

MANUAL OF POLICIES AND PROCEDURES FOR

# H. E. BUTT FOUNDATION HIGH ROPES PROGRAM

REV. MAY 2023

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SECTION 1  
OVERVIEW

## Mission

The High Ropes Program ultimately exist to support the Mission of the H. E. Butt Foundation, which is:

**To cultivate wholeness in people and institutions for the transformation of communities.**

The Foundation's focus is spiritual formation and health in families and children. Rooted in Christian faith and brought to life by our shared values, our work takes two shapes: we run programs that nurture the human spirit, and we forge partnerships with like-minded organizations.

The specific goal of the **Foundation High Ropes Program** is to:

**Support the mission of Canyon programs by providing a memorable and adventurous experience for Canyon guests that serves to deepen their understanding of God, themselves, and others.**

The Foundation High Ropes Program offers guests a collection of activities that are operated on the H. E. Butt Foundation Camps property. These group activities are all experiential in nature and take place off the ground. Most require the use of harnesses and rope systems.

## Benefits of the Foundation High Ropes Program

High Ropes activities offer proven means of personal and spiritual transformation by providing opportunities to take risks, to trust, and to learn in a managed environment. Activities similar to ours are used around the world every day to help participants learn about God, themselves, and working with others, while making a memory doing something unusual. A few of the key components to the High Ropes experience are:

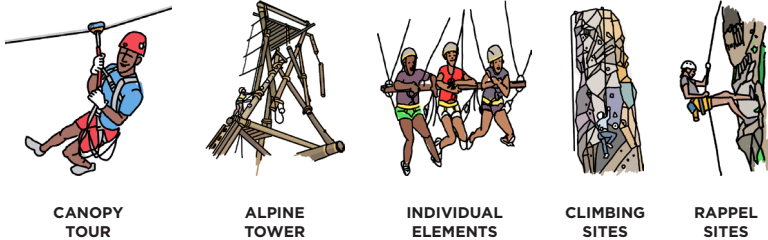
- **Risk** — Risk is an important component of the Christian life. High Ropes activities are a laboratory where participants can learn about taking risks and how they respond to risk in a controlled environment. These lessons easily transfer to other areas of life, where risks are usually not so concrete or time efficient.
- **Trust** — Trust is also a foundational principle of faith. On the high elements, Participants literally trust their belayer with their lives and must trust other team members in other ways.
- **Team-Building** — High Ropes activities are a great way to build unity and cooperation through group processing and shared experience.
- **Fun** — Most of us can agree that zipping across the Canyon, rappelling off of a cliff or climbing to the top of the Alpine Tower is just plain fun!
- **Memory Makers** — We give guests the opportunity to get to do things that most people in the world do not have the opportunity to do. These unique experiences are the things people remember for a very long time.

## Why This Manual?

When Canyon guests are engaging in activities 50 or 100 feet off the ground, it is imperative that the risks are managed. Ensuring the safety of our guests is a complex process involving many different people and parts working together in a coordinated manner. This manual will also ensure consistency of High Ropes operations in the Canyon. The goal is that the management of the program is centralized and that everyone is "reading from the same book." The purpose of this manual is to be the "same book" from which everyone is reading, as well as to align the operations of the Foundation High Ropes Program with the most current version of the ACCT standards.

# Description of High Ropes Activities

The High Ropes Program operates a wide array of activities. Because of the diversity of the activities, there is an activity for almost any guest group in the Canyon desiring an adventurous experience. The activities can be broken down into five general categories:



## 1. Canopy Tour

This is a canopy tour consisting of three ziplines staged together. The first zip starts from the top of Echo Bluff and runs across the river to the grove of cypress trees near Cypress Springs. There is a short bridge to the beginning platform of the second zip, which is also in a tree. The second zip traverses back across the river and ends just upstream from Pebble Beach. The third zip is a walk-off landing that ends just above the Pebble Beach amphitheater.

## 2. Alpine Tower

This is an Alpine Tower II that has been set up on the property since 2002. The Alpine Tower is a stand-alone, triangular-shaped tower made from telephone poles, with many different routes to the top. When operated at full capacity, six Participants may climb at once. Attached to the Alpine Tower is a cable swing (swing-by-choice) that is occasionally operated as a component of Alpine Tower activities.

## 3. Individual Elements

There are two stand-alone elements on the property that offer a different and unique experience:

- **Alpine Tower Swing** — This element is a big cable swing suspended from the north side of the Alpine Tower. A Participant is hooked into the cable end on the ground, hauled by rope by the rest of the team to about 35 feet off the ground, and then releases themselves for a seemingly free-fall swing.

