SECTION L AIRCRAFT RATINGS

Appendix L.1 Single-engine aeroplane class rating flight test

1. Flight test requirements

1.1 An applicant for a single-engine aeroplane class rating flight test must demonstrate the following:

(a) knowledge of the topics listed in clause 2;

(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 flight test.

1.2 An applicant who completes a flight test in an aeroplane covered by the single-engine aeroplane class rating and meets the flight test standard for the grant of a pilot licence with aeroplane category rating is taken to meet these flight test requirements.

2. Knowledge requirements

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

(a) privileges and limitations of the class rating;

(b) flight review requirements;

(c) navigation and operating systems;

(d) normal, abnormal and emergency flight procedures;

(e) operating limitations;

(f) weight and balance limitations;

(g) aircraft performance data, including take-off and landing performance data;

(h) flight planning.

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 C2 and C4.

(a) perform pre-flight actions and procedures;

(b) perform a pre-flight inspection;

(c) refuel an aeroplane (may be assessed by questioning).

3.2 Ground operations, take-off, departure and climb

Note The relevant competency standards are in unit codes A1, A2, A3 and IFF.

(a) complete all relevant checks and procedures;

(b) taxi an aeroplane;

(c) plan, brief and conduct take-off and departure procedures;

(d) conduct a cross-wind take-off;

(e) conduct a short-field take-off;

(f) conduct climbs on a constant heading and climbing turns in at least 2 of the following performance configurations:

(i) cruise climb;

(ii) maximum rate climb;

(iii) maximum angle climb.

3.3 En route cruise

Note The relevant competency standards are in unit code A3.

(a) maintain straight and level flight, and turn an aeroplane;

(b) navigate and transit from an aerodrome circuit area to a training area and return;

(c) operate safely in local area airspace;

(d) establish and maintain cruise flight for at least 1 of the following conditions:

(i) turbulence;

(ii) flaps selected;

(iii) high speed.

3.4 Test specific activities and manoeuvres

Note The relevant competency standards are in unit codes A1, A5, A6 and IFF.

(a) enter and recover from each of the following, 1 of which must be in the approach configuration:

(i) a fully developed stall;

(ii) a wing drop at the stall;

(b) conduct steep level turns of at least 45˚ angle of bank;

(c) perform full panel instrument flying;

(d) using a full instrument panel, recover from at least 2 different unusual aircraft attitudes;

(e) manage an engine failure after take-off;

(f) manage the following malfunctions:

(i) a malfunction during start or shutdown;

(ii) any 1 of the following that is not performed under subparagraph (i):

(A) an aircraft system malfunction;

(B) engine or cabin fire;

(C) radio failure;

(g) perform a forced landing.

3.5 Descent and arrival

Note The relevant competency standards are in unit code A3.

(a) conduct descents and descending turns;

(b) plan and conduct aerodrome arrival and circuit joining procedures.

3.6 Circuit, approach and landing

Note The relevant competency standards are in unit codes A3, A4 and A6.

(a) conduct a normal circuit pattern, approach and landing;

(b) conduct a cross-wind landing;

(c) conduct short-field and flapless landings;

(d) perform a go-around procedure;

(e) perform after-landing actions and procedures.

3.7 Shut down and post-flight

Note The relevant competency standards are in unit codes A1 and C2.

(a) park, shutdown and secure an aeroplane;

(b) complete post-flight administration.

3.8 General requirements

Note The relevant competency standards are in unit codes A3, C1, C4, C5, 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 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 test;

(l) manage passengers and the carriage of cargo.

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) simulated carriage of passengers and cargo;

(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 flight test:

(a) activities and manoeuvres are performed in accordance with published procedures;

(b) conducted in:

(i) an aeroplane that is covered by the single-engine aeroplane class rating, except where the flight test must be conducted in an approved flight simulator in accordance with subregulation 61.245 (2); or

(ii) a flight simulator approved for the purpose;

(c) conducted by day under the VFR;

(d) if the aerodrome cross-wind conditions for the runway used during the test are less than 70% of the maximum in the AFM, evidence that the applicant has demonstrated competency performing cross-wind take-off and landing manoeuvres may be taken from the applicant's training records;

(e) if the flight test is conducted in an FSTD, the following activities may be assessed by oral questioning:

(i) paragraph 3.1 (a) — perform a pre-flight inspection;

(ii) subclause 3.7 — Shut down and post-flight.

Appendix L.2 Single-engine helicopter class rating flight test

1. Flight test requirements

1.1 An applicant for a single-engine helicopter class rating flight test must demonstrate the following:

(a) knowledge of the topics listed in clause 2;

(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 flight test.

