

# FLIGHT TEST STANDARDS GUIDE

# AIRLINE TRANSPORT PILOT LICENCE ISSUE

# HELICOPTER

Assessment criteria for the guidance of flight examiners

**Revision 1 January 2014** 

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#### Foreword

Flight Test Standards Guides have been compiled for use by both flight examiners and flight instructors and are at present the acceptable means of compliance for use in conjunction with specific flight test syllabuses prescribed in the appropriate CAA Advisory Circulars.

Flight Test Standards Guides were developed by John Parker, the CAA General Aviation Examiner. Ken Wells and Grant Withers contributed significantly to this ATPL (Helicopter) examiner guide. Subsequent consultation with industry flight examiners has resulted in further refinement.

All initial issue flight tests are to be conducted in accordance with the parameters laid down in this guide. This applies to:

- Part 119 organisations
- Part 141 flight testing organisations
- Delegated flight testing organisations
- · All flight examiners

Any feedback regarding this publication should be directed to info@caa.govt.nz

**Change notice** 

Minor editorial

#### Introduction

This guide contains standards for the Airline Transport Pilot Licence (Helicopter) issue flight test and is to be used by flight examiners who hold the examiner privilege of Airline Transport Pilot Licence issue flight test (Helicopter).

Flight instructors may also use this booklet when preparing candidate's for flight tests. However, flight instructors are reminded of their obligation to teach to a syllabus rather than the specific flight test requirements.

This flight test guide is based upon the following references;

- · CAR Part 61 Pilot Licences and Ratings.
- Advisory Circular to Part 61, Pilot Licences and Ratings.
- · CAR Part 91 General Operating Flight Rules.
- · CAR Part 119/135.
- · AIPNZ.
- Helicopter Flight Manuals.
- The organisation's Operations Manual(s).
- · NASA Crew Performance Indicators.
- · ICAO Flight Crew Licensing and Training Panel (FCLTP) reports.
- · ICAO Threat and Error Management guidance material.
- Gronlund, N.E., & Linn, R.L. (1990). <u>Measurement and evaluation in</u> <u>teaching</u>. (6<sup>th</sup> ed.) New York: Macmillan.
- FAA Practical Test Standards.
- The Instrument Rating Flight Test Standards Guide.

#### Flight test standard concept

Civil Aviation Rule (CAR) Part 61 and the associated Advisory Circulars (AC) specify the areas in which knowledge and skill must be demonstrated by the candidate before a pilot licence or rating is issued.

Flight test standards guides; provide the flexibility to permit the CAA to publish flight test standards containing specific TASKS (procedures and manoeuvres) in which pilot competency must be demonstrated.

Adherence to the provisions of the appropriate flight test standard is mandatory for the evaluation of pilot candidates.

# Flight test guide description

Flight test guides are available to flight examiners and appropriately qualified flight instructors on the CAA website <u>www.caa.govt.nz</u> and amendments are notified to those who register (as Flight instructors) for the free email notification service.

This flight test guide has been designed to minimise the degree of subjectivity in the test although the examiner will still have to exercise judgement where weather factors such as turbulence and wind shear affect the helicopter's performance.

The assessment criteria, defines performances that are 'ideal' and 'not yet competent', more importantly a 'competent' performance is also defined.

Generally the terms sufficient and adequate are used to describe the minimum acceptable performance while the terms thorough, sound, accurate, correct, fully, and exactly are used to describe the desired 'ideal' performances at the top end of the scale.

The rating scale 0 - 100 with competence achieved at 70% and an above average performance achieved at 85% may also be used if preferred.

## Flight test standard description

TASKS are procedures and manoeuvres appropriate to the demonstration required for Airline Transport Pilot Licence (Helicopter) issue.

The OBJECTIVE that appears below the task relates that task to the regulatory requirement and lists the important elements that must be satisfactorily performed to demonstrate competency in that task.

The minimum acceptable standard of performance for a task is described in the column stating COMPETENT performance.

The ideal level of competence for a task is described in the right column. In many cases the perfect performance may not be achievable but is simply stated as an ideal against which performance can be measured.

Unacceptable performance of a task is described in the NOT YET COMPETENT column.

The ACTION assists the flight examiner in ensuring that the task objective is met, and in some instances, alerts the flight examiner to areas upon which emphasis should be placed.

The conditions under which the task is to be performed are expanded on under the 'satisfactory/unsatisfactory performance' headings, which follow.

# Use of the flight test guide

The CAA requires that each flight test be conducted in compliance with the appropriate flight test standard. When using the flight test guide the flight examiner must evaluate the candidate's knowledge and skill in sufficient depth to determine that the standards of performance listed for the tasks are met.

When the flight examiner determines, during the performance of one task, that the knowledge and skill of another task is met, it may not be necessary to require performance of the other task.

The flight examiner is not required to follow the exact order in which the tasks appear. The flight examiner may change the sequence or combine tasks with similar objectives to save time. Flight examiners will develop a plan of action that includes the order and combination of tasks to be demonstrated by the candidate in a manner that will result in an efficient and valid test.

Flight examiners will place special emphasis on areas of helicopter operation that are most critical to flight safety. Among these areas are correct helicopter control within the manufacturer's limitations, fuel management, sound judgement in decision making, emergency procedures, helicopter performance awareness, spatial orientation, terrain awareness and situational awareness, collision avoidance, wake turbulence avoidance, and use of checklists where appropriate. Although these areas may not be shown under each task, they are essential to flight safety and will receive careful evaluation throughout the flight. If these areas are shown in the objective, additional emphasis will be placed on them.

#### **Evaluation methods**

Evaluation methods, as used by flight instructors, must not be confused with the evaluation used by flight examiners. Flight instructors use three forms of evaluation. These are: placement, formative and diagnostic.

#### **Placement** evaluation

"Placement evaluation is concerned with the pupil's entry performance and typically focuses on....does the pupil possess the knowledge and skills needed to begin the planned instruction?" (Gronlund & Linn, 1990, p.12). This type of evaluation is, for example, commonly carried out by the C.F.I on a student, new to the organisation that already has some flying experience, before briefing and assigning an instructor to continue the student's training.

#### Formative evaluation

"Formative evaluation is used to monitor learning progress during instruction. Its purpose is to provide continuous feedback to both pupil and teacher concerning learning successes and failures" (Ibid., p.12). This type of evaluation is an on-going process. It is used throughout the student's training, during every instructional period. "Since formative evaluation is directed toward improving learning and instruction, the results are typically *not* used for assigning course grades" (Ibid., p.13).

#### Diagnostic evaluation

"The main aim of diagnostic evaluation is to determine the cause of persistent learning problems and to formulate a plan for remedial action" (Ibid., p.13). This type of evaluation is used by flight instructors to determine why a student is having problems executing a TASK, for example; gaining or losing height in the turn.

Whereas flight examiners use only summative evaluation.

#### Summative evaluation

Summative evaluation "is used primarily …for certifying pupil mastery of the intended learning outcomes." (Ibid., p.13). It is used by flight examiners to assess the candidate's performance against stated minimum standards. *Wherever possible* summative evaluation should be carried out by an independent examiner (not directly involved in the candidate's training).

# Formative evaluation and flight instruction have no place in summative evaluation.

Flight instructors who hold flight examiner privileges must totally separate the types of evaluation they use as flight instructors, from the requirements of summative evaluation when as flight examiners, they conduct a flight test on behalf of the Civil Aviation Authority.

Because the flight examiner is **only** assessing the candidate's performance against stated minimum standards, the examiner is not designated as the pilot-in-command (except in those cases where it is required by CAR), nor is the examiner giving instruction. However, flight examiners are credited with the flight time during a flight test and may log the flight time as pilot-in-command, but not as instruction.

#### Flight examiner responsibility

The Flight Examiner who conducts the issue flight test is responsible for determining that the candidate meets the standards outlined in the objectives of each TASK.

The examiner shall meet this responsibility by taking an ACTION that is appropriate for each task.

For each task that involves "knowledge only" elements, the flight examiner will orally question the candidate on those elements.

For each task that involves both "knowledge and skill" elements, the flight examiner will orally question the candidate on the knowledge elements and ask the candidate to perform the skill elements. Oral questioning may be used at any time during the flight test.

To minimise the risk of misunderstandings, the examiner will:

- (a) Ask the candidate to verbalise all checklists and nominated speeds.
- (b) Brief the candidate on the flight format.

- (c) Brief the candidate as to who is pilot-in-command.
- (d) Brief the candidate as to the simulated weather conditions.

During the instrument flight phases, the examiner will:

(a) Assume the responsibilities of safety pilot.

#### Satisfactory performance

The ability of a candidate to perform the required TASK is based on;

- (a) Executing tasks within the helicopter's performance capabilities and limitations as stated in the flight manual, including use of the helicopter's systems,
- (b) Executing emergency procedures and manoeuvres, appropriate to the helicopter and in accordance with recommended procedures,
- (c) Piloting the helicopter with smoothness and accuracy, in accordance with the limitations detailed in this guide,
- (d) Executing all exercises involving balanced flight with no more than 1/4 ball (or equivalent) sustained deflection in slip or skid,
- (e) Exercising sound judgement/decision making and maintaining situational awareness,
- (f) Applying aeronautical knowledge (e.g. principles of flight) to in-flight situations,
- (g) Completing all items in accordance with the tolerances prescribed in this guide, in smooth air,
- (h) Showing complete control of the helicopter, crew and simulated passengers, with the successful outcome of a task never seriously in doubt,
- (i) Demonstrate proper management of the co-pilot, dividing in-flight responsibilities so as to utilise the co-pilot in a meaningful way, and
- (j) Executing elements of a task described as "**critical**" to at least the minimum acceptable performance level on the first attempt.

#### Unsatisfactory performance

If, in the judgement of the flight examiner, the candidate does not meet the minimum standard of any task performed, the task demonstration is failed and therefore the flight test is failed.

The examiner may permit a second attempt at any (maximum 3) task(s) or element(s) [other than **critical tasks or elements**], provided that, in the opinion of the examiner, the safety of the helicopter was not compromised, the professional standing of the licence would not be diminished or a clear misunderstanding of the examiner's requirements occurred.

The flight examiner or candidate may discontinue the issue test at any time after the failure of a task makes the candidate ineligible to pass the flight test. The test will ONLY be continued with the consent of the candidate.

Exceeding CPL (H) and/or IR tolerances (as applicable) is unsatisfactory performance.

An excessive allowance for poor candidate performance due to weather conditions should not be made. Rather, the candidate's decision making process, in electing to commence or continue, should be questioned.

Failure to apply and practice appropriate threat and error, and crew resource management techniques and principles during the flight test is unsatisfactory performance.

Failure to take prompt corrective action when tolerances are exceeded is unsatisfactory performance.

Flight that is maintained within the stated tolerances but deviates from the maximum positive limit to the maximum negative limit is unsatisfactory performance.

Any action or lack of action by the candidate, which requires corrective intervention by the flight examiner to maintain safe flight, will be disqualifying.

It is vitally important that the candidate uses proper scanning techniques to clear the area before performing manoeuvres. Ineffective performance will be disqualifying.

Unsatisfactory performance in any item will result in the candidate and the instructor being advised of the failure aspects and the additional training believed necessary before a further flight test may be undertaken.

#### **Recording unsatisfactory performance**

The term TASK is used to denote areas in which competency must be demonstrated. When performance is unsatisfactory the flight examiner must record it on the flight test report against the specific task.

#### Use of distractions during flight tests

Numerous studies indicate that many accidents have occurred when the pilot's attention has been distracted during various phases of flight. Many accidents have resulted, where safe flight was possible if the pilot had used correct control technique and divided attention properly.

Distractions that have been found to cause problems are;

- (a) Preoccupation with situations inside or outside the cockpit,
- (b) Manoeuvring to avoid other traffic,
- (c) Manoeuvring to clear obstacles during take-off, approach or landing.

To strengthen this area of pilot training and evaluation the flight examiner will provide realistic distractions, from time to time, during the flight. Some examples of distractions that may be used to evaluate the candidate's ability to divide attention while maintaining safe flight are;

- (a) Simulating engine failure,
- (b) Limited questioning by the flight examiner,
- (c) General conversation, typical of an inquiring crew member.

#### Use of checklists

Throughout the flight test the candidate is evaluated on the use of checklists. The candidate should complete an appropriate set of checks for the task in hand (e.g. take-off and landing, descent and approach).

It is expected that the candidate will utilise the pilot monitoring, being either another flight crew member or the flight examiner, to read the checklists as appropriate.

#### Application of threat and error management techniques

The candidate is expected to apply Threat and Error Management (TEM) techniques throughout the various tasks which makeup the flight test. While one task is specifically dedicated to Threat and Error Management techniques, they should be practised as appropriate throughout the flight.

#### Application of crew resource management principles

The candidate is also expected to apply Crew Resource Management (CRM) principles throughout the various tasks which makeup the flight test. There are a number of specific tasks focusing on the various aspects of CRM, however as for TEM techniques, CRM principles should be practised as appropriate throughout the flight.

#### The role of the flight examiner during the flight test

The flight examiner will:

- (a) Brief the candidate on the respective roles and duties of the candidate, other crew and the flight examiner during the flight test;
- (b) Role play the parts of pilot monitoring, cabin crew, ATS, company and outside agencies, as required during the flight test. In the case of acting as a suitably rated co-pilot, the examiner will perform those duties by neither being obstructive nor above average, primarily relying on prompts from the candidate;
- (c) Brief the candidate on the structure and outline of the flight test, including, in general terms, any malfunctions;
- (d) Brief the candidate on the criteria/tolerances to be applied;
- (e) Act as safety pilot during flight (as well as other flight crew);
- (f) Require the candidate to make operational calculations as required;
- (g) Advise the candidate of nominated/simulated operational information, weather conditions and the status of systems;
- (h) (If applicable), programme the simulator as required, to facilitate the candidate's demonstration of the objectives;
- (i) Instruct the candidate to perform manoeuvres and procedures as required;
- Liaise as required with the applicable ATS units to ensure all aspects of the flight are completed safely and in accordance with appropriate clearances;
- (k) Question the candidate as required, to assess the candidate's achievement of the objectives.

#### Flight test prerequisites

A candidate for ATPL (H) issue flight test is required by Civil Aviation Rule to;

- (a) Hold appropriate current written examination credit(s), and
- (b) Present all relevant knowledge deficiency reports; and
- (c) Have a certified logbook record of the requisite flight experience, and
- (d) Have proof of their identity, and
- (e) Hold a current CPL(H) or equivalent, and
- (f) Hold an instrument rating, and
- (g) Hold CPL(H) night cross country privileges, and
- (h) Hold a current Class 1 Medical Certificate, and
- (i) Hold a type rating for the helicopter used on the flight test.

#### Helicopter and equipment requirements for flight test

The candidate is required to provide a multi-engine helicopter approved for IFR operations or an approved flight simulator for the test. The helicopter or approved flight simulator must be equipped for, and its operating limitations must not prohibit, flight under IFR and all other pilot operations required during the test. Required equipment will include;

- (a) Fully functioning dual flight controls, and
- (b) Those instruments essential to the manoeuvres planned to be demonstrated during the flight visible to both pilots without excessive parallax error, and
- (c) Those navigation aids essential to the demonstration of competency for renewal of an instrument rating, and
- (d) At least three-point lap-and-sash harness, and
- (e) Intercommunication equipment of an approved type, and
- (f) An acceptable means of simulating instrument flight which excludes external visual reference ("foggles" or hood recommended).

The candidate is required to provide adequate and private facilities for briefing prior to and after the flight test.

#### **Technically Enhanced Aircraft (TEA)**

A TEA is an aircraft in which all the "primary flight instruments" are displayed electronically.

#### Advice to examiners

An excessive allowance for poor performance due to weather conditions should not be made. Rather, the candidate's decision making process, in electing to commence or continue the flight test, should be questioned.

The airline transport pilot licence (helicopter) issue flight test aims to test the candidate's captaincy of a multi-crew helicopter throughout a selection of instrument and visual flight exercises.

The instrument segment of the flight test will include elements of the instrument rating flight test by filing and complying with an IFR cross-country flight plan which will specifically include:

- (a) An instrument departure;
- (b) Flight over a published route between two aerodromes/heliports, at least 25nm apart, which includes;
- (c) Holding;
- (d) Two instrument approaches (radar vectors or arc procedures to commencement are optional);
- (e) OEI missed approach procedure;

And in VMC using suitable IMC simulation:

(f) Full and limited panel unusual attitudes – with and without the benefit of stabilisation systems (if the flight manual permits); and

Use of the auto-pilot and/or stabilisation system by the candidate is at the examiner's discretion.

It is neither recommended nor required that unusual attitudes be carried out in IMC. As a guide it is best to postpone the flight test if the forecast or expected cloud base will be below the minimum descent altitude of the approach procedure base turn. Not because operationally an instrument flight would be inadvisable, but because

the specific simulated emergencies required to be demonstrated for the flight test cannot be assured of being completed safely.

If, due to weather, the unusual attitudes cannot be demonstrated, the examiner may defer the demonstration for up to 30 days.

Where you (the examiner) act as co-pilot for the purpose of the flight test you should perform your duties by neither being obstructive or above average, primarily relying on prompts from **the captain**.

Complete the airline transport pilot licence helicopter flight test report form and record the type of departure, approaches, normal and emergency exercises in the comments section. In the event of a fail, use the comments section to **detail** the reason.

