In depth investigation into:
• Anchoring systems
• Knotcraft
• Connector use and abuse
• Sling materials and configurations
• Forces on anchors, directional pulleys, frames and guying systems
• Pulley systems and mechanical advantage
• Effects of friction on rope systems
• Counterbalance systems
• Management of critical points within rope rigging
• Belay systems for personal and rescue loads
• Central focal point rigging
• Powered equipment
• Operational limits of equipment and assemblies in varying environments and conditions
• Static strength of components and assemblies as demonstrated on our load testing machine
• Dynamic strength and dynamic performance of assemblies and systems on our drop test structure
• Introduction into artificial high directionals and edge management systems

METHODOLOGY:
The Rope Rigging Fundamentals Workshop is conducted by Rob Stringer of Rope Rigging Academy and forms the first module of the rope rigging professional development series. It is designed to advance the skills, knowledge and experience of the rope rigging professional by investigating concepts for evaluating the performance of equipment, assemblies and systems. We explore the practical limitations in selection, care and use. To facilitate these objectives, students will have hands on access to our purpose built facilities to experience static and dynamic strength and performance testing. These activities form a vital preload of knowledge and experience for the students to effectively transfer theory into practical application in the field.

The workshop investigates a wide range of rigging principles using a combination of classroom, demonstration and practical exercises.

WORKSHOP DETAILS

Program: 5 Days duration. The program utilises Rope Rigging Academy’s specialised training and research equipment. The majority of the program is experiment based.

Practical Settings: Industrial and Wilderness

Prerequisite: Training and experience in rope rigging, rope access and / or rope rescue.

Cost: $1,650 (including GST)

Participants: Limited to 12

Application: A registration form and general information brochure can be obtained by emailing your interest to training@haar.com.au or calling the Highpoint office on +61 7 4927 2722.
In depth investigation into:

- Load capacities of Monopod, Bipod, Tripod and Quadpod configurations.
- The use of frames for anchoring and high directional pulleys.
- Rules of thumb, approximation methods and calculation of forces on rigid frames and associated rigging.
- Operational forces and managing the behavior of Luffing type frames.
- Edge management techniques in rope access and rescue operations, including consideration of belay systems during the edge transition.
- Use of winches and powered equipment attached to frames.

Practical application in the field:

- Setting up makeshift frames from timber and scaffolding type tubing.
- The use of proprietary frames including AZ Vortex, Larkin Rescue Frame, SRTE OzPod, SMC Terradaptor and Ferno Arachnipod.
- Set up and run scenarios using monopods (gin poles), bipods (classic A and sideways A frames), tripods (easel A frames)

The Rope Rigging Edge Management Workshop forms the second module of the rope rigging professional development series.

The use of frames for anchoring ropes, pulleys and other equipment is becoming common practice in the rope rigging industries. Hence, understanding the principles for rigging, stabilising and guying frames is crucial for safe use of these systems. The emphasis of this workshop is for the student to understand the forces developed when using frames, and be able to correctly assess rigging requirements when setting up frames as anchors and high directional. The program utilises a wide range of edge frames and powered winch systems.

WORKSHOP DETAILS

Program: 5 Days duration. The program utilises Rope Rigging Academy’s many and varied edge management equipment.

Prerequisite: Module 1

Cost: $1,650 (including GST)

Participants: Limited to 12

Application: A registration form and general information brochure can be obtained by emailing your interest to training@haar.com.au or calling the Highpoint office on +61 7 4927 2722
The Rope Rigging Offsets workshop forms the third module of the rope rigging professional development series.

This workshop critically analyses methods for creating horizontal movement of a suspended load with special consideration towards offsets. The workshop compares and contrasts tag line, guiding line, tracking line, skate block, deflection line and two rope offsets and determines their operational limitations and suitability for specific applications. Extensive use of force measuring equipment allows students to comprehend the practical physics involved in the application of these offsets. The workshop investigates offset rigging principles using a combination of classroom, demonstration and practical experiential learning and then applies them in field-simulated exercises.

**In depth investigation into:**
- Compare and contrast offset options, including:
  - Tag line
  - Guiding line
  - Tracking line
  - Skate block
  - Deflection line
  - Two rope
- Incorporation of safety systems for suspension of personnel
- Forces exerted in each system
- Considerations for frame rigging with changing elements due to offset function
- Investigation into tensioning systems
- Establish practical methods of tensioning in order to limit forces exerted onto system components.

**Practical application in the field:**
- Students will have the opportunity to build offset systems in a range of field settings including wilderness, transmission and communications towers, and buildings.
- The use of multiple offsets to create 3 dimensional movement of a suspended load.
In depth investigation into:
• Highline configurations from simple tyrolean traverse to full Kootenay systems.
• Rules of thumb, methods for approximation and formulas for calculating tensions on highline components.
• Track line tensioning systems.
• Track line overload protection mechanisms.
• Tag line / control line configurations and their suitability as track line failure protection.
• Reeving options for load vertical movement.
• Methods for providing fall protection for the load upon failure of each component of the system.

Practical application in the field:
• Horizontal, sloping and steep highline systems in a variety of settings including wilderness and industrial.
• Transport, drooping and reeved systems.
• Systems for transport of payloads and personnel.

Rope Rigging Professional Development (Module 4)
for Rope Rigging, Access and Rescue Professionals

The Rope Rigging Highlines Workshop forms the forth module of the rope rigging professional development series.

This workshop builds on the previous workshops and creates a logical transition between offsets and highlines for horizontal movement of a suspended load. Students will be involved in extensive testing of assemblies used within highline systems. The workshop critically analyses all components of commonly used highline systems and applies the findings in field-simulated exercises.

WORKSHOP DETAILS

Program: 5 Days duration. The program utilises Rope Rigging Academy’s specialised training and research equipment. The majority of the program is experiment based.

Prerequisite: Modules 1, 2 and 3.

Cost: $1,650 (including GST)

Participants: Limited to 12

Application: A registration form and general information brochure can be obtained by emailing your interest to training@haar.com.au or calling the Highpoint office on +61 7 4927 2722
Rope Rigging Professional Development (Module 5)

for Rope Rigging, Access and Rescue Professionals

The Rope Rigging Consolidation and Assessment is conducted by Rob Stringer of Rope Rigging Academy and forms the final module of the rope rigging professional development series.

This module serves two purposes, namely;

1. To give students the opportunity to review previously learnt material and to update their knowledge on recent advancements in the field of rope rigging.

2. Assess the students skills and knowledge in rope rigging from fundamentals through to advanced concepts.

**Consolidation of learning:**
- Review of previous module content.
- Students will have the opportunity to question and explore subjects beyond the level originally covered in the modules.
- Students will receive updated information on recent advancements in rope rigging.
- The Highpoint training and research facility will be available and time will be allocated to students for investigation of components, assemblies and systems they may use in their line of work.

**Assessment consists of:**
- Completed workbooks from each module.
- An assignment covering components from each module as well as personal research.
- Individual written assessment.
- Individual practical assessment of key components.
- Assessment of individuals performing specific roles within practical exercises.

**WORKSHOP DETAILS**

**Program:** 5 Days duration.

**Practical Settings:** Industrial and Wilderness

**Participants:** Limited to 8

**Prerequisite:** Modules 1, 2, 3 and 4.

**Pre course assignment**

**Cost:** $1,650 (including GST)

**Application:** A registration form and general information brochure can be obtained by emailing your interest to training@haar.com.au or calling the Highpoint office on +61 7 4927 2722