1.2 An applicant who completes a flight test in a helicopter covered by the single-engine helicopter class rating and meets the flight test standard for the grant of a pilot licence with helicopter category rating is taken to meet these flight test requirements.

2. Knowledge requirements

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

(a) privileges and limitations of the class rating;

(b) flight review requirements;

(c) navigation and operating systems;

(d) normal, abnormal and emergency flight procedures;

(e) operating limitations;

(f) weight and balance limitations;

(g) aircraft performance data, including take-off and landing performance data;

(h) flight planning.

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 C2 and C4.

(a) perform pre-flight actions and procedures;

(b) perform a pre-flight inspection;

(c) refuel a helicopter (may be assessed by questioning).

3.2 Ground operations, take-off, departure and climb

Note The relevant competency standards are in unit codes H1, H2, H3, H4, H5.

(a) complete all relevant checks and procedures;

(b) lift-off and hover a helicopter;

(c) taxi a helicopter;

(d) air transit a helicopter;

(e) plan, brief and conduct take-off and departure procedures;

(f) conduct climbs on a constant heading and climbing turns, including at least 2 of the following:

(i) maximum rate climb;

(ii) maximum (best) angle climb;

(iii) cruise climb.

3.3 En route cruise

Note The relevant competency standards are in unit code H5.

(a) maintain straight and level flight, and turn a helicopter;

(b) navigate and transit from a circuit area to a training area and return;

(c) operate safely in local area airspace.

3.4 Test specific manoeuvres

Note The relevant competency standards are in unit codes H2, H6 and H7.

(a) hover a helicopter in cross-wind and tailwind conditions and perform turns around 1 of the following:

(i) rotor mast;

(ii) helicopter nose;

(iii) helicopter tail;

(b) perform sidewards and backwards flight;

(c) conduct steep level turns of at least 45˚ angle of bank;

(d) perform an autorotative flight manoeuvre;

(e) land on and lift off from sloping ground;

(f) land, manoeuvre, and take off in a confined area;

(g) execute a limited power take-off, approach and landing;

(h) perform a forced landing;

(i) manage an engine failure during hover or taxi;

(j) manage a control or tail rotor malfunction in flight and at the hover;

(k) manage at least 1 of the following:

(i) an engine fire;

(ii) electrical failure;

(iii) hydraulic system malfunction;

(iv) airframe fuel system malfunction;

(v) engine governor system malfunction.

3.5 Descent and arrival

Note The relevant competency standards are in unit code H5.

(a) conduct descents and descending turns;

(b) plan and conduct an aerodrome or helicopter landing site arrival and circuit joining procedures.

3.6 Circuit, approach and landing

Note The relevant competency standards are in unit codes H3, H4 and H5.

(a) conduct a normal circuit pattern, approach and landing;

(b) conduct an approach to the hover;

(c) conduct a helicopter air transit;

(d) perform a go-around procedure;

(e) perform after-landing actions and procedures.

3.7 Shut down and post-flight

Note The relevant competency standards are in unit codes C2 and H1.

(a) park, shutdown and secure a helicopter;

(b) complete post-flight administration.

3.8 General requirements

Note The relevant competency standards are in unit codes C1, C3, C4, C5, 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 flight;

(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;

(l) manage passengers and the carriage of cargo.

4. Operational scope and conditions

4.1 The following operational scope applies to the flight test:

(a) managing an aircraft system that is not required for the flight is not an assessable item unless it is used by the applicant;

(b) simulated carriage of passengers and cargo;

(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 flight test:

(a) activities and manoeuvres are performed in accordance with published procedures;

(b) conducted in a helicopter that is covered by the single-engine helicopter class rating;

(c) conducted in:

(i) a helicopter that is covered by the single-engine helicopter class rating, except where the flight test must be conducted in an approved flight simulator in accordance with subregulation 61.245 (2); or

(ii) a flight simulator approved for the purpose;

(d) conducted by day under the VFR;

(e) assessment of competency for activities and manoeuvres that require the applicant to operate the helicopter in cross-wind and tailwind conditions may be taken from the applicant's training records if the conditions are insufficient.

Appendix L.3 Single-engine gyroplane class rating

RESERVED

Appendix L.4 Airship class rating flight test

RESERVED

Appendix L.5 Multi-engine aeroplane class rating flight test

1. Flight test requirements

An applicant for a multi-engine aeroplane class rating flight test must demonstrate the following:

(a) knowledge of the topics listed in clause 2;

(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 flight test.