Because not all elements of an IR renewal are demonstrated during the ATPL issue flight test, satisfactory performance does not constitute an IR renewal.

Pass or fail, give a copy of the flight test form to the candidate and send a copy of the flight test form to CAA.

In the event of a pass, endorse the logbook:

I hereby certify that	has successfully demonstrated competency in
accordance with the ATPL issue	flight test syllabus in a multi-engine helicopter.
Examiner:	Sign:
Client ID:	Date:

#### Assessment Criteria

#### Task: Personal preparation

#### **Objective:**

To determine that the candidate demonstrates a suitable professional attitude by:

- (a) Arriving for the test or review:
  - 1. Punctually.
  - 2. Suitably attired (in keeping with this professional qualification).
  - 3. Fit for flying.
- (b) Presenting:
  - 1. An up to date, summarised and certified pilot's logbook.
  - 2. A current CPL (H) or equivalent, endorsed with a current instrument rating. Holds a night cross country rating.
  - 3. The appropriate current written examination credits and knowledge deficiency reports (if applicable).
  - 4. A current AIP Volume 1 to 4 and appropriate charts, or the Jeppesen equivalent.
- (c) Demonstrating knowledge of the licensing, privileges and currency requirements of an airline transport pilot.

# Action:

- (a) Observe the candidate's punctuality, attire, and as far as practicable, determine that the candidate is fit to fly.
- (b) By examination of the candidate's logbook, determine that all statutory flight time requirements have been met.
- (c) Ensure that the candidate holds the appropriate (current) exam credit(s) and commercial pilot's licence or equivalent.
- (d) Determine that the candidate's AIP Volume 1 to 4 and charts, or Jeppesen equivalent, are current.
- (e) Determine that the candidate has adequate knowledge of the privileges and currency requirements of an airline transport pilot.

Ra	ting7	0	8	85	100	
	Not yet competent		COMPETENT			
(1)	Unacceptably late	(1)	Late with acceptable excuse	(1)	Arrives punctually	
(2)	Dressed inappropriately for flying (wears jandals/high heels)	(2)	Dressed in keeping with a professional qualification			
(3)	Is physically or mentally unfit for the flight test and/or does not comply with any medical restriction endorsed on their medical certificate	(3)	Fit for the flight test but clearly nervous	(3)	Fit for the flight test and clearly confident and enthusiastic	
(4)	Logbook records incomplete, minimum flight times not met	(4)	Logbook records up to date, summarised and certified	(4)	Logbook records are neat and complete in all respects	
(5)	Is unable to present evidence of written credits or present certified knowledge deficiency reports	(5)	Presents appropriate and current written credits and relevant knowledge deficiency reports	(5)	Subjects noted in relevant knowledge deficiency reports are now fully understood	
(6)	AIP Volume 1 to 4 and/or charts are not available or not current	(6)	The applicable sections of the AIP Volume 1 to 4 and charts are available and current	(6)	AIP Volume 1 to 4 and charts are current and readily available throughout the flight	
(7)	Unaware of licence privileges and/or currency requirements	(7)	Demonstrates a basic knowledge of privileges and currency requirements	(7)	Demonstrates a thorough knowledge of privileges and currency requirements	

#### **Personal Preparation**

#### Task: Meteorology

#### **Objective:**

To determine that the candidate:

- Exhibits adequate knowledge of aviation meteorology by obtaining, reading and analysing weather information including ARFORs; SIGWX; wind and temperature charts; TAFs; METARs, METAR AUTOs; SPECIs; SIGMETs; and other information.
- (b) Makes a sound decision, based on the meteorological data, whether or not to proceed with the flight (**critical element**).
- (c) Can apply relevant weather information to the planned flight (**critical element**).

# Action:

- (a) Determine that the candidate has obtained all relevant weather information relating to the flight test or hypothetical IFR flight.
- (b) Require the candidate to analyse and explain the weather information in relation to IFR operations and determine that the candidate's performance meets the objective.
- (c) Place emphasis on the candidate's ability to interpret and apply the weather information to the planned flight, and to make a sound decision.

	Meteorology							
Ra	ting7	70		85	100			
	Not yet competent		COMPETENT					
(1)	Cannot obtain Met data	(1)	Obtains sufficient Met data to meet the requirements of the proposed or hypothetical flight	(1)	Obtains all Met data appropriate to the proposed or hypothetical flight			
(2)	Cannot read Met data	(2)	Demonstrates ability to read Met data	(2)	Demonstrates ability to analyse Met data			
(3)	Does not demonstrate an appreciation of the relevance of Met data to the proposed or hypothetical flight	(3)	Demonstrates sufficient understanding of Met data to make a decision to the satisfaction of the examiner ( <b>critical</b> <b>element</b> )	(3)	Demonstrates a thorough understanding of Met data and is able to make a sound decision whether or not to proceed with the flight			
(4)	Does not demonstrate an ability to apply the Met data to the proposed or hypothetical flight	(4)	Demonstrates sufficient ability to apply the Met data to the proposed or hypothetical flight, to the satisfaction of the examiner ( <b>critical element</b> )	(4)	Demonstrates a thorough understanding and application of Met data to the proposed or hypothetical flight			

# Task: Operational environment

#### **Objective:**

To determine that the candidate:

- (a) Exhibits adequate knowledge of operational data by obtaining, reading and analysing:
  - 1. NOTAM's
  - 2. AIP Supplements
- (b) Exhibits adequate knowledge of the contents and use of the AIP Volume 1 to 4 and appropriate charts.
- (c) Makes a sound decision based on the available operational data (**critical element**), including GNSS RAIM prediction (if applicable).

# Action:

- (a) Determine that the candidate has obtained all relevant operational data relating to the flight test or hypothetical IFR flight.
- (b) Require the candidate to analyse and explain the operational data in relation to IFR operations, and determine that the candidate's performance meets the objective.
- (c) Place emphasis on the candidate's ability to use and interpret the AIP Volume 1 to 4 and appropriate charts.
- (d) Place emphasis on the candidate's ability to interpret and apply the operational data to the planned flight, and to make a sound decision.

Ra	ting7	0	8	85	100	
	Not yet competent	COMPETENT				
(1)	Cannot obtain operational data	(1)	Obtains sufficient operational data to meet the requirements of the proposed or hypothetical flight	(1)	Obtains all operational data appropriate to the proposed or hypothetical flight	
(2)	Cannot read operational data	(2)	Demonstrates ability to read operational data	(2)	Demonstrates ability to analyse operational data	
(3)	Does not demonstrate an appreciation of the relevance of operational data to the proposed or hypothetical flight or does not carry out a GNSS RAIM prediction when applicable	(3)	Demonstrates sufficient understanding of operational data to make a decision whether or not to proceed, to the satisfaction of the examiner, and carries out a GNSS RAIM prediction when applicable	(3)	Demonstrates a thorough understanding of operational data and is able to make a sound decision whether or not to proceed	
(4)	Does not demonstrate an ability to apply the operational data to the proposed or hypothetical flight	(4)	Demonstrates sufficient ability to apply the operational data to the proposed or hypothetical flight, to the satisfaction of the examiner ( <b>critical</b> <b>element</b> )	(4)	Demonstrates a thorough understanding and application of operational data to the proposed or hypothetical flight	

#### **Operational Environment**

# Task: Flight planning

#### **Objective:**

To determine that the candidate:

- (a) Exhibits a sound knowledge of flight planning by preparing an operational and/or ATS flight plan along charted or promulgated routes between two aerodromes/heliports.
- (b) Demonstrates adequate knowledge of the conditions that would require an alternate to be nominated and the criteria for a suitable alternate (**critical element**).
- (c) Nominates a suitable alternate as and when required for the flight test or for a hypothetical situation as described by the examiner.
- (d) Demonstrates adequate knowledge of take-off, en-route, circling and approach minimums.
- (e) Applies IFR cruising levels with due regard to icing levels.

# Action:

- (a) Nominate a cross country route (25nm minimum) between two aerodromes/heliports and ensure that it meets the minimum requirements for the flight test.
- (b) Orally question aspects of the departure, en-route, approach and diversion requirements to ensure the objectives are met.
- (c) Question the candidate about the flight plan, and determine that the candidate's performance meets the objective.
- (d) Inspect the candidate's operational flight plan for the application of IFR fuel requirements, MSA and the choice of cruising level, for appropriateness in relation to IFR cruising levels and expected icing levels to determine that the candidate's performance meets the objectives.
- (e) Question the candidate on the application of MSA/MRA/MEA, freezing level, take-off, en-route and approach minima as required ensuring that the candidate's performance meets the objectives.

Ra	ting7	0	8	85	100
	Not yet competent	_	COMPETENT		
(1)	Is unable to prepare the flight plan in reasonable time or without assistance	(1)	Prepares an operational and/or ATS flight plan in reasonable time and without assistance	(1)	Correctly prepares an operational and/or ATS flight plan for the nominated route in a timely manner
(2)	Does not nominate an alternate when required to do so	(2)	Nominates a suitable alternate for the actual or hypothetical conditions ( <b>critical element</b> )	(2)	Nominates the most suitable alternate for the flight under actual or hypothetical conditions
(3)	Is unaware of minimum altitude requirements	(3)	Demonstrates adequate knowledge of DA, MDA, MSA, MRA and MEA	(3)	Demonstrates a thorough knowledge and application of DA, MDA, MSA, MRA and MEA
(4)	Is unaware of or does not apply take- off, approach and/or alternate minima	(4)	Demonstrates adequate knowledge of approach, take-off and alternate minima	(4)	Demonstrates a thorough knowledge and application of take-off, approach and alternate minima
(5)	Is unaware of IFR cruising levels or the limitations of flight in known icing conditions	(5)	Applies knowledge of icing conditions in choosing an appropriate IFR cruising altitude	(5)	Demonstrates a thorough knowledge of icing conditions in choosing the most appropriate IFR cruising altitude

**Flight Planning** 

#### Task: Fuel management

#### Objective:

To determine that the candidate:

- (a) Demonstrates adequate knowledge of the fuel requirements under IFR and VFR.
- (b) Demonstrates competency in calculating fuel requirements including reserves and contingency (as nominated by the examiner), for an air transport operation, in accordance with CAR Part 135 (**critical element**).
- (c) Establishes the fuel quantity on board the helicopter prior to the flight and calculates endurance (**critical element**).
- (d) Correctly operates the fuel system for starting in accordance with the helicopter's flight manual or checklist.
- (e) Correctly operates the fuel system for taxiing and take-off, and in flight correctly monitors and logs fuel consumption and tank selection in accordance with the helicopter's flight manual or checklist (**critical element**).

# Action:

- (a) Nominate the contingency reserve to be used and determine that the candidate can accurately calculate the fuel quantity required for the flight including reserves.
- (b) Determine that the candidate can establish the quantity of fuel on board the helicopter and monitor fuel consumption during flight.
- (c) Monitor the candidate's operation of the fuel system, both before and during flight, and determine that the candidate's actions are in accordance with the helicopter's flight manual or checklist.

Ra	ting7	70 <u>85</u>			
	Not yet competent		COMPETENT		
(1)	Is unaware of minimum fuel requirements for instrument flight and visual flight rules or miscalculates fuel requirements	(1)	Adequately calculates fuel requirements, including the nominated contingency and appropriate reserves ( <b>critical element</b> )	(1)	Demonstrates a thorough knowledge of minimum fuel requirements for IFR and VFR and accurately calculates fuel requirements, including the nominated contingency and appropriate reserves
(2)	Does not establish the quantity of fuel on board the helicopter	(2)	Establishes that the minimum quantity of fuel required is on board the helicopter ( <b>critical element</b> )	(2)	Accurately establishes the quantity of fuel on board and converts this to flight time, including reserve
(3)	Mismanages the fuel system grossly or in an unsafe manner	(3)	Adequately operates the fuel system with only minor deviations from the helicopter's flight manual	(3)	Correctly operates the fuel system in accordance with the helicopter's flight manual
(4)	Does not monitor fuel consumption in flight	(4)	Monitors fuel consumption and tank selection in flight ( <b>critical element</b> )	(4)	Monitors tank selection and fuel consumption in flight, converting to flight time remaining, including reserves
(5)	Does not maintain in flight fuel log	(5)	Maintains an in-flight fuel log	(5)	Maintains an accurate fuel log

#### Fuel Management

# Task: Helicopter performance and limitations *Objective:*

To determine that the candidate:

- (a) Uses the appropriate performance charts or helicopter's flight manual to calculate weight and balance, IGE and OGE hover ceiling, category A operations maximum take-off & landing weights, continued and rejected take-off and landing distances, CDP & LDP heights and speeds and OEI climb performance with due consideration to the helicopter's weight, the density altitude, temperature, wind and any other relevant conditions in relation to commercial operations under CAR Part 135 (critical element).
- (b) Makes a sound decision on whether the required performance is within the helicopter's capability (**critical element**).
- (c) Demonstrates a sound knowledge of the helicopter's limitations.
- (d) Demonstrates a sound knowledge of the helicopter's performance requirements and capabilities in respect to departure, en-route, and instrument approach requirements.
- (e) Demonstrates sound knowledge of the effects of environmental conditions on the helicopter's performance.

#### Action:

- Require the candidate to calculate the helicopter's weight and balance, hover ceiling, Category A operations maximum take-off & landing weights, continued and rejected take-off and landing distances, CDP & LDP heights and speeds and OEI climb performance for the flight test or a hypothetical flight.
- (b) Place emphasis on complete and accurate performance calculations and the soundness of the candidate's judgement in regard to the helicopter's performance capability (**critical element**).
- (c) Require the candidate to state the helicopter's limitations.
- (d) Require the candidate to describe the helicopter's departure, en-route, and instrument approach performance requirements and capabilities.
- (e) Require the candidate to describe the effects of environmental conditions on the helicopter's performance.

Ra	ting7	0	8	85	100
	Not yet competent		COMPETENT		
(1)	Uses inappropriate performance charts, tables or data	(1)	Uses appropriate performance charts, tables and data ( <b>critical element</b> )	(1)	Uses all appropriate performance charts, tables and data
(2)	Uses inappropriate conditions for the calculation of Category A take-off or landing distance, weights and speeds, such that safety would be compromised	(2)	Uses the appropriate conditions to calculate the Category A take-off and landing distance, weights and speeds, for an air transport operation under Part 135 ( <b>critical element</b> )	(2)	Uses the appropriate conditions to accurately and quickly calculate the Category A take-off and landing distance, weights and speeds, for an air transport operation under Part 135
(3)	Fails to ensure sufficient obstacle clearance is available for take-off or landing	(3)	Ensures sufficient obstacle clearance is available for take-off and landing ( <b>critical element</b> )	(3)	Ensures sufficient obstacle clearance is available for take-off and landing by correctly comparing distances required under the conditions to distances available
(4)	Demonstrates inadequate knowledge of helicopter limitations	(4)	Demonstrates a satisfactory knowledge of helicopter limitations	(4)	Demonstrates a thorough knowledge of all helicopter limitations
(5)	Omits or makes gross errors in assessing departure, en-route, and instrument approach performance requirements and capabilities	(5)	Correctly assesses departure, en-route, and instrument approach performance requirements and capabilities	(5)	Demonstrates a thorough understanding of departure, en-route, and instrument approach performance requirements and capabilities
(6)	Demonstrates inadequate knowledge of environmental factors affecting helicopter performance	(6)	Demonstrates a satisfactory knowledge of environmental factors affecting helicopter performance	(6)	Demonstrates a thorough knowledge of all environmental factors affecting helicopter performance

#### **Helicopter Performance and Limitations**

#### Task: Helicopter loading

#### **Objective:**

To determine that the candidate:

- (a) Understands weight limitations and is able to calculate/determine the takeoff and landing weight (**critical element**).
- (b) Understands centre of gravity limitations and is able to calculate/determine the helicopter's centre of gravity for take-off and landing (**critical element**).
- (c) Can determine the distribution of passengers and fuel, and the distribution and securing of baggage.

# Action:

- (a) Require the candidate to calculate the take-off and landing weight for the flight test, or a hypothetical flight using data supplied by the examiner.
- (b) Require the candidate to calculate the centre of gravity position, as loaded for the flight test or hypothetical flight, and determine that the centre of gravity is within acceptable limits.
- (c) Require the candidate to demonstrate sound knowledge of load distribution and security.

Da	ting 7	'n	ficheopter Loading	5	100
Not yet competent		U	COMPETENT	100	
(1)	Is unable to calculate the take-off and/or landing weight	(1)	Demonstrates ability to calculate the take-off and landing weight with acceptable accuracy ( <b>critical</b> element)	(1)	Demonstrates ability to calculate take- off and landing weight accurately and quickly
(2)	Centre of Gravity calculations contain gross errors	(2)	Centre of gravity calculations contain minor errors that do not compromise safety ( <b>critical element</b> )	(2)	Accurately determines centre of gravity position for take-off and landing
(3)	Understanding of principles of loading and load security seriously flawed	(3)	Demonstrates adequate knowledge of the principles of loading and load security	(3)	Demonstrates a sound knowledge of the principles of loading and load security

#### **Helicopter Loading**

# Task: Helicopter airworthiness & documentation (critical task) *Objective:*

To determine that the candidate:

- (a) Exhibits knowledge of the Airworthiness Certificate (critical element).
- (b) Exhibits knowledge of the technical log (**critical element**).
- (c) Exhibits knowledge of the flight manual and associated operations manual documentation (**critical element**).
- (d) Can evaluate the airworthiness state of the helicopter (**critical element**).