- **Crate Stacking**— This element is an individual activity where Participants use milk crates to make a tower to climb. The goal of this activity is to make the highest tower you can. It can be run using two stacks side to side or one standalone stack. Participants are belayed using a TruBlue Auto Belay, which retracts as they climb and slowly lets them descend when they fall or let go.

## 4. Climbing Sites

On the property we have three climbing sites that vary in difficulty. Two are set up and run as bottom-managed belays with fixed top-rope anchors. The Eldorado Climbing Area utilizes an auto-belay system. The three sites are:

- **Eldorado Climbing Area**— This artificial climbing tower contains a set of six climbing routes and is located at Headwaters. Participants are belayed using the TruBlue Auto Belay system, which retracts as they climb and slowly lets them descend. This climb is 35 feet tall and has great views. There is also a 9-foot boulder and a child's boulder in the area.
- **Echo Bluff Climb Site** — The Echo Bluff Wall is a limestone cliff band that borders one side of the Echo Valley Entrance road. Teepee is the first climb on the left when approached from the river and has been climbed for decades. The lines to the right of Teepee were developed in 2016.
- **Singing Hills Bluff Climb** — This climb is located at the same site as the Singing Hills Bluff Rappel. This climb is good for children and is approximately 25 feet in height.

## 5. Rappel Sites

On the property are three rappel sites that range in height. These sites are all accessed and facilitated from the top. The Participants rappel themselves on one rope while they are belayed by the Facilitator from a second rope. The rappel sites are:

- **Singing Hills Bluff Rappel** — This is a rappel located behind the Old Pavilion at Singing Hills. This rappel is approximately 25 feet in height.
- **Echo Bluff Rappel** — This is a high-angle rappel located on the prominent bluff near the river entrance to Echo Valley. This is an intermediate rappel. This rappel is approximately 40 feet in height.
- **Battleship Rappel** — This rappel is located on the prominent bluff called Battleship, across from Laity Lodge Adult Retreat Center. This is a rappel with some free travel. This rappel is approximately 120 feet in height.



SECTION 2  
POLICIES & PROCEDURES

## Safety Procedures

### ***The following policies and safety standards must be followed in the operation of the H. E. Butt Foundation's High Ropes Program:***

- Any use of any High Ropes element must be under the direct supervision of a Facilitator currently certified for that element.
- Any time a High Ropes element is being used, a High Ropes Director must be on duty.
- Any use of an element must be approved by a High Ropes Director.
- Appropriate steps should be taken to identify, warn, and physically limit access to any High Ropes element or any equipment.
- Manufacturer recommendations and requirements of inspections and maintenance shall be followed.
- All Participants must fill out a health form and indemnity agreement before participation on any High Ropes elements.
- Appropriate form of communication must be available anytime an element is in use.
- We shall take appropriate measures to provide access to basic amenities to the Facilitators and Participants.
- We shall operate each course element according to the original equipment manufacturer and/or qualified person's recommended procedures regarding and not limited to capacities, weights, and number of Participants.
- Any person (Participant or staff) working at height must use appropriate safety systems as outlined in this manual.
- Use of tobacco, alcohol, or drugs by any Participant or staff is prohibited during a High Ropes activity.
- The on-duty High Ropes Director(s) will make the determination if the element may or may not be used in any weather.
- Participants will be encouraged to seek their own level of challenge and will not be coerced to participate.
- Any Participant whose behavior threatens the safety of themselves or others or whose behavior distracts from the goals of the experience may be immediately removed from the activity.
- The High Ropes Director(s) may suspend the ability of any Facilitator to facilitate at any time if they have any reason to believe that the person is not able or willing to perform their job duties.

- Environmental impact shall be considered when operating High Ropes activities.
- Participants shouldn't participate if they have a preexisting condition like heart problems; head, neck, or back injury; seizures; pregnancy; musculoskeletal disease; or similar conditions.

## Job Titles and Descriptions

The H. E. Butt Foundation High Ropes Program is run by a team of staff and contractors who work together to ensure that the Participants have the highest quality experience. The core team consists of High Ropes Facilitators and High Ropes Directors. The High Ropes Facilitators and Directors work closely together during the operation of any High Ropes element, with the High Ropes Directors supervising the Facilitators. The Assistant Director of Adventure Rec is responsible for the overall management and direction of the program.

