standards are in unit codes LL-A or LL-H (as applicable).

Conduct appropriate checks and procedures before descending below 500 ft AGL.

### 3.4 Test specific activities and manoeuvres

*Note* The relevant competency standards are in unit codes AA1, AA2, and LL-A or LL-H (as applicable).

- (a) for a day aerial application endorsement (all aircraft categories) at low level do the following:
- (i) perform straight flight, steep turns and procedure turns;
  - (ii) navigate;
  - (iii) manage wind effects, sloping and hilly terrain, false horizons and sun glare;
  - (iv) demonstrate the use of escape routes;
  - (v) recover from high energy and low energy unusual attitude conditions;
  - (vi) for the following:
    - (A) if the test is conducted in a single-engine aircraft — perform a forced landing;
    - (B) if the test is conducted in a multi-engine aircraft — manage an engine failure;
  - (vii) fly to, assess, land and take off from an operational airstrip or HLS;
  - (viii) fly between an operational airstrip or HLS and an application area;
  - (ix) conduct an aerial survey of an application area;
  - (x) conduct operations over and under power lines;
  - (xi) apply substances;
  - (xii) operate aircraft safely and effectively using GNSS swath guidance equipment;
  - (xiii) operate at low level in hilly terrain;
  - (xiv) jettison a load safely;
- (b) for an aeroplane aerial application endorsement, at low level, do the following in an aeroplane:
- (i) conduct maximum rate turns and minimum radius turns;
  - (ii) recognise and avoid the stall and recover from a simulated low altitude stall;
  - (iii) for single-engine aeroplanes, recover from a wing drop at the stall;
  - (iv) conduct an application operation at a certified or registered aerodrome (if available);
  - (v) manage abnormal and emergency situations;
- (c) for a helicopter aerial application endorsement, do the following:
- (i) manoeuvre the helicopter at low level and conduct flight at various speed and configurations;
  - (ii) perform quick stop manoeuvres into wind and downwind;
  - (iii) manage risks associated with operating a helicopter during application operations;
- (d) For a firefighting endorsement (all categories), do the following:
- (i) demonstrate awareness of relevant human factors;
  - (ii) perform pre-flight actions relevant to firefighting operations;
  - (iii) demonstrate understanding of fire agency procedures, fire traffic management and other aircraft separation procedures that apply to firefighting operations;
  - (iv) plan for and manage applicable operational risks;
  - (v) fly to, assess, land and take off from an operational airstrip or HLS or pick-up point;
  - (vi) fly between operational airstrip or HLS and drop zone;
  - (vii) conduct an aerial survey of a fire area;
  - (viii) apply substances;
  - (ix) operate aircraft at maximum permissible weights for fire operations;
  - (x) operate at low level in hilly terrain;
  - (xi) operate in high winds, high density altitude and high turbulence;
  - (xii) conduct low-visibility operations;
  - (xiii) manage abnormal and emergency situations during a firebombing operation in the vicinity of a fire ground;
  - (xiv) jettison load safely;

- (e) for a helicopter firefighting endorsement, do the following:
  - (i) replenish helicopter load with snorkel or bucket;
  - (ii) manage known helicopter risks during firefighting operations;
- (f) for a night aerial application operation endorsement, do the following in a relevant aircraft (as applicable):
  - (i) check the serviceability of the aircraft and the equipment to be used;
  - (ii) conduct a risk assessment for the operation;
  - (iii) conduct the pre-flight actions;
  - (iv) determine whether an airstrip or HLS is suitable for night operations;
  - (v) conduct a take-off and landing at night at an airstrip or HLS remote from ground lighting;
  - (vi) conduct a safe transit from an airstrip to the treatment area;
  - (vii) operate work lights to illuminate the treatment area.

### 3.5 Descent and arrival

*Note* The relevant competency standards are in unit codes LL-A or LL-H (as applicable).

Plan and conduct an arrival and circuit joining procedures.

### 3.6 Circuit, approach and landing

*Note* The relevant competency standards are in unit codes LL-A or LL-H (as applicable).

- (a) conduct a low-level circuit, approach and landing (day only);
- (b) perform after-landing actions and procedures.

### 3.7 Shut down and post flight

*Note* The relevant competency standards are in unit codes LL-A or LL-H (as applicable).

- (a) park, shutdown and secure the aircraft;
- (b) complete post-flight administration.

### 3.8 General requirements

*Note* The relevant competency standards are in unit codes LL-A or LL-H (as applicable), NTS1 and NTS2.

- (a) maintain an effective lookout;
- (b) maintain situational awareness;
- (c) assess situations and make appropriate decisions;
- (d) set priorities and manage tasks effectively;
- (e) maintain effective communication and interpersonal relationships;
- (f) recognise and manage threats;
- (g) recognise and manage errors;
- (h) recognise and manage undesired aircraft states;
- (i) communicate effectively using appropriate procedures for the airspace being used during the test;
- (j) manage the aircraft systems required for the flight;
- (k) manage the fuel system and monitor the fuel plan and fuel usage during the flight.

## 4. Operational scope and conditions

### 4.1 The following operational scope applies to the flight test:

- (a) managing an aircraft system, which is not required for the flight, is not an assessable item unless the applicant uses the system during the flight;
- (b) conduct operations that are relevant to the endorsements being assessed;
- (c) emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe are simulated and limited to those described in the AFM.

### 4.2 The following conditions apply to the aerial application rating flight test:

- (a) conducted in an aircraft that is suitable for the endorsements being assessed in the test (see subsection 61.1115 (2));
- (b) conducted by day under the VFR except where the test is for a night endorsement;
- (c) the aircraft used for an aerial application rating flight test must be of the appropriate category and be capable of being operated for the kind of operations that are covered by the endorsement or endorsements which the flight test is for.