# Action:

- (a) Question the candidate about the helicopter's documents, and determine that the candidate's performance meets the objective.
- (b) Place emphasis on the candidate's awareness of documents and helicopter serviceability limitations.
- (c) Question the candidate about the helicopter's airworthiness state.

Ra	ting7		8	85	100
	Not yet competent		COMPETENT		
(1)	Has insufficient knowledge of the helicopter's documents	(1) De the ele	emonstrates adequate knowledge of e helicopter's documents ( <b>critical</b> ement)	(1)	Demonstrates a thorough knowledge of the helicopter's documents
(2)	Has insufficient knowledge of the helicopter's serviceability limitations	(2) Dec kn ser ele	emonstrates a good general wwledge of the helicopter's rviceability limitations ( <b>critical</b> ement)	(2)	Demonstrates a thorough knowledge of the helicopter's serviceability limitations
(3)	Is unable to accurately describe the airworthiness state of the helicopter	(3) De the (cr	emonstrates adequate knowledge of e helicopter's airworthiness state ritical element)	(3)	Demonstrates a thorough knowledge of the helicopter's airworthiness state

#### Helicopter Airworthiness and Documentation

# Task: External pre-flight inspection *Objective:*

To determine that the candidate:

(a) Exhibits a sound knowledge of the helicopter type by explaining or demonstrating the appropriate pre-flight external inspection in accordance with the helicopter's flight manual or organisation's documentation.

#### Action:

- (a) Observe the candidate carrying out an external pre-flight inspection and determine that the candidate's performance meets the objectives.
- (b) Question the candidate on any/all significant helicopter features, and aerials.

Rating 7		/08		85	100
	Not yet competent		COMPETENT		
(1)	Conducts the external pre-flight inspection in a non methodical way or neglects significant items	(1)	Conducts the external pre-flight inspection in an orderly and systematic way	(1)	Conducts the external pre-flight inspection thoroughly and in accordance with the helicopter's flight manual or organisation's documentation
(2)	Is ignorant of the purpose of, or cannot identify, significant helicopter features	(2)	Identifies all significant helicopter features	(2)	Identifies and explains the purpose of any helicopter feature when asked

#### **External Pre-flight Inspection**

# Task: Cockpit preparation

### **Objective:**

To determine that the candidate can:

- (a) Complete the pre-flight cockpit preparation in accordance with the helicopter's flight manual.
- (b) Perform Flight Management System (FMS) initialisation, data insertion and confirmation (if appropriate) in accordance with the helicopter's flight manual or organisation's documentation.

#### Action:

The examiner will:

(a) Observe the candidate's performance to determine that it meets the objectives.
Ra	ting7	0		35	100
	Not yet competent		COMPETENT		
(1)	Omits critical aspects of the pre-flight cockpit preparation	(1)	Adequately completes the pre-flight cockpit preparation	(1)	Thoroughly completes the pre-flight cockpit preparation in accordance with the helicopter's flight manual
(2)	Omits critical aspects of the Flight Management System (FMS) initialisation, data insertion and confirmation (if appropriate)	(2)	Adequately performs the Flight Management System (FMS) initialisation, data insertion and confirmation (if appropriate)	(2)	Thoroughly performs the Flight Management System (FMS) initialisation, data insertion and confirmation (if appropriate) in accordance with the helicopter's flight manual or organisation's documentation

### **Cockpit Preparation**

# Task: Crew briefings (conduct and quality) *Objective:*

To determine that the candidate:

- (a) Provides a flight crew pre-flight briefing
- (b) Establishes an environment for open interactive communications.
- (c) Is interactive and emphasises the importance of questions, critique and the offering of information.
- (d) Establishes the "team concept" by encouraging all crew to participate in the management of the flight.
- (e) Covers pertinent safety and operational issues.
- (f) Identifies potential problems e.g. weather or abnormal system operation.
- (g) Provides guidelines for crew actions division of labour and crew workload addressed.
- (h) Includes supplementary crew members as part of team in the briefing (as required).
- (i) Establishes guidelines for the operation of automated systems.

# Action:

- (a) Role plays the positions of co-pilot and supplementary crew member as required.
- (b) Place emphasis on the division of duties, so that the co-pilot is utilised in a meaningful way.
- (c) In flight carry out, or if the flight test is observed by the examiner in a multi crew helicopter or approved flight simulator the co-pilot will carry out, the duties of the co-pilot by being neither obstructive or above average, relying primarily on prompts from the candidate.
- (d) Act as safety-pilot during the flight (in addition to any other crew).

Ra	ting7	0	······································	85	100
-	Not yet competent		COMPETENT	-	
(1)	Does not provide an adequate flight crew pre-flight briefing	(1)	Provides an adequate flight crew pre- flight briefing	(1)	Provides a comprehensive flight crew pre-flight briefing
(2)	Does not adequately divide duties and utilise the co-pilot	(2)	Adequately divides duties and utilises the co-pilot	(2)	Utilises the co-pilot at all times in accordance with the pre-flight briefing so as to appropriately share the workload
(3)	Does not clearly brief the co-pilot on their responsibilities and applicable duties	(3)	Adequately briefs the co-pilot on their responsibilities and applicable duties	(3)	Comprehensively briefs the co-pilot on their responsibilities and applicable duties for normal flight and emergency situations
(4)	Seldom monitors the co-pilot	(4)	Periodically monitors the co-pilot during flight	(4)	Monitors the co-pilot throughout the flight
(5)	Does not provide an adequate supplementary crew member pre- flight briefing (when applicable)	(5)	Provides an adequate supplementary crew member pre-flight briefing (if applicable)	(5)	Provides a comprehensive supplementary crew member pre-flight briefing (if applicable)

# **Crew Briefings (Conduct and Quality)**

# Task: Engine start

# **Objective:**

To determine that the candidate can:

- (a) Perform the normal engine start procedure and complete the required checklists in accordance with the helicopter's flight manual or organisation's documentation.
- (b) Demonstrates knowledge of the actions required in the event of an abnormal engine start or engine fire.

# Action:

- (a) Observe the candidate's engine start procedure and determine that the candidate's performance meets the objectives.
- (b) Ask the candidate to explain the actions in the event of an abnormal engine start or engine fire (at examiner discretion).

Ra	ting 7	0	85	100
	Not yet competent	COMPETENT		
(1)	Creates a hazard to other helicopter, objects or people during start	<ol> <li>Ensures the helicopter's position for starting is not a hazard to people, other helicopter or objects</li> </ol>	(1)	Correctly positions the helicopter for starting with emphasis on avoiding the creation of a hazard to helicopter, objects or people
(2)	Fails to set brakes (when applicable)	(2) Correctly sets brakes (if applicable)		
(3)	Does not operate engine controls appropriately or fails to check engine instruments during and after start	(3) Correctly starts, checks and operates the engine	(3)	Starts, checks and operates the engine, observing all limitations, in accordance with the flight manual
(4)	Disregards or is ignorant of engine operating limitations	(4) Observes critical engine limitations prior to hover taxiing/taxiing	(4)	Observes all engine limitations prior to hover taxiing/taxiing in accordance with the flight manual or checklist
(5)	Panics or does not react to an abnormal engine start or simulated engine fire	<ul><li>(5) Verbalises the required actions in response to an abnormal engine start or simulated engine fire</li></ul>	(5)	Reacts rapidly to an abnormal engine start or simulated engine fire, in accordance with the helicopter's flight manual

Engine Start

# Task: Hover manoeuvring/hover taxi/taxi *Objective:*

To determine that the candidate:

- (a) Performs a brake check in accordance with the helicopter type's SOP (if applicable).
- (b) Completes instrument serviceability checks whilst taxiing, in accordance with recommended procedures.
- (c) Recognises and avoids hazards (**critical element**).

# Action:

- (a) Observe the candidate's taxiing procedures and determine that the performance meets the objectives.
- (b) Observe and place emphasis on the correct interpretation of instrument readings for serviceability whilst taxiing.
- (c) Place emphasis on situational awareness, hover taxi height and speed or taxi speed (as applicable), and avoidance of hazards.

Ra	ting7	0	8	85	100
	Not yet competent		COMPETENT		
(1)	Neglects to carry out a brake test in accordance with the helicopter type SOP	(1)	Carries out a brake check (if applicable) but without due regard for passenger comfort	(1)	Performs a brake check smoothly at an appropriate time in accordance with the helicopter type SOP
(2)	Does not complete critical instrument checks whilst hover taxiing/taxiing	(2)	Completes appropriate instrument serviceability checks whilst hover taxiing/taxiing	(2)	Completes all instrument serviceability checks whilst hover taxiing/taxiing
(3)	Does not recognise hazards, or creates a hazard whilst hover taxiing/taxiing	(3)	Recognises, avoids and does not create a hazard whilst hover taxiing/taxiing ( <b>critical element</b> )		
(4)	Parks helicopter without due consideration for other aircraft or objects	(4)	Parks helicopter with adequate clearance from objects and other aircraft	(4)	Parks helicopter in accordance with recommended procedures with adequate clearance from objects and other aircraft

# Hover Manoeuvring/Hover Taxi/Taxi

# Task: Pre-take-off and pre-departure preparation *Objective:*

To determine that the candidate:

- (a) Completes all appropriate pre-take-off procedures.
- (b) Establishes that the cabin is secure prior to declaring ready to ATC.
- (c) Obtains line up, take-off and departure clearances.
- (d) Provides an appropriate flight crew pre-take-off briefing including take-off critical decision point (CDP) criteria (**critical element**).
- (e) Knows the cloud base and visibility limitations for a take-off.

# Action:

- (a) Observe the candidate's pre-take-off and pre-departure preparation and determine that the performance meets the objectives.
- (b) Question the candidate on the cloud base and visibility limitations for a take-off.

р.		0	con una ric acpartare ricparad	) <i>5</i>	100
Ka	Not vot compotent	U	COMDETENT	55	100
	Not yet competent		COMPETENT		
(1)	Completes all appropriate pre-take-off procedures	(1)	Adequately completes the appropriate pre-take-off procedures	(1)	Thoroughly completes all appropriate pre-take-off procedures
(2)	Fails to establish that the cabin is secure prior to declaring ready to ATC	(2)	Establishes that the cabin is secure prior to declaring ready to ATC		
(3)	Fails to obtain either line up, take-off or departure clearances	(3)	Obtains line up, take-off and departure clearances	(3)	Obtains line up, take-off and departure clearances in a timely manner
(4)	Does not provide an adequate flight crew pre-take-off briefing and/or take-off critical decision point criteria	(4)	Provides an adequate flight crew pre- take-off briefing including take-off critical decision point criteria ( <b>critical</b> <b>element</b> )	(4)	Provides a thorough flight crew pre- take-off briefing, including take-off critical decision point criteria for normal and abnormal considerations
(5)	Does not know the cloud base and visibility limitations for a take-off	(5)	Can state the cloud base and visibility limitations for a take-off, with minimal prompting	(5)	Can state the cloud base and visibility limitations for a take-off, without error or prompting

### **Pre-take-off and Pre-departure Preparation**

# Task: Take-off – Clear area and/or VTOL Helipad *Objective:*

To determine that the candidate:

- (a) Ensures the correct runway/FATO (or non-runway area) is being used and the approach path is clear (**critical element**).
- (b) Completes checks in accordance with the helicopter's checklist.
- (c) Ensures the take-off path is clear.
- (d) Recognises and acknowledges the take-off critical decision point (**critical** element).
- (e) Tracks the runway/FATO (or non-runway area) centre line during and after take-off.
- (f) Establishes pitch attitude for recommended climb.
- (g) Trims the helicopter for the recommended climb attitude.
- (h) Correctly flies the Category A & B profiles (as appropriate) in accordance with the flight manual.

# Action:

- (a) Observe the candidate's demonstration of a normal take-off and determine that the candidate's performance meets the objectives.
- (b) Place emphasis on the candidate's demonstration of accurate airspeed, pitch and heading control.
- (c) Make allowance for airspeed fluctuations due to gusts and turbulence (but not excessively so).

Ra	ting7	0	8	85	100
	Not yet competent	_	COMPETENT		
(1)	Attempts to line up in front of aircraft on final, or on the wrong runway/FATO	(1)	Uses the correct runway/FATO and clears the approach path prior to lining up ( <b>critical element</b> )		
(2)	Does not complete checks or does not check the take-off path is clear	(2)	Completes checks and ensures the take-off path is clear		
(3)	Does not check engine Ts & Ps, engine torque or airspeed during the take-off	(3)	Confirms engine Ts & Ps and engine torque are within their normal ranges and airspeed rising during take-off	(3)	Confirms, early in the take-off roll, that engine Ts & Ps, engine torque and airspeed are normal
(4)	Does not recognise the take-off critical decision point decision point	(4)	Recognises and acknowledges the take-off critical decision point ( <b>critical element</b> )		
(5)	Grossly deviates from runway/FATO centre line during take-off or climb out	(5)	Adequately maintains runway/FATO centre line during take-off and climb out	(5)	Accurately tracks the runway/FATO centre line throughout the take-off and climb out
(7)	Maintains an airspeed more than $\pm 5$ knots of target	(7)	Maintains the recommended climb airspeed within $\pm 5$ knots	(7)	Accurately establishes and maintains the recommended climb airspeed
(8)	Makes no attempt to trim	(8)	Trims for the climb attitude	(8)	Trims accurately for the climb attitude

# Take-off - Clear Area and/or VTOL Helipad

# Task: Rejected take-off – Clear area and/or VTOL Helipad *Objective:*

To determine that the candidate:

- (a) Recognises that an engine has become inoperative.
- (b) Correctly identifies which engine has become inoperative prior to manipulating engine controls (**critical element**).
- (c) Correctly flies the Category A rejected take-off profile in accordance with the flight manual.
- (d) Maintains control of the helicopter (**critical element**).
- (e) Reduces the speed of the helicopter to at least taxi speed and to a stop within the RTOD or helipad area (**critical element**).
- (f) Uses the helicopter emergency checklist or QRH to follow up the recall emergency actions.
- (g) Nominates an appropriate plan of action.

# Action:

- (a) Simulate an emergency before CDP which would require the take-off to be rejected.
- (b) Ensure that ATS is aware of the simulated emergency.
- (c) Place emphasis on the candidate's control of the helicopter (**critical** element).
- (d) Place emphasis on the candidate's control of the helicopter's speed and stopping capability (**critical element**).
- (e) Observe the candidate's subsequent actions and determine that they meet the objectives.

#### Rating 70 85 100 COMPETENT Not vet competent Immediately recognises that an OEI Is slow to recognise that an OEI Recognises that an OEI situation has (1)(1)(1)situation has developed necessitating developed necessitating a rejected situation has developed necessitating a a rejected take-off take-off rejected take-off Misidentifies which engine has (2) Correctly identifies which engine has Immediately identifies which engine (2)(2)become inoperative prior to become inoperative prior to has become inoperative prior to manipulating engine controls manipulating engine controls (critical manipulating engine controls element) Is slow to carry out an appropriate Adequately carries out an appropriate Promptly carries out an appropriate (3)(3)(3)emergency procedure emergency procedure emergency procedure Is unable to control helicopter and/or (4) Maintains complete control at all times (4)Maintains control of the helicopter (4)handles the helicopter erratically with minor deviations promptly corrected (critical element) Does not reduce the speed adequately Reduces the speed of the helicopter to Reduces the speed of the helicopter to (5)(5)(5)to stop within the RTOD or helipad at least translational speed and well the most appropriate speed in the (as appropriate) within the RTOD or helipad (as situation, well within the RTOD or appropriate) (critical element) helipad (as appropriate) (6) Does not use a checklist and/or (6) Promptly follows up recall items with (6) Follows up recall items with the simulate radio calls checklist and simulates radio calls a checklist and simulates radio calls (7)Does not nominate an appropriate (7)Nominates an appropriate plan of (7)Promptly nominates the most suitable subsequent plan of action action with a minor delay plan of action for the situation

#### Rejected Take-off - Clear Area and/or VTOL Helipad

# Task: Engine failure at or after CDP or Prior to LDP *Objective:*

To determine that the candidate, on one engine becoming inoperative:

- (a) Recognises that an engine has become inoperative.
- (b) Correctly identifies which engine has become inoperative prior to manipulating engine controls (**critical element**).
- (c) Maintains control of the helicopter at all times (**critical element**).
- (d) Flies an appropriate airspeed (**critical element**).
- (e) Selects an appropriate power setting on the remaining engines to ensure adequate performance (**critical element**).
- (f) Carries out an appropriate emergency procedure.
- (g) Uses the helicopter emergency checklist or QRH to follow up the recall emergency actions.
- (h) Nominates an appropriate plan of action.

# Action:

- (a) Nominate the simulated minimums for take-off.
- (b) Simulate engine failure after CDP from a clear area and/or a VTOL helipad, OR prior to LDP on approach to a clear area and/or a VTOL helipad.
- (c) The examiner is to ensure no risk to helicopter or crew (VMC only in other than simulators).
- (d) Ensure that ATS is aware of the simulated emergency.
- (e) Place emphasis on the candidate's control of the helicopter (**critical** element).
- (f) Observe the candidate's subsequent actions and determine that they meet the objectives.

