**LESSON TE3-22: EFFECT OF CONTROLS – 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**   * **Conduct airborne instructional technique for a complex sequence** * Demonstration of pre-flight brief for **Effect of Controls** * Read back of pre-flight brief for **Effect of Controls** * Demonstration of in-flight lesson for **Effect of Controls** * Read back of in-flight lesson for **Effect of Controls** * Demonstration by trainee of a high level of safe flying skills and techniques * 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**  **Conduct airborne instructional technique for a complex sequence**   1. The pre-flight brief should include review of primary and secondary effects of flight controls covered in the long brief and the various ancillary controls that will be covered in flight 2. The instructor should provide guidance on the inclusion of elements from unit H5, operate helicopter on the ground in this pre- flight brief and flight ensuring that the trainee understand the importance of demonstration of correct techniques and safety of flight issues in this first demonstration of start-up and monitoring of the helicopter and its systems. 3. The instructor should discuss the flying conditions that should exist for this lesson - reasonably smooth with a clear visual horizon and high cloud base 4. The trainee to read back the pre-flight brief 5. The effect of controls lesson is generally considered a challenging lesson and trainees often struggle with the in-flight delivery. The standard for the airborne lesson is put at 3 though some trainees may manage it better than others. 6. The trainee should be guided through the level of HF/NTS that would be introduced to the student in this lesson and refer to the operator training syllabus for guidance. In general, a student is introduced to the concept of ‘see and avoid’, the clock code and visual scanning and the hand-over/take-over technique to be used. 7. The lesson should include discussion on the level of underpinning knowledge to be introduced in relation to aircraft operations and how it can be integrated into the lesson without student overload (refer C1 through C5 and operator syllabus). 8. The Flight Instructor manual will provide reference for some of the content in this lesson. 9. A common instructional fault is that this lesson is often rushed such that the student does not get enough ‘hands on’ time to get the feel of the helicopter. The instructor must emphasise the importance of this lesson in a student’s training and that time spent allowing the student to fully grasp the concepts will reduce difficulties further in their training. 10. The trainee should deliver a post-flight debrief on the lesson where the instructor role played the student | | | | | | | |

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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 | 3 |  |
| **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; | 3 |  |
| (b) | perform proficient aircraft handling skills from the instructor control seat; | 2 |  |

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| **MOS**  **Reference** | **Lesson Content** *(Elements & Performance Criteria)* | **Performance Standard** | |
| **Required** | **Achieved** |
| (c) | perform consistent management of lessons safely, efficiently and confidently; | 3 |  |
| (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. | 3 |  |
| **FIR-TE3.5** | **Develop Briefings and Plan flight training** |  |  |
| (a) | 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 aeroplanes |  |  |
|  | elements in the following units to be addressed in relevant briefings/flight exercises as applicable |  |  |
|  | (i) NTS1 and NTS2 | 2 |  |
|  | (ii) C1 through C5 | 2 |  |
|  | ground briefings and flight exercises prepared for |  |  |
|  | C2.1 pre-flight actions and procedures | 1 |  |
|  | C2.2 pre-flight inspection | 1 |  |
|  | (xi) H1 – operate helicopter on the ground | 1 |  |
|  | (xii) A3 – underpinning knowledge – primary and further effect of helicopter controls | 3 |  |
| (b) | identify potential threats and errors normally associated with the planned flight training and develop suitable mitigating actions for each flight exercise | 3 |  |
| **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; | 2 |  |
|  | (b) identify training objectives based on performance criteria in the manual of standards and operator’s training plans; | 2 |  |
|  | (c) identify underpinning knowledge for the units and elements relevant to the lesson and confirm trainee understanding ; | 2 |  |
|  | (d) select appropriate training methods to facilitate training objectives and knowledge transfer; | 2 |  |
|  | (e) apply threat and error management into each ground lesson; | 2 |  |
|  | (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; | 2 |  |
|  | (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. | 2 |  |
|  | **FIR4.3 Conduct pre-flight briefing** |  |  |
|  | (a) confirm trainee is mentally and physically prepared for flight training; | 2 |  |
|  | (b) brief trainee on the training outcomes, the associated performance criteria and the actions required of the trainee during the flight; | 2 |  |
|  | (c) link previous training to the current exercise; | 2 |  |
|  | (d) brief the trainee on how the flight will be conducted to meet the training outcomes; | 2 |  |
|  | (e) confirm the trainee's ability to recall the training outcomes, underpinning knowledge, handling technique and planned flight scenario; | 2 |  |
|  | (f) discuss the environmental conditions and suitability for the training exercise; | 2 |  |
|  | (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). | 2 |  |
| **FIR-TE3.7** | **Conduct flight training** |  |  |
| (a) | conduct 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); |  |  |

