**LESSON TE3-52: AUTOROTATION 1 (POWER TERMINATION AND TOUCHDOWN) – PRE-FLIGHT BRIEF and FLIGHT TRAINING**

**FLIGHT INSTRUCTOR RATING – GRADE 3 TRAINING ENDORSEMENT (Helicopter) LESSON PLAN AND TRAINING RECORD**

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| **TRAINEE NAME:** |  |  | **TRAINEE ARN:** | | |  |  |  |
| **INSTRUCTOR:** |  |  | DATE: |  | | |  |  |
| **AIRCRAFT REG’N:** |  | **AIRCRAFT TYPE:** |  | **FLIGHT TIME:** | | |  |  |
| **Performance Standard** | | | | | | | | |
| **3** | | **2** | | | **1** | | | |
| Has received training in the element, however is not able to consistently demonstrate competency to the standard required for the grant of the authorisation | | Is able to achieve competency to the standard required for the grant of the authorisation on the majority of occasions. | | | Achieves competency to the standard required for the grant of the authorisation. | | | |
| **Lesson Overview**   * This is a **demonstration** lesson for **Autorotation – Power Termination and Touchdown** * Demonstration of pre-flight brief for **Autorotation – Power Termination and Touchdown** * Demonstration of in-flight lesson for **Autorotation – Power Termination and Touchdown** * The blueprint for the pre-flight brief and in-flight lesson is the operator’s approved lesson from their PPL/CPL syllabus * Lesson objectives and underpinning knowledge to be demonstrated as applicable during read back | | | | | | | | |
| **Training Notes**   1. This lesson is for the instructor to demonstrate the lesson on Autorotation – Power Termination and Touchdown as a blueprint 2. The pre-flight brief should include review of Autorotation – Power Termination and Touchdown procedure and with emphasis on vital actions and logical prioritisation of tasks and the assessment and management of flight 3. The pre-flight brief should re-inforce the basic HF/NTS considerations required for safe flight introduced in previous lessons including management of threats and errors and an undesired aircraft state that can result from unmanaged threats and errors. Importance of workload organisation and management, using available resources to reduce workload and managing priorities in a logical and sequential manner 4. During the in-flight lesson, the instructor must demonstrate the correct procedures for Autorotation – Power Termination and Touchdown emphasising the importance of the vital actions and logical prioritisation of tasks. The instructor should ensure that that the trainee understands how to set up for a demonstration and the appropriate language to use to support the student with the visual assessment of position versus altitude and aircraft performance. 5. The instructor should demonstrate the integration of HF/NTS items introduced in the pre-flight brief including reviewing with the trainee the importance of maintaining situational awareness during all phases of the lesson and management of threats and errors and an undesired aircraft state that can result from unmanaged threats and errors and workload management using available resources to support. 6. The Flight Instructor manual provides useful references for some of the subject matter that should be included in this lesson. 7. To enhance the trainee learning and understanding of the threat and error management that must be applied in this lesson,   the instructor should introduce intervention and recovery techniques and some common student faults as they apply to power termination and touchdown autorotation in preparation for the read back.   1. The instructor should deliver a post-flight debrief of the lesson also as a blueprint and to give the trainee instructor additional exposure to this aspect of a training lesson. Make sure the intervention and recovery items are de-briefed. | | | | | | | | |

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| **MOS**  **Reference** | **Lesson Content** *(Elements & Performance Criteria)* | **Performance Standard** | |
| **Required** | **Achieved** |
| **FIR-TE3.2** | **Demonstrate understanding of principles and methods of instruction** |  |  |
| (a) ) | apply knowledge and application of element 3, principles and methods of instruction, described in unit FIRC (instructor rating common) in schedule 3 of Part 61 MOS | D |  |
| **FIR-TE3.3** | **Demonstrate competencies of a grade 3 training endorsement** |  |  |
| (a) | apply good knowledge of the aeronautical knowledge units of competency for the RPL, PPL and CPL to the standard required for the issue of a CPL; | D |  |
| (b) | perform proficient aircraft handling skills from the instructor control seat; | D |  |
| (c) | perform consistent management of lessons safely, efficiently and confidently; | D |  |
| (d) | manage the average trainee, coordinate accurate demonstration and key words, identify trainee weaknesses, suggest simple remedial actions with the provision of basic guidance using the demonstrate, direct and monitor process. | D |  |
| **FIR-TE3.5** | **Develop Briefings and Plan flight training** |  |  |