What follows is a list of the different members of the Foundation High Ropes team and the specific roles that they each play in operating the program:

### **Foundation High Ropes Program Staff**

#### ***Assistant Director of Adventure Rec:***

- Is a full-time employee of the H. E. Butt Foundation
- Will oversee all aspects of the High Ropes Program
- Will see that each High Ropes element in the Canyon is maintained and operated in accordance with ACCT standards
- Will oversee all equipment needs of the High Ropes Program
- Will coordinate and supervise all training, evaluation, and certification of High Ropes Directors and Facilitators
- Will oversee all inspection needs for the High Ropes Program
- Will be a participating member of ACCT and ensure that the H. E. Butt Foundation Outdoor School maintains membership in ACCT
- Will ensure that the High Ropes manual is relevant and up to date
- Is at a minimum a certified Level 2 Challenge Course Practitioner; the person holding this certification will have passed a skills test, written test, and have a completed a L2 course

#### ***High Ropes Director:***

- Will oversee and assist in the daily operation of the High Ropes Program
- Is a predesignated, advanced-level trained high ropes supervisor for each

camp site; at minimum, this position is trained in rescue operations for High Ropes activities in supplementation of their Level 1 Challenge Course Practitioner Certification

- Will coordinate with the Asst. Dir. of Adv. Rec to perform all daily setups required to operate the High Ropes Program
- Will perform rescues themselves or assist on-call rescue personnel in any rescue or emergency situation
- Will assist in periodic inspections
- Will assist in routine maintenance and repairs
- Will assist with all record keeping associated with the High Ropes Program
- Will staff all High Ropes activities in coordination with the Asst. Dir. of Adv. Rec. This includes removal or suspension of any Facilitator who does not adhere to the current safety standards
- Will report to the camp directors of the camp to which they are assigned

**High Ropes Facilitator (HR Facilitator):**

- Is responsible for the direct operation of any of the High Ropes elements in the Canyon
- Is responsible for all Level 1 Site Specific Material
- Will report to the High Ropes Director on duty
- Is a certified position. The person holding this certification will have passed a skills test and have a documented number of hours of training and facilitation experience

**High Ropes Helpers:**

- Are responsible for supervision of the group while an element is in use
- Are responsible for helping Participants put on the gear required for an element.
- Will report to the Facilitators on duty

**Note:**

- All staff must be at least 18 and physically capable of performing duties
- All staff must have a staff application, health form, and criminal background check on file

## **Outside Contractors**

**Outside Facilitators**

- The H. E. Butt Foundation may employ the services of a person who was trained by a different organization and, consequently, not on the "List of Certified Staff" located in the appendix. This person may facilitate any High Ropes activity
- Must hold a current ACCT Level 1 certification in the "Full" or "High Only" tracks. An ACCT Level 1 certification with a "Site-Specific" track will not qualify to facilitate Participants in our program, as their training was customized for the course where they trained and may not apply to our elements
- Must present their training card to the Asst. Dir. of Adv. Rec
- Must go through an adequate briefing by the Asst. Dir. of Adv. Rec to inform them of our local operating procedures

**Outside Course Trainer:**

- Is a third-party Professional Vendor Member (PVM) employee who teaches the High Ropes Directors and Facilitator courses on-site
- Is an ACCT accredited PVM

**Outside Challenge Course Inspector:**

- Is a third-party PVM who performs annual inspection and maintenance of all Foundation High Ropes elements and equipment
- Is an ACCT accredited PVM





## Training and Certification

To ensure the highest level of risk management for our guests, all HR staff must go through a rigorous training and evaluation process before they may participate as a Facilitator in an HR activity. What follows are the requirements necessary to become a certified Facilitator:

### High Ropes Director:

- Must have completed at least the 40-hour ACCT Site Specific Level 1 Course for our site. Additional advanced training for rescues is required for staff on this team
- Must complete a training in local operating procedures and rescue skills
- Being certified in CPR and First Aid is recommended
- Must understand the Foundation's philosophy and goals, and understand how the High Ropes experience supports this mission
- Must exhibit common sense, good judgment, and safety awareness
- Must be able to demonstrate sensitivity and maturity appropriate to the ages and skill levels of the Participants

### High Ropes Facilitator:

- Must complete 40-hour ACCT Level 1 Site Specific Course for our site or successfully complete a third-party PVM-led workshop specific to our site
- Level 1 candidates must pass written and practical exams
- Workshop participants must pass a practical exam specific to the skill(s)/site(s) being taught
- Must pass hands-on skills test
- Must have an understanding of the Foundation's philosophy and goals, and understand how the High Ropes experience supports this mission
- Must exhibit common sense, good judgment, and safety awareness
- Must be able to demonstrate sensitivity and maturity appropriate to the ages and skill levels of the Participants
- Facilitators are not expected to perform rescues, but should be familiar with the rescue procedures in case assistance is needed by the Asst. Dir. of Adv. Rec or the on-call rescuer

## Participation Requirements

### Age and Weight Requirements

High Ropes activities vary in their suitability for participants. Some elements demand a certain maturity level or degree of physical strength based upon age. Other elements depend upon a certain Participant weight to ensure the mechanical systems work properly. If the following guidelines for the element include both age and weight, then the Participant must meet both requirements to participate. The guidelines are:

#### ***Eldorado Climbing Area***

- Participants may be any age, weigh between 22 - 330 lbs, **and** fit appropriately in the harness.

