CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

FLIGHT TEST STANDARDS GUIDE

COMMERCIAL PILOT LICENCE ISSUE

and

BIENNIAL FLIGHT REVIEW (BFR)

HELICOPTER

Assessment criteria for the guidance of flight examiners and instructors

Revision 5 – November 2016

Content

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 with assistance from Ritchie de Montalk of Massey University. 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 141 flight testing organisations
- Delegated flight testing organisations
- All flight examiners

Category A or B flight instructors undertaking Biennial Flight Reviews are to use the prescribed parameters and continue instruction until competence is achieved in each task.

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

Change Notice

Revision 5 issued November 2016

Emergencies and hazards demonstrations amended to specifically require vortex ring state recovery demonstration (page 100).

Introduction

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

Standards relating to those skills for which instructors certify competence by logbook endorsement - namely cross-country navigation training and flight test, mountainous terrain awareness, sling loads and night flight, are specified in the Advisory Circular to Part 61.

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.
- CAR Part 91 General Operating Flight Rules.
- Advisory Circular to Part 61, Pilot Licences and Ratings.
- NZAIP.
- Manufacturer's Pilot Operating Handbooks.
- Helicopter Flight Manuals.
- Gronlund, N.E., & Linn, R.L. (1990). Measurement and evaluation in teaching. (6^{th} ed.) New York: Macmillan.
- FAA Practical Test Standards.

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 www.caa.govt.nz and amendments are notified to those who register for the free 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 a minimum pass 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.

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 who 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 ongoing 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 instructors who conduct BFRs may need to use all forms of evaluation to achieve the required demonstration of competence and therefore act as pilot in command and shall log the time as instruction.

Flight examiner responsibility

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

The examiner/instructor 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 or instructor will orally question the candidate on those elements.

For each task that involves both "knowledge and skill" elements, the flight examiner/instructor 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 or instructor 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 on the procedure to be adopted during simulated emergency exercises.

Flight test standard description

TASKS are procedures and manoeuvres appropriate to the demonstration required for Commercial Pilot Licence (Helicopter) issue and Biennial Flight Review.

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 is not 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/instructor in ensuring that the task objective is met, and in some instances, alerts the flight examiner/instructor 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.

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 laid down in the helicopter's 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) exercising judgement, decision making and situational awareness,

(e) applying aeronautical knowledge (principles of flight) to in-flight situations,

(f) completing all items in accordance with the tolerances prescribed in this guide, in smooth air,

(g) showing complete control of the helicopter, with the successful outcome of a task never in doubt, and

(h) for the purpose of initial licence issue, 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. In the case of a BFR the instructor shall detail the further training required.

The examiner may permit a second attempt at any (maximum 3) task(s) or element(s) [other than **critical 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.

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 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 during the issue flight test 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 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/instructor 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/instructor 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/instructor is not required to follow the exact order in which the tasks appear. The flight examiner/instructor may change the sequence or combine tasks with similar objectives to save time. Flight examiners/instructors 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 and instructors will place special emphasis on areas of 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, spatial orientation 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.

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/instructor will provide realistic distractions throughout 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) questioning by the flight examiner or instructor,

(c) general conversation, typical of a curious passenger,

(d) minor caution light activation.

Use of checklists

Throughout the flight the candidate is evaluated on the use of checklists. The candidate should complete appropriate checks for the task in hand.

The situation may be such that the use of a written checklist, while accomplishing the task, would be either unsafe or impractical. In such situations the checklists should be memorised.

Checklists should be either as per the helicopter flight manual or operator approved. Where a variation exists between the helicopter flight manual and operator procedures, the candidate is expected to know 'why' the operator's procedure is different.

Flight test prerequisites

A candidate for CPL (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 training and experience, and

(d) have proof of their identity, and

(e) hold a current PPL (H) or equivalent, and

(f) be at least 18 years old, and (if applicable)

(g) complete any safety awareness course applicable to helicopter type.

Helicopter and equipment requirements for flight test

The candidate is required to provide a helicopter for the flight test. The helicopter must be equipped for, and its operating limitations must not prohibit, the 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) at least three-point lap-and-sash harness, and

(d) intercommunication equipment acceptable to the examiner.

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

ASSEMENT CRITERIA

Task: Personal preparation

Objective:

To determine that the candidate demonstrates a professional attitude by:

(a) Presenting him or her self for the test:

1. Punctually
2. Suitably attired (in keeping with a professional qualification)
3. Fit for flying

(b) Presenting:

1. An up to date, summarised and certified Pilot's Logbook
2. The appropriate written examination credits
3. A current AIP Volume 4 and VNC

Action:

The examiner will:

(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 and that the flight training syllabus has been completed.

(c) Ensure that the candidate holds the appropriate (current) exam credit(s) and private pilot's licence or equivalent.

(d) Determine, by inspection, that the candidate's AIP Volume 4 and VNC are current.

Personal Preparation

Rating_____70_____85_____100

Not yet competent	COMPETENT	Ideal
(1) Unacceptably late	(1) Late with acceptable excuse	(1) Arrives punctually
(2) Dressed inappropriately for flying (wears Jandals/high heels)	(2) Dress acceptable	
(3) Is physically or mentally unfit for test	(3) Fit but clearly nervous	(3) Fit and enthusiastic
(4) Logbook records incomplete, minimum flight times not met (**critical element**)	(4) Logbook records complete	(4) Logbook records are neat and complete in all respects
(5) Training syllabus not completed	(5) Minimum training syllabus completed	
(6) Inappropriate or expired written exam credit(s)	(6) Appropriate and current written exam credit(s)	
(7) AIP Volume 4 and/or VNC are not available or not current	(7) AIP Volume 4 and VNC are available and current	(7) AIP Volume 4 and VNC are current and available throughout the flight

ASSESSMENT CRITERIA

Task: Legislation

Objective:

To determine that the candidate demonstrates a professional attitude by:

(a) Demonstrating knowledge of the privileges, medical and currency requirements applicable to a Commercial Pilot Licence - Helicopter.

(b) Exhibiting adequate knowledge of the contents of the AIP Volumes 1 and 4 and the use of VNCs.

Action:

The examiner will:

(a) Determine that the candidate has adequate knowledge of the privileges, currency and medical requirements applicable to a Commercial Pilot Licence - Helicopter.

(b) Determine that the candidate has adequate knowledge of the AIP Volumes 1 and 4 and place emphasis on the candidate's ability to use and interpret the AIP Volume 4.

(c) Determine that the candidate has adequate knowledge of the use of VNCs.

Legislation

Rating_____70_____85_____100

Not yet competent	COMPETENT	Ideal
(1) Unaware of licence privileges, medical requirements and/or currency requirements	(1) Demonstrates a basic knowledge of privileges, currency and medical requirements	(1) Demonstrates a sound knowledge of privileges, currency and medical requirements
(2) Knowledge of the contents of the AIP Volume 4 seriously flawed	(2) Demonstrates an appropriate level of knowledge on the contents and use of the AIP Volume 1 and 4	(2) Demonstrates a thorough understanding of the contents and use of the AIP Volume 1 and 4
(3) Knowledge of VNC use seriously flawed	(3) Demonstrates an appropriate level of knowledge on the use of the VNC	(3) Demonstrates a thorough understanding of the contents and use of VNCs

ASSESSMENT CRITERIA

Task: Aircraft documents

Objective:

To determine that the candidate exhibits adequate knowledge of the:

(a) Certificate of Airworthiness.

(b) Aircraft technical log.

(c) Helicopter flight manual (including CAA forms 2173 and 2129) and associated pilot's operating handbook.

(d) Airworthiness directives affecting the helicopter.

Action:

The examiner will:

(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 helicopter limitations.

Aircraft Documents

Rating_____70_____85_____100

Not yet competent	COMPETENT	Ideal
(1) Has insufficient knowledge of the helicopter's documents	(1) Demonstrates adequate knowledge of the helicopter's documents	(1) Demonstrates a thorough knowledge of the helicopter's documents
(2) Has insufficient knowledge of the helicopter's limitations	(2) Demonstrates a good general knowledge of the helicopter's limitations (**critical element**)	(2) Demonstrates a sound knowledge of the helicopter's limitations

ASSESSMENT CRITERIA

Task: Weather and AIP supplements

Objective:

To determine that the candidate:

(a) Exhibits adequate knowledge of aviation weather and flight planning data by obtaining, reading and analysing:

1. Aviation weather including ARFOR's, TAF's and METAR's with associated SPECI's and SIGMET's
2. NOTAM's

(b) Makes a sound go/no-go decision based on the available weather and flight planning data (**critical element**).

Action:

The examiner will:

(a) Determine that the candidate has obtained all relevant weather and flight planning data relating to the flight test or hypothetical cross-country flight.

(b) Require the candidate to analyse and explain the weather and relevant flight planning data, and determine that the candidate's performance meets the objective.

(c) Place emphasis on the candidate's ability to interpret the weather and NOTAM's to make a sound go/no go decision.

Weather and AIP Supplements

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(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 obtain NOTAM's	(2) Obtains and reviews NOTAM's relevant to the proposed or hypothetical flight	(2) Obtains, reviews and demonstrates a thorough understanding of the relevance of NOTAM's to the proposed or hypothetical flight
(3) Cannot read TAF or METAR	(3) Demonstrates ability to interpret ARFOR's TAF's and METAR's	(3) Demonstrates ability to analyse ARFOR's, TAF, METAR and SPECI, SIGMET if applicable
(4) Does not demonstrate an appreciation of the relevance of flight planning data to the proposed or hypothetical flight	(4) Demonstrates sufficient understanding of flight planning data to make a go/no go decision (**critical element**)	(4) Demonstrates a thorough understanding of flight planning data and is able to make a sound go/no-go decision

ASSESSMENT CRITERIA

Task: Helicopter performance

Objective:

To determine that the candidate:

(a) Is able to calculate the helicopter's power limit for the day (within a time appropriate to a professional approach), and demonstrate a sound knowledge of the effects of seasonal and atmospheric conditions on the helicopter's hover ceiling.

(b) Makes a sound decision on whether the required performance is within the helicopter's capability (**critical element**).

(c) Demonstrates knowledge of the height/velocity graph.

Action:

The examiner will:

(a) Require the candidate to determine the power limit for the day.

(b) Require the candidate to calculate the helicopter's hover ceiling (in and/or out of ground effect) for the flight test or a hypothetical flight.

(c) Require the candidate to complete the calculations in (a) and (b) together with weight and balance calculations within a total of thirty minutes.

(d) Require the candidate to describe the effects of seasonal conditions on the helicopter's performance.

(e) Place emphasis on performance calculations and the soundness of the candidate's judgement in regard to the helicopter's performance capability and operating limitations (**critical element**).