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| **MOS**  **Reference** | **Lesson Content** *(Elements & Performance Criteria)* | **Performance Standard** | |
| **Required** | **Achieved** |
| (e) | prepare a training plan that identifies each ground briefing and flight exercise required to achieve the standards for the issue of an RPL, PPL and CPL (including training required for the issue of an endorsement on an RPL). The following units and elements are to be addressed: |  |  |
|  | for helicopters |  |  |
|  | elements in the following units to be addressed in relevant briefings/flight exercises as applicable |  |  |
|  | (i) NTS1 and NTS2 | D |  |
|  | (ii) C1 through C5 | D |  |
|  | ground briefings and flight exercises prepared for | D |  |
|  | (xiii) H6.2 – Autorotative flight (f) and (g) | D |  |
| (f) | identify potential threats and errors normally associated with the planned flight training and develop suitable mitigating actions for each flight exercise | D |  |
| **FIR-TE3.6** | **Conduct pre-flight briefing** |  |  |
| (a) | perform effective pre-flight briefings for each flight exercise in the training plan including application of standard operating procedures, demonstrating relevant performance criteria described in element FIR4.1 and FIR4.3 of unit FIR4 (conduct aeronautical knowledge training and flight training). |  |  |
|  | **FIR4.1 Plan training** |  |  |
|  | (a) confirm trainee readiness for proposed training through review of training records to confirm their competency status; | D |  |
|  | (b) identify training objectives based on performance criteria in the manual of standards and operator’s training plans; | D |  |
|  | (c) identify underpinning knowledge for the units and elements relevant to the lesson and confirm trainee understanding ; | D |  |
|  | (d) select appropriate training methods to facilitate training objectives and knowledge transfer; | D |  |
|  | (e) apply threat and error management into each ground lesson; | D |  |
|  | (f) identify potential threats and errors in a flight lesson, including those associated with simulation of abnormal or emergency procedures or aircraft mishandling by trainee, and consider suitable mitigators; | D |  |
|  | (g) select appropriate training resources and confirm availability and serviceability of required facilities, equipment, training aids, reference material and the airworthiness of the training aircraft or device. | D |  |
|  | **FIR4.3 Conduct pre-flight briefing** |  |  |
|  | (a) confirm trainee is mentally and physically prepared for flight training; | D |  |
|  | (b) brief trainee on the training outcomes, the associated performance criteria and the actions required of the trainee during the flight; | D |  |
|  | (c) link previous training to the current exercise; | D |  |
|  | (d) brief the trainee on how the flight will be conducted to meet the training outcomes; | D |  |
|  | (e) confirm the trainee's ability to recall the training outcomes, underpinning knowledge, handling technique and planned flight scenario; | D |  |
|  | (f) discuss the environmental conditions and suitability for the training exercise; | D |  |
|  | (g) discuss threat and error management issues applicable to the proposed flight and confirm the trainee understands her or his responsibility for managing those issues (airmanship). | D |  |
| **FIR-TE3.7** | **Conduct flight training** |  |  |
| (a) | conducts flight training in accordance with the training plan all demonstrating skills and behaviours described in element FIR4.4 of unit FIR4 (Conduct of aeronautical knowledge training and flight training); |  |  |
|  | **FIR4.4 Conduct airborne training** |  |  |
|  | (a) manage responsibilities as pilot in command for the safe operation of the aircraft; | D |  |
|  | (b) apply flying techniques and procedures to the competency standards specified for the qualification being trained for whilst occupying the instructor seat; | D |  |
|  | (c) demonstrate the task: |  |  |
|  | (i) introduce tasks in manageable portions without trainee overload; | D |  |
|  | (ii) make clear, concise and systematic explanations; | D |  |

