



# Marshalling Trainer

# Introduction

The Marshalling Trainer provides training in marshalling and ground handling of aircraft in an immersive safe environment, without the cost of using real aircraft.

After classroom instruction, students consolidate their learning through practical exercises on the trainer in preparation for the real situation.

Training scenarios are highly customisable and delivered under instructor supervision and control.



[www.pennantplc.com](http://www.pennantplc.com)

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# Key Features

- 150 Degree wrap around screen for total student immersion
- Instructor Station allowing control of:
  - Pilot signals
  - Marshaller signals
  - Aircraft movement
  - Hazards and emergencies
  - Aircraft malfunctions providing visual cues for students
  - 6 degrees of freedom camera control in the scene for scenario monitoring
  - Changeable weather / environment conditions
  - Creation of custom scenarios
- Simulated Features include:
  - Fixed and Rotary wing aircraft
  - Male and female marshalls with and without marshalling wands
  - Fixed and mobile airfield hazards
  - Time of day and weather condition selection
  - A selection of typical training areas and regional contexts
  - Aircraft, vehicle and environment lighting
  - A selection of ready-made marshalling scenario layouts, ground handling procedures and emergency drills
- Integrated surround sound system
- Video capture facility recording student actions for playback / debrief
- Remote screen for observers
- Signals modelled in accordance with NATO and STANAG 3117
- Over 25 ready made training scenarios covering fixed and rotary wing
- No security restrictions
- COTS Hardware

# Aviation Regulations Alignment

EASA/EMAR PT 66	FAA	CITY & GUILDS	MEA UNITS
<p>EASA Part-66 Appendix III, Part 1 Aircraft Type Training Level 2 (c)</p> <p>Module 7 Maintenance practices</p>	<p>FAA 14 CFR Part 147 Aviation Maintenance Technician 6.4 Ground Operations and Safety</p> <p>FAA-H-8083-30A Chapter 1 Safety, Ground Operations, and Servicing – 1.21</p> <p>ATA: Chapter 09 Towing and Taxiing Chapter 10 Parking, Mooring, Storage and Return to Service</p> <p>ICAO Annex 2 Rules of Air Chapter 5. Marshalling Signals</p> <p>NATO STANAG No. 3117 ASIC AIR STD 25/52A</p>	<p>2675-01 City &amp; Guilds Level 2 Certificate in Aircraft Maintenance (Military Aircraft) Units 104 &amp;109</p> <p>2675-03 Level 3 Diploma in Aircraft Maintenance (Military/Civil) Aircraft Mechanical/Avionics: Units 205</p> <p>4608-30 Level 3 Diploma in Aviation Maintenance (Development Competence): Units 307</p> <p>4608-50 Level 2 Diploma in Aerospace and Aviation Engineering (Military Foundation Competence): Units 240</p>	<p>AVIF3016 Marshal aircraft. Qualifications including this unit:</p> <p>MEA318 Inspect aircraft hydro-mechanical, mechanical, gaseous and landing gear systems and components</p> <p>a) MEA41318 Certificate IV in Aeroskills (Structures)</p> <p>b) MEA41218 Certificate IV in Aeroskills (Armament)</p> <p>c) MEA40718 Certificate IV in Aeroskills (Mechanical)</p> <p>d) MEA40618 Certificate IV in Aeroskills (Avionics)</p> <p>e) AVI40116 Certificate IV in Aviation (Aircrewman)</p> <p>f) AVI30416 Certificate III in Aviation (Ground Operations and Service)</p> <p>g) AVI30216 Certificate III in Aviation (Rescue Crewman)</p>

# Physical Specifications

PARTICULAR	VALUE	UNIT
Length	12000 <sup>Note 1</sup>	mm
Width	8300 <sup>Note 1</sup>	mm
Height	4500 <sup>Note 1</sup>	mm
Weight	600 <sup>Note 2</sup>	Kg

**Note<sup>1</sup>** : Typical room size for large screen variant (Smaller room sizes can be accommodated)

**Note<sup>2</sup>** : All up weight of the supplied equipment

# Supported Training

AIRCRAFT TYPE <sup>NOTE 1</sup>	SIMULATED SCENARIO	SIMULATED FAULTS
JET PROVOST	<ol style="list-style-type: none"> <li>Engine Start (Inc Pre-Departure Checks)</li> <li>See-In / Shutdown (inc Post Arrival Checks)</li> <li>See-Off</li> <li>Manual Loop</li> </ol>	<ol style="list-style-type: none"> <li>Hot brakes: Smoke from braking surfaces</li> <li>Fuel Leak: Fluid dripping to ground and pooling</li> <li>Engine Fire: Smoke billows from aircraft</li> </ol>
TYPHOON	<ol style="list-style-type: none"> <li>Multi See-In</li> <li>Multi See-Off</li> </ol>	
JAGUAR	<ol style="list-style-type: none"> <li>Engine Start (Inc Pre-Departure Checks)</li> <li>See-In / Shutdown (inc Post Arrival Checks)</li> <li>See-Off</li> <li>Manual Loop</li> </ol>	
HAWK	<ol style="list-style-type: none"> <li>See-In</li> <li>See-Off</li> </ol>	
HERCULES C130J	<ol style="list-style-type: none"> <li>See-In</li> <li>See-Off</li> <li>See-Off (Roll Back)</li> </ol>	
AIRBUS A330	<ol style="list-style-type: none"> <li>See-In</li> <li>See-Off</li> <li>See-Off (Roll Back)</li> </ol>	
GLOBEMASTER C17	<ol style="list-style-type: none"> <li>See-In</li> <li>See-Off</li> <li>See-Off (Roll Back)</li> </ol>	
PUMA	<ol style="list-style-type: none"> <li>See-In</li> <li>See-Off</li> <li>Manual Loop</li> </ol>	
MERLIN EH101	<ol style="list-style-type: none"> <li>See-In</li> <li>See-Off</li> </ol>	
NH90	<ol style="list-style-type: none"> <li>See-In</li> <li>See-Off</li> </ol>	
APACHE	None provided <sup>Note 2</sup>	
TORNADO	None provided <sup>Note 2</sup>	
F15	None provided <sup>Note 2</sup>	

**Note<sup>1</sup>** : Additional aircraft types can be accommodated

**Note<sup>2</sup>** : Customer can create own scenarios



# Electrical Specifications

PARTICULAR	NOMINAL	UNIT
Supply Voltage	220 / 240	Vac
Frequency	50 / 60	Hz
Maximum Current	10	A

# Supplied Documentation

Operation Manual
Maintenance Manual
Training Scenario Catalogue

# Optional Accessories

Spares Package
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# Ordering information

97810-0001A	Synthetic Environment Procedural Trainer (Small Screen ~ 2225H x 5331W x 2061D)
97820-0001A	Synthetic Environment Procedural Trainer (Large Screen ~ 3000H x 7727W x 2964D)
97810-3021	Spares Pack