Helicopter Performance

Rating	**70**	**85**	**100**
	Not yet competent	**COMPETENT**	**Ideal**
(1)	Uses inappropriate performance charts, tables or data to calculate the power limit and/or hover ceiling and/or makes gross errors	(1) Uses appropriate performance charts, tables and data to calculate the power limit and hover ceiling but with minor errors that do not compromise flight safety (**critical element**)	(1) Uses all appropriate performance charts, tables and data to accurately calculate the power limit and hover ceiling
(2)	Cannot complete the calculations required in (1) together with the weight and balance calculations within 30 minutes	(2) Completes the calculations required in (1) together with the weight and balance calculations within 30 minutes but with minor errors that do not compromise flight safety	(2) Accurately completes the calculations required in (1) and the weight and balance calculations in a timely manner
(3)	Demonstrates inadequate knowledge of factors affecting helicopter performance in winter (ice) or summer (density altitude)	(3) Demonstrates a satisfactory knowledge of seasonal factors affecting helicopter performance	(3) Demonstrates a thorough knowledge of all seasonal factors affecting helicopter performance
(4)	Is unable to explain or apply the height/velocity graph	(4) Explains and applies the height/velocity graph	(4) Demonstrates a thorough understanding of the use of the height/velocity graph and applies its principles (as applicable) in flight

ASSESSMENT CRITERIA

Task: Fuel management

Objective:

To determine that the candidate:

(a) Demonstrates competency in calculating fuel requirements including reserves and contingency (as nominated by the examiner) for a commercial operation, in accordance with CAR Part 135 (**critical element**).

(b) Establishes the fuel quantity on board the helicopter prior to the flight and calculates endurance (**critical element**).

(c) Correctly operates the mixture control for starting in accordance with the helicopter's flight manual or checklist.

(d) Correctly operates the auxiliary fuel pump (if applicable) in accordance with the helicopter's flight manual or checklist.

(e) Correctly monitors fuel consumption in flight.

Action:

The examiner will:

(a) 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 mixture and fuel pump, both before and during flight, and determine that the candidate's actions are in accordance with the helicopter flight manual or checklist.

Fuel Management

Rating_____70_____85_____100		
Not yet competent	**COMPETENT**	**Ideal**
(1) Miscalculates fuel requirements or neglects reserves	(1) Adequately calculates fuel requirements, including reserves (**critical element**)	(1) Accurately calculates fuel requirements, including 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 (**critical element**)	(2) Accurately establishes the quantity of fuel on board and converts this to flight time, including reserve
(3) Grossly misuses the mixture control	(4) Under or over primes slightly for the engine's temperature but properly operates the mixture control	(3) Primes correctly for the engine's temperature in accordance with the helicopter's flight manual and properly operates the mixture control
(4) Frequently misuses the auxiliary fuel pump (if applicable)	(4) Adequately operates the auxiliary fuel pump (if applicable) without compromising safety	(4) Correctly operates the auxiliary fuel pump (if applicable) in accordance with the helicopter's flight manual
(5) Does not monitor fuel consumption in flight	(5) Monitors fuel consumption (**critical element**)	(5) Monitors fuel consumption in flight converting to flight time remaining, including reserves

ASSESSMENT CRITERIA

Task: Helicopter loading: including baggage and external loads

Objective:

To determine that the candidate:

(a) Fully understands helicopter weight limitations and is able to calculate the take-off and landing weight, within the time limit available for "helicopter performance" calculations (**critical element**).

(b) Is able to calculate the helicopter's weight and balance for take-off and landing, and determine that the centre of gravity will remain within limits during all phases of flight (**critical element**).

(c) Fully understands the principles of load distribution and securing of baggage.

(d) Understands the principles involved in the carriage of external asymmetric loads.

Action:

The examiner will:

(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 helicopter's 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 complete the calculations in (a) and (b), together with performance calculations, within thirty minutes.

(d) Require the candidate to demonstrate sound knowledge of load distribution and security.

(e) Question the candidate on the carriage of external asymmetric loads.

Helicopter Loading

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Is unable to calculate the take-off and/or landing weight	(1) Demonstrates the ability to calculate the take-off and landing weight with acceptable accuracy (**critical element**)	(1) Demonstrates the 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 (**critical element**)	(2) Accurately determines Centre of Gravity position for take-off and landing
(3) Fails to complete calculations of take-off weight, C of G position, HIGE/HOGE within 30 minutes	(3) Completes the calculations of take-off weight, C of G position, HIGE/HOGE within 30 minutes	(3) Completes all performance calculations accurately and in a timely manner
(4) Understanding of principles of loading, load security and/or the carriage of external loads seriously flawed	(4) Demonstrates adequate knowledge of the principles of loading, load security and the carriage of external loads	(4) Demonstrates a sound knowledge of the principles of loading, load security and the carriage of external loads

ASSESSMENT CRITERIA

Task: Pre-flight

Objective:

To determine that the candidate exhibits a sound knowledge of the helicopter type by explaining or demonstrating the:

(a) Pre-flight interior inspection.

(b) Pre-flight external inspection, including checking of fuel and oil, in accordance with the helicopter's pilot operating handbook.

(c) Securing of baggage and loose articles.

(d) Location and use of emergency equipment.

Action:

The examiner will:

(a) Observe the candidate carrying out a pre-flight inspection and determine that the candidate's performance meets the objectives.

(b) Question the candidate on significant helicopter features.

(c) Question the candidate on the location and use of emergency equipment.

Pre-flight

Rating_____70_____85_____100

Not yet competent	COMPETENT	Ideal
(1) Conducts the pre-flight inspection in a non-methodical way and/or neglects significant items	(1) Conducts the pre-flight inspection in an orderly and systematic way	(1) Conducts the pre-flight inspection thoroughly and in accordance with the Pilot's Operating Handbook
(2) Is ignorant of the purpose of significant helicopter features	(2) Identifies significant helicopter features when questioned	(2) Identifies and explains the purpose of significant helicopter features when questioned
(3) Disregards security of baggage and loose articles	(3) Secures baggage and loose articles	(3) Correctly stores and secures baggage, freight and loose articles
(4) Is ignorant of the location and/or use of emergency equipment	(4) Locates emergency equipment and explains its use	(4) Demonstrates a thorough understanding of the location, purpose and use of emergency equipment

ASSESSMENT CRITERIA

Task: Passenger briefing

Objective:

To determine that the candidate:

(a) Supervises the passenger(s)

(b) Briefs the passenger(s) on:

1. Safe areas for approaching and leaving the helicopter
2. The location and operation of the helicopter's emergency equipment, including the ELT
3. The use and operation of seat belts and shoulder harness
4. The operation of all doors and hatches
5. Keeping hands, feet and loose belongings clear of controls
6. The conditions under which smoking is permitted
7. The operation of intercommunication equipment.
8. The action in the event of an emergency landing and, where appropriate, in the event of ditching

Action:

The examiner will act in the role of an inexperienced passenger and:

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

(b) Determine the candidate's knowledge of passenger briefing requirements through further questioning, as necessary.

Passenger Briefing

Rating_____70_____85_____100

Not yet competent	COMPETENT	Ideal
(1) Does not brief and/or supervise passengers, thereby creating a hazard	(1) Ensures passengers are supervised on the movement area and briefs them on safe areas for approaching and leaving the helicopter	(1) Ensures passengers are closely supervised on the movement area and briefs them on approaching and leaving the helicopter safely
(2) Does not instruct the passengers on the location and use of emergency equipment and operation of the ELT	(2) Gives passengers a briefing on emergency equipment and the operation of the ELT	(2) Fully briefs passengers on the location and operation of emergency equipment
(3) Does not instruct passengers on seat belt use or does not insist on their use	(3) Ensures passengers put on their seat belts and that they are secure	(3) Ensures passengers can operate seat belts and that they are secure
(4) Does not instruct passengers on door operation	(4) Ensures doors closed and briefs the passengers on their operation	(4) Ensures passengers can operate doors
(5) Does not brief the passenger(s) on keeping hands, feet and loose belongings clear of controls	(5) Briefs the passenger(s) on keeping hands, feet and loose belongings clear of controls	(5) Briefs the passenger(s) on keeping hands, feet and articles clear of controls at all times
(6) Permits smoking in contradiction of flight manual limitations	(6) Fails to brief passengers on smoking, but does not permit it	(6) Briefs passengers on smoking rules, and does not permit it
(7) Cannot communicate with passengers	(7) Ensures that communication with the passenger is established	(7) Ensures the passenger can use the intercommunication equipment
(8) Does not brief passengers on emergency landing procedures	(8) Briefs passengers on emergency landing/ditching procedures	(8) Briefs passengers thoroughly on actions in the event of an emergency

ASSESSMENT CRITERIA

Task: Engine starting and rotor engagement

Objective:

To determine that the candidate:

(a) Demonstrates knowledge of correct starting procedures, including the use of an external power source (oral examination if applicable).

(b) Starts and warms up the engine in accordance with the helicopter's flight manual or checklist with emphasis on:

1. Determining that the area is clear and that the helicopter is positioned so as to avoid creating a hazard to persons or property
2. Ensuring main and tail rotor blade clearance and frictions flight controls as necessary
3. Correctly starting the engine and checking engine instruments after start
4. Engaging the clutch, in accordance with the helicopter's flight manual.

(c) Demonstrates knowledge of the actions required in the event of an engine fire during or after start.

Action:

The examiner will:

(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 engine fire during or after start (at examiner's discretion).

Engine Starting and Rotor Engagement

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Cannot explain the use of external power or does not operate engine controls appropriately or fails to check oil pressure and RPM after start	(1) Explains the use of external power (if applicable) and correctly starts, checks and operates the engine	(1) Demonstrates a sound knowledge of requirements for starting with an external power source, starts, checks and operates the engine observing all limitations, in accordance with the flight manual
(2) Creates a hazard to other aircraft, objects or people during start	(2) The position of the helicopter for starting is not a hazard to people, nor causes damage to other aircraft or objects	(2) Correctly positions the helicopter for starting with emphasis on avoiding the creation of a hazard to aircraft, objects or people
(3) Does not check for main and tail rotor clearance prior to start	(3) Checks main and tail rotor clearance prior to start	(3) Checks main and tail rotor clearance prior to start and frictions flight controls as required
(4) Disregards, or is ignorant of engine operating limitations	(4) Observes critical engine limitations prior to clutch engagement (if applicable)	(4) Observes all engine limitations prior to clutch engagement in accordance with the flight manual or checklist
(5) Does not engage the clutch correctly	(5) Engages the clutch in accordance with the flight manual	
(6) Panics or does not react to simulated engine fire during or after start	(6) Verbalises the required actions in response to a simulated engine fire	(6) Reacts immediately in accordance with the flight manual to simulated engine fire during or after start

ASSESSMENT CRITERIA

Task: Engine checks, run-up and operation

Objective:

To determine that the candidate:

(a) Completes the engine ground check and overrun clutch operations in accordance with the checklist.

(b) Prevents helicopter movement during and after ground run.

(c) In the air, operates the collective and throttle smoothly and uses the carburettor heat (if applicable) in accordance with the helicopter's flight manual or checklist.

Action:

The examiner will:

(a) Observe the candidate's engine handling procedures and determine that the candidate's performance meets the objectives.

Engine Checks, Run-up and Operation

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Fails to carry out a ground check of the engine and the overrun clutch	(1) Demonstrates awareness of engine performance tolerances and checks the engine and the overrun clutch operation	(1) Demonstrates a sound knowledge of all engine operating limitations as specified in the helicopter's flight manual and checks the engine and the overrun clutch in accordance with the checklist
(2) Allows the helicopter to move or allows excessive control movement during checks	(2) Prevents helicopter movement, guarding all controls, during ground run	
(3) In the air, operates the throttle and/or collective roughly, or misuses mixture and/or carburettor heat (if applicable) to the extent that safety could be compromised or engine damage occur	(3) Operates the collective, throttle, mixture, and carburettor heat (if applicable) correctly	(3) Operates the engine within its limitations at all times smoothly, precisely and prudently

ASSESSMENT CRITERIA

Task: Pre lift-off procedures

Objective:

To determine that the candidate:

(a) Carries out pre take-off checks in accordance with the helicopter's checklist.

