Pennant

VIRTUAL PARACHUTE TRAINING SYSTEM

(VPTS)

OVERVIEW BROCHURE

INTRODUCTION

The Virtual Parachute Training Simulator (VPTS) Lite is an immersive training system capable of supporting initial canopy control training and malfunction recognition through to mission planning and rehearsal.

VPTS uses Unity virtual reality technology in conjunction with a motion suit, head-mounted display and an off-floor suspension rig to provide the student with an unrivalled totally immersive and interactive training experience.

In the development of the VPTS we collaborated with several military parachute training schools from around the world; we know that the VPTS provides the best immersive and completely adaptable virtual parachute training in the world.
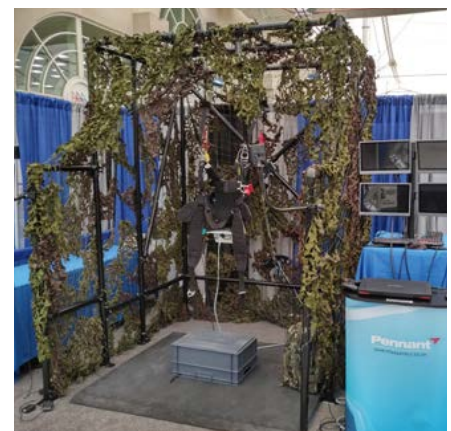
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KEY FEATURES

- Mission planning and rehearsal;
- Malfunction recognition training for a variety of malfunctions and nuisance factors;
- Pre-set scenarios including:
    - Back man in stick not making DZ;
    - Collision avoidance in clouds;
    - Tight DZ with minimal outs;
    - Mixed stick FF followed by SL;
    - Member of stick has unrecoverable nuisance factor.
    - HALO, HAHO and HAMO scenarios
- Pre-Jump parachutists brief from exiting the aircraft to landing on DZ;
- Selectable Parachute Types;
- Selectable Weather Conditions (rain, snow, fog & cloud height);
- Selectable Time of Day (Dawn, Midday, Evening, Night);
- NVG mode to allow mission rehearsals at night;
- Selectable Wind Speed (may differ with altitude);
- Selectable Virtual Environment and customisable Geospecific Terrain databases;
- Body tracking system to allow altimeter checks under canopy;
- Integrated communications between students and instructor;
- Intuitive, easy to use modern User Interface (UI);
- Assessment module to check student competency;
- After-Action replay;
- Scalable system, up to 24 jump stations;
- Character customization allowing end user to setup jumpers;
- Commercial Off the Shelf (COTS) gaming engine allowing rapid integration of new VR hardware and visual effects;
- Increased student through put (quick change).

KEY FEATURES (OPTIONS)

- Dynamic steering tension lines allowing tension configuration per canopy type;
- Riser steering;
- Multiview client.

PHYSICAL SPECIFICATIONS

PARTICULAR	VALUE	UNIT
SINGLE JUMP STATION		
Length	2110	mm
Width	1500	mm
Height	3050	mm
Weight	400	Kg
MASTER CONTROL STATION		
Length	2182	mm
Width	1028	mm
Height	1584	mm
Weight	275	Kg

ELECTRICAL SPECIFICATIONS

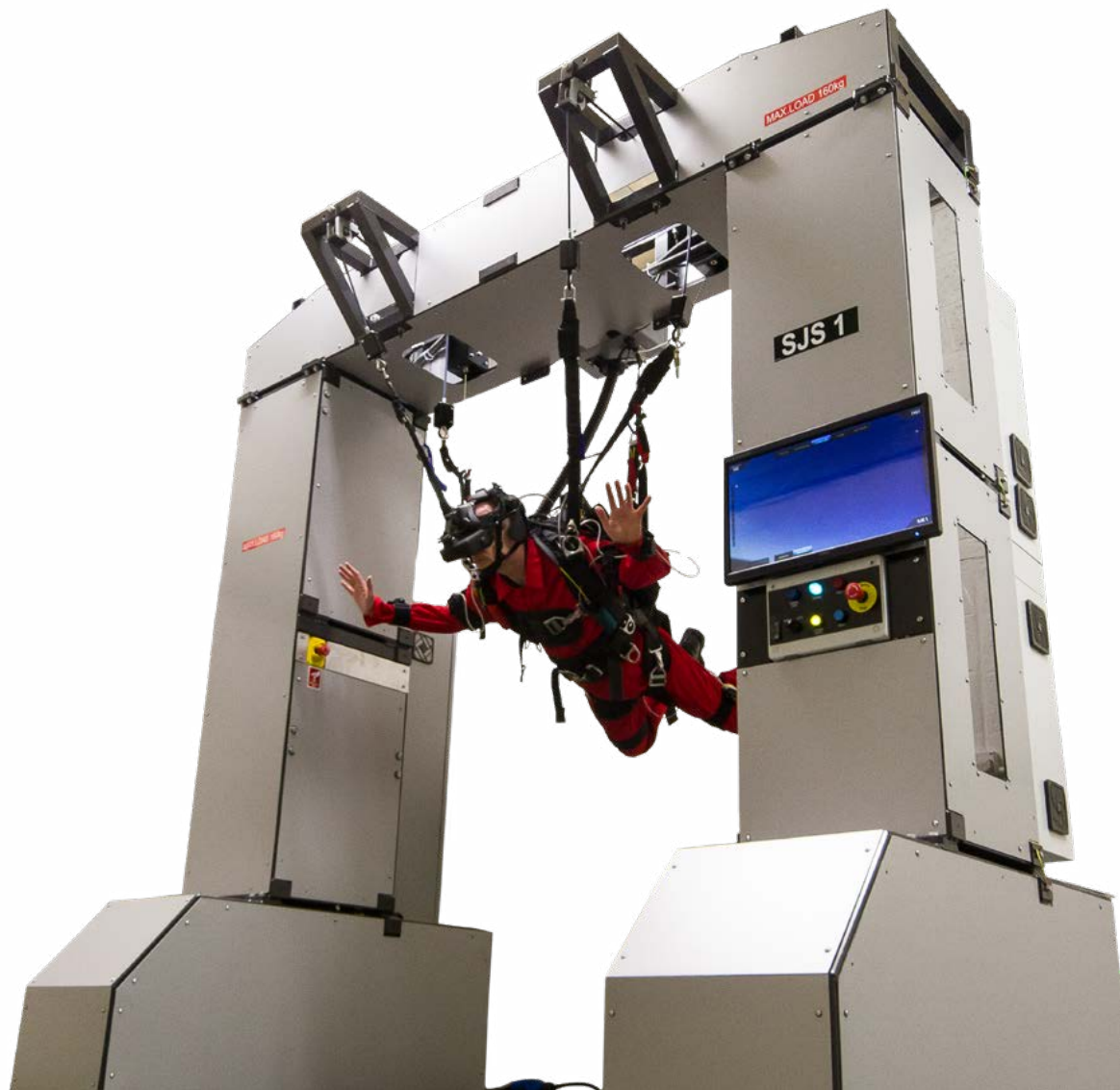| PARTICULAR	NOMINAL	UNIT
Supply Voltage	110 / 220 /240	Vac
Frequency	50 / 60	Hz
Maximum Current	13[Note 1]	A
Note[1] Combined single SJS and MCS		

