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| --- | --- | --- | --- | --- | --- |
| Flight no: | CPL(H) 26.\_\_\_ | Trainee name & ARN: |  | | |
| Date: |  | Instructor: |  | | |
| Aircraft registration: |  | Aircraft type: |  | Flight time: |  |

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| Lesson Overview  * Confined Area Technique * SWAT (or PSWAT or PSWATP) Checks * Legal aspects of off-airport landings * Wire avoidance |

| PRE-FLIGHT KNOWLEDGE  Long Briefing: 1.0 hour Pre-flight Briefing: 0.3 hour  Underpinning knowledge: as required | |
| --- | --- |
| Content | |
| **Long briefing** – Confined Areas   * The wire hazard. * CAAP 92-2 * CAR 157(4)(d) and (e) as applied to descent below 500 feet AGL * Loading and use of performance charts for confined area flight planning * Power Check * SWAT Check * Approach and landing technique * Aborted approach decision making. * Taxiing in a confined area * Departing a confined area | |
| **Underpinning knowledge** (relevant to the stage of training):   * Review/expand previously introduced knowledge as required * Helicopter OGE performance charts. * Cross-wind and rotor control limits for the helicopter [H6(a)] * Local weather conditions [H6(d)] | |
| **HF & NTS**   * Apply confined area and slope landing technique to all off-airport landings spots. * Never stop looking for wires * Engage non-flying crew in the task of looking out during approach and departure. (Introduce the concept of CRM) * The application of situational awareness to identifying real or potential environmental or operational threats to flight safety [NTS2(c)] | |
| **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** |

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| 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. C2.1 | Pre-flight actions and procedures |  |  |
| (f) | using the aircraft documents, calculate the following for a given set of environmental and operational conditions: |  |  |
|  | (i) weight and balance | 3 |  |
|  | (ii) in-ground and out-of-effect hover performance | 3 |  |
|  | (iii) take-off and landing performance | 3 |  |
|  | (iv) fuel requirements | 3 |  |
| 1. C3.2 | Manage R/T equipment malfunctions |  |  |
|  | perform radio failure procedures | 2 |  |
|  | use fault finding procedures and perform corrective actions | 2 |  |
| 1. C3.3 | Operate Transponder |  |  |
|  | operate a transponder during normal, abnormal and emergency operations | 2 |  |
|  | recall transponder emergency codes | 2 |  |
| 1. C4.1 | Plan fuel requirements |  |  |
|  | determine the required fuel reserves | 1 |  |
|  | determine the quantity of fuel required taking into account operational requirements and relevant abnormal or emergency conditions and contingencies | 1 |  |
|  | determine the total fuel required for the flight | 1 |  |
| 1. NTS1.1 | Maintain effective lookout |  |  |
|  | maintain traffic separation using a systematic visual scan technique at a rate determined by traffic density, visibility and terrain | 1 |  |
|  | maintain radio listening watch and interpret transmissions to determine traffic location and intentions | 1 |  |
|  | perform airspace-cleared procedure before commencing any manoeuvre | 1 |  |
| 1. NTS1.5 | Maintain effective communications and interpersonal relationships |  |  |
|  | establish and maintain effective and efficient communications and interpersonal relationships with all stakeholders to ensure the optimum outcome of the flight | 2 |  |
|  | define and explain objectives to stakeholders | 2 |  |
|  | demonstrate a level of assertiveness that ensures the optimum completion of the flight | 2 |  |
| 1. NTS2.2 | Recognise and manage errors |  |  |
| (c) | monitor the following to collect and analyse information to identify potential or actual errors: |  |  |
|  | (i) aircraft systems using a systematic scan technique | 3 |  |
|  | (ii) the flight environment | 3 |  |
|  | (iii) other crew | 3 |  |
| 1. H2.1 | Lift off to hover and perform hover checks |  |  |
|  | aircraft performance is calculated for the flight | 1 |  |
|  | pre-take-off checks are performed | 1 |  |
|  | flight controls are set to prepare for lift-off to the hover | 1 |  |
|  | flight and power controls are used to lift helicopter off the surface to a stable hover at the appropriate height for the helicopter while controlling heading | 1 |  |
|  | wind effect is anticipated and accounted for with appropriate control inputs to maintain position over nominated hover point | 1 |  |
|  | awareness of adverse effects of rotor downwash on surrounding aircraft, people, objects and environment is demonstrated | 1 |  |
|  | perform hover checks | 1 |  |
|  | flight control functions, centre of gravity and hover power requirements are checked | 1 |  |
|  | at a constant and safe hover height, commence, maintain and stop a hover taxi manoeuvre while maintaining power and RRPM within the limits | 1 |  |