Ra	ting7	0	8	85	100
	Not yet competent		COMPETENT		
(1)	Is slow to recognise that an engine has become inoperative	(1)	Recognises that an engine has become inoperative	(1)	Immediately recognises that an engine has become inoperative
(2)	Misidentifies which engine has become inoperative prior to manipulating engine controls	(2)	Correctly identifies which engine has become inoperative prior to manipulating engine controls ( <b>critical</b> <b>element</b> )	(2)	Immediately identifies which engine has become inoperative prior to manipulating engine controls
(3)	Is unable to control the helicopter and/or handles the helicopter erratically	(3)	Maintains adequate control of the helicopter ( <b>critical element</b> )	(3)	Maintains complete control at all times
(4)	Airspeed deviates frequently from the appropriate one engine inoperative climb speed.	(4)	Achieves and maintains the appropriate OEI climb speed $\pm 5$ knots ( <b>critical element</b> )	(4)	Achieves and maintains the appropriate one engine inoperative climb speed accurately
(5)	Does not select an appropriate power setting on the remaining engines compromising available performance	(5)	Selects an appropriate power setting on the remaining engines and ensures adequate performance to continue the climb ( <b>critical element</b> )	(5)	Selects an appropriate power setting on the remaining engines to ensure maximum performance
(6)	Is slow to carry out an appropriate emergency procedure	(6)	Adequately carries out an appropriate emergency procedure	(6)	Promptly carries out an appropriate emergency procedure
(7)	Does not use a checklist and/or make simulated radio calls	(7)	Follows up recall items with the checklist and simulated radio calls	(7)	Promptly follows up recall items with a checklist and simulates radio calls
(8)	Does not nominate an appropriate subsequent plan of action	(8)	Nominates an appropriate plan of action with a minor delay	(8)	Promptly nominates the most suitable plan of action for the situation

### Engine Failure at or After CDP or Prior to LDP

### Task: Engine failure after LDP – Clear area and/or VTOL Helipad

# Objective:

To determine that the candidate:

- (a) Recognises that an engine has become inoperative.
- (b) Correctly identifies which engine has become inoperative prior to manipulating engine controls (**critical element**).
- (c) Carries out an appropriate emergency procedure.
- (d) Maintains control of the helicopter on to the runway/clear area/helipad/non-runway (**critical element**).
- (e) Reduces the speed of the helicopter to at least taxi speed and to a stop within the RTOD or helipad area (**critical element**).
- (f) Uses the helicopter emergency checklist or QRH to follow up the recall emergency actions.
- (g) Nominates an appropriate plan of action.

# Action:

- (a) Simulate an OEI emergency after LDP to a clear area and/or a VTOL helipad which would require the approach to be continued to a safe termination and landing to the nominated landing area/helipad.
- (b) The examiner is to ensure no risk to helicopter or crew (VMC only in other than simulators).
- (c) Ensure that ATS is aware of the simulated emergency.
- (d) Place emphasis on the candidate's control of the helicopter (**critical** element).
- (e) Place emphasis on the candidate's control of the helicopter's speed and stopping capability (**critical element**).
- (f) Observe the candidate's subsequent actions and determine that they meet the objectives.

#### Rating 70 85 100 COMPETENT Not vet competent Immediately recognises that an OEI Is slow to recognise that an OEI Recognises that an OEI situation has (1)(1)(1)situation has developed necessitating developed necessitating a rejected situation has developed necessitating a a rejected take-off take-off rejected take-off Misidentifies which engine has (2) Correctly identifies which engine has Immediately identifies which engine (2)(2)become inoperative prior to become inoperative prior to has become inoperative prior to manipulating engine controls manipulating engine controls (critical manipulating engine controls element) Adequately carries out an appropriate Promptly carries out an appropriate (2)Is slow to carry out an appropriate (2)(2)emergency procedure emergency procedure emergency procedure Is unable to control helicopter and/or (3) Maintains complete control at all times (3) (3)Maintains control of the helicopter handles the helicopter erratically with minor deviations promptly corrected (critical element) Does not reduce the speed adequately Reduces the speed of the helicopter to Reduces the speed of the helicopter to (4) (4)(4)to stop within the RTOD or helipad at least translational speed/termination the most appropriate speed in the and well within the RTOD or helipad area(as appropriate) situation, well within the RTOD or area (as appropriate) (critical helipad area (as appropriate) element) Does not use a checklist and/or (5)(5) Follows up recall items with the (5) Promptly follows up recall items with simulate radio calls checklist and simulates radio calls a checklist and simulates radio calls Does not nominate an appropriate Nominates an appropriate plan of Promptly nominates the most suitable (6) (6)(6)subsequent plan of action action with a minor delay plan of action for the situation

### Engine failure after LDP – Clear area and/or VTOL Helipad

# Task: Helicopter handling by reference to instruments *Objective:*

To determine that the candidate:

- Is capable of achieving and maintaining straight and level flight at the cleared or nominated altitudes ± 100 feet and at the nominated headings ± 5 degrees.
- (b) Is capable of entering, maintaining, and exiting from turning manoeuvres with smooth and coordinated control applications, maintaining or levelling at cleared or nominated altitudes  $\pm 100$  feet.
- (c) Uses an angle of bank appropriate to the procedure.
- (d) Is capable of maintaining a nominated climbing or descending airspeed ± 5 knots.
- (e) Is capable of maintaining a nominated climbing or descending heading  $\pm 5$  degrees.
- (f) Is capable of maintaining the helicopter in balanced flight during all normal flight manoeuvres.

# Action:

- (a) Nominate manoeuvres as required.
- (b) Place emphasis on the candidate's demonstration of power/torque setting, attitude and balance control.
- (c) Observe the candidate's performance and determine that it meets the objectives.

Ra	ting7	0	8	85	100
	Not yet competent		COMPETENT		
(1)	Frequently deviates from or maintains the nominated altitude in excess of 100¢	(1)	Maintains the nominated altitude within $\pm 100$ ¢	(1)	Accurately maintains the nominated altitude at all times
(2)	Frequently deviates from or maintains the nominated heading in excess of $\pm$ 5°	(2)	Maintains the nominated heading but with occasional deviations of up to $\pm$ 5°	(2)	Accurately maintains the nominated heading at all times
(3)	Frequently deviates from the nominated altitude in excess of 100¢	(3)	Enters, maintains and exits from turns at the nominated altitude with altitude deviations less than $\pm 100$ ¢	(3)	Enters, maintains, and exits from turns smoothly and accurately maintaining the nominated altitude
(4)	Does not maintain a constant angle of bank	(4)	Maintains a rate one turn or the nominated angle of bank $\pm 5^{\circ}$	(4)	Accurately maintains a rate one turn or the nominated angle of bank
(5)	Frequently exceeds $\pm 5$ knots of the nominated climbing or descending speed	(5)	Maintains the nominated climbing or descending speed within $\pm$ 5 knots	(5)	Accurately maintains the nominated climbing and descending airspeed
(6)	Frequently exceeds $\pm 5^{\circ}$ of the nominated climbing or descending heading	(6)	Maintains the nominated climbing or descending heading with occasional deviations of up to $\pm 5^{\circ}$	(6)	Maintains the nominated climbing and descending heading accurately
(7)	Flying in an out of balance condition in excess of <sup>1</sup> / <sub>4</sub> ball deflection	(7)	Maintains balance but with maximum deviations of 1/4 ball deflection	(7)	Maintains the helicopter accurately in balance at all times

### Helicopter Handling by Reference to Instruments

# Task: Use of automation (if applicable)

# Objective:

To determine that the candidate:

- (a) Carries out serviceability checks prior to utilising the autopilot in flight.
- (b) Can effectively utilise the autopilot and monitor its performance in flight (critical element).
- (c) Knows the limitations and capabilities of the autopilot.
- (d) Can recognise failure of the autopilot in flight.
- (e) Can execute an ILS, GNSS, VOR or NDB approach using an appropriate autopilot in the approach mode.
- (f) Transitions from an autopilot (coupled if applicable) approach to a manual approach at the autopilot limiting altitude or at the MAP or DA; and/or
- (g) Initiates a missed approach from MAP using the missed approach mode if it is within autopilot capability.

# Action:

- (a) Observe the candidate's functional test of autopilot serviceability prior to flight.
- (b) Require the candidate to demonstrate in-flight use of the autopilot as appropriate to the operation.
- (c) Observe the candidate's performance and determine that it meets the objectives.
- (d) Question the candidate on the limitations of the autopilot.
- (e) Observe the candidate's performance in using the automatics during approach and determine that it meets the objectives.

Ra	ting7	0		85	100
	Not yet competent	-	COMPETENT	-	
(1)	Does not check autopilot prior to flight	(1)	Carries out a satisfactory pre-flight autopilot check	(1)	Carries out a thorough pre-flight autopilot check IAW the checklist
(2)	Is unable to use the autopilot	(2)	Uses the basic autopilot functions	(2)	Can fully utilise all autopilot functions in flight
(3)	Does not monitor autopilot performance	(3)	The candidate tests, confirms and monitors autopilot functions ( <b>critical element</b> )	(3)	Demonstrates a thorough knowledge of autopilot functions and limitations
(4)	Does not recognise and/or react to an autopilot malfunction in a timely manner	(4)	Recognises autopilot failure in flight and takes corrective action	(4)	Immediately recognises autopilot failure in flight and promptly takes corrective action
(5)	Exceeds an autopilot limitation or attempts to override autopilot inputs without disengaging it	(5)	Has a basic knowledge of autopilot limitations and remains within them	(5)	Has a thorough knowledge of autopilot capabilities and limitations and remains within them
(6)	Ignorant of autopilot approach mode functions	(6)	Demonstrates adequate knowledge of autopilot approach mode functions	(6)	Demonstrates thorough knowledge of autopilot approach mode functions
(7)	Excessive delay in transitioning from an autopilot coupled approach to a manual approach at the autopilot limiting height, or at MAP	(7)	Transitions from an autopilot coupled approach to a manual approach at the autopilot limiting height, or at MAP with minimal delay	(7)	Transitions from an autopilot coupled approach to a manual approach at the autopilot limiting height or, or at MAP as appropriate
(8)	Delays in initiating missed approach using MA mode	(8)	Initiates missed approach from the MAP using MA mode	(8)	Promptly initiates missed approach from the MAP using MA mode

# Use of Automation (if applicable)

# Task: Transition to instrument flight and initial climb *Objective:*

To determine that the candidate:

- (a) Provides a suitable means of simulating instrument flight.
- (b) Transitions from visual flight to instrument flight with a cloud base simulated at the published IFR take-off minima.

# Action:

- (a) Specify the simulated IFR departure weather conditions.
- (b) Observe the candidate's transition from visual flight to instrument flight and determine that the candidate's performance meets the objective.

Ra	ting7	/0	8	5	100
	Not yet competent		COMPETENT		
(1)	An acceptable means of simulating instrument flight is not provided	(1)	An acceptable means of simulating instrument flight is provided		
(2)	Is unable to transition to simulated instrument flight at the minima for take-off	(2)	Adequately transitions to simulated instrument flight at the minima for take-off	(2)	Smoothly transitions to simulated instrument flight at the minima for take-off

# **Transition to Instrument Flight and Initial Climb**

# Task: Navigation aid management and tracking *Objective:*

To determine that the candidate:

- (a) Tunes, identifies and tests the helicopter's navigational equipment in accordance with company procedures and the manufacturer's instructions.
- (b) Can intercept and track specified tracks using the navigation aids fitted to the helicopter.

# Action:

- (a) Observe the candidate's tuning, identification and testing of navigational equipment and determine that the candidate's performance meets the objectives.
- (b) Observe the candidate's use of navigational aids to intercept and maintain specified track, and determine that the candidate's performance meets the objectives.

Ra	ting7	0	8	85 <u> </u>	100
	Not yet competent		COMPETENT		
(1)	Mistunes or does not identify navigational equipment	(1)	Tunes, identifies and tests helicopter's navigational equipment	(1)	Tunes, identifies, tests and cross checks navigation equipment in accordance with the checklist
(2)	Does not carry out a RAIM prediction if applicable	(2)	Completes all appropriate GNSS integrity checks	(2)	Completes all GNSS integrity checks in accordance with the checklist
(3)	Is grossly deficient in the use of the helicopter's navigation aids to intercept and/or maintain specified tracks	(3)	Demonstrates an adequate use of the helicopter's navigation aids to intercept and maintain specified tracks	(3)	Consistently uses the helicopter's navigation aids in a timely and efficient manner to intercept and maintain specified tracks

# Navigation Aid Management and Tracking

# Task: Instrument departure procedures *Objective:*

To determine that the candidate:

(a) Carries out the departure in accordance with the promulgated SID, departure procedure or ATS instructions.

# Action:

The examiner will:

(a) Observe the candidate's completion of a promulgated departure procedure and determine that the candidate's performance meets the objective.

Rating7	۰ الم	85100
Not yet competent	COMPETENT	
(1) Deviates from the published departure procedure	(1) Adequately executes the published departure procedure	<ol> <li>Accurately executes the departure procedure in accordance with the promulgated SID or ATS instructions</li> </ol>
(2) Incorrect track selected and flown, and/or deviations frequently exceed $\pm 5^{\circ}$	(2) Intercepts and maintains departure track with minor deviations promptly corrected	(2) Intercepts and maintains the departure track accurately

# **Instrument Departure Procedures**

# Task: Climb procedures

# **Objective:**

To determine that the candidate:

- (a) Complies with IFR en-route climb procedures.
- (b) Maintains the required climb tracks.
- (c) Maintains applicable altimeter settings.
- (d) Reports the helicopter's position to ATS at applicable times.

# Action:

- (a) Observe the candidate's demonstration of en-route climb procedures and determine that the candidate's performance meets the objective.
- (b) Observe the candidate's altimeter setting and checking procedure and if applicable question the procedure to be adopted at unattended aerodromes.
- (c) Observe and monitor the candidate's compulsory position reporting.

Rating		0	8	85	100
Not yet competent		COMPETENT			
(1)	Intercepts and maintains an incorrect track or deviations frequently exceed $\pm 5^{\circ}$	(1)	Maintains cleared tracks with occasional deviations of up to $\pm 5^{\circ}$	(1)	Accurately maintains the cleared track at all times
(2)	Incorrectly sets the altimeter sub-scale or fails to update the GNSS altimeter setting where applicable	(2)	Sets and cross checks altimeter setting as applicable		
(3)	Does not report position when required	(3)	Reports position in accordance with AIP procedures	(3)	Promptly reports position in accordance with the AIP

### **Climb Procedures**

# Task: Cruise procedures

# Objective:

To determine that the candidate;

- (a) Complies with IFR en-route cruise procedures.
- (b) Maintains the required cruise tracks.
- (c) Reports the helicopter's position to ATS at applicable times.
- (d) Maintains an in-flight navigation, fuel and radio log.

# Action:

- (a) Observe the candidate's demonstration of en-route cruise procedures and determine that the candidate's performance meets the objective.
- (b) Observe and monitor the candidate's compulsory position reporting.

or uise i roccaures							
Rating		70		.85			
Not yet competent		COMPETENT					
(1)	Intercepts and maintains an incorrect track, and/or deviations frequently exceed $\pm 5^{\circ}$	(1)	Maintains cleared tracks with occasional deviations of up to $\pm 5^{\circ}$	(1)	Accurately maintains the cleared track at all times		
(2)	Does not report position when required	(2)	Reports position in accordance with AIP procedures	(2)	Promptly reports position in accordance with the AIP		
(3)	Does not maintain an in-flight navigation, fuel and/or radio log	(3)	Maintains an in-flight navigation, fuel and radio log	(3)	Maintains an accurate and legible in- flight navigation, fuel and radio log		

### **Cruise Procedures**

# Task: Unusual attitudes (*upset recovery*) (critical task) *Objective:*

To determine that the candidate:

(a) Demonstrates the ability to recover from unusual attitudes as appropriate to the helicopter size and type (**critical element**).

# Action:

- (a) Take control and manoeuvre the helicopter to place it in an unusual attitude appropriate to the helicopter type and size, without endangering the helicopter or crew (VMC recommended in other than simulators).
- (b) Instruct the candidate to recover to straight and level flight initially, thence to return to the nominated altitude and heading.
- (c) Observe the candidate's subsequent actions and determine that they meet the objective.

Rating7		
Not yet competent	COMPETENT	
(1) Incorrectly identifies the helicopter's attitude using all available instruments	<ol> <li>Correctly identifies the helicopter's attitude using all available instruments (critical element)</li> </ol>	(1) Immediately recognises the helicopter's attitude using all available instruments
<ul><li>(2) Over controls and/or applies inappropriate flying control and/or power inputs</li></ul>	<ul> <li>(2) Applies flying control and power inputs to complete a recovery with only minor hesitation or delay (critical element)</li> </ul>	(2) Immediately and appropriately applies appropriate flying control and power inputs to complete a smooth recovery
<ul><li>(3) Enters a second unusual attitude while attempting to regain straight and level flight</li></ul>	<ul><li>(3) Returns to straight and level flight without undue over controlling or delay (critical element)</li></ul>	<ul><li>(3) Promptly regains straight and level flight, returning to the reference altitude and heading in an appropriate and timely manner</li></ul>

# Unusual Attitudes (Upset Recovery)

# Task: IMC autorotation profile procedure

### **Objective:**

Note: These objectives are to be completed as applicable for the helicopter type. If practice autorotation is not permitted to be conducted in flight, the candidate is to be assessed on the knowledge aspects only.