#### ***Crate Stacking***

- Participants may be any age, weigh between 22 - 330 lbs, **and** fit appropriately in the harness.

#### ***Echo Bluff Climb, Singing Hills Bluff Climb, Alpine Tower, and Alpine Tower Swing***

- Participants need to be at least 8 years old **and** fit appropriately in the harness.

#### ***Canopy Tour***

- Participants need to weigh between 60 - 300 lbs and fit appropriately in the harness. *Total weight of participant includes 15 pounds of additional gear that is required to participate*

#### ***Singing Hills Bluff, Echo Bluff, and Battleship Rappels***

- Participants need to be at least 11 years old and fit appropriately in the harness.

## Staffing Requirements

For the sake of safety and efficiency, a minimum number of staff are required to operate each element. **A High Ropes Director needs to be on duty in the Canyon when High Ropes activities are being operated.** The minimum numbers are:

#### ***Alpine Tower***

- 1 on-call rescuer in the Canyon plus an equal number of Facilitators as climbing ropes.

#### ***Rappel Sites***

- 1 on-call rescuer in the Canyon plus 3 Facilitators working the element.

#### ***Alpine Tower Swing***

- 1 on-call rescuer in the Canyon plus 2 Facilitators working the element.

#### ***Canopy Tour (Pod Style, Groups of 8 Participants or less)***

- 1 on-call rescuer in the Canyon plus 2 Facilitators working the element.

#### ***Canopy Tour (Revolving Style, Groups of 9+ Participants)***

- 1 on-call rescuer in the Canyon plus 4 Facilitators working the element.

#### ***Crate Stacking***

- 1 on-call rescuer in the Canyon plus 1 Facilitator working the element and 1 HR Helper.

#### ***Eldorado Climbing Area and Natural Climb Sites***

- 1 on-call rescuer in the Canyon plus 1 Facilitator and 1 HR Helper.



## General Testing Information

### Level 1 Syllabus

#### Course Description:

This certification training will be delivered over several days and will encompass all of the necessary standards for certification endorsement as defined by the Association for Challenge Course Technology (ACCT). No prior experience in facilitating on the challenge course is required although candidates should possess good communication skills and judgment.

The certification training includes all aspects of challenge course facilitation as well as familiarization with operations, installations, and ethics. Depending on the training, Participants will have the opportunity to be fully certified, certified for spotted activities only, high activities only, or site specific certification. This course is not intended to prepare candidates to train others.

The course will include presentation, discussion, and experiential components and includes some form of participation on the challenge course.

Candidates must be present for all sections of the course in order to qualify to participate in the certification exam.

#### Certification Requirements:

- Minimum age requirement is 18 years.
- The Facilitator applicant must achieve a score of 80 percent on a written test and pass a skills test. Level 1 candidates are required to understand and demonstrate basic competency in all aspects of the curriculum and therefore all of the standards set out in the current ACCT Practitioner Certification Standards.
- A minimum training of American Red Cross first aid and CPR (standard), or comparable emergency health care training is *highly* recommended.

#### References:

- Adventure Experiences, Inc. Level 1 Training Manual
- Association for Challenge Course Technology Challenge Course and Canopy/ Zip Line Standards, 8th Edition, or subsequent current additions. Contact ACCT to acquire copy: [www.acctinfo.org](http://www.acctinfo.org)

#### Learning Outcomes:

- The course is intended to prepare candidates to facilitate effectively on a challenge course and provide a safe and rewarding experience to Participants. By the completion of training, candidates will have an understanding and working knowledge of facilitation competencies including program design, Participant assessment, program implementation & sequencing, processing, and ethics.
- By the completion of training, candidates will have an understanding and working knowledge of risk management concepts including medical information and release of liability forms, site specific Local Operating Procedures (LOP), and current industry standards.
- By the completion of training, candidates will have an understanding and working knowledge of equipment, element operations, element inspection, spotted activities, belayed activities, self-belayed activities (course access), and any special skills associated.

#### Testing Policy

Testing will be closed-book and monitored and administered individually. The testing session is separate from the training course and may or may not be conducted by the same practitioner that delivered the training. The testing results shall be reviewed with the candidate upon scoring. All tests are maintained as permanent records by Adventure Experiences, Inc.