(b) Sets the correct QNH or aerodrome elevation (as applicable).

(c) Calculates pressure altitude, density altitude and power limits.

(d) Notes the time prior to lift off.

(e) Carries out an adequate lookout prior to lift-off.

Action:

The examiner will:

(a) Observe the candidate's pre take-off checks and determine that the candidate's performance meets the objectives.

(b) Place emphasis on the setting of the correct QNH or aerodrome elevation (as applicable).

(c) Observe the candidate's calculation of pressure altitude, density altitude and power limits and determine that the candidate's performance meets the objective.

(d) Observe the candidate's awareness of lift off time.

(e) Place emphasis on the candidate's lookout prior to lift-off.

Pre Lift-Off Procedures

Rating_____70_____85_____100		
Not yet competent	**COMPETENT**	**Ideal**
(1) Does not carry out pre take-off checks	(1) Completes pre take-off checks	(1) Completes pre take-off checks in accordance with the helicopter's checklist
(2) Does not set QNH or aerodrome elevation (as applicable)	(2) Sets QNH or aerodrome elevation (as applicable)	(2) Sets QNH or aerodrome elevation (as applicable) and cross checks for accuracy
(3) Does not calculate pressure altitude, density altitude and/or power limits when conditions warrant it	(3) Calculates pressure altitude, density altitude and power limits	(3) Calculates pressure altitude, density altitude and power limits without error
(4) Does not note lift-off time	(4) Notes lift-off time	(4) Notes and records lift-off time or starts a timer
(5) Does not lookout prior to lift-off	(5) Completes an adequate lookout prior to lift-off	(5) Completes a comprehensive lookout prior to lift-off

ASSESSMENT CRITERIA

Task: Air Traffic Service procedures

Objective:

To determine that the candidate:

(a) Obtains information from ATIS when appropriate (if available).

(b) Obtains taxiing, take-off and landing clearances and otherwise complies with ATS instructions when appropriate.

(c) Reads back appropriate instructions, information and clearances.

(d) Uses correct aeronautical phraseology at all times with appropriate assertiveness.

Action:

The examiner will:

(a) Observe and monitor the candidate's receipt and copying of ATIS information.

(b) Observe and monitor compliance with ATS taxi, take-off and landing clearances and other instructions.

(c) Monitor the candidate's read back of instructions, information and clearances.

(d) Monitor all transmissions made by the candidate for the appropriate level of assertiveness, and correctness.

Air Traffic Service Procedure

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(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 or land 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) Does not comply with an ATS clearance	(3) Complies with ATS clearances and instructions	(3) Evaluates ATS clearances and instructions, complying or rejecting as appropriate
(4) Fails to read back vital information	(4) Reads back vital instructions, information and clearances	(4) Reads back all appropriate instructions, information and clearances
(5) Unable to communicate using aviation phraseology	(5) Uses correct aviation phraseology most of the time	(5) Uses correct aviation phraseology at all times
(6) Uses slang or adopts an excessively assertive communication style	(6) Communicates in an adequately assertive manner	(6) Communicates in an appropriate, authoritative and assertive manner

ASSESSMENT CRITERIA

Task: Lift-off to hover

Objective:

To determine that the candidate:

(a) Lifts off to the recommended HIGE in headwind, crosswind, and tailwind conditions.

(b) Positions cyclic prior to lift off to compensate for drift.

(c) Establishes a stable hover and maintains RPM, position, hover height and heading.

(d) Carries out centre of gravity, control response, and power checks.

(e) Avoids prolonged hovering within congested areas and/or conditions that might lead to a loss of tail rotor effectiveness.

Action:

The examiner will:

(a) Place emphasis on the candidate's lookout prior to lift-off.

(b) Place emphasis on correct use of cyclic to avoid sideways or rearwards movement.

(c) Place emphasis on maintenance of helicopter position, heading and height in a stable hover.

(d) Place emphasis on maintenance of RPM.

(e) Place emphasis on the candidate's completion of centre of gravity, control response, and power checks.

(f) Observe the candidate's avoidance of prolonged hovering within congested areas and/or conditions that might lead to a loss of tail rotor effectiveness.

Lift-Off to Hover

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Does not lookout prior to lift off	(1) Looks out prior to lift off	(1) Ensures area is clear prior to lift off
(2) Does not position cyclic prior to lift off and does not correct for drift after lift-off	(2) Does not allow sufficient cyclic prior to lift off but corrects for drift after lift off	(2) Positions cyclic correctly prior to lift off and accurately remains over the designated point in all conditions
(3) Is unable to establish a stabilised hover at the recommended HIGE	(3) Establishes a stabilised hover at the recommended HIGE	(3) Lifts off smoothly to a stabilised hover at the recommended HIGE
(4) Is unable to maintain heading within 5º, and position within one metre of the designated point	(4) Maintains heading within 5º, and position within one metre of the designated point	(4) Accurately maintains heading and position in all conditions
(5) Does not maintain RPM	(5) Maintains RPM within limits	(5) Maintains constant RPM
(6) Does not complete centre of gravity, control response or power checks	(6) Completes centre of gravity, control response and power checks	(6) Competently completes centre of gravity, control response and power checks in a timely manner
(7) Is unaware of conditions that could lead to loss of tail rotor effectiveness and/or hovers excessively in a confined area	(7) Demonstrates awareness of conditions that could lead to loss of tail rotor effectiveness and does not hover excessively in a confined area	(7) Avoids hovering in conditions that could lead to loss of tail rotor effectiveness and keeps hovering to a minimum in confined areas

ASSESSMENT CRITERIA

Task: Hover manoeuvring

Objective:

To determine that the candidate:

(a) Hover taxis over specified ground references, demonstrating forward, sideward, rearward hovering and hover turns with due regard to rotor wash effects.

(b) Maintains a steady taxiing speed at the recommended hover height and maintains the specified ground track within one metre on straight legs and each pivot point during turns, recognising and avoiding hazards.

(c) Makes 180° and 360° pivoting turns with due regard to tail-rotor/main-rotor clearances, stopping within 5° of specified headings.

Action:

The examiner will:

(a) Observe the candidate's hover taxiing procedures and determine that the performance meets the objectives and that the candidate is aware of the helicopter's rotor wash and its effect.

(b) Place emphasis on the candidate's demonstration of constant taxi speed, height, track and the recognition of hazards.

(c) Place emphasis on the candidate's lookout, prior to and during turns, including clearing turns as appropriate, and awareness of tail-rotor/main-rotor clearances.

(d) Make allowance for fluctuations due to gusts and turbulence (but not excessively so).

Hover Manoeuvring

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Hover taxis at dangerously high speed	(1) Hover taxis at the recommended pace and height	(1) Taxis at an appropriate pace and height
(2) Is unable to maintain direction within 5º of required heading, or ground track within one metre	(2) Maintains direction within 5º of required heading and ground track within one metre on straight legs	(2) Maintains required heading and ground track accurately
(3) Is unable to maintain position during turns or does not stop within 5º of the specified heading	(3) Maintains position within one metre of each pivot point during turns and stops within 5º of the specified heading	(3) Accurately remains over the pivot point during turns and stops on the specified heading
(4) Does not maintain RPM within limits	(4) Maintains RPM within limits	(4) Maintains constant RPM
(5) Does not lookout prior to turning or is unaware of tail-rotor/main-rotor clearances	(5) Looks out prior to turns and is aware of tail-rotor/main-rotor clearances	(5) Looks out prior to and during turns and is clearly aware of tail-rotor/main-rotor clearances
(6) Is unaware of rotor wash effect and does not recognise, or creates a hazard whilst hover taxiing	(6) Is aware of rotor wash effect and avoids hazards whilst hover taxiing	(6) Recognises, avoids and does not create a hazard whilst hover taxiing by ensuring sufficient room to negate rotor wash

ASSESSMENT CRITERIA

Task: Normal take-off

Objective:

To determine that the candidate:

(a) Ensures the correct take-off direction is being used and the approach path is clear (**critical element**).

(b) Maintains the correct attitude during the lift-off, hover and transition to the normal climb, checking engine instruments and airspeed increasing.

(c) Tracks the take-off direction during transition and climb.

(d) Demonstrates sound knowledge of height/velocity graph requirements.

(e) Shows awareness of noise abatement and obstacle avoidance (as applicable).

Action:

The examiner will:

(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 correct airspeed, pitch and track during transition to the climb.

(c) Place emphasis on the candidate's awareness of height/velocity graph limitations.

(d) Observe the candidate's noise abatement and obstacle avoidance procedures.

(e) Make allowance for fluctuations due to gusts and turbulence (but not excessively so).

Normal Take-off

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Does not conform with other traffic, or uses an incorrect take-off direction	(1) Uses the correct direction for take-off and clears the approach path prior to commencing transition (**critical element**)	(1) Ensures direction in use is correct and clears the complete approach area prior to commencing transition
(2) Has an excessive nose-down attitude during transition or the take-off angle is excessively steep	(2) Maintains the correct attitude during the lift-off, hover and transition to the normal climb, checking engine instruments and airspeed increasing	(2) Accurately maintains the correct attitude throughout the lift-off, hover and transition to the normal climb, checking engine instruments and airspeed increasing
(3) Maintains an airspeed more than ± 10 knots of the nominated climb airspeed	(3) Maintains the nominated climb airspeed within ± 10 knots	(3) Accurately establishes and maintains the nominated climb airspeed
(4) Grossly deviates from take-off direction during take-off or climb out	(4) Maintains take-off direction during take-off and climb out	(4) Accurately tracks the take-off direction throughout the take-off and climb out
(5) Fails to comply with height/velocity graph requirements	(5) Meets height/velocity graph requirements	(5) Takes-off and climbs well within height/velocity graph requirements
(6) Neglects noise abatement procedures or obstacles in the take-off path	(6) Applies noise abatement and obstacle avoidance procedures	(6) Applies noise abatement procedures and ensures obstacle avoidance

ASSESSMENT CRITERIA

Task: Crosswind take-off (at Examiner discretion)

Objective:

To determine that the candidate:

(a) Positions controls appropriately to compensate for crosswind.

(b) Tracks the take-off direction during transition and climb out, compensating for the crosswind component.

(c) Is aware of the significance of wind direction in relation to loss of tail rotor effectiveness.

Note: Crosswind take-off is not an optional task for BFR

Action:

The examiner will:

(a) Question the candidate on the effect of crosswind component and its significance in relation to the candidate's personal limits.

(b) If conditions permit, observe the candidate's demonstration of a crosswind take-off and determine that the candidate's performance meets the objective.

(c) Place emphasis on the candidate's control positioning and allowance for drift.

(d) Place emphasis on the candidate's demonstration of correct airspeed, pitch and heading control.

(e) Make allowance for fluctuations due to gusts and turbulence (but not excessively so).