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| **MOS**  **Reference** | **Lesson Content** *(Elements & Performance Criteria)* | **Performance Standard** | |
| **Required** | **Achieved** |
|  | (iii) coordinate demonstration with explanation of manoeuvre; | D |  |
|  | (iv) make coordinated control inputs without abrupt manoeuvring, using accepted techniques; | D |  |
|  | (v) demonstrate the manoeuvre to the competency standards specified in this manual for a commercial pilot; | D |  |
|  | (d) direct the task: |  |  |
|  | (i) implement handover and takeover procedures for control of aircraft; | D |  |
|  | (ii) provide direction appropriate to trainee's progress; | D |  |
|  | (iii) provide instructions in a clear, concise and timely manner; | D |  |
|  | (iv) provides sufficient practice for the trainee to achieve the task; | D |  |
|  | (v) intervene only to the extent necessary to assist the trainee's progress or to maintain safety; | D |  |
|  | (e) monitor the task (unassisted practice): |  |  |
|  | (i) identify the trainee's deficiencies and provide feedback to assist the trainee in achieving the standard; | D |  |
|  | (ii) provide and vary additional instruction and demonstration as necessary to assist the trainee; | D |  |
|  | (iii) ensure remedial training is effective such that errors are corrected; | D |  |
|  | (iv) encourage the trainee to develop self-assessment skills; | D |  |
|  | (v) note training events for debriefing and assessment; | D |  |
|  | (f) intervene to recover the aircraft if the trainee does not manage an undesired aircraft state; | D |  |
|  | (g) develop the trainee’s responsibility through the application of human factors principles for threat and error management. | D |  |
| (b) | assess a trainee’s ability to consistently perform manoeuvres based on the published standards prior to authorising solo flight (other than first solo in the category); | D |  |
| (c) | maintain situational awareness during all phases of the flight demonstrating the performance criteria specified in unit NTS1; |  |  |
|  | **NTS1.1 Maintain effective lookout** | D |  |
|  | **NTS1.2 Maintain situational awareness** | D |  |
|  | **NTS1.3 Assess situations and make decisions** | D |  |
|  | **NTS1.4 Set priorities and manage tasks** | D |  |
|  | **NTS1.5 Maintain effective communications and interpersonal relationships** | D |  |
| (d) | manage threats and errors during all phases of flight demonstrating the performance criteria specified in unit NTS2. |  |  |
|  | **NTS2.1 Recognise and manage threats** | D |  |
|  | **NTS2.2 Recognise and manage errors** | D |  |
|  | **NTS2.3 Recognise and manage undesired aircraft state** | D |  |
| **FIR-TE3.8** | **Conduct post-flight briefing** |  |  |
| (a) | conduct post-flight briefing demonstrating all performance criteria described in element FIR4.5 of unit FIR4 (conduct aeronautical knowledge training and flight training) for the RPL, PPL or CPL elements addressed in the training session. |  |  |
|  | **FIR4.5 Conduct post-flight briefing** |  |  |
|  | (a) encourage the trainee to self-assess performance against the performance criteria; | D |  |
|  | (b) describe, clearly and accurately, significant details of the trainee's performance and assess the trainee's achievement against the training outcomes for the lessons and associated performance criteria; | D |  |
|  | (c) identify any deficiencies in performance and suggest remedial actions and training; | D |  |
|  | (d) discuss threat and error management issues encountered during the flight; | D |  |
|  | (e) brief the trainee on the details of the next training exercise; | D |  |
| **FIR-TE3.9** | **Conduct post-training administration** |  |  |

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| **MOS**  **Reference** | **Lesson Content** *(Elements & Performance Criteria)* | **Performance Standard** | |
| **Required** | **Achieved** |
| (a) | complete post-training administration demonstrating performance criteria in element FIR4.6 of unit FIR4 (conduct aeronautical knowledge training and flight training); |  |  |
|  | **FIR4.6 Complete post-training administration** |  |  |
|  | (a) record achievement, or otherwise,, of competency, any remedial training required and identify content of the next training exercise; | D |  |
|  | (c) inform relevant staff of the trainee’s performance and results where required; | D |  |
|  | (d) review effectiveness of training and identify any adjustments to delivery, presentation and content for improvement and discuss with appropriate stakeholders | D |  |

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| **MOS Ref** | **Underpinning knowledge** |
| **FIR-TE3** | **Grade 3 training endorsement** |
|  | 1. principles of instruction (see unit FIRC); 2. underpinning knowledge included for the applicable unit required for RPL, PPL and CPL and aircraft class rating; 3. relevant sections of Civil Aviation legislation relating to VFR flight; 4. common risks that exist when conducting VFR operations; |

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| **COMMENTS AND OUTCOME (INCLUDING ELEMENTS & PERFORMANCE CRITERIA THAT REQUIRE CONSOLIDATION AND/OR REMEDIAL TRAINING)** | |
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| **Instructor’s Signature & Date** | **Trainee’s Signature & Date** |
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