**LESSON PLAN**

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| **Lesson** | Approach and Landing | **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 be able to land the aircraft. |
| **Title**  | Approach and Landing **REF – ACP122 (P32- 36)** |
| **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 fly the approach and landing.
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| **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 above an appropriate airfield. |
| Each exercise should be followed by the cadet(s) practicing that exercise. |
| **1. Airmanship.** | 2 min. Good lookout of surrounding traffic. Note wind speed and direction. Select correct attitude at 400 ft. |
| **2. Final Approach.** | 5 min. Always plan for half airbrakes.  |
| **2.a.** | Keep wings level with approach speed. |
| **2.b.** | Correct for any drift. |
| **2.c.** | As the Designated Landing Area (DLA) disappears beneath nose open half airbrake. |
| **2.d.** | Maintain approach path with co-ordinated controls. |
| **2.e.** | Maintain approach speed with pitch. |
| **2.f.** | Maintain correct aiming point with airbrake. |
| **2.g.** | Aim to complete with ½ airbrake. |
| **2.h.** | Use approach work cycle: Attitude, Airspeed, Aiming point, Alignment.  |
| **3. Aiming Point.** | 5 min. Recognise and use aiming points to control approach path. Ex. FTP122 Fig.8 |
| **4. The landing.** | Broken down into 3 parts. Ex. FTP122 Fig.9 |
| **4.a. Round out.** | 2 min. Transition from approach attitude to level. |
| **4.b. Hold off.** | 5 min. Aircraft losing airspeed sinking towards ground. Transition to landing attitude. Ex. FTP122 Fig.10 |
| **4.c. Touch down and ground run.** | 2 min. Land on main wheel and tail wheel together. Smooth full airbrakes needed. Control column brought back to stop and steer with rudder. |
| **6. Balloon landing.** | 5 min. Climbing during landing phase is known as ballooning. Ballooning can be caused by fast approach, insufficient airbrakes or gusty winds. |
| **6.a.**  | Recognise the balloon. |
| **6.b.** | Select level attitude. Maintain airbrake.  |
| **6.c.** | Re-select landing attitude. |
| **6.d.** | Normal ground roll. |
| **7. The Bounce.** |  |
| **7.a. Recognition.** | 2 min. Aircraft can become airborne after touching down – this is known as the bounce, caused by wrong landing attitude or high airspeed. |
| **7.b. Recovery.** | Use balloon recovery. |

**CONSOLIDATION**

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| **Summary**The cadet(s) have now learnt how to land the Viking and correct errors. |
| **Test Learning**Ask cadet to land the glider. |
| **Restate Objectives** By the end of this lesson you will be able to:* + To fly the approach and landing.
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| **Student Questions** |
| **Review and Look Forward**Next Lesson: StallingAIMS: * To monitor the speed and prevent the stall.
* To recognise and recover from stalls with minimum height loss.
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