To determine that the candidate:

- (a) Executes an appropriate emergency procedure in the event of a total power failure.
- (b) Establishes the nominated autorotation speed  $\pm$  5 knots.
- (c) Maintains rotor RPM within normal limits (**critical element**).
- (d) Turns the helicopter into the last known wind direction.

# Action:

- (a) Simulate a failure (in *simulated* IMC) which requires adoption of an autorotation profile.
- (b) Ensure the exercise is carried out without risk to helicopter or crew, and that ATS is aware of the simulated emergency.
- (c) Observe the candidate's actions and determine that they meet the objectives.
- (d) Place emphasise on the candidate's control of speed and balance.
- (e) Place emphasis on the candidate's control of rotor RPM (**critical** element).
- (f) Place emphasis on the candidate's turn into wind.

Ratin	70		85		100	
(1)	Not yet competent           Grossly deviates from the nominated           autorotation speed	(1)	<b>COMPETENT</b> Establishes the nominated autorotation speed within $\pm$ 5 knots	(1)	Promptly, smoothly and accurately attains and maintains the nominated autorotation speed	
(2)	Allows rotor RPM to grossly deviate from limits	(2)	Maintains rotor RPM and promptly corrects for any deviation ( <b>critical element</b> )	(2)	Maintains rotor RPM within limits at all times	
(3)	Maintains a grossly out of balance attitude	(3)	Maintains the helicopter in balance most of the time	(3)	Maintains accurate balance throughout	
(4)	Does not turn the helicopter into wind or away from high terrain	(4)	Turns the helicopter into wind or away from high terrain in an appropriate time frame	(4)	Immediately turns the helicopter into wind or away from high terrain	
(5)	Does not brief crew on emergency calls required, passenger briefing, terrain below or the height required for the final pitch pull	(5)	Briefs crew on emergency calls required, passenger briefing, terrain below and the height required for the final pitch pull	(5)	Promptly and accurately briefs crew on emergency calls required, passenger briefing, terrain below and the height required for the final pitch pull	

# **IMC Autorotation Profile Procedure**

# Task: Descent, approach and landing preparation *Objective:*

To determine that the candidate:

- (a) Obtains appropriate weather and operational information relating to the descent, approach and landing.
- (b) Calculates an appropriate top of descent point.
- (c) Reviews and briefs the appropriate arrival procedures.
- (d) Reviews and briefs the appropriate approach procedures.
- (e) Reviews and briefs the appropriate landing procedures.
- (f) Reviews and briefs the appropriate missed approach procedures.
- (g) Reviews and briefs any appropriate holding and diversion considerations.
- (h) Reviews and evaluates endurance and fuel reserves.

# Action:

- (a) Nominate descent, approach and landing type as applicable.
- (b) Observe the candidate's demonstration of descent and approach preparation and determine that the candidate's performance meets the objective.
| Ra  | ting 7   | <sup>'0</sup> 85 |   |     |   |  |
|-----|--|------------------|---|-----|---|--|
|     | Not yet competent  |                  | COMPETENT   |     |   |  |
| (1) | Does not obtain appropriate weather<br>or operational information relating to<br>the descent, approach and landing | (1)              | Obtains appropriate weather and<br>operational information relating to the<br>descent, approach and landing | (1) | Obtains appropriate weather and<br>operational information relating to the<br>approach in a timely manner |  |
| (2) | Miscalculates the top of descent point   | (2)              | Adequately calculates an appropriate top of descent point   | (2) | Calculates the most appropriate top of descent point  |  |
| (3) | Does not review or brief the appropriate arrival procedures  | (3)              | Adequately reviews and briefs the appropriate arrival procedures  | (3) | Thoroughly reviews and briefs the appropriate arrival procedures  |  |
| (4) | Does not review or brief the appropriate approach procedures   | (4)              | Adequately reviews and briefs the appropriate approach procedures   | (4) | Thoroughly reviews and briefs the appropriate approach procedures   |  |
| (5) | Does not review or brief the appropriate landing procedures  | (5)              | Adequately reviews and briefs the appropriate landing procedures  | (5) | Thoroughly reviews and briefs the appropriate landing procedures  |  |
| (6) | Does not review or brief any<br>appropriate holding and diversion<br>considerations                                | (6)              | Adequately reviews and briefs any appropriate holding and diversion considerations                          | (6) | Thoroughly reviews and briefs any<br>appropriate holding and diversion<br>considerations                  |  |
| (7) | Does not review fuel reserves and/or endurance   | (7)              | Reviews endurance and fuel reserves   | (7) | Accurately calculates endurance and fuel reserves   |  |

#### **Descent, Approach and Landing Preparation**

## Task: Descent procedures

#### Objective:

To determine that the candidate:

- (a) Complies with IFR en-route descent procedures.
- (b) Maintains the required descent tracks.
- (c) Maintains applicable altimeter settings.
- (d) Reports the helicopter's position to ATS at applicable times.

## Action:

- (a) Observe the candidate's demonstration of en-route descent procedures and determine that the candidate's performance meets the objective.
- (b) Observe the candidate's altimeter setting and checking procedure.
- (c) Observe and monitor the candidate's compulsory position reporting.

Ra	ting 7	0	8	35	100
	Not yet competent		COMPETENT		
(1)	Intercepts and maintains an incorrect track, and/or deviations frequently exceed $\pm 5^{\circ}$	(1)	Maintains cleared tracks with occasional deviations of up to $\pm 5^{\circ}$	(1)	Accurately maintains the cleared track at all times
(2)	Incorrectly sets the altimeter sub-scale or fails to update the GNSS altimeter setting where applicable	(2)	Sets and cross checks altimeter setting as applicable		
(3)	Does not report position when required	(3)	Reports position in accordance with AIP procedures	(3)	Promptly reports position in accordance with the AIP

#### **Descent Procedures**

## Task: Holding

#### **Objective:**

To determine that the candidate:

- (a) Enters the holding pattern in accordance with the standard sector entry published in the AIP.
- (b) Establishes the applicable speed range for the hold and maintains the speed within that range.
- (c) Maintains altitude at or above the published minimum holding altitude.
- (d) Uses the lesser of a rate one turn or 25° angle of bank when turning in the hold.
- (e) Adjusts the outbound leg (but not beyond any DME limiting distance) to compensate for drift so as to achieve the inbound leg as published.
- (f) Tracks inbound in the holding pattern within the tolerance of  $\pm 5^{\circ}$  for NDB or VOR or  $\pm$  half scale CDI using GNSS.

## Action:

- (a) Nominate the holding pattern to be demonstrated.
- (b) Observe the candidate's performance and determine that it meets the objectives.

	Holding						
Ra	ting7	0	8	100			
	Not yet competent		COMPETENT				
(1)	Uses an inappropriate entry procedure	(1)	Enters the holding pattern in accordance with the published sector entry procedure	(1)	Enters the holding pattern accurately in accordance with the published sector entry procedure		
(2)	Does not establish an applicable speed range for the hold, and/or does not maintain the speed within the established range	(2)	Establishes an applicable speed range for the hold and adequately maintains the speed within that range	(2)	Establishes an applicable speed range for the hold and accurately maintains a speed from within that range		
(3)	Enters the hold at a lower altitude than the minimum holding altitude or frequently deviates in excess of 100¢	(3)	Maintains the assigned holding altitude with deviations not exceeding ± 100¢	(3)	Maintains the assigned holding altitude without deviation		
(4)	Does not maintain a constant angle of bank, and/or exceeds the lesser of a rate one turn or 25°, when turning in the hold	(4)	Adequately maintains the angle of bank at the lesser of a rate one turn or 25°, when turning in the hold	(4)	Accurately maintains the angle of bank at the lesser of a rate one turn or $25^\circ$ , when turning in the hold		
(5)	Exceeds the maximum DME outbound distance and/or makes no allowance for drift	(5)	The outbound leg is adjusted by an allowance for drift to achieve the inbound leg as published	(5)	The outbound leg is adjusted by an allowance for drift to consistently and accurately achieve the inbound leg		
(6)	Does not adequately establish or maintain the track inbound in the hold	(6)	Tracks inbound within $\pm 5^{\circ}$ for NDB or VOR, or $\pm \frac{1}{2}$ scale CDI using GNSS	(6)	Tracks the holding pattern accurately and without deviation inbound		

## Task: Initial approach procedures *Objective:*

To determine that the candidate:

- (a) Anticipates station passage and configures the helicopter appropriate to the approach category or class (if applicable).
- (b) Identifies station or waypoint passage, using as appropriate, the ADF, VOR or GNSS.
- (c) Completes the procedure turn including specified timing (as applicable).
- (d) Establishes the helicopter correctly on the DME/GNSS arc (optional).
- (e) Maintains the helicopter tracking relative to an arc  $\pm 1$  nm (if applicable).
- (f) Maintains the descent profile in accordance with ATS clearances and/or approach limits (**critical element**).
- (g) Intercepts inbound track within  $\pm 5^{\circ}$ .

## Action:

- (a) Observe that the candidate correctly recognises station passage.
- (b) Observe the candidate's situational awareness and orientation in completing the procedure turn and/or DME/GNSS arc (if applicable) and configuring the helicopter appropriately in anticipation of commencing the approach and determine that the candidate's performance meets the objectives.

Ra	ting7	0	8	85	100
	Not yet competent		COMPETENT		
(1)	Does not anticipate the approach or fails to configure the helicopter appropriately.	(1)	Commences the approach in a configuration appropriate to the helicopter's approach category	(1)	Anticipates the approach and configures the helicopter in a timely manner appropriate to the helicopter's approach category
(2)	Makes large heading changes in the overhead and/or does not recognise station or waypoint passage within 6 seconds	(2)	Passes slightly to one side of the aid or IAF with some minor heading changes in the overhead but correctly recognises station or waypoint passage	(2)	Passes directly overhead the aid or IAF and correctly identifies station or waypoint passage
(3)	Fails to complete the published procedure turn and/or omits to monitor timing	(3)	Adequately completes the procedure turn including specified timing (as applicable)	(3)	Accurately completes the procedure turn including specified timing (as applicable)
(4)	Deviates beyond $\pm 1$ nm while attempting to establish the helicopter on the arc (if applicable)	(4)	Anticipates lead distance and establishes on the arc within $\pm 1$ nm (if applicable)	(4)	Correctly anticipates lead distance and establishes on the arc accurately (when applicable)
(5)	Deviates more than $\pm 1$ nm from the arc (where applicable)	(5)	Maintains position on the arc within $\pm$ 1 nm (if applicable)	(5)	Maintains the arc accurately without deviation (where applicable)
(6)	Descends below the descent profile specified in ATS clearances and/or approach limits	(6)	Maintains the descent profile in accordance with ATS clearances and/or approach limits ( <b>critical element</b> )	(6)	Accurately maintains the descent profile in accordance with ATS clearances and/or approach limits
(7)	Establishes on an incorrect inbound radial/track	(7)	Intercepts final approach track within $\pm 5^{\circ}$	(7)	Intercepts final approach track accurately

#### **Initial Approach Procedures**

# Task: Radar vectoring for an approach (optional) *Objective:*

To determine that the candidate:

- (a) Can, under radar vectoring, position the helicopter to a predetermined position or fix or to intercept a specified track.
- (b) Maintains orientation by monitoring other navigation aids.

### Action:

The examiner will:

(a) Observe the candidate's performance to determine that it meets the objectives.

Ra	ting7	0851	100
	Not yet competent	COMPETENT	
(1)	Does not maintain the radar heading within $\pm 5^{\circ}$	(1) Maintains the radar headings within $\pm$ (1) Accurately maintains the radar heading	
(2)	Does not maintain the helicopter's speed within $\pm$ 10 knots of the speed specified by ATS	<ul> <li>(2) Maintains the helicopter's speed within ± 10 knots of the speed specified by ATS</li> <li>(2) Accurately maintains the speed specified by ATS</li> </ul>	
(3)	Does not intercept the specified track	(3) Adequately intercepts the specified (3) Accurately intercepts the specified track	ed
(4)	Does not maintain situational awareness by monitoring available navigation aids	<ul> <li>(4) Maintains situational awareness by monitoring available navigation aids</li> <li>(4) Clearly maintains good situationa awareness through out</li> </ul>	al

#### **Radar Vectoring for an Approach**

### Task: Precision approach (optional)

#### **Objective:**

To determine that the candidate:

- (a) Executes an ILS approach in accordance with the published procedures, tracks and descent profile.
- (b) Intercepts and tracks the localiser with a maximum lateral deviation of <sup>1</sup>/<sub>4</sub> scale deflection from FAP to DA/H.
- (c) Intercepts the glideslope and from FAP onwards, maintains it with a maximum deviation of ½ scale above or ¼ scale below reducing to a maximum deviation of ¼ scale above or ¼ scale below during the last 300¢ to DA/H with zero negative tolerance at DA/H.
- (d) Controls the helicopter to achieve an appropriate final approach speed.
- (e) Commences the go-around (if not visual) from not below DA/H (**critical** element).
- (f) Knows the cloud base and visibility limitations for landing.

## Action:

- (a) Observe the candidate's performance to determine that it meets the objectives.
- (b) Place emphasis on the candidate's actions at DA/H.
- (c) Question the candidate on the cloud base and visibility limitations for the precision approach.

Ra	ting7	0	3	85	100
	Not yet competent		COMPETENT		
(1)	Deviates significantly from the published procedures	(1)	Adequately executes the approach in accordance with the published procedures	(1)	Executes approach exactly in accordance with the published procedures
(2)	Frequently exceeds a lateral deviation of ¼ scale deflection from FAP to DA/H	(2)	Intercepts and tracks the localiser with a maximum lateral deviation of <sup>1</sup> / <sub>4</sub> scale deflection from FAP to DA/H	(2)	Intercepts and tracks the localiser without deviation
(3)	Is unable to maintain the glide slope parameters or fails to monitor the glideslope by cross reference to the approach chart	(3)	Intercepts and maintains the glide slope within $\frac{1}{2}$ scale above and $\frac{1}{4}$ scale below to 300¢above DA/H thence ± $\frac{1}{4}$ scale to DA/H with zero negative tolerance at DA/H	(3)	Intercepts and maintains the glideslope without deviation
(4)	Does not control the helicopter to achieve an appropriate final approach speed	(4)	Achieves an appropriate final approach speed		
(5)	Descends below or levels off at DA/H	(5)	If not visual, initiates the missed approach not below DA/H ( <b>critical</b> <b>element</b> )	(5)	If not visual, initiates the missed approach immediately on reaching DA/H
(6)	Does not know the cloud base and visibility limitations for the approach	(6)	Can state the cloud base and visibility limitations with minimal prompting	(6)	Can state the cloud base and visibility limitations without error

#### **Precision Approach**

## Task: Non-precision approach

#### Objective:

To determine that the candidate:

- (a) Executes an NDB, VOR, LLZ or GNSS approach (Examiner's discretion) in accordance with the published procedures, tracks and descent profile.
- (b) Maintains published tracks  $\pm 5^{\circ}$  for NDB or VOR/LLZ or  $\pm$  half scale deflection for GNSS, reducing to  $\pm 3^{\circ}$  for NDB or  $\pm 2.5^{\circ}$  for VOR/LLZ or  $\pm$  one dot for GNSS in the final 300¢to MDA.
- (c) Controls the helicopter to achieve an appropriate final approach speed.
- (d) Achieves MDA within a tolerance of  $+50\phi$  or  $0\phi$ (critical element).
- (e) Commences the go-around (if required) not later than the designated missed approach point (MAP).
- (f) Knows the cloud base and visibility limitations for the approach.

## Action:

- (a) Nominate the type of approach to be demonstrated.
- (b) Observe the candidate's performance to determine that it meets the objectives.
- (c) Place emphasis on the candidate's actions at MDA and the MAP.
- (d) Question the candidate on the cloud base and visibility limitations for the approach.

Ra	ting7	0	8	85	100
	Not yet competent		COMPETENT		
(1)	Deviates significantly from the published procedures, tracks or descent profile	(1)	Adequately executes the approach in accordance with the published procedures, tracks and descent profile	(1)	Executes approach exactly in accordance with the published procedures, tracks and descent profile
(2)	Intercepts an incorrect track	(2)	Maintains tracks $\pm 5^{\circ}$ for NDB or VOR/LLZ or $\pm$ half scale deflection for GNSS, reducing to $\pm 3^{\circ}$ for NDB or $\pm 2.5^{\circ}$ for VOR/LLZ or $\pm$ one dot for GNSS in the final 300¢to MDA	(2)	Maintains published tracks without deviation
(3)	Exceeds the maximum speed for the nominated approach category	(4)	Achieves an appropriate final approach speed		
(4)	Uses an excessive rate of descent to achieve the MDA and/or descends below MDA	(4)	Achieves MDA with maximum deviation of + 50¢and - 0¢(critical element)	(4)	Achieves MDA accurately
(5)	Commences the missed approach (if required) from beyond the designated missed approach point	(5)	Commences the missed approach (if required or instructed) from not later than the designated missed approach point	(5)	Commences the missed approach (if required or instructed) at the designated missed approach point
(6)	Does not know the cloud base and visibility limitations for the approach	(6)	Can state the cloud base and visibility limitations for the approach, with minimal prompting	(6)	Can state the cloud base and visibility limitations for the approach, without error

#### Non-Precision Approach

# Task: One engine inoperative (OEI) performance *Objective:*

To determine that the candidate, after the failure of an engine prior to or during an approach (in simulated IMC);

- (a) Maintains control of the helicopter at all times and carries out the approach within the required parameters for the aid (**critical** element).
- (b) Uses the helicopter's emergency checklist to follow-up memory/recall items (if appropriate) and makes the appropriate emergency radio calls.
- (c) Initiates an OEI missed approach from minimum altitude in accordance with the missed approach procedure for that aid.
- (d) Subsequently demonstrates a clear appreciation of the effect of an engine failure on the helicopter's performance by nominating an appropriate plan of action.