#### Skills Testing

Level 1 candidates are required to understand and demonstrate basic competency in all aspects of the curriculum and therefore all standards set out in the current ACCT Practitioner Certification Standards. Some specific basic skills tested must be passed in order to receive certification.

#### Remedial Testing

- Candidates may or may not have several opportunities to demonstrate an appropriate skill level on testing day. Skills that cannot be demonstrated in accordance with the standards will be marked as such and may result in the candidate having to re-test at a later date.
- Knowledge tests may or may not be marked on testing day. If a candidate

does not achieve a score of 80% but they have demonstrated skill competency at the level they are seeking, they will be asked to complete a remedial written knowledge component. However, the tester has the discretion to request that the candidate complete a full re-test of the knowledge exam at a later date.

- Candidates who have not demonstrated an appropriate skill level of the certification they are seeking and who do not achieve an 80% on the written knowledge exam will need to schedule a full re-test within three months of their testing.
- Candidates will be given one opportunity to re-test. If unsuccessful during this re-test, they will be required to undergo additional training before being eligible for another certification test.
- Candidates with disabilities will be provided with an appropriate alternative test which will be discussed between tester and candidate.

### Level 1 Recertification Requirements (every year)

Annually, to become re-certified as a Facilitator one must:

#### 1. Present a portfolio to the tester that includes:

- Résumé of professional experience.
- Lifetime hours of challenge course trainings.
- Syllabi that correspond to hours of challenge course trainings.
- Lifetime hours of program delivery with a minimum of 50 hours performed within prior year.
- If a Facilitator did not perform 50 hours of program delivery within the prior year, 16 hours of refresher training must be attended and documented.
- A portfolio may also include a log of installation and inspection experience, memberships and professional affiliations, other certifications and accreditations, and presentations/publications.

#### 2. Achieve a minimum score of 80% on a written knowledge test.

#### 3. Pass a skills test to include skills from your chosen track. Some specific basic skills test must be passed in order to receive recertification.

1942	1970s	1980s	1990s	2000s
The first experiential program called Outward Bound was created. They focused on creating challenging environments so that people can learn tools to deal with such situations.	The first challenge course companies are formed. There courses were constructed of rope, wood, trees, and cable—hence the title "ropes course."	The industry grew in popularity and program development. The Association for Experiential Education was formed.	The ACCT becomes the industry's professional organization, creating operation, installation, and inspection standards.	ACCT develops canopy/zip line standards based on the existing canopy/zip line tour industry.

**ACCT** is a trade organization serving challenge course professionals all over the world. The purpose of the association is to promote the use of challenge courses and to set minimum standards for challenge course installation, operation, and inspection. Originally founded by vendors, ACCT members are now predominantly challenge course managers and Facilitators, in addition to the installers and trainers who are our longtime members. ACCT has been setting challenge course standards since 1993, and is now accredited by the American National Standards Institute (ANSI) as a standards developer.

**ACCT Mission Statement**—The Association for Challenge Course Technology (ACCT) establishes and promotes the standard of care and measure of excellence that defines professional practice and effective challenge course programs. ACCT develops, refines, and publishes standards for installing, maintaining, and managing challenge courses, provides forums for education and professional development, and advocates for the challenge course industry.



### Association for Challenge Course Technology

P. O. Box 19797, Boulder, CO 80308 USA

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**Adventure Training, LLC's** program focuses on technical skills, soft skills, detailed procedures, and safety awareness. AE is a Professional Vendor Member of ACCT and is currently accredited by the ACCT to provide certification testing in accordance with the new ACCT certification standards. AE now consists of three companies: Adventure Training, LLC; Adventure Equipment, LLC; and Adventure Construction, LLC. The three companies work together to provide the following Challenge Course, Zip Canopy Tour, and Aerial Adventure Park services: construction, training, consultation, inspection, equipment sales, and specialty workshops. Tim Kempfe M.A. Ed., founder of AE, served ACCT for over 25 years. He served as the Installation Standards Chairman from 1988-2000, chaired the Research and Development Committee which field tested many of the systems and equipment we use today, and served as President of ACCT from 2000 - 2006.



### Adventure Training, LLC

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# Practice Procedures

## All in Favor Say "AYE"

Webster's Dictionary defines the word "aye" as:  
1. An affirmative vote or voter. 2. Yes.

An "AYE" decision is a YES decision in regard to participating on the challenge course.

Why do we have to make an "AYE" decision?

The "we" refers to both the Participant and the Facilitator. A very important decision needs to be made by everyone involved in the challenge course experience. This decision will have a direct impact on the physical and emotional well-being throughout all of the challenge course activities.

