|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Flight no: | CPL(H)3.\_\_\_\_ | Trainee name & ARN: |  | | |
| Date: |  | Instructor: |  | | |
| Aircraft registration: |  | Aircraft type: |  | Flight time: |  |

|  |
| --- |
| Lesson Overview  * Establish and maintain various types of climb and descent * Level off at a nominated altitude * Conduct level turns, climbing turns, and descending turns * Comply with airspace requirements |

| PRE-FLIGHT KNOWLEDGE  Long Briefing: 0.8 hour Pre-flight Briefing: 0.3  Underpinning knowledge: as required | |
| --- | --- |
| Content | |
| **Long briefing** – Advanced Coordination   * Aerodynamic forces acting on the helicopter during climb, descent and turns * Attitude flying * Power + Attitude = Performance * Maintenance of straight flight path during climb & descent * Climb and descent entry and levelling off sequences (e.g. “Power-Attitude- Balance” vs “Attitude-Power- Balance”) * Normal, best rate and best angle climbs * Airspeed and power settings for climb and descent | |
| **Underpinning knowledge**   * Review/expand previously introduced knowledge as required * Helicopter standard operating procedures [C2(a)] * Local weather patterns [C2(e)] * Location and use of fire extinguishers for fuel related fires [C4(d)] * Use of fire extinguisher system fitted to the helicopter [H1(f)] * Adverse effects of rotor wash [H3(b)] | |
| **HF & NTS**   * Fitness for flight * Use of checklists [NTS2 4(h)] * Principles of ‘see and avoid’ * Visual limitations * Visual scan technique - use of clock code * Lookout technique prior to and during climb & descent & turns * Monitor engine temperature & pressure * Hand over/take over technique (e.g. ‘I have control – you have control’) * Control technique | |
| **Pre-flight briefing**   * Review flight sequences, what to expect, see & do * Check essential knowledge * Reinforce threat & error management * Reinforce significant airmanship points | |
| **Pre-flight knowledge components complete:** | **Instructor’s signature & date** |

|  |  |  |
| --- | --- | --- |
| Performance Standard | | |
| **3** | **2** | **1** |
| Has received training in the element, however is not able to consistently demonstrate competency to the standard required for qualification issue | Demonstrates a developing level of proficiency, and is deemed safe to conduct solo practice under direct supervision | Achieves competency to the standard required for qualification issue |

| FLIGHT TRAINING  Suggested flight time: 1.0 hour dual | | | |
| --- | --- | --- | --- |
| MOS Reference | Lesson Content (Elements & Performance Criteria) | Performance  Standard | |
| Required | Achieved\* |
| 1. C1.2 | Operational communication using an aeronautical radio |  |  |
| (f) | use plain English effectively when standard phraseology is inadequate | 3 |  |
| (g) | receive appropriate responses to transmissions | 3 |  |
| 1. C4.1 | Plan fuel requirements |  |  |
|  | determine the required fuel reserves | 3 |  |
|  | determine the quantity of fuel required taking into account operational requirements and relevant abnormal or emergency conditions and contingencies | 3 |  |
|  | determine the total fuel required for the flight | 3 |  |
| 1. C4.2 | Manage fuel system |  |  |
|  | verify fuel quantity on-board aircraft prior to flight using two independent methods | 3 |  |
|  | ensure the fuel caps are secured | 3 |  |
|  | perform fuel quality check prior to flight | 3 |  |
|  | ensure fuel drain cocks are closed | 3 |  |
|  | monitor fuel usage during the flight | 3 |  |
| (k) | operate fuel pumps and engine controls correctly | 3 |  |
| 1. NTS1.1 | Maintain effective lookout |  |  |
| (c) | perform airspace-cleared procedure before commencing any manoeuvre | 3 |  |
| 1. H1.1 | Start engine and rotor |  |  |
|  | helicopter is positioned with a view to safety and rotor clearance when starting engine and rotors | 2 |  |
| 1. H5.1 | Climb helicopter |  |  |
|  | from straight and level flight, adjust attitude and power to achieve a climb at normal, best rate (VY), best angle (VX) and cruise climb flight configurations | 3 |  |
|  | appropriate altimeter settings are set | 3 |  |
|  | helicopter is maintained in balanced flight during adjustments to power | 3 |  |
|  | power is maintained as altitude increases | 3 |  |
|  | helicopter is levelled off from climb at nominated altitude | 3 |  |
|  | lookout is maintained during climb using a systematic scan technique at a rate determined by traffic density, visibility and terrain | 3 |  |
|  | situational awareness is maintained | 3 |  |
| 1. H5.3 | Descend helicopter |  |  |
|  | adjust attitude and power to enter and maintain a descent from straight and level | 3 |  |
|  | helicopter is levelled from a descent at a nominated altitude | 3 |  |
|  | lookout is maintained using a systematic scan technique at a rate determined by traffic density, visibility or terrain | 3 |  |
|  | clearance ahead and below is maintained | 3 |  |
|  | air traffic control altitude restrictions are observed (as required) | 3 |  |
|  | helicopter does not exceed aircraft flight manual limits during descent | 3 |  |
|  | set appropriate altimeter settings | 3 |  |
|  | situational awareness is maintained at all times during helicopter descent | 3 |  |
| 1. H5.4 | Turn helicopter |  |  |
|  | attitude and power are adjusted to enter and maintain turns at varying rates from level, climbing and descending flight to achieve nominated tracks, during: |  |  |
|  | * + 1. level turns | 3 |  |
|  | * + 1. climbing turns with 20° bank angle | 3 |  |
|  | * + 1. powered descending turn with 30° bank angle | 3 |  |
|  | helicopter is rolled out from the turn to achieve a nominated heading or geographical feature | 3 |  |
|  | ensure helicopter is balanced and trimmed (if applicable) | 3 |  |
|  | lookout is maintained in direction of turn and above or below using a systematic scan technique at a rate determined by traffic density, visibility and terrain | 3 |  |
|  | engine operating limits are not exceeded | 3 |  |
| 1. H5.7 | Comply with airspace requirements |  |  |
|  | suitable aeronautical charts are interpreted and used to maintain airspace compliance requirements | 3 |  |
|  | circuit departure is performed | 3 |  |
|  | helicopter is maintained within a specified area and/or track while complying with air traffic requirements, controlled or restricted airspace conditions or limitations and reacting to factors that affect the safe progress of a flight | 3 |  |
|  | orientation is maintained to geographical features with the aid of suitable charts and maps | 3 |  |
|  | circuit join is conducted | 3 |  |

\*Enter the performance standard achieved if it is different to that required

Where it has not been possible to introduce performance criteria or the trainee has not achieved the required standard, the performance criteria must be covered during the next lesson. Enter these performance criteria in the lesson record for the subsequent lesson.

| CONSOLIDATION AND/OR REMEDIAL TRAINING | | | |
| --- | --- | --- | --- |
| MOS Reference | Lesson Content (Elements & Performance Criteria) | Performance  Standard | |
| Required | Achieved |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

| DEBRIEFING |
| --- |
| Content |
| * Training review and outcomes achieved against lesson objectives and the Part 61 MOS competency standards * Recommendations for next lesson (including any carryover/remedial training) * Trainee preparation for next lesson * Training record completion and sign off |

| COMMENTS AND OUTCOME | | |
| --- | --- | --- |
|  | | |
| **Proceed to next training session?** | **Yes** | **No** |

| Instructor’s signature & date | Trainee’s signature & date |
| --- | --- |
|  |  |