Cross-wind Take-off (at Examiner discretion)

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Is unaware of the significance of wind direction in relation to loss of tail rotor effectiveness	(1) Realises the significance of wind direction in relation to loss of tail rotor effectiveness	(1) Demonstrates an awareness of the significance of wind direction in relation to loss of tail rotor effectiveness
(2) Allows helicopter to move sideways during hover and transition	(2) Correctly uses controls to prevent drift during hover and transition	(2) Accurately maintains the helicopter's position during hover and transition
(3) Has an excessive nose-down attitude during transition or the take-off angle is excessively steep	(3) Maintains the correct attitude during the lift-off, hover and transition to the normal climb, checking engine instruments and airspeed increasing	(3) Accurately maintains the correct attitude throughout the lift-off, hover and transition to the normal climb, checking engine instruments and airspeed increasing
(4) Grossly deviates from take-off direction during take-off or climb out	(4) Maintains take-off direction during take-off and climb out	(4) Accurately tracks the take-off direction throughout the take-off and climb out
(5) Maintains an airspeed more than ± 10 knots of the nominated airspeed	(5) Maintains the nominated climb airspeed within ± 10 knots	(5) Accurately establishes and maintains the nominated climb airspeed

ASSESSMENT CRITERIA

Task: Limited power (cushion creep) take-off

Objective:

To determine that the candidate is capable of:

(a) Taking off when the power margin is insufficient to allow a normal take-off to be carried out.

(b) Ensuring that RPM and power limitations are not exceeded.

(c) Correct use of cyclic, collective and pedals during transition to forward speed.

(d) Modifying the climb speed for the conditions and re-evaluating the advisability of continuing.

(e) Maintaining direction and attitude.

Action:

The examiner will:

(a) Determine the power required for the hover and limit the candidate's power available as necessary to simulate a limited power margin.

(b) Observe the demonstration of a cushion-creep take-off and determine that the candidate's performance meets the objective.

(c) Place emphasis on the candidate's correct use of cyclic, collective and pedals during transition to forward speed.

(d) Place emphasis on the candidate's assessment of an appropriate climb speed for the conditions and any obstacle clearance requirements.

(e) Place emphasis on the candidate's demonstration of attitude and directional control and make allowance for fluctuations due to turbulence (but not excessively so).

Limited Power (Cushion Creep) Take-off

Rating_____70_____85_____100

Not yet competent	COMPETENT	Ideal
(1) Rushes take-off or contacts ground heavily during transition from hover	(1) Takes off using correct technique	(1) Carries out a smooth, unhurried take-off without ground contact
(2) Operates outside power and/or RPM limits	(2) Operates within power and RPM limits	(2) Maximises use of power available throughout
(3) Has an excessive nose-down attitude during transition or the take-off angle is excessively steep	(3) Maintains the correct attitude during the lift-off, hover and transition to the normal climb, checking engine instruments and airspeed increasing	(3) Accurately maintains the correct attitude throughout the lift-off, hover and transition to the normal climb, checking engine instruments and airspeed increasing
(4) Does not modify the climb speed for the conditions	(4) Modifies the climb speed for the conditions and re-evaluates the advisability of continuing prior to reaching obstacles	(4) Modifies the climb speed for the conditions, re-evaluating advisability of continuing and assesses the power margin prior to reaching obstacles, during transition and climb
(5) Grossly deviates from take-off direction during take-off or climb out	(5) Maintains take-off direction during take-off and climb out	(5) Accurately tracks the take-off direction throughout the take-off and climb out
(6) Maintains an airspeed more than ± 10 knots of the nominated airspeed	(6) Maintains the nominated climb airspeed within ± 10 knots	(6) Accurately establishes and maintains the nominated climb airspeed

ASSESSMENT CRITERIA

Task: Limited power (running) take-off

Objective:

To determine that the candidate is capable of:

(a) Taking off when power available is insufficient to maintain a sustained hover.

(b) Ensuring that RPM and power limitations are not exceeded.

(c) Correct use of collective, cyclic and pedals during transition to forward speed, and achieving positive ground separation at translation.

(d) Modifying the climb speed for the conditions and re-evaluating the advisability of continuing.

(e) Maintaining direction and attitude.

Action:

The examiner will:

(a) Determine the power required for the hover and limit the power available as appropriate to simulate a limited power margin.

(b) Observe the demonstration of a running take-off and determine that the candidate's performance meets the objective.

(c) Place emphasis on the candidate's correct use of cyclic, collective and pedals during transition to forward speed.

(d) Place emphasis on the candidate's assessment of an appropriate climb speed for the conditions, assessment of obstacle clearance and the advisability of continuing with the take-off.

(e) Place emphasis on the candidate's demonstration of attitude and directional control and make allowance for fluctuations due to turbulence (but not excessively so).

Limited Power (Running) Take-Off

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Rushes take-off with ground contact after lift-off or holds helicopter on ground at excessive speed	(1) Takes off using the correct technique maintaining light ground contact	(1) Carries out a smooth, unhurried take-off with positive ground separation at translation
(2) Operates outside power and/or RPM limits	(2) Operates within power and RPM limits	(2) Maximises use of power available throughout
(3) Has an excessive nose-down attitude during transition or the take-off angle is excessively steep	(3) Maintains the correct attitude during the take-off and transition to the climb	(3) Accurately maintains the correct attitude throughout the lift-off, hover and transition to the climb, checking engine instruments and airspeed
(4) Does not modify climb speed for the conditions and/or uses collective instead of cyclic in an attempt to clear obstacles	(4) Modifies the climb speed for the conditions and re-evaluates advisability of continuing prior to reaching obstacles	(4) Modifies the climb speed for the conditions, re-evaluating the advisability of continuing, assessing the power margin during transition and climb prior to reaching obstacles
(5) Grossly deviates from take-off direction during take-off or climb out	(5) Maintains take-off direction during take-off and climb out	(5) Accurately tracks the take-off direction throughout the take-off and climb out
(6) Maintains an airspeed more than ± 10 knots of the nominated airspeed	(6) Maintains the nominated climb airspeed within ± 10 knots	(6) Accurately establishes and maintains the nominated climb airspeed

ASSESSMENT CRITERIA

Task: Towering take-off

Objective:

To determine that the candidate is capable of:

(a) Carrying out a take-off at the maximum angle.

(b) Assessing the power available against that required for take-off and climb.

(c) Utilising all the available area, ensuring that maximum RPM is achieved, and engine instrument readings are acceptable prior to take-off.

(d) Modifying the climb angle for the conditions and evaluating the advisability of continuing.

(e) Utilising the recommended speed (Vx) for maximum angle of climb.

(f) Transitioning to normal climb attitude, airspeed ± 10 knots, and power setting after clearing all obstacles.

Action:

The examiner will:

(a) Observe the demonstration of a towering take-off and determine that the candidate's performance meets the objective.

(b) Place emphasis on the candidate's assessment of power requirement and availability (power check).

(c) Place emphasis on the candidate's assessment of appropriate climb angle and speed for the conditions.

(d) Place emphasis on the candidate's demonstration of attitude, heading and airspeed control and make allowances for fluctuations due to turbulence (but not excessively so).

Towering Take-off

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Is unable to assess the power required and margin available	(1) Assesses power required and calculates margin available	(1) Accurately assess power required and margin available
(2) Does not check engine instruments or carry out a power check prior to take-off	(2) Carries out a power check prior to take-off and checks engine instruments	(2) Carries out a power check ensuring sufficient margin is available and checks engine instruments
(3) Does not utilise all the available area	(3) Utilises all the available area and selects a take-off path into wind	(3) Utilises all the available area and correctly assesses the best take-off path
(4) Moves forward before initiating climb or climbs vertically and does not modify the climb angle once clear of obstacles	(4) Takes-off using the correct technique but is slow in modifying the climb angle once clear of obstacles	(4) Carries out a smooth, unhurried take-off with positive transition to climb attitude, modifying the climb once clear of all obstacles
(5) Airspeed grossly above or below the nominated speed for maximum angle of climb	(5) Climbs at the maximum angle of climb speed ± 10 knots, transitioning to the normal climb airspeed and power setting after clearing all obstacles	(5) Accurately climbs at the maximum angle of climb speed transitioning smoothly and in a timely manner to the normal climb airspeed and power setting after clearing all obstacles
(6) Grossly deviates from take-off direction during take-off or climb	(6) Maintains take-off direction during take-off and climb out	(6) Accurately tracks the take-off direction throughout the climb out

ASSESSMENT CRITERIA

Task: Climbing

Objective:

To determine that the candidate is capable of:

(a) Maintaining the nominated climb attitude and speed ± 10 knots.

(b) Maintaining the climb heading ± 5 degrees.

(c) Maintaining the nominated climb power.

(d) Correct use of trim (if applicable).

Action:

The examiner will:

(a) Nominate the type of climb to be demonstrated.

(b) Place emphasis on the candidate's demonstration of airspeed, heading and balance control.

(c) Place emphasis on the candidate's ability to maintain a constant power setting.

(d) Ensure the helicopter is trimmed for the climb attitude (if applicable).

(e) Make allowance for airspeed fluctuations due to gusts and turbulence (but not excessively so).

Climbing

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Maintains an airspeed in excess of ± 10 knots of the nominated climb speed	(1) Maintains nominated climb speed within ± 10 knots	(1) Maintains the nominated climb speed accurately
(2) Fails to ensure the DI is aligned with the compass (if applicable) and/or consistently deviates from the nominated heading by more than 5º	(2) Maintains the nominated heading within ± 5º, realigning the DI as required (if applicable)	(2) Maintains the nominated DI heading accurately, realigning the DI as required (if applicable)
(3) Is grossly out of balance most of the time	(3) Maintains the helicopter in balance most of the time	(3) Maintains balanced flight accurately
(4) Would exceed engine limitations without examiner intervention	(4) Operates the engine within all limitations	(4) Operates the engine smoothly, precisely and prudently, maintaining the nominated climb power
(5) Makes no attempt to trim the helicopter	(5) Trims for the climb attitude (if applicable)	(5) Trims accurately for the climb attitude

ASSESSMENT CRITERIA

Task: Straight and level

Objective:

To determine that the candidate is capable of:

(a) Achieving and maintaining straight and level flight at a nominated altitude ± 50 feet.

(b) Maintaining a heading ± 5°.

(c) Trimming the helicopter to maintain straight and level flight (if applicable).

Action:

The examiner will:

(a) Nominate the altitude at which level flight will be entered and maintained.

(b) Nominate the heading to be maintained.

(c) Place emphasis on the candidate's demonstration of altitude, heading and balance control.

(d) Ensure the helicopter is trimmed for level flight (if applicable).

(e) Make allowance for fluctuations due to turbulence (but not excessively so).

Straight and Level

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Is unable to anticipate the level off	(1) Anticipates the level off	(1) Accurately anticipates the level off
(2) Maintains an altitude in excess of 50 feet of the nominated altitude	(2) Maintains the nominated altitude within 50 feet most of the time	(2) Maintains the nominated altitude accurately
(3) Consistently deviates from the nominated DI heading by more than 5º or fails to ensure the DI is aligned with the compass (if applicable)	(3) Maintains the nominated DI heading within ± 5º most of the time, realigning the DI as required (if applicable)	(3) Maintains the nominated DI heading accurately, realigning the DI as required (if applicable)
(4) Is grossly out of balance most of the time	(4) Maintains the helicopter in balance most of the time	(4) Maintains balanced flight accurately
(5) Makes no attempt to trim the helicopter	(5) Trims for the straight and level attitude (if applicable)	(5) Trims accurately for the straight and level attitude

ASSESSMENT CRITERIA

Task: Medium turns

Objective:

To determine that the candidate;

(a) Enters, maintains, and exits from turning manoeuvres with smooth and coordinated control applications, maintaining altitude ± 50 feet and less than a ¼ ball deflection in balance.