An "AYE" decision comes to the challenge course Facilitator in the way of recognizing a Participant's need to opt for only the portions of an experience that will encourage positive growth and not push them too far— into a state of panic. A challenge course Facilitator should have a plan that follows a sequence of events that gets a Participant out of his or her comfort zone. However, the well-being of a Participant should not be compromised for the sake of plan or pride on the part of the challenge course Facilitator. The Facilitator should never force a Participant to do a particular activity.



The "AYE" decision allows a Participant to decide which aspects of the challenge course experience they will join. Naturally, through proper sequencing, all Participants will want to participate on the challenge course to some capacity. As you, the challenge course Facilitator, may know (or will soon learn), there is always a way for every Participant to have a positive role in every activity; therefore, let the Participant's "AYE" decision guide you.

When the "AYE" decision is introduced, the first thing to be recognized is what we hear... an "I" decision. Upon hearing this, we start to consider individuality and its importance to the challenge course experience. Yes, people come together on the challenge course to make a team, but teams are made up of individuals. People bring strengths/weaknesses, emotional weight, and physical talents to their team. Acknowledging this important fact can be the cornerstone from which all successful teams are formed.

Next, let's break down the "AYE" decision:

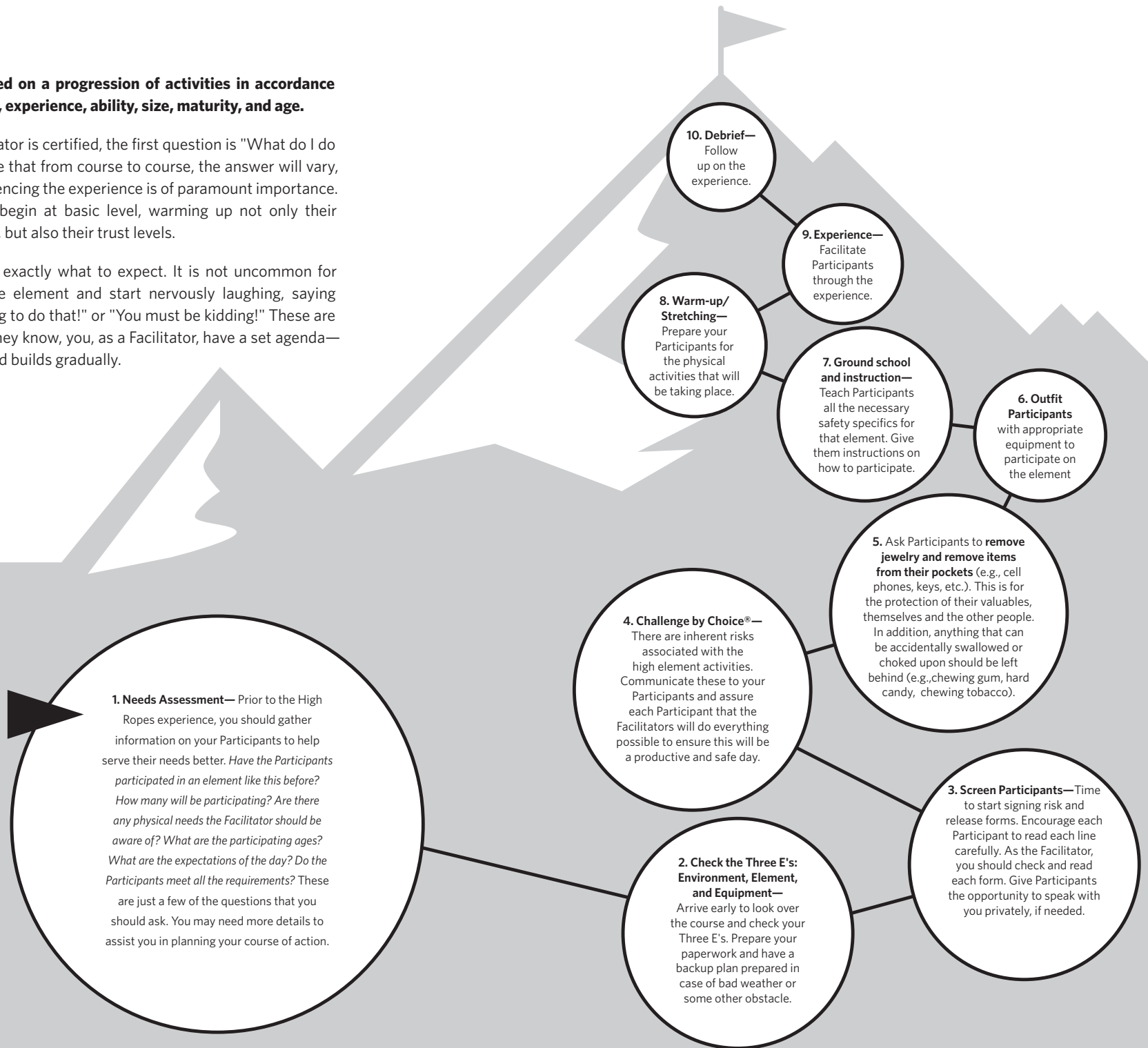
- A** stands for "Assert." The challenge course Participant should be encouraged to speak and act on their beliefs and decisions with confidence. The challenge course, as an artificial arena in which to experience real life situations, should be a comfortable place for everyone to express the emotions they feel throughout all of the activities. Thus, asserting one's decision on how they will participate is the first step toward a quality and beneficial experience.
- Y** stands for "Your." This is simply using personal language as you, the Facilitator, begin to establish credibility with your Participants. Credibility will determine how open the challenge course Participants will be to you, each other, and processing as the experience evolves. Processing will be discussed later, and there will be additional information on the use of personal language.
- E** stands for "Empowered." The word empowered alone describes something formidable. For someone to make an empowered decision says they are capable. Capable means taking care of yourself, others, trying new things, stepping into adventure, and going for it where "it" is the unknown. As the Facilitator, empowering your Participants to decide how they will participate is saying, "I trust you," or "I believe in you."