2. Knowledge requirements

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

(a) privileges and limitations of the class rating;

(b) flight review requirements;

(c) navigation and operating systems;

(d) normal, abnormal and emergency flight procedures;

(e) operating limitations;

(f) weight and balance limitations;

(g) aircraft performance data, including take-off and landing performance data;

(h) flight planning.

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 C2 and AME.

(a) perform pre-flight actions and procedures;

(b) perform a pre-flight inspection;

(c) refuel an aeroplane (may be assessed by questioning).

3.2 Ground operations, take-off, departure and climb

Note The relevant competency standards are in unit codes A1, A2, A3, AME and IFF.

(a) complete all relevant checks and procedures;

(b) taxi an aeroplane;

(c) plan, brief and conduct take-off and departure procedures;

(d) conduct a cross-wind take-off;

(e) conduct a short-field take-off;

(f) conduct climbs on a constant heading and climbing turns in at least 2 of the following performance configurations:

(i) cruise climb;

(ii) maximum rate climb;

(iii) maximum angle climb.

3.3 En route cruise

Note The relevant competency standards are in unit code A3.

(a) maintain straight and level flight, and turn aeroplane;

(b) operate the aeroplane in the cruise configuration for 1 of the following conditions:

(i) turbulence;

(ii) holding;

(iii) range;

(c) navigate using instrument navigation systems.

3.4 Test specific activities and manoeuvres

Note The relevant competency standards are in unit codes A1, A4, A5, AME and IFF.

(a) enter and recover from a stall in the approach configuration and at least 1 other configuration;

(b) conduct steep level turns of at least 45˚ angle of bank;
(c) perform full panel instrument flying;
(d) using a full instrument panel, recover from at least 2 different unusual aircraft attitudes;
(e) manage an engine failure after take-off;
(f) manage an engine failure in the cruise configuration;
(g) conduct an approach and landing with 1 engine inoperative;
(h) conduct a missed approach with 1 engine inoperative;
(i) manage the following malfunctions:
(i) a malfunction during start or shutdown;
(ii) any 1 of the following that is not performed under subparagraph (i):
(A) an aircraft system malfunction;
(B) engine or cabin fire;
(C) radio failure.

3.5 Descent and arrival

Note The relevant competency standards are in unit code A3.

(a) conduct descents and descending turns;
(b) plan and conduct aerodrome arrival and circuit joining procedures.

3.6 Circuit, approach and landing

Note The relevant competency standards are in unit codes A3, A4 and AME.

(a) conduct a normal circuit pattern, approach and landing;
(b) conduct a cross-wind landing;
(c) conduct short-field and flapless landings;
(d) perform a go-around procedure with all engines operating;
(e) perform after-landing actions and procedures.

3.7 Shut down and post-flight

Note The relevant competency standards are in unit codes A1 and C2.

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

3.8 General requirements

Note The relevant competency standards are in unit codes A3, AME, C1, C4, C5, 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 state;
(i) communicate effectively using appropriate procedures for the airspace being used during the flight;
(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;
(l) manage passengers and the carriage of cargo.

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) operate the aircraft under normal, non-normal and emergency conditions with particular attention given to conditions associated with asymmetric engine performance;
(c) simulated carriage of passengers and cargo;

(d) 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 flight test:

(a) activities and manoeuvres are performed in accordance with published procedures;

(b) conducted in:

(i) an aeroplane that is covered by the multi-engine aeroplane class rating, except where the flight test must be conducted in an approved flight simulator in accordance with subregulation 61.245 (2); or

(ii) a flight simulator approved for the purpose;

(c) conducted by day under the VFR;

(d) if the aerodrome cross-wind conditions for the runway used during the test are less than 70% of the maximum in the AFM, evidence that the applicant has demonstrated competency performing cross-wind take-off and landing manoeuvres may be taken from the applicant's training records;

(e) if the flight test is conducted in an FSTD, the following activities may be assessed by oral questioning:

(i) paragraph 3.1 (b) — perform a pre-flight inspection;

(ii) subclause 3.7 — Shut down and post-flight.

Appendix L.6 Single-engine aeroplane type rating flight test

1. Flight test requirements

1.1 An applicant for a single-engine aeroplane type rating flight test must demonstrate the following:

(a) knowledge of the topics listed in subclause 2.1;

(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 flight test.

1.2 For paragraph 61.790 (a), if the flight test for the rating is conducted under the IFR, the applicant must demonstrate his or her knowledge of the items in subclause 2.2 and his or her competency in the activities and manoeuvres in clause 3, as they apply to operating the aircraft under the IFR.