(b) Maintains situational awareness and orientation through lookout and the selection of a suitable reference point.

Action:

The examiner/instructor will;

(a) Place emphasis on the candidate's lookout.

(b) Require the candidate to demonstrate a 30 degree angle of bank turn level through at least 180° both left and right.

(c) Place emphasis on the candidate's procedure for clearing the flight path ahead of the aircraft.

(d) Observe the candidate's performance and determine that it meets the objectives.

Medium Turns

Rating_____70_____85_____100

Not yet competent	COMPETENT	Ideal
(1) Fails to complete a lookout prior to entering the turn, or to maintain an adequate lookout during the turn	(1) Completes a lookout prior to entering the turn and maintains an adequate lookout throughout the turn	(1) Completes an excellent lookout prior to entering the turn and maintains it during, and on exit from, the turn
(2) Rough, uncoordinated control applications	(2) Uses coordinated control movements	(2) Uses smooth coordinated control movements at all times
(3) Frequently exceeds ± 50 feet of the nominated altitude	(3) Maintains the nominated altitude ± 50 feet	(3) Accurately maintains the nominated reference altitude at all times
(4) Excessively varies the bank angle during the turn	(4) Maintains the nominated angle of bank ± 5 degrees	(4) Accurately maintains the nominated angle of bank throughout the turn
(5) Maintains in excess of ¼ ball deflection	(5) Averages no more than ¼ ball deflection	(5) Maintains accurate balance throughout
(6) Consistently rolls out of the turn more than 10 degrees off the reference point	(6) Selects a good reference point and rolls out of the turn within 10 degrees of the reference point	(6) Selects a solid reference point and consistently rolls out of the turn on the reference point
(7) Would enter cloud, controlled airspace inadvertently or leave the designated training area during the turn without examiner intervention	(7) Remains clear of cloud and does not inadvertently enter controlled airspace and/or remains within the designated training area	(7) Throughout the turn, maintains VMC at all times and remains well clear of inadvertent controlled airspace infringement

ASSESSMENT CRITERIA

Task: Steep turns

Objective:

To determine that the candidate;

(a) Enters, maintains, and exits from turning manoeuvres with smooth and coordinated control applications, maintaining altitude ± 50 feet.

(b) Increases power at bank angles in excess of 30 degrees.

(c) Maintains situational awareness and orientation through lookout and the selection of a good reference point.

Action:

The examiner/instructor will;

(a) Place emphasis on the candidate's lookout.

(b) Require the candidate to demonstrate a 45 degree angle of bank level turn through 360° both left and right.

(c) Observe the candidate's performance and determine that it meets the objectives.

Steep Turns

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Fails to complete a lookout prior to entering the turn, or to maintain an adequate lookout during the turn	(1) Completes a lookout prior to entering the turn and maintains an adequate lookout throughout the turn	(1) Completes an excellent lookout prior to entering the turn and maintains it during, and on exit from, the turn
(2) Rough, uncoordinated control applications	(2) Uses coordinated control movements most of the time	(2) Uses smooth coordinated control movements at all times
(3) Frequently exceeds $\pm$ 50 feet of the nominated altitude	(3) Maintains the nominated altitude $\pm$ 50 feet	(3) Accurately maintains the nominated reference altitude at all times
(4) Excessively varies the bank angle during the turn	(4) Maintains the nominated angle of bank $\pm$ 5 degrees most of the time	(4) Accurately maintains the nominated angle of bank throughout the turn
(5) Does not increase power at all	(5) Uses an appropriate power setting	(5) Smoothly increases power, commensurate with increasing angle of bank in excess of 30 degrees
(6) Consistently rolls out of the turn more than 10 degrees off the reference point or enters cloud, controlled airspace or leaves the designated training area during the turn	(6) Selects a good reference point and rolls out of the turn within 10 degrees of the reference point	(6) Selects a solid reference point, with regard to cloud, controlled airspace and drift, so as to remain in the same area, and consistently rolls out of the turn on the reference point

ASSESSMENT CRITERIA

Task: Magnetic compass headings

Objective:

To determine that, in level flight, the candidate is capable of:

(a) Maintaining a compass heading ± 10 degrees.

(b) Turning onto a compass heading, initially ± 15 degrees, reducing to ± 10 degrees after one correction.

Action:

The examiner will:

(a) Obscure the DI.

(b) Place emphasis on the candidate's lookout.

(c) Nominate the compass heading to be turned onto and maintained.

(d) Observe the candidate's performance and determine that it meets the objectives.

Magnetic Compass Headings

Rating	**70**	**85**	**100**
	Not yet competent	**COMPETENT**	**Ideal**
(1)	Fails to complete a lookout prior to entering the compass turn	(1) Completes a lookout prior to entering the compass turn and maintains an adequate lookout during the turn (**critical element**)	(1) Completes an excellent lookout prior to entering the compass turn and maintains it during, and on exit from, the turn
(2)	Consistently fails to roll out of the turn within 15º of the nominated compass heading	(2) Rolls out of the turn within 15 degrees of the nominated compass heading	(2) Consistently rolls out of the turn within 5 degrees of the nominated compass heading
(3)	Cannot correct the helicopter's heading to within ± 10º of the nominated compass heading	(3) Corrects the helicopter's heading to within ± 10º of the nominated compass heading in one attempt	(3) Consistently corrects the helicopter's heading to within ± 5 degrees of the nominated compass heading on the first attempt
(4)	Maintains a compass heading in excess of ± 10º of the nominated compass heading	(4) Maintains the nominated compass heading within ± 10º	(4) Maintains the nominated compass heading accurately
(5)	Maintains an altitude in excess of 50 feet of the nominated altitude	(5) Maintains the nominated altitude within 50 feet	(5) Maintains the nominated altitude accurately

ASSESSMENT CRITERIA

Task: Straight-in autorotation (critical task)

Objective:

To determine that the candidate:

(a) Executes an appropriate emergency procedure in the event of power failure into wind.

(b) Establishes autorotation speed ± 10 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:

The examiner will:

(a) Initiate the power failure at altitude (examiner discretion).

(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.

(e) Place emphasis on the candidate's control of rotor RPM (**critical element**).

(f) Place emphasis on the candidate's technique and recovery to a level attitude, into wind, in a level hover or hover taxi.

Straight-in Autorotation

Rating	70	85	100
	Not yet competent	**COMPETENT**	**Ideal**
	(1) Grossly deviates from the nominated autorotation speed	(1) Establishes the nominated autorotation speed within ± 10 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 (**critical element**), managing engine governor and carburettor heat as applicable	(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

ASSESSMENT CRITERIA

Task: 180 degree autorotation (critical task)

Objective:

To determine that the candidate:

(a) Executes an appropriate emergency procedure in the event of power failure.

(b) Allows for wind and varies the flight path, RPM and/or IAS appropriately.

(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 within 30 metres of the selected aiming point (**critical element**).

Action:

The examiner will:

(a) Nominate the aiming point and initiate, or allow the candidate to initiate (at examiner discretion), 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 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 and re-establishment 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.

180 Degree Autorotation

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Grossly deviates from the recommended autorotation speed	(1) Establishes the recommended autorotation speed	(1) Promptly, smoothly and accurately establishes and maintains the recommended autorotation speed
(2) Maintains a grossly out of balance attitude	(2) Maintains the helicopter in balance most of the time	(2) Maintains accurate balance throughout
(3) Allows rotor RPM to grossly deviate from limits	(3) Maintains rotor RPM and promptly corrects for any deviation (**critical element**)	(3) Maintains rotor RPM within limits at all times
(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

ASSESSMENT CRITERIA

Task: Quick stops

Objective:

To determine that the candidate is capable of:

(a) Performing a quick stop from approximately 50 knots, both into and out of wind, at a constant height and terminating into wind.

(b) Maintaining RPM and height within limits **(critical elements**).

(c) Coordinating controls throughout the manoeuvre.

(d) Maintaining heading ± 10° throughout the manoeuvre (if applicable).

(e) Terminating in a level, stationary hover momentarily prior to descending to the recommended HIGE.

Action:

The examiner will:

(a) Nominate a commencement height that ensures tail rotor clearance.

(b) Nominate the commencement airspeed and start of the manoeuvre.

(c) Observe the candidate's performance and determine that it meets the objective.

(d) Place emphasis on the candidate's maintenance of height, heading and RPM coordination.

(e) Place emphasis on the candidate's recovery to HIGE once the helicopter is level and stationary.

Quick Stops

Rating_____70_____85_____100

Not yet competent	COMPETENT	Ideal
(1) Does not maintain sufficient height for tail rotor clearance	(1) Maintains sufficient height for tail rotor clearance (**critical element**)	(1) Confirms sufficient height for tail rotor clearance and operates within height/velocity graph requirements throughout the manoeuvre
(2) Exceeds RPM limits	(2) Maintains RPM within limits (**critical element**)	(2) Maintains constant RPM throughout the manoeuvre
(3) Uses harsh, uncoordinated control movements throughout	(3) Coordinates all controls	(3) Uses smooth coordinated control movements at all times
(4) Changes heading in excess of ± 10°	(4) Maintains heading within ± 10°	(4) Maintains constant heading throughout
(5) Holds flare after helicopter airspeed has reduced to zero or descends rapidly while still in a flared attitude	(5) Terminates in a level hover before descending to HIGE	(5) Terminates in a level stationary hover before descending to HIGE

ASSESSMENT CRITERIA

Task: Low flying

Objective:

To determine that the candidate:

(a) Maintains an adequate lookout for wires and other obstacles (**critical element**).

(b) Ensures the area is clear prior to entry and descends with due consideration to obstacles.

(c) Is capable of maintaining constant height ± 25′ whilst contour flying with correct use of collective and cyclic controls.

(d) Maintains the nominated airspeed, ± 10 knots, whilst allowing for drift and ground speed changes.

(e) Is capable of maintaining a constant radius about a ground feature compensating for wind.

Action:

The examiner will:

(a) Nominate the airspeed to be maintained, and height AGL to be flown.

(b) Observe the candidate's low flying technique and determine that the candidate's performance meets the objectives.

(c) Nominate a ground feature on which the candidate can demonstrate a constant radius turn.

(d) Place emphasis on the candidate's height, attitude and airspeed control throughout all manoeuvres.

Low Flying

Rating	**70**	**85**	**100**
	Not yet competent	**COMPETENT**	**Ideal**
(1)	Does not observe wires or critical obstacles in the nominated area	(1) Notes critical obstacles within the nominated area (**critical element**)	(1) Completes a recon and identifies all relevant obstacles within and adjacent to the nominated area
(2)	Conflicts with other aircraft already in the area and/or ignores critical obstacles	(2) Descends into the area with due consideration to obstacles (**critical element**)	(2) Chooses the optimum descent profile into the area with due consideration to obstacles
(3)	Height consistently exceeds +25′ or exceeds -25′	(3) Maintains height ± 25′	(3) Accurately maintains the nominated height at all times
(4)	Maintains in excess of ± 10 knots of the nominated airspeed	(4) Maintains the nominated airspeed ± 10 knots	(4) Accurately maintains the nominated airspeed throughout

ASSESSMENT CRITERIA

Task: Mountainous terrain awareness

Objective:

To determine that the candidate can:

(a) Determine the wind direction (**critical element**) and carry out a circuit and approach terminating in a hover or landing on a ridge or knoll.