#### Action:

- (a) Simulate an engine failure prior to or during an instrument approach, without risk to helicopter or crew.
- (b) Place emphasis on the candidate's control of the helicopter.
- (c) Deny the candidate visual reference at the designated MAP or DA.
- (d) Observe the candidate's actions and determine that they meet the objectives.

<b>One Engine Inoperative</b> (	(OEI) Performance
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Ra	ting7	0	8	85	100
	Not yet competent		COMPETENT		
(1)	Handles the helicopter erratically and/or would lose control without examiner intervention	(1)	Maintains control of the helicopter with minor deviations promptly corrected ( <b>critical element</b> )	(1)	Maintains complete control at all times
(2)	Misidentifies which engine has become inoperative	(2)	Correctly identifies which engine has become inoperative ( <b>critical element</b> )	(2)	Immediately identifies which engine has become inoperative
(3)	Makes no attempt to establish the cause of the engine failure and/or does not use a checklist or QRH for follow up items when appropriate	(3)	Follows up memory/recall items with the checklist in an attempt to establish the cause of engine failure and makes simulated emergency calls as appropriate	(3)	Promptly follows up memory/recall items with the checklist to establish the cause of engine failure and takes the most appropriate action
(4)	Is unable to maintain the approach profile or track or allows airspeed to decrease below a safe speed	(4)	Maintains tracks within the approach aid parameters	(4)	Maintains published tracks without deviation
(5)	Does not commence the missed approach procedure at the appropriate point or cannot maintain control of the helicopter with OEI	(5)	Adequately commences and executes the OEI missed approach procedure	(5)	Commences the OEI missed approach procedure at the appropriate point without deviation
(6)	Does not have a plan or the plan of action worsens the situation	(6)	Nominates a suitable plan of action	(6)	Promptly nominates the most suitable plan of action for the scenario

# Task: Normal and crosswind approach and landing *Objective:*

To determine that the candidate:

- (a) Obtains an ATS clearance when required (**critical element**).
- (b) Is capable of carrying out a normal circuit and approach to land under the prevailing conditions.
- (c) Is capable of controlling airspeed/ground speed to maintain an approach to a stabilised IGE hover at a nominated point.
- (d) Is capable of establishing and maintaining the recommended approach angle and proper rate of closure.
- (e) Maintains awareness (**critical element**) of the possibility of wind shear, wake turbulence or vortex ring state (settling with power).

## Action:

- (a) Observe the candidate's demonstration of an approach and landing and determine that the candidate's performance meets the objective.
- (b) Place emphasis on a stabilised final approach profile and airspeed/ground speed control.
- (c) Place emphasis on the candidate coming to an IGE hover within one metre of the designated aiming point.
- (d) Place emphasis on the avoidance of situations that could lead to the onset of vortex ring state.

Ra	ting7	/085	100
-	Not yet competent	COMPETENT	
(1)	Does not obtain an ATS clearance when required	(1) Obtains an ATS clearance when required (critical element)(1) Obtains clearance requesting an alter	s when required, rnative if necessary
(2)	Does not maintain a ground track, within $\pm$ 5°, that ensures the desired circuit will be flown	(2) Generally maintains a ground track, within $\pm$ 5°, that ensures the desired circuit will be flown (2) Accurately maint within $\pm$ 5°, that ensures the desired circuit will be flown	ains a ground track, ensures the desired wn
(3)	Fluctuates between or maintains a gross overshoot or undershooting approach profile	(3) Maintains an acceptable and steady final approach profile(3) Accurately maintain optimum final approach	ains a steady, proach profile
(4)	Frequent airspeed variations in excess of $\pm 10$ knots on final	(4) Maintains the nominated approach speed $\pm$ 5 knots(4) Achieves the nom speed accurately	inated approach
(5)	Terminates in an OGE hover and/or more than one metre from the nominated aiming point	<ul> <li>(5) Terminates in an IGE hover within one metre from the nominated aiming point</li> <li>(5) Accurately termin at the nominated aiming</li> </ul>	ates in an IGE hover aiming point
(6)	Is unaware of hazards caused by the wind shear, wake turbulence or vortex ring state	<ul> <li>(6) Is aware of hazards caused by the wind shear, wake turbulence or vortex ring state (critical element)</li> <li>(6) Demonstrates a the of the hazards of turbulence or vortex turbulence or vortex</li> </ul>	orough knowledge wind shear, wake tex ring state

#### Normal and Crosswind Approach and Landing

# Task: Confined area and/or elevated helipad operations *Objective:*

To determine that the candidate:

- (a) Can enter, leave and operate within a confined area (being an area with a diameter equal to 2 times the helicopter length) and/or a certified helipad.
- (b) Carries out a reconnaissance and considers power required/available, density altitude, wind direction, terrain, obstructions, size, shape and surface of the area (**critical elements**).
- (c) Considers effects of loss of headwind, wind shear and turbulence on approach.
- (d) Selects a suitable circuit with consideration of a decision point for overshoot if necessary.
- (e) Establishes and maintains an appropriate approach profile and arrives at the aiming point (within  $\pm \frac{1}{2}$  metre) on the surface, or in a stabilised hover.
- (f) Operates at a safe hover height and maintains adequate tail and main rotor clearance.
- (g) Is aware of the hazards of recirculation.

## Action:

- (a) Nominate the confined area or elevated (certified) helipad.
- (b) Observe the candidate's approach to, operation within and exit from, the confined area with emphasis on approach path, go-round point and obstacle clearance and determine that the candidate's performance meets the objectives.
- (c) Ensure the candidate has a sound knowledge of the hazards of recirculation through further oral questioning as applicable.

Ra	ting7	0	)85			
	Not yet competent		COMPETENT			
(1)	Neglects to carry out a reconnaissance and/or fails to assess wind direction	(1)	Carries out an adequate high reconnaissance and assesses the wind direction	(1)	Carries out a thorough high reconnaissance, accurately assessing the wind velocity	
(2)	Selects an unsuitable approach path, and/or the approach is not i.a.w published FATO, or approaches downwind and/or does not consider loss of headwind, wind shear or turbulence on approach	(2)	Selects an appropriate approach path into wind (i.a.w published FATO, if applicable) and is aware of the hazards associated with loss of headwind, wind shear an turbulence on approach	(2)	Selects the optimum approach path (i.a.w published FATO, if applicable) taking into consideration loss of headwind, wind shear, turbulence, obstructions and shape of the area	
(3)	Does not ascertain the power margin available or does not select a decision point	(3)	Ascertains the available power margin and selects a decision point and escape route ( <b>critical elements</b> )	(3)	Ascertains the available power margin for HOGE, confirms the approach, decision point and escape route are appropriate and suitable	
(4)	Does not allow sufficient tail rotor/main rotor clearance on approach ( <b>critical element</b> )	(4)	Allows adequate tail and main rotor clearance to arrive on the surface, or in a stabilised hover within ½ metre of the aiming point	(4)	Evaluates rotor clearances, helicopter performance and hazards on the approach arriving accurately on the surface or in a stabilised hover, at the aiming point	
(5)	Manoeuvres wildly and/or is unaware of recirculation hazard	(5)	Manoeuvres with a sound awareness of recirculation hazard	(5)	Demonstrates a thorough understanding of recirculation hazard	

#### **Confined Area and/or Elevated Helipad Operations**

## Task: Crew self-evaluation (*debriefing/operational review/critique*) *Objective:*

To determine that the candidate:

- (a) Gives debriefing at appropriate times.
- (b) Deals with positive as well as negative aspects of crew performance.
- (c) Interactively involves the whole crew (when appropriate).
- (d) Gives constructive, specific, objective feedback based on observable behaviour.
- (e) Accepts critique objectively and non-defensively.

### Action:

- (a) Role play the position of co-pilot and/or supplementary crew members as required.
- (b) Observe the candidate's debriefing/operational review/critique, and determine that the performance meets the objectives.

## Crew Self-Evaluation (*Debriefing/Operational Review/Critique*)

Ra	ting7	708	85100
	Not yet competent	COMPETENT	
(1)	Gives debriefings at inappropriate times or not at all	(1) Gives debriefings at acceptable times	(1) Gives debriefings at appropriate times
(2)	Focuses only on the negative aspects of crew performance	(2) Deals with positive as well as negative aspects of crew performance	
(3)	Does not involve all appropriate crew members in debriefings	(3) Involves all appropriate crew in debriefings	(3) Interactively involves all appropriate crew in debriefings
(4)	Gives biased feedback based on other than observable behaviour	<ul><li>(4) Gives adequate feedback based on observable behaviour</li></ul>	<ul><li>(4) Gives constructive, specific, objective feedback based on observable behaviour</li></ul>
(5)	Does not accept critique, blames other factors and/or becomes defensive	(5) Accepts critique adequately	(5) Accepts critique objectively and non- defensively

# Task: Threat and error management (critical task) *Objective:*

To determine that the candidate:

- (a) Can recognise, assess and manage potential threats in the performance of the various task elements, in accordance with Threat and Error Management (TEM) techniques (critical element).
- (b) Can avoid or trap errors which may occur in the performing of the various task elements, in accordance with Threat and Error Management (TEM) techniques (**critical element**).
- (c) Follows SOP's with evident situational awareness to avoid and trap errors which may occur in the performance of the various task elements (critical element)
- (d) Applies strategies which will mitigate the effects of any errors which may occur, in accordance with Threat and Error Management (TEM) techniques (**critical element**).

#### Action:

- (a) Question the candidate on potential threats which may impact the operation of the helicopter in the performance of the various task elements.
- (b) Observe the candidate's assessment and management of threats in the performance of the various task elements, in accordance with Threat and Error Management (TEM) techniques, and determine that the performance meets the objectives.
- (c) Observe the candidate's avoidance and trapping of errors in the performance of the various task elements, in accordance with Threat and Error Management (TEM) techniques, and determine that the performance meets the objectives.
- (d) Observe the candidates adherence to SOP's and (as well as is possible) monitor the candidate's situational awareness of threats and errors.
- (e) Observe the candidate's application of strategies to mitigate the effects of errors in the performance of the various task elements, in accordance with Threat and Error Management (TEM) techniques, and determine that the performance meets the objectives.

Rating		085100			
Not yet competent		COMPETENT			
(1)	Is ignorant of potential threats in the performance of the various task elements	(1)	Recognises, verbalises and assesses potential threats in the performance of the various task elements ( <b>critical</b> <b>element</b> )	(1)	Immediately recognises, verbalises and assesses all potential threats in the performance of the various task elements
(2)	Takes no significant action to reduce or manage the potential impact of threats in the performance of the various task elements	(2)	Takes reasonable action to reduce and manage the potential impact of threats in the performance of the various task elements ( <b>critical element</b> )	(2)	Effectively manages potential threats and/or implements strategies to minimise the impact of potential threats in the performance of the various task elements
(3)	Limited adherence to SOP's and procedures, poor situational awareness and/or no review of flight progress. Is ignorant of errors which occur in the performance of the various task elements	(3)	SOP's and procedures are followed, and good situational awareness evident to avoid and trap errors which may occur in the performance of the various task elements ( <b>critical</b> <b>element</b> )	(3)	Strict adherence to SOP's and procedures. Applies effective strategies to avoid and trap errors which may occur in the performance of the various task elements
(4)	Is ignorant of or deficient in the application of strategies which could mitigate the effects of any errors which occur	(4)	Adequately mitigates the effects of any errors which occur ( <b>critical</b> <b>element</b> )	(4)	Applies strategies which effectively mitigate the effects of any errors which occur

#### Threat and Error Management

#### Task: Communications process and decision making (inquiry/advocacy/assertion)

#### Objective:

To determine that the candidate:

- (a) Speaks up and states their information with appropriate persistence until there is some clear resolution and decision (**critical element**).
- (b) Develops a "Challenge and Response" environment.
- (c) Encourages questions regarding crew actions and decisions.
- (d) Answers questions openly and non-defensively.
- (e) Seeks information and direction from others when necessary.
- (f) Questions the status and programming of automated systems (if applicable) to verify situational awareness.

### Action:

- (a) Role play the position of co-pilot and/or supplementary crew members as required.
- (b) Observe the candidate's inquiry, advocacy and assertion, and determine that the performance meets the objectives.

Rating7		085			100
	Not yet competent	СОМРЕТЕНТ			
(1)	Does not contribute relevant information or express concern when appropriate	(1)	Speaks up adequately, contributing relevant information or expressing concern ( <b>critical element</b> )	(1)	Speaks up and states their information with appropriate persistence until there is some clear resolution and decision
(2)	Develops a strained environment where other crew members do not feel comfortable to challenge the PF	(2)	Develops an adequate "Challenge and Response" environment	(2)	Develops a strong and clear "Challenge and Response" environment
(3)	Discourages questions regarding crew actions and decisions	(3)	Adequately encourages questions from crew	(3)	Encourages questions regarding crew actions and decisions
(4)	Either ignores crew questions or answers them abruptly or defensively	(4)	Answers crew questions adequately	(4)	Answers questions openly and non- defensively
(5)	Does not seek information and direction from others	(5)	Usually seeks information and direction from others	(5)	Seeks information and direction from others at appropriate times
(6)	Does not question the status and programming of automated systems	(6)	Usually questions the status and programming of automated systems to verify situational awareness	(6)	Routinely questions the status and programming of automated systems to verify situational awareness

## Communications Process and Decision Making (Inquiry/Advocacy/Assertion)

#### Task: Communications process and decision making (communications/decisions)

#### Objective:

To determine that the candidate:

- (a) Clearly states operational decisions to other crew members (**critical** element).
- (b) Acknowledges understanding of decisions made by other crew members.
- (c) Establishes "Bottom lines" and communicates them for the safety of operations.
- (d) Shares the "Big picture" and game plan within the team including supplementary crew members and others as required.
- (e) Encourages crew members to state their own ideas, opinions and recommendations.
- (f) Makes an effort to provide an atmosphere conducive to open and free communications.
- (g) Verbalises and acknowledges entries and changes to automated systems' parameters (if applicable).

## Action:

- (a) Role play the position of co-pilot and/or supplementary crew members as required.
- (b) Observe the candidate's communications/decisions, and determine that the performance meets the objectives.

Rating		_70		85	100
	Not yet competent	COMPETENT			
(1)	Does not consistently inform other crew of operational decisions	(1)	Normally informs other crew members of operational decisions ( <b>critical</b> <b>element</b> )	(1)	Clearly states all operational decisions to other crew members
(2)	Does not consistently acknowledge decisions made by other crew	(2)	Normally acknowledges decisions made by other crew	(2)	Acknowledges understanding of all decisions made by other crew
(3)	Does not establish "Bottom lines"	(3)	Establishes adequate "Bottom lines"	(3)	Establishes clear "Bottom lines" and communicates them for the safety of operations
(4)	Does not share the "Big picture" and game plan within the team	(4)	Normally shares the "Big picture" and game plan within the team	(4)	Consistently shares the "Big picture" and game plan within the team
(5)	Discourages crew members from stating their own ideas, opinions and recommendations	(5)	Encourages crew members to state their own ideas, opinions and recommendations		
(6)	Does not create an atmosphere conducive to open and free communications	(6)	Makes an adequate effort to provide an atmosphere conducive to open and free communications	(6)	Makes a consistent effort to provide an atmosphere conducive to open and free communications
(7)	Does not consistently verbalise or acknowledge entries and changes to automated systems' parameters (if applicable)	(7)	Normally verbalises and acknowledges entries and changes to automated systems' parameters (if applicable)	(7)	Consistently verbalises and acknowledges entries and changes to automated systems' parameters (if applicable)

#### Communications Process and Decision Making (Communications/Decisions)

## Task: Team building (*leadership/followership/concern for tasks*) *Objective:*

To determine that the candidate:

- (a) Utilises all available resources to accomplish the task at hand within the time available (**critical element**).
- (b) Demonstrates a desire to achieve the most effective operation possible.
- (c) Coordinates cockpit activities to establish and maintain a proper balance between authority and assertiveness.
- (d) Acts decisively when the situation requires.
- (e) Recognises and deals with the demands on resources posed by the operation of automated systems (if applicable).
- (f) Disengages automated systems (if applicable) when programming demands could reduce situational awareness or create work overload.

## Action:

- (a) Role play the position of co-pilot and/or supplementary crew member as required.
- (b) Observe the candidate's leadership, followership and concern for tasks, and determine that the performance meets the objectives.