2. Knowledge requirements

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

(a) privileges and limitations of the type rating;

(b) flight review requirements;

(c) navigation and operating systems;

(d) normal, abnormal and emergency flight procedures;

(e) operating limitations;

(f) weight and balance limitations;

(g) aircraft performance data, including take-off and landing performance data;

(h) flight planning.

2.2 For subclause 1.2, the additional topics are the following:

(a) privileges and limitations of the type rating with respect to conducting IFR operations;

(b) navigation and flight management systems;

(c) conducting IFR operations in an aeroplane covered by the rating.

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 TR-SEA and CIR for IFR operations.

(a) perform pre-flight actions and procedures;

(b) perform a pre-flight inspection.

3.2 Ground operations, take-off, departure and climb

Note The relevant competency standards are in unit codes TR-SEA and CIR for IFR operations.

(a) complete all relevant checks and procedures;

(b) taxi the aeroplane;

(c) plan, brief and conduct a take-off and the following as applicable:

(i) for a VFR operation, VFR departure procedures;

(ii) for an IFR operation, an instrument departure;

(d) conduct a cross-wind take-off;

(e) conduct climb profiles and climbing turns.

3.3 En route cruise

Note The relevant competency standards are in unit codes TR-SEA and CIR for IFR operations.

(a) maintain straight and level flight, and turn an aeroplane;

(b) establish and maintain cruise flight for at least 1 of the following conditions:

(i) turbulence;

(ii) holding configuration;

(iii) range;

(c) navigate using instrument navigation systems.

3.4 Test *specific* activities and manoeuvres

Note The relevant competency standards are in unit codes TR-SEA and CIR for IFR operations.

(a) conduct 2 approach to the stall and recovery manoeuvres, 1 of which must be in the approach configuration and 1 in any other configuration;

(b) conduct steep level turns of at least 45˚ angle of bank;

(c) perform full panel instrument flying;

(d) using a full instrument panel, recover from at least 2 unusual attitude manoeuvres;

(e) manage an engine failure after take-off;

(f) manage the following malfunctions:

(i) a malfunction during start or shutdown;

(ii) any 1 of the following that is not performed under subparagraph (i):

(A) an aircraft system malfunction;

(B) engine or cabin fire;

(C) radio failure;

(g) perform a forced landing.

3.5 Descent and arrival

Note The relevant competency standards are in unit code TR-SEA and for IFR operations in unit codes CIR and IAP2.

(a) conduct descent profiles and descending turns;

(b) complete 1 of the following:

(i) for a VFR operation, plan and conduct aerodrome arrival and circuit joining procedures;

(ii) for an IFR operation, plan and conduct the following:

(A) an instrument arrival;

(B) a 2D instrument approach procedure;

(C) a missed approach procedure.

3.6 Circuit, approach and landing

Note The relevant competency standards are in unit code TR-SEA.

(a) conduct a normal circuit pattern, approach and landing;

(b) conduct a cross-wind landing;

(c) perform a go-around procedure;

(d) perform after-landing actions and procedures.

3.7 Shut down and post-flight

Note The relevant competency standards are in unit code TR-SEA.

(a) park, shutdown and secure an aeroplane;

(b) complete post-flight administration.

3.8 General requirements

Note The relevant competency standards are in unit codes NTS1, NTS2, TR-SEA, and CIR for IFR operations.

(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 flight;

(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 grant of the type rating, is not an assessable item unless the applicant uses the system during the flight;

(b) emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe are simulated and limited to those described in the AFM;

(c) for subclause 1.2, the flight has 2 components and includes knowledge and activities and manoeuvres for operating the aircraft under the VFR and under the IFR as follows:

(i) the component for VFR operations includes general handling manoeuvres;

(ii) the component for IFR operations includes the standards required to conduct an IFR operation in a single-engine aeroplane covered by the type rating.

4.2 The following conditions apply to the flight test:

(a) activities and manoeuvres are performed in accordance with published procedures;

(b) conducted in 1 of the following:

(i) an aeroplane that is covered by the type rating, except where the flight test must be conducted in an approved flight simulator in accordance with subregulation 61.245 (2); or

(ii) a flight simulator approved for the purpose;

(c) except for paragraph (e), conducted by day under the VFR;

(d) if the aerodrome cross-wind conditions for the runway used during the test are less than 70% of the maximum in the AFM, evidence that the applicant has demonstrated competency performing cross-wind take-off and landing manoeuvres may be taken from the applicant's training records;

(e) for subclause 1.2, the flight test includes conducting an IFR operation;

(f) if the flight test is conducted in a flight simulator, the following activities may be assessed by oral questioning:

(i) paragraph 3.1 (b) — perform a pre-flight inspection;

(ii) subclause 3.7 — Shut down and post-flight.