## Sequencing

**Sequencing should be based on a progression of activities in accordance with the Participant's skills, experience, ability, size, maturity, and age.**

Many times, after the Facilitator is certified, the first question is "What do I do now?" It is important to note that from course to course, the answer will vary, but the basics will not. Sequencing the experience is of paramount importance. This allows Participants to begin at basic level, warming up not only their body's major muscle groups, but also their trust levels.

Groups are often unsure of exactly what to expect. It is not uncommon for Participants to arrive at the element and start nervously laughing, saying such things as: "I'm not going to do that!" or "You must be kidding!" These are normal reactions. Little do they know, you, as a Facilitator, have a set agenda—one that starts out slowly and builds gradually.



## Games

Games are intended to break the ice within a group by breaking down emotional barriers and begin warming up people's major muscle groups for stretching. Games usually have rules and may not require a great deal of spotting.

## Stretching

Stretching is an important step of preparing your Participants for the physical activities that will be taking place. It will be your responsibility to properly prepare them for what will follow. Remembering these few steps will lead the group to greater success.

The Warm Up	The Act of Stretching	Final Preparation
Low impact	Do Not Over-Stretch	Allow Participants to Stretch any Muscles that were Missed
Slight Increase in Heart Rate	Methodical Manner	Transition to Initiatives
Move Major Muscle groups	Hold 8 to 10 seconds	
Warm Up Attitudes	Breathe	
	Avoid Stressing Joints	
	Do Not Bounce	

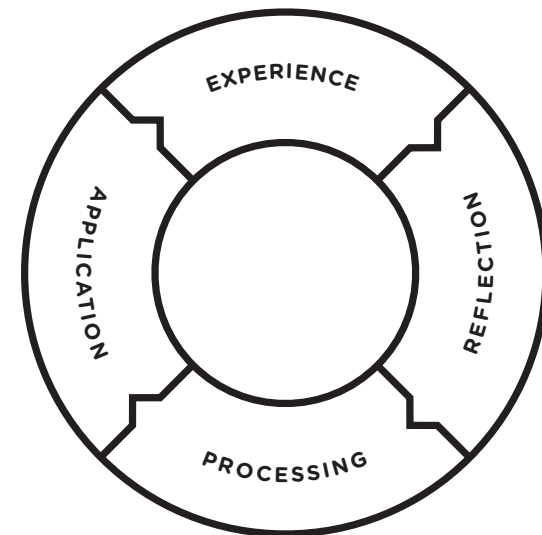
## Processing

Processing is best defined as "the art of guided reflection that leads to a transfer of **learning**."

Processing is what sets the challenge course experience apart, making it much more valuable than an amusement park full of thrill rides. The goal for experiential educators is to assist Participants in learning from their experiences. Participants should be taught how to apply the skills, concepts, and attitudes they have learned to real life situations.

Educators can improve their ability to process experiences by preparing and stating clear objectives and by planning strategies to implement them. Processing is a method for helping people reflect on experiences and for facilitating specific personal changes in their lives. The skill of processing primarily involves observing individuals, making assessments about what is happening, and then asking appropriate questions.

Being knowledgeable of the **Experiential Learning Cycle** can clarify how Participants absorb an experience and how they can grow from it. "There are four distinct phases that comprise the Experiential Learning Cycle" (Nadler and Luckner). **These four are: the experience, reflection, processing, and transference (application).**



## Spotting

Prior to an activity, all Participants will be taught spotting techniques specific to that activity. An effective way of introducing these techniques is by using these A, B, C, D's.