(b) Carry out an approach to a hover, or landing at a point in a valley with no natural horizon.

(c) Demonstrate level turns within a valley with no natural horizon.

Action:

The examiner will:

(a) Nominate a suitable landing site on a ridge or knoll.

(b) Observe the candidate's assessment of wind direction and circuit to a hover, or landing (at examiner discretion) on a ridge or knoll to determine that the candidate's performance meets the objective.

(c) Nominate a position in a valley (with no natural horizon) and observe the candidate's approach to a hover, or landing (at examiner discretion) and determine that the candidate's performance meets the objective.

(d) Require the candidate to carry out turns left and right in a valley (with no natural horizon) and observe the candidate's performance to determine that it meets the objective.

NB: This item may be omitted from the issue flight test, at the examiner's discretion, if an A or B Category Instructor has certified the candidate's logbook that the CPL standard has been met.

Mountainous Terrain Awareness (at Examiner discretion)

Rating_____70_____85_____100

Not yet competent	COMPETENT	Ideal
(1) Neglects to carry out a high reconnaissance	(1) Carries out an adequate reconnaissance	(1) Carries out a high reconnaissance at a suitable height
(2) Elects an approach that is downwind (when wind is greater than 10 knots) and/or places the helicopter in an area of excessive downdraft	(2) Selects an approach into wind (**critical element**)	(2) Correctly ascertains wind direction and selects the most suitable approach considering obstacles
(3) Neglects to carry out a low reconnaissance or ascertain power margin available	(3) Ascertains available power margin	(3) Carries out a low reconnaissance, checking power margin is suitable for HOGE and confirming selected approach is suitable
(4) Is unable to maintain attitude, altitude and safe airspeed during turns with no natural horizon	(4) Maintains attitude, altitude and airspeed within safe margins during turns with no natural horizon	(4) Maintains constant attitude, altitude and airspeed accurately throughout turns with no natural horizon

ASSESSMENT CRITERIA

Task: Slope operations

Objective:

To determine that the candidate can:

(a) Select a suitable landing area with consideration to wind, slope, approach, and passenger disembarkation.

(b) Land across the slope with smooth, positive descent to touch the up-slope skid, or landing gear, on the surface.

(c) Maintain positive control while lowering the down-slope skid or landing gear to complete the landing.

(d) Recognise when the slope is too steep and abandon the operation prior to reaching cyclic control stops (**critical element**).

(e) Make a smooth transition from the slope to a stabilised hover and move away from the slope correctly.

(f) Maintain the specified heading ± 10° throughout the manoeuvre.

(g) Recognise hazards involved in slope operations (**critical element**).

Action:

The examiner will:

(a) Observe the candidate's execution of a slope landing and lift off and determine that the candidate's performance meets the objectives.

(b) Determine that the candidate has adequate knowledge of the hazards involved in slope operations (ground resonance, dynamic rollover, passenger safety) through further oral questioning as applicable.

Slope Operations

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Attempts a landing that exceeds the helicopter's performance capabilities	(1) Selects a landing area that is adequate and within the performance capabilities of the helicopter (**critical element**)	(1) Selects a landing area after careful consideration of the slope, wind, obstacles and passenger egress
(2) Attempts to land with the tail up slope and/or when the slope is too steep	(2) Lands across slope and into wind, adequately controlling the helicopter	(2) Lands across slope and into wind using smooth, positive, coordinated control movements at all times
(3) Uses rough, uncoordinated control movements or exceeds RPM limits	(3) Maintains RPM within limits throughout (**critical element**)	(3) Maintains an appropriate RPM throughout the landing and lift off
(4) Lands with the downhill or both skids touching or allows the helicopter to slide excessively	(4) Lands with the uphill skid touching first and recognises when the slope is too steep (**critical element**)	(4) Maintains positive control while lowering the down-slope skid and recognises when the slope is too steep
(5) Over-controls during take off, allows the helicopter to roll or turns the tail rotor toward the slope	(5) Lifts off from the slope allowing adequate tail/main rotor clearance prior to any turns	(5) Makes a smooth, positive lift-off, ensuring adequate tail/main rotor clearance prior to any turns
(6) Makes large deviations from the nominated heading	(6) Maintains the nominated heading ± 10° throughout the manoeuvre	(6) Accurately maintains the nominated heading at all times
(7) Has no knowledge of hazards involved in slope operations	(7) Demonstrates adequate knowledge of hazards involved in slope operations (**critical element**)	(7) Demonstrates a thorough knowledge of all hazards involved in slope operations

ASSESSMENT CRITERIA

Task: Confined area 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).

(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 ± 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:

The examiner will:

(a) Nominate the confined area.

(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.

Confined Area Operations

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(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 maintaining constant height of 500 feet AGL, accurately assessing the wind velocity
(2) Selects an unsuitable approach path or approaches downwind and/or does not consider loss of headwind, wind shear/turbulence on approach	(2) Selects an appropriate approach path into wind and is aware of the hazards associated with loss of headwind, wind shear/turbulence on approach	(2) Selects the optimum approach path 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 (**critical elements**)	(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 (critical element)	(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

ASSESSMENT CRITERIA

Task: Descent

Objective:

To determine that the candidate is capable of:

(a) Maintaining the nominated descent attitude and speed ± 10 knots.

(b) Maintaining the descent heading ± 5 degrees.

(c) Using appropriate descent power for the conditions.

(d) Correct use of carburettor heat and trim (if applicable).

Action:

The examiner will:

(a) Observe the candidate's descent procedures and determine they meet the objective.

(b) Place emphasis on the candidate's demonstration of airspeed, heading and balance control.

(c) Ensure the helicopter is trimmed for the descent attitude (if applicable).

(d) Place emphasis on the candidate's monitoring and control of power and RPM to achieve a steady descent.

(e) Make allowance for airspeed fluctuations due to turbulence (but not excessively so).

Descent

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Maintains an airspeed in excess of ± 10 knots of the nominated descent speed	(1) Maintains the nominated airspeed within ± 10 knots	(1) Maintains the nominated airspeed accurately
(2) Consistently deviates from the nominated heading and/or is grossly out of balance most of the time	(2) Maintains the nominated heading ± 5° and remains in balanced flight most of the time	(2) Accurately maintains the nominated heading and in balance at all times
(3) Would exceed engine limitations without examiner's intervention and/or neglects to use carburettor heat (if applicable)	(3) Operates the engine within limits and uses carburettor heat (if applicable)	(3) Operates the engine smoothly, and within limits at all times, monitors engine instruments and uses carburettor heat in accordance with flight manual requirements
(4) Descends at an excessive rate	(4) Uses appropriate power for the conditions and maintains a steady rate of descent	(4) Uses appropriate power for the conditions, adjusting power to maintain a constant rate of descent
(5) Makes no attempt to trim the helicopter	(5) Trims for the descent attitude (if applicable)	(5) Trims accurately for the descent attitude

ASSESSMENT CRITERIA

Task: Joining the circuit

Objective:

To determine that the candidate:

(a) Obtains the necessary ATS clearances where appropriate.

(b) Carries out the nominated circuit joining procedure in accordance with the recommended procedures, or ATS requirements where appropriate.

(c) Demonstrates an acceptable level of situational awareness.

(d) Completes the required joining/downwind checklist (if a downwind leg will not be flown).

Action:

The examiner will:

(a) Observe the candidate's circuit joining procedure and determine that the candidate's performance meets the objective.

(b) Place emphasis on the candidate's maintaining proper spacing from other traffic and compliance with ATS clearances (if applicable).

(c) Place emphasis on the candidate' compliance with, or avoidance of, the aeroplane traffic circuit at unattended aerodromes.

(d) Place emphasis on the candidate's level of situational awareness.

Joining the Circuit

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Does not carry out pre-joining/downwind checks (as applicable)	(1) Completes pre-joining/downwind checks (as applicable)	(1) Completes the pre-joining/downwind checks in accordance with the checklist (as and when applicable)
(2) Does not obtain ATIS when it is available and desirable	(2) Obtains ATIS (if applicable)	(2) Obtains current ATIS
(3) Does not obtain an ATS clearance or broadcast intentions, when applicable and required	(3) Obtains an ATS clearance or broadcasts intentions, when applicable and appropriate	(3) Obtains an ATS clearance or broadcasts intentions, when appropriate, in accordance with standard procedures
(4) Turns the wrong way or joins for an inappropriate runway	(4) Carries out the nominated circuit joining procedure in accordance with ATS instructions and conforms with or avoids the aeroplane circuit at unattended airfields (as applicable)	(4) Carries out the nominated circuit joining procedure in accordance with ATS instructions, conforming with the circuit in use in accordance with recommended procedures, entering the traffic pattern at the correct height considering W/V and traffic
(5) Maintains an inadequate lookout or listen out, cutting in front of other aircraft in the circuit or causes conflict with other traffic	(5) Observes traffic in the circuit, keeping possibly conflicting traffic in any alternative circuit in sight and giving way to all traffic as required	(5) Determines the position of circuit traffic and sequences the helicopter to avoid a traffic conflict, giving way as appropriate

ASSESSMENT CRITERIA

Task: Normal circuit, approach and landing

Objective:

To determine that the candidate is capable of:

(a) Carrying out a normal circuit and approach to land.

(b) Controlling airspeed/ground speed to maintain an approach to a stabilised IGE hover at a nominated point.

(c) Establishing and maintaining the recommended approach angle and proper rate of closure.

(d) Carrying out a normal approach to a hover in ground effect, to within one metre of the designated aiming point.

(e) Maintaining awareness (**critical element**) of the possibility of wind shear, wake turbulence or vortex ring state (settling with power).

Actions:

The examiner will:

(a) Nominate the landing point.

(b) Observe the candidate's demonstration of a normal circuit and approach to an in-ground effect hover and determine that the candidate's performance meets the objectives.

(c) Place emphasis on the circuit pattern, altitude, checks and compliance with ATS clearances.

(d) Place emphasis on a stabilised approach profile and airspeed/ground speed control.

(e) Place emphasis on the candidate coming to an IGE hover within one metre of the designated aiming point.

(f) Place emphasis on the avoidance of situations that could lead to the onset of vortex ring state.

Normal Approach and Landing

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Excessive convergence/divergence downwind, or maintains ± 50′ in excess of circuit height	(1) Flys circuit pattern correctly and maintains circuit height ± 50′	(1) Flys an accurate circuit pattern maintaining the correct circuit height
(2) Does not carry out down-wind checks	(2) Completes down-wind checks	(2) Completes down-wind checks in accordance with the checklist
(3) Does not obtain an ATS clearance when required	(3) Obtains an ATS clearance when required (**critical element**)	(3) Obtains ATS clearances when required, requesting an alternative if necessary
(4) Frequent airspeed variations in excess of ± 10 knots on final	(4) Maintains the nominated approach speed ± 10 knots	(4) Maintains the nominated approach speed accurately
(5) Fluctuates between or maintains a gross overshoot or undershoot and does not initiate a go-round	(5) Maintains an acceptable and steady approach profile	(5) Accurately maintains a steady, optimum approach profile
(6) Terminates in an OGE hover and/or more than one metre from the nominated aiming point	(6) Terminates in an IGE hover within one metre of the nominated aiming point	(6) Accurately terminates in an IGE hover at the nominated aiming point
(7) Is unaware of hazards caused by wind shear, wake turbulence or vortex ring state	(7) Is aware of hazards caused by wind shear, wake turbulence or vortex ring state (**critical element**)	(7) Demonstrates a thorough knowledge of the hazards of wind shear, wake turbulence and vortex ring state

ASSESSMENT CRITERIA

Task: Limited power (running) landing

Objective:

To determine that the candidate is capable of:

(a) Carrying out a run-on landing to a pre-selected touch down point utilising maximum RPM, and without exceeding nominated power.