Appendix L.7 Single-engine helicopter type rating flight test

1. Flight test requirements

1.1 An applicant for a single-engine helicopter type rating flight test must demonstrate the following:

(a) knowledge of the topics listed in clause 2;

(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 flight test.

1.2 An applicant who completes a flight test in a helicopter covered by a single-engine helicopter type rating and meets the flight test standard for the grant of a pilot licence with helicopter category rating is taken to meet these flight test requirements.

2. Knowledge requirements

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

(a) privileges and limitations of the type rating;
(b) flight review requirements;
(c) navigation and operating systems;
(d) normal, abnormal and emergency flight procedures;
(e) operating limitations;
(f) weight and balance limitations;
(g) aircraft performance data, including take-off and landing performance data;
(h) flight planning.

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 code TR-SEH.

(a) perform pre-flight actions and procedures;
(b) perform a pre-flight inspection.

3.2 Ground operations, take-off, departure and climb

Note The relevant competency standards are in unit code TR-SEH.

(a) complete all relevant checks and procedures;
(b) lift-off and hover a helicopter;
(c) taxi a helicopter;
(d) air transit a helicopter;
(e) plan, brief and conduct take-off and departure procedures;
(f) conduct a maximum performance take-off;
(g) conduct climbs on a constant heading and climbing turns, including at least 2 of the following:
  (i) maximum rate climb;
  (ii) maximum (best) angle climb;
  (iii) cruise climb.

3.3 En route cruise

Note The relevant competency standards are in unit code TR-SEH.

(a) maintain straight and level flight, and turn a helicopter;
(b) navigate using instrument navigation systems.

3.4 Test specific manoeuvres

Note The relevant competency standards are in unit code TR-SEH.

(a) hover helicopter in cross-wind and tailwind conditions and perform turns around 1 of the following:
  (i) rotor mast;
  (ii) helicopter nose;
  (iii) helicopter tail;
(b) perform sidewards and backwards flight;
(c) conduct steep level turns of at least 45˚ angle of bank;
(d) perform autorotative flight manoeuvres;
(e) land on and lift off from sloping ground;
(f) execute a limited power take-off, approach and landing;
(g) perform a forced landing from level flight;

(h) manage an engine failure during hover or taxi;
(i) manage a control or tail rotor malfunction in flight and at the hover;
(j) manage at least 1 of the following:
(i) an engine fire;
(ii) electrical failure;
(iii) hydraulic system malfunction;
(iv) airframe fuel system malfunction;
(v) engine governor system malfunction.

3.5 Descent and arrival

Note The relevant competency standards are in unit code TR-SEH.

(a) conduct descents and descending turns;
(b) plan and conduct aerodrome or helicopter landing site arrival and circuit joining procedures.

3.6 Circuit, approach and landing

Note The relevant competency standards are in unit code TR-SEH.

(a) conduct a normal circuit pattern, approach and landing;
(b) conduct approach to the hover;
(c) conduct helicopter air transit;
(d) perform a go-around procedure;
(e) perform after-landing actions and procedures.

3.7 Shut down and post-flight

Note The relevant competency standards are in unit code TR-SEH.

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

3.8 General requirements

Note The relevant competency standards are in unit codes NTS1, NTS2 and TR-SEH.

(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 airspace;
(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 that is not required for the flight is not an assessable item unless it is used by the applicant;
(b) 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 flight test:

(a) activities and manoeuvres are performed in accordance with published procedures;
(b) conducted in a helicopter that is covered by the type rating or a flight simulator approved for the purpose;
(c) conducted by day under the VFR;
(d) assessment of competency for activities and manoeuvres that require the applicant to operate the helicopter in cross-wind and tailwind conditions may be taken from the applicant's training records if the conditions are insufficient;

(e) if the flight test is conducted in a flight simulator, the following activities may be assessed by oral questioning:

(i) paragraph 3.1 (b) — perform a pre-flight inspection;

(ii) subclause 3.7 — Shut down and post-flight.

Appendix L.8 Multi-engine aeroplane type rating flight test

1. Flight test requirements

1.1 An applicant for a multi-engine aeroplane type rating flight test must demonstrate the following:

(a) knowledge of the topics listed in subclause 2.1;

(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 flight test.

1.2 For paragraph 61.790 (a), if the flight test for the rating is conducted under the IFR, the applicant must demonstrate his or her knowledge of the items in subclause 2.2 and his or her competency in the activities and manoeuvres in clause 3, as they apply to operating the aircraft under the IFR.