Ra	ting7	0	8	85	100
	Not yet competent		COMPETENT		
(1)	Does not utilise all available resources or effectively manage time to accomplish the task at hand	(1)	Adequately utilises resources and time to accomplish the task at hand ( <b>critical element</b> )	(1)	Utilises all available resources and effectively manages time to accomplish the task at hand
(2)	Does not demonstrate a desire to achieve an operation	(2)	Demonstrates an adequate desire to achieve an effective operation	(2)	Demonstrates a desire to achieve the most effective operation possible
(3)	Flight deck activities are not well coordinated	(3)	Adequately coordinates flight deck activities	(3)	Coordinates flight deck activities to establish and maintain a proper balance between authority and assertiveness
(4)	Does not act decisively when the situation requires	(4)	Normally acts decisively when the situation requires	(4)	Consistently acts decisively when the situation requires
(5)	Is unaware of the demands on resources posed by the operation of automated systems (if applicable)	(5)	Adequately manages the operation of automated systems (if applicable)	(5)	Recognises and deals with the demands on resources posed by the operation of automated systems (if applicable)
(6)	Does not disengage automated systems at appropriate times (if applicable)	(6)	Adequately manages the operation of automated systems (if applicable)	(6)	Disengages automated systems when programming demands could reduce situational awareness or create work overload (if applicable)

### Team Building (*Leadership/Followership/Concern for Tasks*)

## Task: Team building (*interpersonal relationships/group climate*) *Objective:*

To determine that the candidate:

- (a) Remains calm under stressful conditions.
- (b) Shows sensitivity and the ability to adapt to other crew members personalities and personal characteristics (**critical element**).
- (c) Ensures that the appropriate group climate is established and maintained.
- (d) Recognises the effect of stress and fatigue on performance.
- (e) Recognises the symptoms of psychological stress and fatigue in self and other crew members, and draws them back into the team.
- (f) Checks in with other crew members during times of low communications, to see how they are doing.

## Action:

- (a) Role play the position of co-pilot and/or supplementary crew member as required.
- (b) Observe the candidate's interpersonal relationships, establishment and maintenance of an appropriate group climate and determine that the performance meets the objectives.

Ra	.ting7	'0		85	100
Not yet competent		COMPETENT			
(1)	Does not remain calm under stressful conditions	(1)	Remains reasonably calm under stressful conditions	(1)	Remains calm under stressful conditions
(2)	Does not adapt to other crew members personalities and personal characteristics	(2)	Adequately adapts to other crew members personalities and personal characteristics ( <b>critical element</b> )	(2)	Shows sensitivity and the ability to adapt to other crew members personalities
(3)	Is unaware of group climate or the effect of stress and fatigue on performance	(3)	Creates and maintains an adequate group climate and shows an awareness of the effect of stress and fatigue on performance	(3)	Ensures that the appropriate group climate is established and maintained and recognises the effect of stress and fatigue on performance
(4)	Is unaware of the symptoms of psychological stress and fatigue in self or other crew members	(4)	Demonstrates an awareness of the symptoms of psychological stress and fatigue in self or other crew members	(4)	Recognises the symptoms of psychological stress and fatigue in self and other crew members, and draws them back into the team
(5)	Does not interact with other crew members during times of low communications	(5)	Checks in with other crew members during times of low communications, to see how they are doing		

## Team Building (Interpersonal Relationships/Group Climate)

## Task: Workload management and situational awareness (preparation/planning/vigilance)

#### Objective:

To determine that the candidate:

- (a) Demonstrates situational awareness and shares their "model" of what is happening with other crew members (**critical element**).
- (b) Monitors all instruments and communications, sharing relevant information with the rest of the crew.
- (c) Avoids "tunnel vision" under stress, stating or asking for the "big picture".
- (d) Is aware of factors such as stress that can reduce vigilance, thus monitoring the performance of other crew members.
- (e) Stays ahead of the helicopter in preparing for expected or contingency situations (including approaches, weather, etc).
- (f) Includes all appropriate crew members in the planning process.
- (g) Verbally ensures that appropriate crew are aware of plans.
- (h) Plans for sufficient time to programme automated systems (if applicable).
- (i) Ensures that all crew members are aware of the status of and changes to automated systems (if applicable).

#### Action:

- (a) Role play the position of co-pilot and/or supplementary crew member as required.
- (b) Observe the candidate's preparation, planning and vigilance, and determine that the performance meets the objectives.

Rating7			
	Not yet competent	COMPETENT	
(1)	Pays little attention to situational awareness with little or no idea of the state of their helicopter	<ul> <li>(1) Maintains an adequate level of situational awareness (critical element)</li> </ul>	<ul><li>(1) Demonstrates situational awareness and shares their "model" of what is happening with other crew members</li></ul>
(2)	Is erratic in the monitoring of instruments and communications	<ul><li>(2) Monitors all instruments and communications, sharing relevant information with the rest of the crew</li></ul>	
(3)	Does not adequately manage their own stress levels or monitor the performance of other crew members	<ul><li>(3) Adequately manages their own stress levels and monitors the performance of other crew members</li></ul>	<ul><li>(3) Avoids "tunnel vision" under stress, and monitors the performance of other crew members</li></ul>
(4)	Falls behind the helicopter and does not adequately prepare for expected or contingency situations	<ul><li>(4) Keeps up with the helicopter and adequately prepares for expected or contingency situations</li></ul>	<ul><li>(4) Stays ahead of the helicopter in preparing for expected or contingency situations</li></ul>
(5)	Does not include appropriate crew members in the planning process, or ensure that they are aware of plans	<ul><li>(5) Includes all appropriate crew members in the planning process, ensuring that they are aware of plans</li></ul>	
(6)	Does not adequately manage the operation of automated systems (if applicable)	(6) Adequately manages the operation of automated systems (if applicable)	<ul><li>(6) Plans for sufficient time to programme automated systems, ensuring that all crew members are aware of the status of automated systems (if applicable)</li></ul>

## Workload Management and Situational Awareness (*Preparation/Planning/Vigilance*)

## Task: Workload management and situational awareness (workload distribution/distraction avoidance)

### Objective:

To determine that the candidate:

- (a) Clearly acknowledges and communicates work priorities and workload distribution to other crew (**critical element**).
- (b) Takes action to distribute tasks and maximise efficiency.
- (c) Admits and reports work overloads.
- (d) Recognises and reports overload in others.
- (e) Makes sure that non-operational factors, such as social interaction, does not interfere with necessary task duties.
- (f) Prioritises secondary operational tasks, e.g. dealing with passenger needs or company communications, to allow sufficient resources for dealing effectively with primary flight duties.
- (g) Recognises potential distractions posed by automated systems (if applicable) and takes appropriate preventative action, including disengaging.

## Action:

- (a) Role play the position of co-pilot and/or supplementary crew member as required.
- (b) Observe the candidate's workload distribution and distraction avoidance, and determine that the performance meets the objectives.

Ra	ting7	88	
	Not yet competent	COMPETENT	
(1)	Does not adequately manage work priorities and workload distribution	<ol> <li>Adequately manages work priorities and workload distribution (critical element)</li> </ol>	<ol> <li>Clearly acknowledges and communicates work priorities and workload distribution to other crew</li> </ol>
(2)	Does not evenly or efficiently distribute tasks	(2) Adequately distributes tasks	(2) Takes action to distribute tasks and maximise efficiency
(3)	Ignores the workload of self or others	<ul><li>(3) Admits and reports work overloads in self and recognises and reports overload in others</li></ul>	
(4)	Allows non-operational factors to interfere with necessary task duties	<ul><li>(4) Adequately controls non-operational factors, to avoid their interference with necessary task duties</li></ul>	<ul><li>(4) Makes sure that non-operational factors do not interfere with necessary task duties</li></ul>
(5)	Allows secondary operational tasks to distract crew from or interfere with primary flight duties	(5) Adequately manages the distraction of secondary operational tasks	(5) Prioritises secondary operational tasks, to allow sufficient resources for dealing effectively with primary flight duties
(6)	Does not adequately manage the operation of automated systems (if applicable)	<ul><li>(6) Adequately manages the operation of automated systems (if applicable)</li></ul>	<ul> <li>(6) Recognises potential distractions posed by automated systems (if applicable) and takes appropriate preventative action</li> </ul>

#### Workload Management and Situational Awareness (Workload Distribution/Distraction Avoidance)

## Task: Communications with supplementary crew members, company and passengers

#### Objective:

To determine that the candidate:

- (a) Communicates relevant information with supplementary crew members (if applicable).
- (b) Communicates relevant information with company (if applicable).
- (c) Makes passenger announcements when appropriate (if applicable).

#### Action:

- (a) Role plays the positions of supplementary crew members and company as required.
- (b) Observe the candidate's communication with supplementary crew members, company and passengers, and determine that the performance meets the objectives.
| Rating |   | 708  | 5100   |
|--------|---|--|--|
|        | Not yet competent   | COMPETENT  |  |
| (1)    | Does not communicate relevant<br>information with crew in a timely<br>manner    | (1) Communicates adequately with crew                          | (1) Communicates relevant information<br>with crew in a timely and assertive<br>manner       |
| (2)    | Does not communicate relevant<br>information with company in a timely<br>manner | (2) Communicates adequately with company                       | (2) Communicates relevant information<br>with company in a timely and assertive<br>manner    |
| (3)    | Does not make passenger<br>announcements when appropriate                       | (3) Makes adequate passenger<br>announcements when appropriate | (3) Makes passenger announcements<br>when appropriate, and in a calm and<br>assertive manner |

## Communications with Supplementary Crew Members, Company and Passengers

# Task: Completion of checks and use of checklists *Objective:*

To determine that the candidate:

- (a) Uses normal checklists at appropriate times and as applicable to the phase of flight.
- (b) Uses emergency checklists and quick reference handbook (QRH) at appropriate times during the flight.

## Action:

The examiner will:

(a) Observe the candidate's use of checklists and quick reference handbook (QRH), and determine that the performance meets the objective.

Ra	ting 7	/085	5 100
	Not yet competent	COMPETENT	
(1)	Does not use checklists at appropriate times and as applicable to the phase of flight	(1) Uses normal checklists at appropriate times and as applicable to the phase of flight	<ol> <li>Routinely uses normal checklists in accordance with standard operating procedures</li> </ol>
(2)	Knowledge of recall items is deficient	<ul><li>(2) Demonstrates adequate proficiency with recall items in emergency checklists</li></ul>	(2) Demonstrates a thorough knowledge of recall items in emergency checklists
(3)	Is unfamiliar with the emergency checklists or QRH	<ul> <li>(3) Demonstrates adequate proficiency in the use of the emergency checklists or QRH for non-recall items</li> </ul>	<ul> <li>(3) Demonstrates proficiency with problem solving using emergency checklists or QRH for non-recall items</li> </ul>

### **Completion of Checks and Use of Checklists**

# Task: ATS procedures and compliance *Objective:*

To determine that the candidate:

- (a) Obtains information from ATIS when appropriate (if available).
- (b) Obtains clearances and otherwise complies with ATS instructions when applicable.
- (c) Reads back appropriate instructions, information and clearances.
- (d) Records and complies with clearances and instructions.

### Action:

- (a) Observe and monitor the candidate's receipt and copying of ATIS information.
- (b) Observe and monitor compliance with ATS clearances and other instructions.
- (c) Monitor the candidate's read back of instructions, information and clearances.
- (d) Place emphasis on the candidate's recording of and compliance with clearances.

Ra	nting7	70	85100
	Not yet competent	COMPETENT	
(1)	Does not obtain ATIS when it is appropriate and available	(1) Obtains ATIS but does not record it	(1) Obtains and records ATIS
(2)	Attempts to taxi, take-off, land or otherwise proceed without a clearance, when one is required	(2) Obtains a clearance when required	(2) Obtains a clearance or broadcasts intentions as and when appropriate
(3)	Fails to read back vital information	(3) Reads back vital instructions, information and clearances	(3) Reads back all appropriate instructions, information and clearances
(4)	Does not record clearances	(4) Records and reads back all vital instructions and clearances	(4) Records and reads back all clearances
(5)	Does not comply with clearances and instructions or complies without regard to helicopter performance	(5) Complies with clearances and instructions	(5) Evaluates clearances and instructions, complying or rejecting as appropriate

### **ATS Procedures and Compliance**

## Task: RTF procedures

### **Objective:**

To determine that the candidate:

- (a) Listens to communications from ground stations and other helicopter.
- (b) Uses the helicopter's radio to communicate clearly and concisely.
- (c) Uses correct aeronautical phraseology at all times with appropriate assertiveness.
- (d) Tunes, tests and operates the transponder as required.

## Action:

- (a) Monitor the candidate's communications and determine that the candidate's performance meets the objectives.
- (b) Place emphasis on the use of standard phraseology.
- (c) Monitor all transmissions made by the candidate for the appropriate level of assertiveness and correctness.
- (d) Observe the candidate's tuning, testing and operation of the transponder equipment and determine that the candidate's performance meets the objectives.

Rating		70			100
Not yet competent		COMPETENT			
(1)	Pays little attention to radio in high traffic density airspace and/or frequently misses radio traffic	(1)	Maintains an adequate listening watch	(1)	Maintains a continuous listening watch, guarding the appropriate radio frequencies and encourages a "quiet cockpit"
(2)	Communication style unintelligible on radio	(2)	Communicates adequately by radio	(2)	Uses a clear concise, and well modulated voice when communicating by radio
(3)	Frequently uses slang and/or incorrect aviation phraseology	(3)	Uses correct aviation phraseology most of the time	(3)	Uses correct aviation phraseology at all times
(4)	Uses slang or adopts a non-assertive, excessively assertive or verbose communication style	(4)	Communicates in an adequately assertive manner	(4)	Communicates in an appropriately authoritative and assertive manner
(5)	Does not tune, test or operate the transponder correctly	(5)	Tunes, tests and operates the transponder correctly	(5)	Tunes, tests and operates the transponder correctly in a timely manner

### **RTF Procedures**

# Task: Loss of communications procedures *Objective:*

To determine that the candidate:

(a) Demonstrates an adequate knowledge of the procedure to be followed in the event of a communications failure during various phases of flight.

## Action:

The examiner will:

(a) Question the candidate on loss of communications procedures and determine that the candidate's performance meets the objective.

Rating7	08	
Not yet competent	COMPETENT	
(1) Knowledge of the general procedure to adopt is inadequate	<ol> <li>Demonstrates an adequate general knowledge of loss of communications procedures</li> </ol>	<ul> <li>(1) Demonstrates a sound general knowledge of loss of communications procedures following a communications failure in flight</li> </ul>
(2) Takes an unduly long time to determine the appropriate procedure	<ul><li>(2) Is able to use a checklist or AIP to correctly demonstrate loss of communications procedure</li></ul>	(2) With the aid of a checklist or AIP promptly demonstrates the correct response to communication failures in specified flight conditions

### **Loss of Communication Procedures**

# Task: Systems operation and procedures *Objective:*

To determine that the candidate:

- (a) Demonstrates an adequate knowledge of the helicopter's systems.
- (b) Monitors the performance of all systems.
- (c) Operates and manages the helicopter's systems in accordance with the helicopter flight manual and/or company procedures.

## Action:

- (a) Question the candidate on the normal, abnormal and backup functions of the helicopter systems.
- (b) Question the candidate on systems limitations.
- (c) Observe the candidate's monitoring, operation and management of the helicopter's systems, and determine that the performance meets the objective.

Rating		70	8	85	100
	Not yet competent		COMPETENT		
(1)	Knowledge of the helicopter's systems is inadequate	(1)	Demonstrates an adequate knowledge of the helicopter's systems	(1)	Demonstrates a thorough knowledge of the helicopter's systems
(2)	Monitoring of the helicopter's systems is erratic and important information is missed	(2)	Adequately monitors the performance of all systems	(2)	Monitoring of the performance of all systems is systematic and thorough
(3)	Management of the helicopter's systems is unsatisfactory and/or inappropriate	(3)	Adequately manages the helicopter's systems	(3)	Manages the helicopter's systems in accordance with the helicopter flight manual and/or company procedures

### **Systems Operation and Procedures**

# Task: Management of a system malfunction *Objective:*

To determine that the candidate:

- (a) Identifies the indications of a system malfunction.
- (b) Interprets the indications of a system malfunction.
- (c) Performs the appropriate procedure(s) for the management of a system malfunction.
- (d) Maintains control of the helicopter and its flight path.

## Action:

- (a) Simulate a malfunction in one or more of the helicopter's systems, without risk to helicopter or crew (VMC recommended in other than simulators). Only one system malfunction should be simulated at any given time, unless a malfunction in a subsequent system is a logical consequence of the initial malfunction.
- (b) At a minimum, simulate the following malfunctions/emergencies (as applicable to the helicopter type):
  - Governor malfunctions.
  - · Jammed tail rotor pedals.
  - Engine and airframe fire and smoke drills.
  - Hydraulic malfunctions
  - AC and DC electrical malfunctions.
- (c) Question the candidate on memory/recall actions applicable to any system malfunction.
- (d) Observe the candidate's management of a simulated (or actual) system malfunction, and determine that the performance meets the objectives.