(b) Establishing and maintaining a shallow approach angle and proper rate of closure taking into consideration obstacles and other hazards.

(c) Touching down at no more than 10 knots groundspeed with skids level and parallel with the ground track.

(d) Correct use of collective/cyclic after touchdown.

Action:

The examiner will:

(a) Nominate the touch down point and maximum power to be used.

(b) Observe the candidate's demonstration of a run-on landing and determine that the candidate's performance meets the objective.

(c) Place emphasis on a stabilised shallow approach profile and airspeed/ground speed control.

(d) Place emphasis on clearance of obstacles in the approach path at the nominated obstacle clearance speed.

(e) Place emphasis on soft ground contact not above 10 knots, and correct use of collective for braking and maintenance of RPM after touchdown.

Limited Power (Running) Landing

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Fluctuates between, or maintains a gross overshoot or undershooting approach profile	(1) Maintains an acceptable and steady approach profile	(1) Maintains a steady, optimum approach profile
(2) Reduces airspeed well below translation prior to passing obstacles or crosses the threshold at an excessive speed	(2) Crosses threshold well above obstacles	(2) Adjusts flight path to avoid obstacles where practical and accurately achieves the nominated threshold speed crossing unavoidable obstacles at a safe height
(3) Lands at a groundspeed well in excess of 10 knots or touches down heavily, not in a level attitude or with skids not aligned with ground track	(3) Lands firmly at a groundspeed less than 10 knots with skids level and aligned with ground track	(3) Lands softly and in a level attitude at the optimum ground speed with skids level and aligned with ground track
(4) Lowers collective at an excessively high groundspeed, uses aft cyclic and/or reduces RPM below operating range before the helicopter is stopped	(4) Lowers the collective to assist braking, maintains a level disc and an appropriate RPM until the helicopter is stopped	(4) Uses collective correctly to slow the helicopter to stop accurately at a designated point maintaining RPM until collective is fully lowered

ASSESSMENT CRITERIA

Task: Zero speed landing

Objective:

To determine that the candidate is capable of:

(a) Making an approach to a nominated spot to land with zero ground speed, without hover and without exceeding the nominated power limitation.

(b) Considering the effect of wind conditions, landing surface and obstacles on approach.

(c) Establishing and maintaining a stable approach angle and rate of closure.

(d) Controlling the rate of descent with power to a nominated touch down point.

(e) Avoiding situations that could result in vortex ring state (settling with power).

Action:

The examiner will:

(a) Nominate the power limit for the approach and touch down point.

(b) Observe the candidate's demonstration of a zero speed landing and determine that the candidate's performance meets the objectives.

(c) Place emphasis on a stabilised approach profile and achievement of the zero target speed with soft ground contact.

(d) Place emphasis on the candidate reaching the nominated aiming point ± 1/2 metre.

(e) Place emphasis on the avoidance of situations that could lead to the onset of vortex ring state.

Zero Speed Landing

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Does not consider the wind conditions, landing surface and obstacles on approach	(1) Considers the wind conditions, landing surface, and obstacles on approach	(1) Accurately assess the conditions, landing surface, and plans approach to avoid obstacles where practical
(2) Fluctuates between, or maintains a gross overshoot or undershooting approach profile and/or excessive rate of descent during approach	(2) Maintains an acceptable and steady approach profile using appropriate collective inputs	(2) Maintains a steady, optimum approach profile accurately controlling the rate of descent with power
(3) Would exceed the power limits without intervention by the examiner	(3) Completes the approach using the nominated power limitation	(3) Uses the optimum power setting for the approach and landing
(4) Descends with excessive rearward or sideways movement	(4) Descends vertically from the hover to land, correcting for horizontal movement prior to touchdown	(4) Descends vertically from the hover without horizontal movement
(5) Touches down heavily and/or in a tail-down attitude or lands outside ½ metre from the designated aiming point	(5) Lands firmly in a level attitude within ½ metre of the designated aiming point with zero or minimal forward movement after touchdown	(5) Lands softly and in a level attitude at the designated aiming point with zero speed
(6) Rapidly lowers collective or reduces RPM below operating range before the helicopter is firmly on the ground	(6) Lowers the collective and reduces RPM appropriately	(6) Lowers the collective and reduces RPM after ensuring no hazard (ground resonance/dynamic roll-over) exists

ASSESSMENT CRITERIA

Task: Go-round

Objective:

To determine that the candidate:

(a) Demonstrates knowledge of when it is necessary to go-round during an approach to land.

(b) Makes a timely decision to discontinue the approach to land.

Action:

The examiner will:

(a) Call for a go-round during at least one approach from not less than 50′ above any obstacles.

(b) Observe the candidate's performance and determine that it meets the objectives.

(c) Place emphasis on appropriate control inputs to stop descent and initiate the climb.

(d) Place emphasis on the candidate maintaining a proper ground track with crosswind correction where necessary.

(e) Place emphasis on transition to normal climb airspeed ± 10 knots when clear of obstacles.

Go-round

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Does not recognise a situation which requires the execution of a go-round such that safety is compromised	(1) Executes a missed approach on the command "go-round"	(1) Identifies any situation requiring a go-round and initiates the procedure in a timely manner without prompting
(2) Over boosts and/or loses RPM	(2) Leads with collective to initiate climb	(2) Smoothly and promptly leads with collective to initiate climb, confirming carburettor heat off (if applicable)
(3) Grossly deviates from appropriate ground track	(3) Tracks appropriately	(3) Accurately tracks pre-planned escape route or appropriate heading
(4) Continues with excessively low airspeed once clear of obstacles	(4) Transitions to nominated climb airspeed ± 10 knots when clear of obstacles	(4) Smoothly transitions to accurately maintain the nominated climb speed when well clear of obstacles

ASSESSMENT CRITERIA

Task: Steep approach

Objective:

To determine that the candidate:

(a) Considers factors related to a steep approach, including the height/velocity chart.

(b) Considers power available, density altitude, wind, terrain, obstructions, and landing surface.

(c) Selects a suitable touch down point and go/no go decision point.

(d) Establishes and maintains a suitable approach angle (15° maximum).

(e) Avoids situations that could result in vortex ring state (settling with power) and remains aware of the possibility of wind shear (**critical element**).

Action:

The examiner will:

(a) Observe the candidate's steep approach and determine that the candidate's performance meets the objective.

(b) Place emphasis on the candidate's control of the descent profile.

(c) Place emphasis on the candidate's obstacle clearance procedure.

(d) Determine that the candidate makes an appropriate decision to continue or discontinue the approach.

(e) Place emphasis on the candidate's arrival at the pre-selected touch down point, on the surface or in a stabilised hover, ± ½ metre.

Steep Approach

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Does not select a suitable touch down point and/or allow sufficient tail rotor/main rotor clearance	(1) Selects a suitable touch down point and maintains acceptable tail and main rotor clearances (**critical element**)	(1) Selects a suitable touch down point considering tail and main rotor clearance, helicopter performance and other hazards and selects the optimum approach path
(2) Maintains an unacceptably steep (>15º) approach angle, and/or places the helicopter in VRS (critical element)	(2) Maintains an acceptable approach profile	(2) Accurately maintains a steady, optimum approach profile
(3) Misjudges approach and **does not** initiate a go-round (**critical element**)	(3) Initiates a go round at the decision point (if required)	(3) Makes a sound go/no go decision approaching the decision point
(4) Lands or terminates in an un-stabilised hover in excess of ½ metre from the nominated touch down point	(4) Lands or terminates in a stable hover within ½ metre of the nominated touch down point	(4) Lands or terminates in a stable hover accurately at the nominated touch down point
(5) Is unaware of factors related to the steep approach, such as vortex ring state and height/velocity chart	(5) Is aware of the possibility of wind shear and avoids situations that could result in vortex ring state (**critical element**)	(5) Demonstrates a thorough understanding of factors related to the steep approach and plans the approach to avoid hazardous flight

ASSESSMENT CRITERIA

Task: Carriage of sling loads (at Examiner discretion)

Objective:

To determine that the candidate:

(a) Exhibits an understanding of helicopter weight and balance limitations in relation to the carriage of sling loads (**critical element**).

(b) Ensures the load is secure and checks the hook release mechanism prior to take off.

(c) Is aware of and avoids third party risk.

(d) Demonstrates a take off with a small sling load using a sling of a minimum length of four metres.

(e) Demonstrate a circuit and approach to a hover at a nominated point such that the load is within three metres of the ground.

(f) Can release the load using the manual release system.

Action:

The examiner will:

(a) Observe the candidate's operation with a sling load and determine that the candidate's performance meets the objectives.

(b) Place emphasis on the candidate's use of the appropriate technique for take-off and the avoidance of third party risk.

(c) Place emphasis on the height of the load at the termination of the approach (no more than three metres above ground level).

(d) Place emphasis on the positioning and control of the helicopter during the load release (no ground contact with forward speed).

NB: May be omitted at the examiner's discretion, if a Category A or B instructor has certified competence in the candidate's logbook.

Carriage of Sling Loads (at Examiner discretion)

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Has no understanding of weight and balance limitations in relation to the carriage of sling loads	(1) Understands the principles of weight and balance in relation to the carriage of sling loads (**critical element**)	(1) Has an excellent appreciation of the weight and balance factors involved for varying types of sling loads
(2) Neglects to check the hook release mechanism and/or load security	(2) Checks the hook release mechanism and load security prior to take-off	
(3) Does not carry out a power check or ensure sufficient power margin	(3) Checks HIGE hover power prior to picking up the load	(3) Checks HOGE power prior to pick up, checks margin for T/O, landing
(4) Is grossly unstable in the hover or drags the load during take-off	(4) Lifts into a stable hover and carries out a normal take-off	(4) Lifts into a stable hover and uses the optimum take-off profile
(5) Attempts to fly over third party buildings and/or persons	(5) Avoids flying over third party property and persons	(5) Demonstrates an excellent awareness of ground hazards/third party risk
(6) Allows a dangerous oscillation to develop and is unable to correct it	(6) Understands the hazards involved and corrects for load oscillation	(6) Hazards thoroughly understood and oscillations promptly corrected
(7) Drags the load on landing or comes to an unacceptably high and unstable HOGE (load more than three metres AGL)	(7) Terminates in the hover with the load within three metres of the ground	(7) Terminates in the hover with the load accurately positioned over the aiming point within one metre of the ground
(8) Is unable to release the load manually and/or is grossly unstable during release and/or drops the load	(8) Moves aside from the load prior to releasing the load manually but is slightly unstable during release	(8) Positions appropriately to avoid damage to the load prior to manual release, maintaining a stable hover

ASSESSMENT CRITERIA

Task: Engine failure in the hover

Objective:

To determine that the candidate:

(a) Performs a landing from a stationary hover at not more than the recommended HIGE height, into wind.

(b) Maintains the established heading ± 30°.

(c) Touches down with no sideward, or rearward movement.

Action:

The examiner will:

(a) Simulate emergencies without risk to the helicopter or crew and ensure that ATS is aware of the simulated emergency.