2. Knowledge requirements

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

(a) privileges and limitations of the type rating;

(b) flight review requirements;

(c) navigation and operating systems;

(d) normal, abnormal and emergency flight procedures;

(e) operating limitations;

(f) weight and balance limitations;

(g) aircraft performance data, including take-off and landing performance data;

(h) flight planning.

2.2 For subclause 1.2, the additional topics are the following:

(a) privileges and limitations of the type rating with respect to conducting IFR operations;

(b) navigation and flight management systems;

(c) conducting IFR operations in an aeroplane covered by the rating.

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 TR-MEA and CIR for IFR operations.

(a) perform pre-flight actions and procedures;

(b) perform a pre-flight inspection.

3.2 Ground operations, take-off, departure and climb

Note The relevant competency standards are in unit codes TR-MEA and CIR for IFR operations.

(a) complete all relevant checks and procedures;

(b) taxi an aeroplane;

(c) plan, brief and conduct a take-off and the following as applicable:

(i) for a VFR operation, VFR departure procedures;

(ii) for a IFR operation, an instrument departure procedure;

(d) conduct cross-wind take-off;

(e) conduct climb profiles and climbing turns.

3.3 En route cruise

Note The relevant competency standards are in unit codes TR-MEA and CIR for IFR operations.

(a) maintain straight and level flight, and turn aeroplane;

(b) establish and maintain cruise flight in at least 1 of the following conditions:
  (i) turbulence;
  (ii) holding;
  (iii) range;
(c) navigate using instrument navigation systems.

3.4 Test specific activities and manoeuvres

Note The relevant competency standards are in unit codes TR-MEA and CIR for IFR operations.

(a) conduct 2 approach to the stall and recovery manoeuvres, 1 of which must be in the approach configuration and 1 in any other configuration;
(b) perform full panel instrument flying;
(c) using a full instrument panel, recover from at least 2 unusual attitude manoeuvres;
(d) manage an incident or malfunction during take-off that requires a rejected take-off procedure;
(e) manage an engine failure during the take-off where IAS is equal to or greater than V_1;
(f) manage an engine failure in flight;
(g) conduct an approach to land with 1 engine inoperative;
(h) conduct a missed approach to land with 1 engine inoperative;
(i) manage a malfunction of any aircraft system other than 1 that has been applied in paragraphs 3.4 (d) to (g).

3.5 Descent and arrival

Note The relevant competency standards are in unit code TR-MEA and for IFR operations in unit codes CIR and IAP2.

(a) conduct descent profiles and descending turns;
(b) complete 1 of the following:
  (i) for a VFR operation, plan and conduct aerodrome arrival and circuit joining procedures;
  (ii) for an IFR operation, plan and conduct the following:
    (A) an instrument arrival;
    (B) a 2D instrument approach procedure;
    (C) a missed approach procedure.

3.6 Circuit, approach and landing

Note The relevant competency standards are in unit codes TR-MEA and CIR for IFR operations.

(a) conduct a normal circuit pattern, approach and landing;
(b) conduct cross-wind landing;
(c) perform a go-around procedure;
(d) perform after-landing actions and procedures.

3.7 Shut down and post-flight

Note The relevant competency standards are in unit codes A1 and C2.

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

3.8 General requirements

Note The relevant competency standards are in unit codes NTS1, NTS2, TR-MEA and CIR for IFR operations.

(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 flight;
(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 grant of the type rating, is not an assessable item unless the applicant uses the system during the flight;

(b) emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe are simulated and limited to those described in the AFM;

(c) for subclause 1.2, the flight has 2 components and includes knowledge and activities and manoeuvres for operating the aircraft under the VFR and under the IFR.

(i) the component for VFR operations includes general handling manoeuvres;

(ii) the component for IFR operations includes the standards required to conduct an IFR operation in a multi-engine aeroplane covered by the type rating.

4.2 The following conditions apply to the flight test:

(a) activities and manoeuvres are performed in accordance with published procedures;

(b) conducted in 1 of the following:

(i) an aeroplane that is covered by the type rating, except where the flight test must be conducted in an approved flight simulator in accordance with subregulation 61.245 (2); or

(ii) a flight simulator approved for the purpose;

(c) except for paragraph (e), conducted by day under the VFR;

(d) if the aerodrome cross-wind conditions for the runway used during the test are less than 70% of the maximum in the AFM, evidence that the applicant has demonstrated competency performing cross-wind take-off and landing manoeuvres may be taken from the applicant's training records;

(e) for subclause 1.2, the flight test includes conducting an IFR operation;

(f) if the flight test is conducted in an FSTD, the following activities may be assessed by oral questioning:

(i) paragraph 3.1 (b) — perform a pre-flight inspection;

(ii) subclause 3.7 — Shut down and post-flight.