|  | coordinated corrective action is used to counter the effects of wind | 1 |  |
|  | implications of environmental conditions are assessed and appropriate compensation is made | 1 |  |
|  | helicopter is maintained clear of obstructions | 1 |  |
|  | lookout is maintained using a systematic scan technique at a rate determined by traffic density, visibility or terrain | 1 |  |
| **H2.2** | **Hover helicopter in crosswind and tailwind** |  |  |
| (a) | helicopter is maintained in hovering flight remaining over a nominated hover point at a nominated height and heading in cross and tail winds | 1 |  |
| (b) | coordinated corrective action is used to maintain a constant rate of turn and counter the effects of wind | 1 |  |
| **H2.3** | **Perform turns around the mast** |  |  |
| (a) | helicopter is turned around the mast while maintaining a constant height at a specified rate of turn | 1 |  |
| (b) | turn is completed on a nominated heading | 1 |  |
| (c) | controlled corrective action is used to control the effects of wind | 1 |  |
| (d) | helicopter is maintained clear of obstructions | 1 |  |
| (e) | lookout is maintained using a systematic scan technique at a rate determined by traffic density, visibility, obstructions and terrain | 1 |  |
| (f) | RPM is managed within limits during the turn | 1 |  |
| 1. H2.6 | Land from the hover |  |  |
|  | complete pre-landing checks (if applicable) | 1 |  |
|  | helicopter is lowered on to a nominated point from hovering flight using a controlled rate of descent, without adverse longitudinal, lateral, yawing or rolling movements | 1 |  |
|  | ensure helicopter is stable on its landing gear prior to fully lowering collective | 1 |  |
|  | after-landing checks are performed | 1 |  |
| 1. H2.7 | Manage a mishandled landing |  |  |
|  | identify when an adverse landing situation is developing | 1 |  |
|  | appropriate action is taken to discontinue the landing and return to a safe hover | 1 |  |
| 1. H2.8 | Manage a mishandled lift off |  |  |
|  | identify when an adverse lift off situation is developing | 1 |  |
|  | appropriate action is taken to discontinue the lift off and return to the ground safely | 1 |  |
| 1. H4.1 | Carryout pre-take-off checks |  |  |
|  | pre-take-off checks and safety briefings are completed | 1 |  |
|  | select a safe take-off path | 1 |  |
|  | helicopter is lined up in the take-off direction and positioned at the optimum position within the helicopter landing site (HLS) | 1 |  |
|  | line-up checks are performed in accordance with approved checklist, when appropriate | 1 |  |
| 1. H4.2 | Take-off helicopter |  |  |
|  | air traffic control clearances are obtained and compliance is maintained with clearance conditions and requirements (within controlled airspace) | 1 |  |
|  | helicopter is transitioned from a stationary position in a specified direction passing through translational lift, remaining clear of obstructions and establishing and maintaining a recommended or nominated climb speed | 1 |  |
|  | helicopter flight path is controlled using appropriate control techniques including awareness of helicopter performance considerations, aircraft balance and flight control trim (if applicable) | 1 |  |
|  | power and attitude are managed for the flight path, departure profile and Indicated Airspeed (IAS) being flown | 1 |  |
|  | local and published noise abatement requirements and curfews are observed | 1 |  |
|  | situational awareness of circuit traffic is maintained and conflict is avoided | 1 |  |
| 1. H4.3 | Approach to hover |  |  |
|  | a suitable termination point is selected | 1 |  |
|  | pre-landing checks are completed in accordance with approved checklist | 1 |  |
|  | appropriate approach angle and track is intercepted and approach manoeuvres are conducted in accordance with air traffic control instructions (when in controlled airspace) | 1 |  |
|  | helicopter is descended to the hover at the selected termination point at a reducing rate of closure and along a specified track on an approach angle appropriate to the helicopter type and conditions | 1 |  |
|  | align the landing gear to the planned approach direction | 1 |  |
|  | recognise and control loss of translational lift | 1 |  |
|  | RPM is managed within normal operational limits | 1 |  |
|  | approach is terminated at the hover over the termination point | 1 |  |
| 1. H4.4 | Perform go-around procedure |  |  |
|  | critical situations are recognised and timely decisions are made to go-around in circumstances that require discontinuing a circuit or approach | 1 |  |
|  | initiate the go-around | 1 |  |
|  | set power and attitude to initiate safe climb at appropriate IAS from any position in the circuit | 1 |  |
|  | obstructions and traffic are appropriately avoided during the climb following a decision to go-around | 1 |  |