(b) Select a suitable flat, obstacle-free area.

(c) Simulate an engine failure by reducing power and closing the throttle.

(d) Observe the candidate's subsequent actions and determine that they meet the objectives.

(e) Place emphasis on the candidate's control of the helicopter.

(f) Place emphasis on the candidate's ability to cushion the landing and maintain a constant heading.

Engine Failure in the Hover

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Uses rough, uncoordinated control movements.	(1) Coordinates all controls, but uses coarse control movements during the recovery	(1) Coordinates all controls to make a smooth recovery
(2) Does not use sufficient collective to cushion the landing and touches down with sideways or rearwards movement	(2) Uses collective appropriately but touches down with some forward movement	(2) Uses correct amount of collective and touches down with no horizontal movement
(3) Grossly deviates from the established heading	(3) Maintains the established heading ± 30°	(3) Accurately maintains the established heading

ASSESSMENT CRITERIA

Task: Shut down

Objective:

To determine that the candidate:

(a) Shuts down in accordance with the helicopter's flight manual.

(b) Briefs and supervises the passenger(s) on leaving the helicopter.

(c) Parks the helicopter in accordance with recommended procedures.

(d) Completes post flight documentation.

Action:

(a) The examiner will act in the role of an inexperienced passenger and:

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

(c) Determine the candidate's knowledge of passenger briefing, helicopter parking and securing requirements, through further questioning as necessary.

Shut Down

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Vacates the helicopter (at any time) whilst blades are rotating under power	(1) Correctly shuts down	(1) Shuts down in accordance with the helicopter's flight manual or checklist
(2) Allows the passenger(s) to vacate the helicopter while the blades are rotating or does not brief the passenger(s) on hazards and/or the appropriate direction of approach and egress	(2) Waits until the blades have stopped rotating before allowing the passenger(s) to vacate the helicopter	(2) Fully briefs the passenger(s) as to the hazards involved in leaving the helicopter while the blades are rotating and waits until the blades have stopped before escorting the passenger(s) "groundside"
(3) Parks the helicopter without due consideration to rotor wash effects on other aircraft or objects and/or is unaware of the conditions that could lead to a blade sailing hazard	(3) Parks the helicopter with adequate clearance from objects and other aircraft and into wind or as appropriate to prevent hazards due to blade sailing	(3) Is aware of all hazards associated with parking near other aircraft or buildings and parks the helicopter in accordance with recommended procedures
(4) Fails to terminate any flight plan (if applicable) or documentation and/or does not secure the helicopter (if required)	(4) Completes critical post flight documentation and secures the helicopter if required	(4) Completes all post flight documentation and secures the helicopter in accordance with the helicopter's flight manual

ASSESSMENT CRITERIA

Task: Emergencies and hazards

Objective:

To determine that the candidate:

(a) Can demonstrate the procedures to be adopted in the event of emergencies in the following areas (if applicable to type):
hydraulic failure;
tail rotor emergencies including un-commanded yaw;
recovery from low rotor RPM;
recovery from vortex ring state.

(b) Has sound knowledge of the causes and action to be taken in the event of emergencies in the following areas applicable to the helicopter in use:
dynamic rollover;
ground resonance;
low G conditions;
smoke and/or fire;
flight controls or trim failures.

(c) Analyses the situation and takes action, appropriate to the helicopter being used for the practical test.

Action:

The examiner will:

(a) Question the candidate on the procedure to be adopted in the event of emergencies applicable to the helicopter type.

(b) Simulate emergencies (when applicable) without risk to the helicopter or crew.

(c) Ensure that ATS is aware of simulated emergencies (as applicable).

(d) Observe the candidate's subsequent actions and determine that they meet the objectives.

(e) Place emphasis on the candidate's control of the helicopter (**critical element**).

Emergencies and Hazards

Rating	**70**	**85**	**100**
	Not yet competent	**COMPETENT**	**Ideal**
	(1) Fails to maintain/regain control of the helicopter (critical element) during simulated recovery from tail rotor emergencies, low rotor RPM, vortex ring state and/or hydraulic failure	(1) Demonstrates recovery from tail rotor emergencies, low rotor RPM, vortex ring state and/or hydraulic failure applicable to the helicopter flown	(1) Promptly and efficiently implements procedures applicable to the helicopter flown for recovery from tail rotor emergencies, low rotor RPM, vortex ring state and/or hydraulic failure
	(2) Has little or no knowledge of procedures to be adopted in the event of emergencies	(2) Has a sound knowledge of procedures to be adopted in the event of emergencies	(2) Has a thorough knowledge of procedures to be adopted in the event of emergencies
	(3) The outcome of a manoeuvre is in doubt and/or the examiner intervenes in the interest of safety	(3) Maintains control of the helicopter (**critical element**)	(3) Maintains positive control of the helicopter at all times

ASSESSMENT CRITERIA

Task: Threat and error management

Objective:

To ensure that the candidate:

(a) Exhibits competent threat and error management techniques during the demonstration.

Action:

The examiner will:

(a) Assess the candidate's threat and error management techniques through observation of situational awareness, decision making and human factors considerations.

(b) Simulate operational and/or systems failures (as appropriate) to assess the candidate's threat and error management.

(c) Orally question (as required) the candidate's decision making process to assess threat and error management.

Threat and Error Management

Rating_____70_____85_____100

Not yet competent	**COMPETENT**	**Ideal**
(1) The candidate's situational awareness is compromised and/or not applied to the operational situation (as simulated if applicable)	(1) The candidate exhibits a competent level of situational awareness in relation to the operation (as simulated if applicable)	(1) The candidate exhibits a high level of situational awareness with emphasis on operational factors
(2) The candidate's knowledge of human factors is inadequate and/or not applied to the operation	(2) The candidate exhibits a competent level of human factors in those factors relevant to the operation	(2) The candidate exhibits superior knowledge of human factors, particularly those relevant to the operation
(3) The candidate's decision making process cannot be evaluated or clearly ignores available information, especially any information related to the operation	(3) The candidate verbalises the decision making process and highlights any decision influenced by the operational environment	(3) The candidate verbalises the decision making process with emphasis on any decision influenced by the operational environment

ASSESSMENT CRITERIA

Task: Radiotelephony tuning and procedures

Objective:

To determine that the candidate:

(a) Listens to communications from ground stations and other aircraft.

(b) Uses the helicopter's radio to communicate clearly and concisely.

(c) Uses correct aeronautical phraseology at all times.

Action:

The examiner will:

(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.

Radiotelephony Tuning and Procedures

Rating	70	85	100
	Not yet competent	**COMPETENT**	**Ideal**
	(1) Pays little attention to radio in high traffic density airspace	(1) Maintains an adequate listening watch	(1) Maintains a continuous listening watch, guarding the appropriate radio frequencies
	(2) Communication style un intelligible on radio	(2) Communicates adequately by radio	(2) Uses a clear concise, and well modulated voice when communicating by radio
	(3) Adopts a non-assertive, excessively assertive or verbose communication style	(3) Communicates in an adequately assertive manner	(3) Communicates in an appropriately authoritative and assertive manner
	(4) Seldom uses correct aviation phraseology	(4) Uses correct aviation phraseology	(4) Uses correct aviation phraseology at all times

ASSESSMENT CRITERIA

Task: Lookout (critical task)

Objective:

To determine that the candidate:

(a) Maintains a lookout both on the ground and in the air for collision avoidance and separation from other aircraft (**critical element**).

(b) Remains in VMC to comply with Visual Flight Rules (**critical element**).

(c) Maintains situational awareness (**critical element**).

Action:

The examiner will:

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

(b) Require the candidate to report on the position of other aircraft.

Lookout

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Lookout grossly deficient - examiner needs to intervene	(1) Maintains an adequate lookout (**critical element**)	(1) Maintains a continuous and systematic lookout both on the ground and in the air
(2) Demonstrates a lack of knowledge in the application of VMC for VFR or would enter cloud without examiner intervention	(2) Maintains VMC in accordance with the minimum requirements for VFR (**critical element**)	(2) Maintains VMC to ensure VFR flight at all times
(3) Pays little attention to situational awareness with no idea of the relative position of other traffic	(3) Maintains a minimum but adequate level of situational awareness (**critical element**)	(3) Maintains a high level of situational awareness by building a mental picture of the relative position of all traffic which may potentially affect the flight

ASSESSMENT CRITERIA

Task: Flight orientation

Objective:

To determine that the candidate:

(a) Demonstrates familiarity with airspace boundaries including control zones, Kopter lanes and reporting points.

(b) Can identify airspace boundaries and reporting points by use of map reading or local knowledge (**critical element**).

Action:

The examiner will:

(a) Observe the candidate's navigational procedures and determine that the candidate's performance meets the objectives.

(b) Question the candidate to additionally determine knowledge of local airspace (as applicable).

Flight Orientation

Rating 70	85	100
Not yet competent	**COMPETENT**	**Ideal**
(1) Knowledge of local airspace grossly deficient	(1) Shows familiarity with airspace in local area	(1) Demonstrates thorough knowledge of the airspace boundaries, Kopter lanes and reporting points of the local area
(2) Infringes controlled airspace	(2) Does not infringe controlled airspace (**critical element**)	(2) At all times during the test remains orientated with no likelihood of unintentionally infringing controlled airspace
(3) Neglects compulsory VFR reporting reports	(3) Uses VFR reporting points and makes compulsory position reports (**critical element**)	(3) Uses VFR reporting points and makes compulsory position reports correctly and punctually

ASSESSMENT CRITERIA

Task: Pilot judgement (critical task)

Objective:

To determine that the candidate;

(a) Demonstrates adequate pilot judgement skills (**critical element**).

Action:

The examiner will:

(a) Observe the candidate's performance of pilot judgement and decision making in relation to helicopter operation and procedures and determine that the candidate's demonstration meets the objective.

Pilot Judgement

Rating 70	**85**	**100**
Not yet competent	**COMPETENT**	**Ideal**
(1) Inadvertently exceeds, through carelessness or ignorance, or would exceed (without examiner intervention) the helicopter's performance limitations	(1) Demonstrates sound judgement through operation of the helicopter within it's performance envelope (**critical element**)	(1) Demonstrates sound judgement through operation of the helicopter well within it's performance envelope at all times when there is no operational requirement to operate at the limits
(2) Fails to modify the taxi, take-off, manoeuvring and/or approach speeds appropriately for the conditions and/or is ignorant of the effects on helicopter performance of modifying recommended speeds	(2) Demonstrates sound judgement for the conditions through the selection and appropriate modification of taxi, take-off, manoeuvring and approach speeds (**critical element**)	(2) Demonstrates sound judgement through the selection of appropriate taxi, take-off, manoeuvring and approach speeds for the conditions with a clear understanding of the performance and operational effects
(3) Immediately accepts and attempts to comply with all ATS clearances and/or instructions without consideration of operational requirements that may affect the safety of the helicopter	(3) Demonstrates sound judgement through the assessment of ATS clearances and instructions (**critical element**)	(3) Demonstrates sound judgement through the assessment of ATS clearances and instructions before complying or rejecting as appropriate
(4) Fails to respond to in-flight situations that threaten the safety of the helicopter and/or makes ill-informed and/or ill-considered decisions in relation to flight safety	(4) Demonstrates sound judgement when responding to in-flight situations (**critical element**)	(4) Demonstrates sound judgement when responding to in-flight situations by promptly and decisively managing the helicopter to maintain safe flight