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| **MOS**  **Reference** | **Lesson Content** *(Elements & Performance Criteria)* | **Performance Standard** | |
| **Required** | **Achieved** |
|  | **FIR4.4 Conduct airborne training** |  |  |
|  | (a) manage responsibilities as pilot in command for the safe operation of the aircraft; | 3 |  |
|  | (b) apply flying techniques and procedures to the competency standards specified for the qualification being trained for whilst occupying the instructor seat; | 3 |  |
|  | (c) demonstrate the task: |  |  |
|  | (i) introduce tasks in manageable portions without trainee overload; | 3 |  |
|  | (ii) make clear, concise and systematic explanations; | 3 |  |
|  | (iii) coordinate demonstration with explanation of manoeuvre; | 3 |  |
|  | (iv) make coordinated control inputs without abrupt manoeuvring, using accepted techniques; | 3 |  |
|  | (v) demonstrate the manoeuvre to the competency standards specified in this manual for a commercial pilot; | 3 |  |
|  | (d) direct the task: |  |  |
|  | (i) implement handover and takeover procedures for control of aircraft; | 3 |  |
|  | (ii) provide direction appropriate to trainee's progress; | 3 |  |
|  | (iii) provide instructions in a clear, concise and timely manner; | 3 |  |
|  | (iv) provide sufficient practice for the trainee to achieve the task; | 3 |  |
|  | (v) intervene only to the extent necessary to assist the trainee's progress or to maintain safety; | 3 |  |
|  | (e) monitor the task (unassisted practice): |  |  |
|  | (i) identify the trainee's deficiencies and provide feedback to assist the trainee in achieving the standard; | 3 |  |
|  | (ii) provide and vary additional instruction and demonstration as necessary to assist trainee; | 3 |  |
|  | (iii) ensure remedial training is effective such that errors are corrected; | 3 |  |
|  | (iv) encourage the trainee to develop self-assessment skills; | 3 |  |
|  | (v) note training events for debriefing and assessment; | 3 |  |
|  | (f) intervene to recover the aircraft if the trainee does not manage an undesired aircraft state; | 3 |  |
|  | (g) develop the trainee’s responsibility through the application of human factors principles for threat and error management. | 3 |  |
| (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); | 3 |  |
| (c) | maintain situational awareness during all phases of the flight demonstrating the performance criteria specified in unit NTS1; |  |  |
|  | **NTS1.1 Maintain effective lookout** | 3 |  |
|  | **NTS1.2 Maintain situational awareness** | 3 |  |
|  | **NTS1.3 Assess situations and make decisions** | 3 |  |
|  | **NTS1.4 Set priorities and manage tasks** | 3 |  |
|  | **NTS1.5 Maintain effective communications and interpersonal relationships** | 3 |  |
| (d) | manage threats and errors during all phases of flight demonstrating the performance criteria specified in unit NTS2. |  |  |
|  | **NTS2.1 Recognise and manage threats** | 3 |  |
|  | **NTS2.2 Recognise and manage errors** | 3 |  |
|  | **NTS2.3 Recognise and manage undesired aircraft state** | 3 |  |
| **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; | 3 |  |

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| **MOS**  **Reference** | | **Lesson Content** *(Elements & Performance Criteria)* | **Performance Standard** | |
| **Required** | **Achieved** |
|  | | (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; | 3 |  |
|  | | (c) identify any deficiencies in performance and suggest remedial actions and training; | 3 |  |
|  | | (d) discuss threat and error management issues encountered during the flight; | 3 |  |
|  | | (e) brief the trainee on the details of the next training exercise; | 3 |  |
| **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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