Appendix L.9 Multi-engine helicopter type rating flight test

1. Flight test requirements

1.1 An applicant for a multi engine helicopter type rating flight test must demonstrate the following:

(a) knowledge of the topics listed in clause 2.1;

(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 flight test.

1.2 For paragraph 61.790 (a), if the flight test for the rating is conducted under the IFR, the applicant must demonstrate his or her knowledge of the items in subclause 2.2 and his or her competency in the activities and manoeuvres in clause 3, as they apply to operating the aircraft under the IFR.

2. Knowledge requirements

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

(a) privileges and limitations of the type rating;

(b) flight review requirements;

(c) navigation and operating systems;

(d) normal, abnormal and emergency flight procedures;

(e) operating limitations;

(f) weight and balance limitations;

(g) aircraft performance data, including take-off and landing performance data;

(h) flight planning.

2.2 For subclause 1.2, the additional topics are the following:

(a) privileges and limitations of the type rating with respect to conducting IFR operations;

(b) navigation and flight management systems;

(c) conducting IFR operations in a helicopter covered by the rating.

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 code TR-MEH.

(a) perform pre-flight actions and procedures;

(b) perform a pre-flight inspection.

3.2 Ground operations, take-off, departure and climb

Note The relevant competency standards are in unit code TR-MEH.

(a) complete all relevant checks and procedures;

(b) lift-off and hover a helicopter;

(c) taxi a helicopter;

(d) air transit a helicopter;

(e) plan, brief and conduct a take-off and the following as applicable:

(i) for a VFR operation, VFR departure procedures;

(ii) for an IFR operation, an instrument departure procedure;

(f) conduct a maximum performance take-off;

(g) conduct climbs on a constant heading and climbing turns, including at least 2 of the following:

(i) maximum rate climb;

(ii) maximum (best) angle climb;

(iii) cruise climb.

3.3 En route cruise

Note The relevant competency standards are in unit code TR-MEH.

(a) maintain straight and level flight, and turn a helicopter;

(b) navigate using instrument navigation systems.

3.4 Test specific manoeuvres

Note The relevant competency standards are in unit code TR-MEH.

(a) hover helicopter in cross-wind and tailwind conditions and perform turns around 1 of the following:

(i) rotor mast;

(ii) helicopter nose;

(iii) helicopter tail;

(b) perform sidewards and backwards flight;

(c) conduct steep level turns of at least 45˚ angle of bank;

(d) perform full panel instrument flying;

(e) using a full instrument panel, recover from at least 2 unusual attitude manoeuvres;

(f) land on and lift off from sloping ground;

(g) execute a limited power take-off, approach and landing;

(h) manage an engine failure – at least 1 from take-off, cruise flight or approach and landing;

(i) manage an engine failure during hover or taxi;

(j) manage a control or tail rotor malfunction in flight and at the hover;

(k) manage at least 1 of the following:

(i) an engine fire;

(ii) electrical failure;

(iii) hydraulic system malfunction;

(iv) airframe fuel system malfunction;

(v) engine governor system malfunction.

3.5 Descent and arrival

Note The relevant competency standards are in unit code TR-MEH.

(a) conduct descent profiles and descending turns;

(b) complete 1 of the following:

(i) for a VFR operation, plan and conduct an aerodrome or helicopter landing site arrival and circuit joining procedures;

(ii) for an IFR operation, plan and conduct the following:

(A) an instrument arrival;

(B) a 2D instrument approach procedure;

(C) a missed approach procedure.

3.6 Circuit, approach and landing

Note The relevant competency standards are in unit code TR-MEH.

(a) conduct a normal circuit pattern, approach and landing;

(b) conduct an approach to the hover;

(c) conduct a helicopter air transit;

(d) perform a go-around procedure;

(e) perform after-landing actions and procedures.

3.7 Shut down and post-flight

Note The relevant competency standards are in unit code TR-MEH.

(a) park, shutdown and secure a helicopter;

(b) complete post-flight administration.

3.8 General requirements

Note The relevant competency standards are in unit codes NTS1, NTS2 and TR-MEH.

(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 state;

(i) communicate effectively using appropriate procedures for airspace;

(j) manage the aircraft systems required for the flight;

(k) manage fuel system and monitor fuel plan and usage.

