**LESSON PLAN**

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| **Lesson** | Winch Launch | **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 Viking. | |
| **Need** | To take-off, climb and release using the winch. | |
| **Title** | Winch Launch **REF – ACP122 (P26- 28)** | |
| **Revision** | * About the Viking * Cockpit Layout * Axes of Aircraft * Further effects of control surfaces * Use of trimmer | * Primary effects of control surfaces * Secondary effects of control surfaces * Definition of datum attitude * Use of airbrakes |
| **Objectives** | * By the end of this lesson you will be able to:   + To take-off, climb and release using the winch. | |
| **Scope** | This lesson will last 1 hours | |
| **Handouts** |  | |

**DEVELOPMENT**

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| **Content** | **Notes** |
| Flight Simulator Scenario: The simulator should be launched using the Grob G103a Twin ӀӀ Viking an appropriate airfield in a parking spot. | |
| Each exercise should be followed by the cadet(s) practicing that exercise. | |
| **1. Airmanship.** | 5 min. Discuss Flight Reference Cards (FRCs). Keep good lookout and plan for failure. |
| **2. Signals.** | 15 min. Learn use of orders. ‘Take up slack.’ ‘All out.’ ‘Stop Stop Stop‘ |
| **3. Ground run.** | 5 min. Ground run only lasts a few seconds. Keep wings level with aileron, steer with rudder. Use unco-ordinated until airborne. REF Fig. 6 |
| **4. Initial Climb.** | 5 min. Select shallow climb until 50 kts. |
| **5. Transition to the full climb.** | 5 min. If continue to accelerate, smooth transition to full climb. |
| **6. The full climb.** | 10 min. Use co-ordinated controls to keep wings level and maintain attitude. Ideal speed 55 – 60 kts. If speed close to 65 kts signal by yawing the glider from side to side. If airspeed still to high launch abandoned, pull release twice then select approach attitude. |
| **7. The release.** | 10 min. When horizon appears past the nose it is time to release. Lower nose to normal glide attitude then pull release twice. |
| **8.** | 2 min. After releasing nose may pitch up. Hold gliding attitude, trim and start LAI. |

**CONSOLIDATION**

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| **Summary**  The cadet(s) have now learnt how to take-off, climb and release. |
| **Test Learning**  Quiz cadet on emergency procedures and preform a launch. |
| **Restate Objectives**  By the end of this lesson you will be able to:   * + To take-off, climb and release using winch. |
| **Student Questions** |
| **Review and Look Forward**  Next Lesson: Medium turns  AIMS To turn on to specific headings using up to 30° of bank. |