INTRODUCTION

The Virtual Loadmaster Training System (VLTS) has been developed by Pennant International Limited in partnership with Capewell Aerial Systems.

VLTS is the first aerial delivery simulator developed specifically for Fixed Wing & Rotary Loadmasters. VLTS enhances the training curriculum by providing students with experience in a range of scenarios from normal operations to the most critical airdrop emergencies.

Around the world, budgetary constraints have dictated that military training institutions are being provided with diminishing access to active mission equipment – this is particularly true of flying schools’ access to operational aircraft flying hours.

VLTS provides high fidelity VR training experience without exposing the trainee or instructor to potential danger and without the need to take operational equipment off-line for training purposes.

The VLTS is an immersive training aid, giving the students a real-time experience in an advanced 3D virtual world that simulates a variety of different aerial delivery scenarios in a safe training environment. The system allows two students to train simultaneously, acting as both the primary and secondary loadmasters. The instructor can control environmental conditions, inject malfunctions and debrief the student using the after-action replay (AAR) and auto-generated assessment report. All communications between the students and instructor are also recorded and saved with the AAR for debrief.
KEY FEATURES

- Low Level Gravity Extraction
- Low Level Parachute Extraction
- Heavy Equipment Drop
- Container Delivery System (CDS) Air Drop
- Crew Resource Management (CRM)
- Pre-flight Inspection
- Tailor scenarios to student experience level
- Classroom sized lessons or one-on-one instruction
- Change loads, location, time of day, and weather
- Small training footprint
AIR DROP PROCEDURES

VLTS is equipped with everything required to teach basic airdrop procedures. A variety of included payloads and scenarios cover the full range of complexity to follow the crawl, walk, run training method. Each training scenario is based on standard checklist use that loadmasters will follow to interact with the aircraft and equipment in the same way as an actual flight. Instructors can communicate with students via intercom and act in all crewmember roles to provide realistic feedback during each procedure.

DEPLOYMENT TYPES

- Drogue Release
- Extraction Chute
- Gravity Fed

LOAD TYPES

- Humvee (Single & Double)
- CDS (Single & B Dual Row)
- NWS RIBS
- Training Dummy Loads
- Road Grader Scraper

EMERGENCY PROCEDURES

VLTS allows the instructor to inject faults as the scenario is developing, creating life-like emergency situations with which the trainee must deal. All actions are monitored and recorded, allowing analysis of not only the trainees actions but reaction time and composure. Being able to provide trainees with experience of the full range of loadmaster emergency scenarios provides richer, more comprehensive training.

- Hung Load
- Loose Platform
- Towed Jumper
- Faulty Rail Lock
RECTIFICATION
- Identify and clear malfunctions
- Interactive corrective actions

INTEGRATED COMMUNICATIONS
The VLTS allows communication between all students and the instructor in a scenario. All communications are recorded and are stored with the After-Action Replay for debrief.

AIRCRAFT
- Current
  - C130H
- Planned
  - C130J
  - C17
  - A400M
  - Chinook
Additional aircraft available on request.

ASSESSMENT MODULE
VLTS requires significantly less instructor assessment time as the trainee’s actions are recorded for post-mission analysis. Responsibilities such as ensuring that the trainees have tethered themselves to the aircraft before walking onto open ramps are automatically monitored and highlighted if not correctly implemented.

AFTER ACTION REPLAY MODULE
- Load/Save/Playback Recorded Scenarios
- Record & measure performance
- Debrief with detailed review

USER MANAGEMENT
- User Profile Management
SCENARIO
- Customisable Time of Day and Weather Depending on Scenario:
  - Dawn
  - Midday
  - Evening
  - Night
  - Cloud Cover
  - Rain
  - Snow
- Customisable Release Points and exit altitude up to 25,000ft
- Multiple Release Points

INSTRUCTOR CONTROLLED CHARACTER (ICC)
VLTS is a module of the Virtual Reality Aerial Delivery Suite (VRADS) and can be networked to provide simultaneous training with Pennants Virtual Jumpmaster Training System (VJTS) and Virtual Parachute Training System (VPTS).

FOOTPRINT

FLIGHT GEAR OPTIONS
The character is completely customisable depending on role, environment, time of day and equipment you would like them to have. For night operations the NVGs can be fitted. Additional Customisation options on avatars available upon request.

TERRAIN DATABASES
- Generic Desert Terrain
- Generic Temperate Terrain
- Terrain Database Editor
- Custom Terrain Databases

Using high speed gaming technology, we can provide accurate terrain simulation from anywhere in the world. Coupled with all our other customisable features we know you will not get this level of real time pre-mission simulation anywhere else.
LANGUAGE PACKS

English, Polish, French, Italian, Arabic, Spanish. Additional Language Packs available on request.

VIRTUAL REALITY AERIAL DELIVERY SUITE

VLTS is a module of the Virtual Reality Aerial Delivery Suite (VRADS) and can be networked to provide simultaneous training with Pennants Virtual Jumpmaster Training System (VJTS) and Virtual Parachute Training System (VPTS).

COST SAVINGS

- Reduced training flight hours
- Space savings
- Reduced Maintenance costs of complex training equipment
- Increased throughput of students

TRAINING BENEFITS

- Allow for mistakes in a safe environment
- Immediate review and assessment
- Group learning opportunities