|  | lookout is maintained using a systematic scan technique at a rate determined by traffic density, visibility or terrain | 1 |  |
|  | situational awareness of circuit traffic is maintained throughout go-round procedure | 1 |  |
|  | after take-off checks are completed in accordance with approved checklist (as required) | 1 |  |
|  | local and published noise abatement requirements and curfews are observed | 1 |  |
| 1. H5.3 | Descend helicopter |  |  |
|  | adjust attitude and power to enter and maintain a descent from straight and level | 1 |  |
|  | helicopter is levelled from a descent at a nominated altitude | 1 |  |
|  | lookout is maintained using a systematic scan technique at a rate determined by traffic density, visibility or terrain | 1 |  |
|  | clearance ahead and below is maintained | 1 |  |
|  | air traffic control altitude restrictions are observed (as required) | 1 |  |
|  | helicopter does not exceed aircraft flight manual limits during descent | 1 |  |
|  | set appropriate altimeter settings | 1 |  |
|  | situational awareness is maintained at all times during helicopter descent | 1 |  |
| 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: |  |  |
|  | (i) level turns | 1 |  |
|  | (ii) climbing turns with 20° bank angle | 1 |  |
|  | (iii) powered descending turn with 30° bank angle | 1 |  |
|  | helicopter is rolled out from the turn to achieve a nominated heading or geographical feature | 1 |  |
|  | ensure helicopter is balanced and trimmed (if applicable) | 1 |  |
|  | 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 | 1 |  |
|  | engine operating limits are not exceeded | 1 |  |
| 1. H5.5 | Control helicopter at any speed |  |  |
|  | adjust attitude and power to accelerate or decelerate the helicopter from any specified airspeed within the flight envelope to any other specified airspeed within the flight envelope while maintaining balanced flight and subsequently maintaining the new specified airspeed. | 2 |  |
|  | height awareness is maintained at all times and appropriate adjustments are made as required | 2 |  |
|  | wind conditions are monitored and appropriate allowance is made | 2 |  |
|  | helicopter is suitably controlled to ensure that it is operated within aircraft flight manual limits | 2 |  |
| 1. H6.3 | Land on, and lift off sloping ground |  |  |
|  | stakeholders are briefed to ensure safe operations in the vicinity of the helicopter | 2 |  |
|  | surface and slope conditions are assessed to be suitable and in limits for the helicopter type | 2 |  |
|  | helicopter is landed from the hover onto sloping ground using the appropriate slope landing techniques relevant to the helicopter type | 2 |  |
|  | ensure security of the helicopter on the sloping ground surface prior to reducing rotor RPM or engine shutdown | 2 |  |
|  | helicopter is lifted off from sloping ground to a hover using the appropriate slope landing techniques relevant to the helicopter type | 2 |  |
|  | control inputs and adjustments during landing on and lifting off are made in response to wind, surface and applicable aircraft limitations, using appropriate slope landing techniques and helicopter handling procedures | 2 |  |
|  | any abnormal situations are recognised and appropriate controlled corrective action is implemented | 2 |  |
|  | lookout is maintained using a systematic scan technique at a rate determined by traffic density, visibility or terrain | 2 |  |
|  | situational awareness is maintained at all times during lift-offs and landings on sloping ground | 2 |  |
| 1. H6.4 | Land, manoeuvre and take off and in a Confined Area (CA) |  |  |
|  | confined area is assessed against pilots own capabilities and helicopter performance, complete power assessment, a decision is made to operate in the area and a reconnaissance is conducted | 3 |  |
|  | appropriate approach and departure path is identified, maintain approach path to nominated termination point | 3 |  |
|  | helicopter is landed safely in a confined area using appropriate landing techniques | 3 |  |
|  | helicopter is manoeuvred in a confined area while remaining clear of obstructions, and within helicopter operating limitations | 3 |  |
|  | appropriate allowance is made for the effects of wind during manoeuvres in a confined area | 3 |  |
|  | helicopter departure plan and contingency procedures are briefed prior to departure (must include power assessment and nominate the abort point) | 3 |  |
|  | helicopter is safely taken off from a confined area using appropriate departure techniques | 3 |  |
|  | situational awareness is maintained at all times during manoeuvres in a confined area | 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 |
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| DEBRIEFING |
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| 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 |
| --- | --- |
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