4. Operational scope and conditions

4.1 The following operational scope applies to the flight test:

(a) managing an aircraft system that is not required for the flight is not an assessable item unless it is used by the applicant;

(b) if the type rating is for a multi-crew certified helicopter, the roles of Pilot Flying and Pilot Monitoring must be demonstrated by the applicant;

(c) emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe are simulated and limited to those described in the AFM;

(d) for subclause 1.2, the flight has 2 components and includes knowledge and activities and manoeuvres for operating the aircraft under the VFR and under the IFR as follows:

(i) the component for VFR operations includes general handling manoeuvres;

(ii) the component for IFR operations includes the standards required to conduct an IFR operation in a multi-engine helicopter covered by the type rating.

4.2 The following conditions apply to the flight test:

(a) activities and manoeuvres are performed in accordance with published procedures;

(b) conducted in 1 of the following:

(i) a multi-engine helicopter covered by the type rating, except where the flight test must be conducted in an approved flight simulator in accordance with subregulation 61.245 (2); or

(ii) an FSTD approved for the purpose;

(c) except for paragraph (e), conducted by day;

(d) assessment of competency for activities and manoeuvres that require the applicant to operate the helicopter in cross-wind and tailwind conditions may be taken from the applicant's training records if the conditions are insufficient;

(e) for subclause 1.2, the flight test includes conducting an IFR operation;

(f) if the flight test is conducted in an FSTD, the following activities may be assessed by oral questioning:

(i) paragraph 3.1 (c) — perform a pre-flight inspection;

(ii) subclause 3.7 — Shut down and post-flight.

Appendix L.10 Cruise relief co-pilot rating flight test

1. Flight test requirements

An applicant for a cruise relief co-pilot rating flight test must demonstrate the following:

(a) knowledge of the topics listed in clause 2;

(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 flight test.

2. Knowledge requirements

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

(a) privileges and limitations of the type rating;

(b) flight review requirements;

(c) navigation and operating systems;

(d) normal, abnormal and emergency flight procedures;

(e) operating limitations;

(f) weight and balance limitations;

(g) aircraft performance data, including take-off and landing performance data;

(h) flight planning.

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 code TR-CR.

Perform pre-flight actions and procedures.

3.2 Ground operations, take-off, departure and climb

Note The relevant competency standards are in unit code TR-CR.

Conduct climb profiles and climbing turns.

3.3 En route cruise

Note The relevant competency standards are in unit code TR-CR.

(a) maintain straight and level flight, and turn aeroplane;

(b) establish and maintain cruise flight for at least 1 of the following conditions:

(i) turbulence;

(ii) holding;

(iii) range;

(c) navigate using instrument navigation systems.

3.4 Test specific activities and manoeuvres

Note The relevant competency standards are in unit code TR-CR.

(a) conduct 2 approaches to the stall and recovery manoeuvres, 1 of which must be in the approach configuration and 1 in any other configuration;

(b) perform full panel instrument flying;

(c) using a full instrument panel, recover from at least 2 unusual attitude manoeuvres;

(d) manage an engine failure in flight;

(e) conduct an approach to land with 1 engine inoperative;

(f) conduct a missed approach to land with 1 engine inoperative;

(g) manage a malfunction of any aircraft system other than one that has been applied in paragraphs 3.4 (d) to (f).

3.5 Descent and arrival

Note The relevant competency standards are in unit code TR-CR.

(a) conduct descent profiles and descending turns;

(b) plan and conduct aerodrome arrival and circuit joining procedures.

3.6 Circuit, approach and landing

Note The relevant competency standards are in unit code TR-CR.

(a) conduct a normal circuit pattern, approach and landing;

(b) conduct a cross-wind landing;

(c) perform a go-around procedure;

(d) perform after-landing actions and procedures.

3.7 Shut down and post-flight

Note The relevant competency standards are in unit code TR-CR.

(a) park, shutdown and secure an aeroplane;

(b) complete post-flight administration.

3.8 General requirements

Note The relevant competency standards are in unit codes NTS1, NTS2 and TR-CR.

(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 flight;

(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 grant of the type rating, is not an assessable item unless the applicant uses the system during the flight;

(b) 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 flight test:

(a) activities and manoeuvres are performed in accordance with published procedures;

(b) conducted in:

(i) an aeroplane that is covered by the type rating, except where the flight test must be conducted in an approved flight simulator in accordance with subregulation 61.245 (2); or

(ii) a flight simulator that is approved for the purpose;

(c) conducted as an IFR operation;

(d) if the flight test is conducted in a flight simulator, the following activities may be assessed by oral questioning:

(i) subclause 3.1 — Pre-flight;

(ii) subclause 3.7 — Shut down and post-flight.

Appendix L.12 Cruise relief flight engineer rating

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