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| --- | --- | --- | --- | --- | --- |
| Flight no: | RPL(A)18.\_\_\_\_ | Trainee name & ARN: |  | | |
| Date: |  | Instructor: |  | | |
| Aircraft registration: |  | Aircraft type: |  | Flight time: |  |

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| Lesson Overview  * Revise weight and balance, take-off and landing performance calculations, fuel calculations * 45° angle of bank level turns * Maximum rate turns – 60° angle of bank * Minimum radius turns – 60° angle of bank * Steep gliding turn * Spiral dive recognition and recovery * Sideslipping (where flight manual permits) * Flapless approach and landing * **Assess:**   + engine start and shutdown malfunctions and emergencies   + climbing (cruise and best rate)   + descending (cruise descent)   + local area airspace   + forced landing (simulated complete engine failure)   + radio failure procedure (inbound from training area) |

| PRE-FLIGHT KNOWLEDGE  Long Briefing: 0.8 hour Pre-flight Briefing: 0.3 hour  Underpinning knowledge: as required | |
| --- | --- |
| Content | |
| **Long briefing** – Steep Turns   * Review essential knowledge from turning brief * Aerodynamic forces during a turn * Bank angle and load factor * Load factor and effect on stalling speed * Maximum rate turns (including collision avoidance) * Minimum radius turns * Spiral dive – causes, symptoms and recovery technique * Sideslipping, application, precautions, flight manual limitations * Attitude flying * Instrument indications * Application in flight | |
| **Underpinning knowledge**   * Review/expand previously introduced knowledge as required * Radio failure procedures and light signals, including interpretation and actions required [C3 4(f)] * Hazards when performing performance manoeuvres [A3 4(g)] * Operational circumstances where steep turns are required [A5 4(a)] * Aerodynamic and aeroplane operational considerations related to sideslipping, steep turns and upset aeroplane states [A5 4(b)], including but not limited to:   + relationship between angle of attack and stall   + effects of weight, ‘g’ force and angle of attack   + dangers of unbalanced flight   + symmetrical and rolling ‘g’ force limitations   + higher stall speeds when aeroplane is turning   + effects on fuel, pitot and flap systems * Contents of the flight manual and pilot owner handbook [A5 4(c)] * Hazards of unbalanced flight [A5 4(g)], hazard of sideslip at low altitude [A6 4(j)] | |
| **HF & NTS**   * Effective communication under normal and non-normal circumstances [NTS1 4(a), NTS2 4(a)] * Undesired aeroplane state – prevention, identifying, controlling [NTS2 4(e)] * How an undesired aeroplane state can develop from unmanaged threat or error [NTS2 4(f)] * Use of checklists and standard operating procedures to prevent errors [NTS2 4(h)] | |
| **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 (weight & balance, t/o & ldg performance, fuel requirements) | 3 |  |
| 1. A1.1 | Start and stop engine (start and stop malfunctions and emergencies) | **2** |  |
| 1. A3.1 | Climb aeroplane (cruise and best rate) | **2** |  |
| 1. A3.3 | Descend aeroplane (powered) | **2** |  |
| 1. A3.7 | Local area airspace |  |  |
|  | using an appropriate chart, for the local area and circuit area: |  |  |
|  | * + 1. identify geographical features | **2** |  |
|  | * + 1. identify geographical limits | **2** |  |
|  | * + 1. identify restricted, controlled and uncontrolled airspace areas | **2** |  |
|  | * + 1. state local airspace limits | **2** |  |
|  | * + 1. identify the transit route between the departure aerodrome and training area | **2** |  |
|  | * + 1. identify the geographical limits of the training area | **2** |  |
|  | * + 1. identify aerodromes and landing areas within the local area | **2** |  |
|  | maintain orientation and pinpoint location by using geographical features and a local area chart | **2** |  |
|  | transit from the circuit area and transit to the designated training area | **2** |  |
|  | operate safely within a transit lane (if applicable) | **2** |  |
|  | remain clear of restricted, controlled and other appropriately designated airspace | **2** |  |
|  | operate safely in the vicinity of local aerodromes and landing areas | **2** |  |
|  | transit from the designated training area to the circuit area | **2** |  |
|  | set QNH appropriately | **2** |  |
|  | correctly determine which runway is to be used for landing | **2** |  |
|  | ensure runway is serviceable and available | **2** |  |
|  | position aircraft for arrival into the circuit | **2** |  |
| 1. A5.3 | Turn aeroplane steeply |  |  |
|  | pre-manoeuvre checks for steep turning | 3 |  |
|  | steep level turn using a nominated bank angle, ending on a nominated heading or geographical feature, without altitude change | 3 |  |
|  | steep descending turn using a nominated bank angle, ending on a nominated heading or geographical feature ending on a nominated altitude | 3 |  |
|  | aeroplane operating limits are not exceeded | 3 |  |
| 1. A6.6 | Recover from unusual flight attitudes (spiral dive recognition and recovery) |  |  |
|  | identify nose-low unusual attitude flight condition | 3 |  |
|  | recover from nose-low unusual attitudes by adjusting pitch, bank and power to resume controlled and balanced flight | 3 |  |
|  | apply controlled corrective action while maintaining aircraft performance within limits | 3 |  |
| 1. A5.4 | Sideslip aeroplane (where flight manual permits) |  |  |
|  | straight sideslip: |  |  |
|  | * + 1. induce slip to achieve increased rate of descent while maintaining track and airspeed | 3 |  |
|  | * + 1. adjust rate of descent by coordinating angle of bank and applied rudder | 3 |  |
|  | sideslipping turn by adjusting the bank angle to turn through minimum heading change of 90° at constant airspeed using sideslip, and exiting the turn on a specified heading or geographical feature, within tolerance | 3 |  |
|  | recover from a sideslip and return the aeroplane to balanced flight | 3 |  |
| 1. A6.3 | Perform forced landing (simulated) |  |  |
|  | after a simulated complete engine failure has occurred, without prior indications, carry out the following: |  |  |
|  | * + 1. identify complete power failure condition and control aeroplane | **2** |  |
|  | * + 1. perform immediate actions | **2** |  |
|  | * + 1. formulate and describe a recovery plan, including selecting the most suitable landing area | **2** |  |
|  | * + 1. establish optimal gliding flight path to position the aeroplane for a landing on the selected landing area | **2** |  |
|  | * + 1. perform emergency procedures and land the aeroplane if the engine cannot be restarted as time permits | **2** |  |
|  | * + 1. advise ATS or other agencies capable of providing assistance of situation and intentions | **2** |  |
|  | * + 1. re-brief passengers about flight situation, brace position and harness security | **2** |  |
|  | * + 1. land the aeroplane ensuring safest outcome if an engine restart is not achieved | **2** |  |
| 1. C3.2 | Manage R/T equipment malfunctions |  |  |
|  | perform radio failure procedures | **2** |  |
|  | use fault finding procedures and perform corrective actions | **2** |  |
| 1. A4.1 | Land aeroplane (revise flapless approach and landing) | 2 |  |

\*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 | | |
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|  | | |
| **Proceed to next training session?** | **Yes** | **No** |

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