**LESSON PLAN**

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| **Lesson** | Straight & Level Flight, Climbing & Gliding | **Instructor** |  | **Class/Group** |  |
| **Location** | Maps & Simulation Room | **Date / Time** | / | **Equipment** | Flight Sim |

**INTRODUCTION**

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| **Interest** | To develop your piloting skills in preparation for a Gliding Scholarship in the Vigilant | |
| **Need** | To learn to transition between different attitudes. | |
| **Title** | Straight & Level Flight, Climbing & Gliding **REF – FTP 124 (P17 – 20)** | |
| **Revision** | * Lookout * Clock Code * Datum Attitude | * Trimming the attitude * Co-ordinated Controls * Airbrakes |
| **Objectives** | * By the end of this lesson you will be able to:   + To achieve and maintain straight and level flight, in balance and in trim.   + To fly the climb and the glide.   + To transition between straight and level flight, the climb and the glide. | |
| **Scope** | This lesson will last 2 hours | |
| **Handouts** |  | |

**DEVELOPMENT**

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| **Content** | **Notes** |
| Flight Simulator Scenario: The simulator should be launched using the Grob G109B Vigilant in flight above an appropriate airfield. | |
| Each exercise should be followed by the cadet(s) practicing that exercise. | |
| **1. Airmanship.** | 5 min. Explain use of LAI. (Lookout Attitude Instruments) |
| **2. Straight and level flight.** | 5 min. Demonstrate straight and level flight, and the key things to check. |
| **3. The Exercise.** | 15 min. Achieve & maintain straight & level, regain heading, maintain height. Ex. FTP124 p18 - 19 |
| **4. Transitions.** | 15 min. demonstrate transitions. Ex. climb - level – approach |
| **5. Achieving and maintaining Datum Height (DH).** | 10 min. selecting datum height from a climb. |
| **6 Approach Attitude.** | 10 min. explain key points of the approach attitude. |

**CONSOLIDATION**

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| **Summary**  The Cadet(s) have now learnt how to select and maintain straight and level flight, regain a heading reference and datum height. The Cadet(s) should also be able to demonstrate transitioning between the climb, level & approach attitudes. |
| **Test Learning**  Instruct the cadet to select straight & level flight.  Instruct the cadet to transition between attitudes, and at set heights. |
| **Restate Objectives**  By the end of this lesson you will be able to:   * + To achieve and maintain straight and level flight, in balance and in trim.   + To fly the climb and the glide.   + To transition between straight and level flight, the climb and the glide. |
| **Student Questions** |
| **Review and Look Forward**  Next lesson: Take Off & Climb  AIM. To take off and enter the climb. |