SUPPORTED CANOPY TYPES

CANOPY TYPE	VERSION
Static Line Ram-Air Canopy – Non-Steerable	LLP
Static Line Ram-Air Canopy – Steerable	MC5
Ram Air Military Static Line Canopy	BT80 BT380
Sports Canopies	Spectre Sports LPS 190 LPS 210 LPS 230 LPS 260
Tandem Canopies	Tandem Phoenix

AVATAR & EQUIPMENT OPTIONS

The Avatar is completely customisable depending on role, environment, parachute type, time of day and equipment you would like the avatar to have. Additional Customisation options on avatars available upon request.

As well as customising the avatar the equipment is also totally customisable depending on your training needs. Equipment options include:

- Full pack
- Rucksack
- Helmet Attachment (NVG Options x 4)
- Night Lights
- Compass
- GPS
- Utility Pouch
- PADS - Automated Flight
- LPUS
- Snowshoes
- Additional Equipment - Available upon request.

AIRCRAFT OPTIONS

Aircraft options include:

- ▼ Tailgate Exit Generic C130
- ▼ Side door Exit Generic C130
- ▼ Tailgate Exit Chinook
- ▼ Side doos Exit C17
- ▼ Custom Aircraft

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.

Terrain databases included:

- ▼ Generic desert terrain
- ▼ Generic temperate terrain
- ▼ Terrain database editor
- ▼ CDB importer for client dropzones
- ▼ Custom terrain databases

SUPPORTED MALFUNCTIONS & NUISANCE FACTORS

1. Bag Lock;
2. Horseshoe;
3. No Canopy / Container Closure;
4. Pilot / Auxillary Chute in tow;
5. Pilot / Auxillary Chute Entanglement;
6. Streaming Malfunction;
7. Normal Twists (Middle of suspension lines);
8. High Twists;
9. Premature Break Release;
10. Bridle Line Restriction;
11. End Cell Closure (Recoverable);
12. End Cell Closure (Non-Recoverable);
13. Stuck Slider (Recoverable);
14. Stuck Slider (Non-Recoverable);
15. Line Over Malfunction;
16. Broken Rigging Line;
17. Broken Steering Line;
18. Steering Line Restriction Left or Right (Only with Variable tension steering lines);
19. Holes Rips & Tears Double Skin;
20. Holes Rips & Tears Single Skin;
21. Deteriorating Canopy Tear;
22. 2 Canopies (Side by Side);
23. 2 Canopies (Bi-plane);
24. 2 Canopies (Downplane);
25. Slow Opening;
26. Stall.

SUPPORTED ASSESSMENTS

1. Pull Rip Cord;
2. Check Canopy;
3. Flare 1;
4. Flare 2;
5. Right Turn (Trigger after 90 degrees);
6. Left Turn (Trigger after 90 degrees);
7. Cutaway;
8. Enter HA;
9. Leave HA;
10. Final Turn into Wind;
11. Release Equipment;
12. Final Flare;
13. Dir. To Wind at 0 ft;
14. Distance from IP;
15. Landing Speed;
16. Entered Safe Zone.

SUPPLIED DOCUMENTATION

Operation Manual
Maintenance Manual
Installation Manual

OPTIONAL ACCESSORIES

Dynamic steering tension lines;
Riser steering;
Multiview client.

ORDERING INFORMATION

98510-000-0001A	Virtual Parachute Training System (Lite)
98510-3021	Spares Kit

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