Rating		70	_85	100
	Not yet competent	COMPETENT		
(1)	Does not, or is unreasonably slow at identifying the indications of a system malfunction	(1) Adequately identifies the indications of a system malfunction	(1) Promptly identifies the system malfunction	indications of a
(2)	Does not accurately interpret the indications of, or misidentifies, a systems malfunction	(2) Adequately interprets the indications of a system malfunction	(2) Promptly and accuratel indications of a system	y interprets the malfunction
(3)	Does not perform the appropriate procedure(s) for the management of a system malfunction	<ul><li>(3) Adequately performs the appropriate procedure(s) for the management of a system malfunction</li></ul>	(3) Performs the appropriat for the management of malfunction in a timely	te procedure(s) a system manner
(4)	Does not maintain control of the helicopter and its flight path without prompting from the flight examiner	<ul><li>(4) Adequately maintains control of the helicopter and its flight path, with minimal prompting from the pilot monitoring</li></ul>	(4) Consistently maintains control of the helicopte path	accurate r and its flight

### Management of a Systems Malfunction

### Task: Straight-in autorotation

### Objective:

Note: These objectives are to be completed as applicable for the helicopter type. If practice autorotation is not permitted to be conducted in flight, then the candidate is to be assessed on the knowledge aspects only.

To determine that the candidate:

- (a) Executes an appropriate emergency procedure in the event of a total power failure into wind.
- (b) Establishes the nominated autorotation speed  $\pm 5$  knots.
- (c) Maintains rotor RPM within normal limits (**critical element**).
- (d) Coordinates cyclic, collective and anti-torque pedal with power, recovering to a low hover or hover taxi.

## Action:

- (a) Nominate the aiming point and initiate the simulated power failure.
- (b) Ensure the exercise is carried out without risk to helicopter or crew, and that ATS is aware of the simulated emergency.
- (c) Observe the candidate's actions and decision making to determine that they meet the objectives.
- (d) Place emphasise on the candidate's control of speed and balance.
- (e) Place emphasis on the candidate's control of rotor RPM (**critical** element).
- (f) Place emphasis on the candidate's recovery to a level attitude into wind, in a hover or hover taxi.

Ratin	g 7(	)	Straight-in Autorotation 85	5	100
	Not yet competent		COMPETENT		
(1)	Grossly deviates from the nominated autorotation speed	(1)	Establishes the nominated autorotation speed within $\pm$ 5 knots	(1)	Promptly, smoothly and accurately attains and maintains the nominated autorotation speed
(2)	Allows rotor RPM to grossly deviate from limits	(2)	Maintains rotor RPM and promptly corrects for any deviation ( <b>critical</b> element)	(2)	Maintains rotor RPM within limits at all times
(3)	Maintains a grossly out of balance attitude	(3)	Maintains the helicopter in balance most of the time	(3)	Maintains accurate balance throughout
(4)	Uses rough, uncoordinated control movements, flares excessively or descends in a dangerously low tail- down attitude during recovery	(4)	Coordinates all controls, but uses coarse control movements during the recovery to the hover or hover taxi	(4)	Coordinates all controls to make a smooth recovery to the hover or hover taxi

#### **Straight-in Autorotation**

### Task: 180 degree autorotation

### **Objective:**

Note: These objectives are to be completed as applicable for the helicopter type. If practice autorotation is not permitted to be conducted in flight, then the candidate is to be assessed on the knowledge aspects only.

To determine that the candidate:

- (a) Executes an appropriate emergency procedure in the event of a total power failure.
- (b) Establishes the nominated autorotation speed  $\pm 5$  knots.
- (c) Allows for wind and varies the flight path, RRPM and/or IAS appropriately.
- (d) Maintains rotor RPM within normal limits (critical element).
- (e) Coordinates cyclic, collective and anti-torque pedal with power, recovering to a low hover or hover taxi within 30 metres of the selected aiming point (**critical element**).

## Action:

- (a) Nominate the aiming point and initiate the simulated power failure.
- (b) Ensure the exercise is carried out without risk to helicopter or crew, and that ATS is aware of the simulated emergency.
- (c) Observe the candidate's actions and decision making to determine that they meet the objectives.
- (d) Place emphasise on the candidate's control of speed and balance.
- (e) Place emphasis on the candidate's control of rotor RPM (**critical element**) and reestablishment of the recommended IAS prior to the flare.
- (f) Place emphasis on the candidate's compensation for wind to avoid undershooting or overshooting.
- (g) Place emphasis on the candidate's recovery to a level attitude into wind, in a hover or hover taxi within the required distance from the aiming point.

Rating	g70	)	8	5	100
	Not yet competent		COMPETENT		
(1)	Grossly deviates from the nominated autorotation speed	(1)	Establishes the nominated autorotation speed within $\pm$ 5 knots	(1)	Promptly, smoothly and accurately attains and maintains the nominated autorotation speed
(2)	Allows rotor RPM to grossly deviate from limits	(2)	Maintains rotor RPM and promptly corrects for any deviation ( <b>critical</b> element)	(2)	Maintains rotor RPM within limits at all times
(3)	Maintains a grossly out of balance attitude	(3)	Maintains the helicopter in balance most of the time	(3)	Maintains accurate balance throughout
(4)	Fails to establish the recommended IAS prior to the flare	(4)	Establishes the recommended IAS prior to the flare	(4)	Maintains the recommended IAS throughout
(5)	Does not allow for wind and overshoots/undershoots the aiming point by more than 30 metres	(5)	Allows for wind and terminates autorotation within 30 metres of the selected aiming point	(5)	Assesses wind effect on base and final legs and accurately terminates autorotation at the selected aiming point
(6)	Uses rough, uncoordinated control movements, flares excessively or descends in a dangerously low tail- down attitude during recovery	(6)	Coordinates all controls, but uses coarse control movements during the recovery to the hover or hover taxi	(6)	Coordinates all controls to make a smooth recovery to the hover or hover taxi

### **180 Degree Autorotation**

# Task: Vortex ring state (settling with power) *Objective:*

Note: These objectives are to be completed as applicable for the helicopter type. If VRS (incipient or fully developed) is not permitted to be conducted in flight, then the candidate is to be assessed on the knowledge aspects only.

To determine that the candidate:

- (a) Demonstrates an adequate knowledge of the conditions which contribute to, and may result in vortex ring state.
- (b) Demonstrates an adequate knowledge of the relationship of gross weight, RRPM and density altitude to the severity of the vertical rate of descent.
- (c) Demonstrates smooth, positive helicopter control and prompt, correct recovery techniques.

## Action:

- (a) Question the candidate on the conditions for the development of, symptoms of and recovery from vortex ring state.
- (b) Direct the candidate to enter a vortex ring state condition above 1500 feet AGL.
- (c) Direct the candidate to recover at the onset of vortex ring state, using the recommended procedures in the correct sequence.

Ra	ting7	_70		100
	Not yet competent	COMPETENT		
(1)	Knowledge of the development of, symptoms of and the method of recovery from vortex ring state is incomplete	<ul><li>(1) Adequately describes the development of, symptoms of and the method of recovery from vortex ring state</li></ul>	(1)	Promptly and accurately describes the development of, symptoms of and the method of recovery from vortex ring state
(2)	Knowledge of the relationship of gross weight, RRPM and density altitude to the severity of the vertical rate of descent is incomplete	<ul><li>(2) Adequately describes the relationship of gross weight, RRPM and density altitude to the severity of the vertical rate of descent</li></ul>	(2)	Promptly and accurately describes the the relationship of gross weight, RRPM and density altitude to the severity of the vertical rate of descent
(3)	Does not demonstrate smooth, positive control of the helicopter and prompt, correct recovery techniques without prompts from the flight examiner	<ul> <li>(3) Adequately demonstrates control of the helicopter, its flight path and correct recovery techniques with minimal prompts from the flight examiner</li> </ul>	(3)	Promptly and accurately demonstrates control of the helicopter and correct recovery techniques

### **Vortex Ring State (Settling With power)**

### Task: Emergency equipment

## Objective:

To determine that the candidate:

- (a) Demonstrates an adequate knowledge of the location of emergency equipment.
- (b) Demonstrates an adequate knowledge of the purpose and use of emergency equipment.

## Action:

The examiner will:

(a) Question the candidate on the location, purpose and use of emergency equipment.

Emergency Equipment					
Rating	7085		35	100	
Not yet competent		COMPETENT			
<ol> <li>Is ignorant of the location and/or the purpose or use of emergency equipment</li> </ol>	(1) Locate an ade purpos	es emergency equipment and has quate understanding of its se and use	<ul> <li>(1) Demonstrates a thorough know of the location, and understar the purpose and use of emerge equipment</li> </ul>	wledge nding of gency	

# Task: Management of ACAS/TCAS advisories (if applicable) *Objective:*

To determine that the candidate:

- (a) Interprets ACAS/TCAS advisory information on helicopter displays.
- (b) Reacts appropriately to an ACAS/TCAS advisory.
- (c) Performs the appropriate ACAS/TCAS Resolution Advisory (RA) actions.

## Action:

- (a) Simulate traffic advisories and resolution advisories as required to assess the candidate's ability to meet the objectives.
- (b) Observe the candidate's interpretation of ACAS/TCAS displays, reaction to advisories and performance of RA actions, and determine that the performance meets the objectives.
- (c) Question the candidate on the ACAS/TCAS displays and associated systems, and limitations associated with ACAS/TCAS warnings.
- (d) Question the candidate on the priority between ACAS/TCAS RAs and ATC clearances and instructions.

Ka	ting7	085				
Not yet competent			COMPETENT			
(1)	Is ignorant of ACAS/TCAS advisory information on helicopter displays	(1)	Adequately interprets ACAS/TCAS advisory information on helicopter displays	(1)	Immediately and accurately interprets ACAS/TCAS advisory information on helicopter displays	
(2)	Does not react appropriately to an ACAS/TCAS advisory	(2)	Reacts appropriately to an ACAS/TCAS advisory	(2)	Reacts immediately and appropriately to an ACAS/TCAS advisory	
(3)	Does not adequately perform the ACAS/TCAS Resolution Advisory (RA) actions	(3)	Adequately performs the ACAS/TCAS Resolution Advisory (RA) actions	(3)	Immediately performs the appropriate ACAS/TCAS Resolution Advisory (RA) actions	
(4)	Is ignorant of the ACAS/TCAS displays and associated systems, and limitations associated with ACAS/TCAS warnings	(4)	Demonstrates an adequate knowledge of the ACAS/TCAS displays and associated systems, and limitations associated with ACAS/TCAS warnings	(4)	Demonstrates a thorough knowledge of the ACAS/TCAS displays and associated systems, and limitations associated with ACAS/TCAS warnings	
(5)	Is ignorant of the priority between ACAS/TCAS RAs and ATC clearances and instructions	(5)	Demonstrates an adequate knowledge of the priority between ACAS/TCAS RAs and ATC clearances and instructions	(5)	Demonstrates a thorough knowledge of the priority between ACAS/TCAS RAs and ATC clearances and instructions	

### Management of ACAS/TCAS Advisories

# Task: Go-around from a EGPWS/HTAWS alert (if applicable) *Objective:*

To determine that the candidate:

- (a) Recognises an EGPWS/HTAWS alert.
- (b) Reacts appropriately to an EGPWS/HTAWS alert (critical element).
- (c) Performs the appropriate EGPWS/HTAWS recovery actions.

### Action:

- (a) Programme the simulator (if applicable) to produce an EGPWS/HTAWS alert on take-off, climb, descent or approach to land.
- (b) Observe the candidate's recognition, reaction and recovery from a simulated EGPWS/HTAWS alert, and determine that the performance meets the objectives.
- (c) Question the candidate on the EGPWS/HTAWS warning modes, and limitations associated with EGPWS/HTAWS warnings.

### Go-around from an EGPWS/HTAWS Alert (if applicable)

Rating		7085			100	
	Not yet competent		COMPETENT			
(1)	Does not recognise an EGPWS/HTAWS alert	(1)	Recognises a EGPWS/HTAWS alert	(1)	Immediately recognises an EGPWS/HTAWS alert	
(2)	Does not react appropriately to an EGPWS/HTAWS alert	(2)	Reacts appropriately to an EGPWS/HTAWS alert ( <b>critical</b> <b>element</b> )			
(3)	Does not Perform the appropriate EGPWS/HTAWS recovery actions	(3)	Performs the appropriate EGPWS/HTAWS recovery actions			
(4)	Is ignorant of the EGPWS/HTAWS warning modes, and limitations associated with EGPWS/HTAWS warnings	(4)	Demonstrates an adequate knowledge of the EGPWS/HTAWS warning modes, and limitations associated with EGPWS/HTAWS warnings	(4)	Demonstrates a thorough know of the EGPWS/HTAWS warn modes, and limitations associa EGPWS/HTAWS warnings	vledge ing ted with

# Task: Knowledge of flight rules *Objective:*

To determine that the candidate:

(a) Demonstrates an adequate knowledge of the Civil Aviation Rules pertaining to multi-crew, IFR flight in Part 119/135 air operations.

### Action:

- (a) Question the candidate on the Civil Aviation Rules pertaining to multicrew, IFR flight in Part 119/135 air operations.
- (b) Place emphasis on the candidate's adherence to and application of the applicable rules.

Rating		_70		85	100
Not yet competent			COMPETENT		
(1)	Does not demonstrate an adequate knowledge of the Civil Aviation Rules pertaining to multi-crew, IFR flight in Part 119/135 air operations	(1)	Demonstrates an adequate knowledge of the Civil Aviation Rules pertaining to multi-crew, IFR flight in Part 119/135 air operations	(1)	Demonstrates a thorough knowledge of the Civil Aviation Rules pertaining to multi-crew, IFR flight in Part 119/135 air operations
(2)	Does not adhere to or apply applicable flight rules	(2)	Adheres to and applies applicable flight rules		

## **Knowledge of Flight Rules**

# Task: Adherence to the organisation's SOP's (critical task) *Objective:*

To determine that the candidate:

- (a) Demonstrates an adequate knowledge of the organisation's Standard Operating Procedures (SOP's) (**critical element**).
- (b) Recognises the need to maintain adherence to SOP's (critical element).
- (c) Demonstrates an adequate adherence to the organisation's SOP's (**critical** element).
- (d) Sets expectations for how deviations from SOP's are to be handled by crew (**critical element**).

## Action:

- (a) Question the candidate on the organisation's SOP's.
- (b) Place emphasis on the candidate's adherence to the SOP's and management of deviations from SOP's.
- (c) Observe the candidate's performance and determine that it meets the objectives.

Ra	ting7	0	8	85	100
Not yet competent		COMPETENT			
(1)	Does not demonstrate an adequate knowledge of the organisation's Standard Operating Procedures (SOP's)	(1)	Demonstrates an adequate knowledge of the organisation's Standard Operating Procedures ( <b>critical</b> <b>element</b> )	(1)	Demonstrates a thorough knowledge of the organisation's Standard Operating Procedures (SOP's)
(2)	Does not show an understanding of the need to maintain adherence to SOP's	(2)	Recognises the need to maintain adherence to SOP's ( <b>critical element</b> )	(2)	Advocates the need to maintain adherence to SOP's with other crew
(3)	Does not adequately demonstrate an adherence to the organisation's SOP's	(3)	Demonstrates an adequate adherence to the organisation's SOP's ( <b>critical</b> <b>element</b> )	(3)	Demonstrates a thorough and consistent adherence to the organisation's SOP's
(4)	Does not set expectations for how deviations from SOP's are to be handled by crew	(4)	Sets expectations for how deviations from SOP's are to be handled by crew (critical element)		

### Adherence to the Organisation's SOP's

### Task: Lookout in VMC

### **Objective:**

To determine that the candidate:

- (a) Maintains the correct scanning technique both on the ground and in the air during operations in VMC, for separation from other aircraft and terrain avoidance (**critical element**).
- (b) Communicates information about traffic or terrain to other crew.

## Action:

- (a) Observe the candidate's lookout performance during flight in VMC, and determine that it meets the objectives.
- (b) Require the candidate to report on the position of other aircraft during flight in VMC.

Ra	ting 7	0	200100011 (1120	85	100
Not yet competent			СОМРЕТЕНТ		100
(1)	Lookout during operations in VMC is grossly deficient - examiner needs to intervene	(1)	Maintains an adequate lookout during operations in VMC ( <b>critical element</b> )	(1)	Maintains a continuous and systematic lookout both on the ground and in the air during operations in VMC
(2)	Sporadic at communicating information about traffic or terrain to other crew	(2)	Adequately communicates information about traffic or terrain to other crew	(2)	Immediately communicates information about traffic or terrain to other crew

### Lookout in VMC

# Task: Engine shutdown and securing the helicopter *Objective:*

To determine that the candidate:

- (a) Carries out the shutdown procedures in accordance with the helicopter's flight manual or checklist.
- (b) Completes the post flight documentation and secures the helicopter.
- (c) Supervises the passengers (if appropriate).

## Action:

The examiner will:

(a) Observe the candidate's engine shutdown and securing procedure and determine that the candidate's performance meets the objectives.

Rating	_70	85100
Not yet competent	COMPETENT	
(1) Omits critical shutdown actions	(1) Shuts down	(1) Shuts down in accordance with the helicopter's flight manual or checklist
(2) Does not secure the helicopter (if required)	(2) Secures the helicopter	<ul><li>(2) Secures the helicopter in accordance with the flight manual or checklist and completes all post flight documentation and actions</li></ul>

### Engine Shutdown and Securing the Helicopter