**A** **Attitude.** Spotters are focused. The attitude should be “no one falls—no one gets hurt.” Do not allow attention to be diverted by anything while spotting.

**B** **Body Position.** Feet staggered, strong leg back, knees bent, back straight, arms or bumpers up and flexed, hands slightly staggered, fingers together, thumbs in, eyes focused on the Participant. Remove hats and jewelry (watches, rings, and piercings).

**C** **Communication.** Establishing the verbal contract is important. The use of a Participant's name during a verbal contract is encouraging.

**Participant:** “Spotters, Ready?”  
**Spotters:** “READY! <NAME>” (in unison)  
**Participant:** “Trusting?”  
**Spotters:** “TRUST US! <NAME>” (in unison)

**D** **Decision Making.** Using common sense to make safety judgments about uncommon factors. (e.g., terrain, Participant size, etc.)

## Additional Spotting Procedures

- Know the initiatives and low elements being spotted, special spotting requirements, and the potential for any accidents.
- Provide an appropriate number of spotters for the activity.
- Smaller or weaker Participants should not spot larger Participants in a critical area of spotting space.
- Maintain an active position, ready to move at any time.
- Stay close to Participant, but do not inhibit their movements. Anticipate the possibility of a fall.

## The Five H's

Before allowing anyone to climb onto the high elements a Participant's helmet, hair, harness, hardware, and human must be checked by the belayer.

**Helmet** — UIAA/CE approved, placed on the head in a manner that protects the forehead, buckled securely under the chin, and checked for lateral stability.

**Hair** — All Participants with long hair or long beards will be instructed to tie back and tuck hair to prevent potential entanglement.

**Harness** — Approved for the challenge course by authorizing agents, the appropriate size will be chosen. The harness will be properly fitted and adjusted; waist belt and leg loops should pass the three-finger test, every buckle on the AEI Headwall challenge course harness will be double backed except for the auto-locking buckles. All other challenge course harnesses must be secured according to the manufacturer's specifications.

**Hardware** — Proper connection to the Participant's belay loop on the harness. If using a Figure-8 on a Bight, a triple-locking carabiner, or 2 locking carabiners in x-gates, must be used. If using a Figure-8 Follow Through Knot, it should be tied directly to the Participant's belay loop on the harness.

**Human** — Ask Participant how they are feeling. Reiterate that participation in the activity is their decision. Participants with bulky, loose clothing will be asked to adjust it so that the instructor has full visual of the harness and rope. Also check that jewelry is removed.

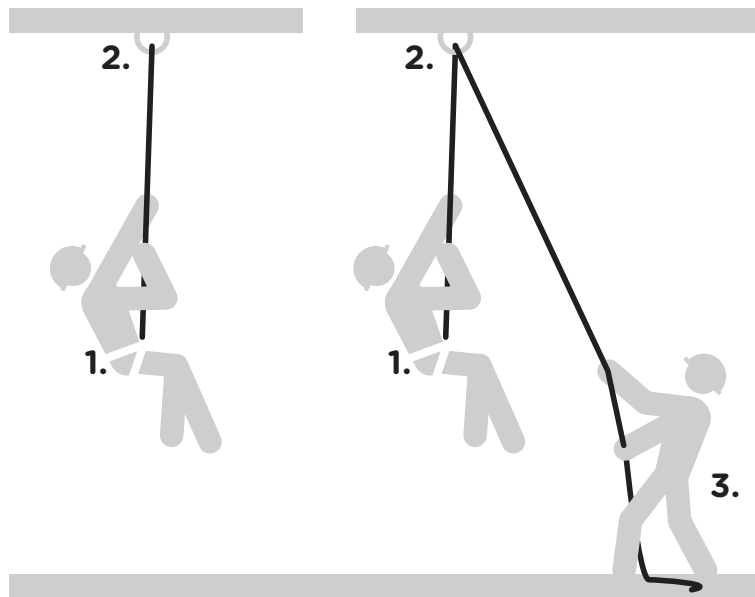




## Belay Systems

**Static Belay System** — A person is attached to a rope with two points of contact; the Participant's harness and the belay anchor point. This two-point system is used to traverse an element with a set amount of rope. A Participant cannot be lowered to the ground on this system.

**Dynamic Belay System** — A person is attached to a rope with three points of contact; the Participant's harness, the belay anchor point, and a belay person. The belay person can add or take away the amount of rope in the system, allowing the Participant to be lowered safely to the ground.



Static Belay System

Dynamic Belay System



## ACCEPTABLE Facilitator Attachment Points



☐ Belay Cable



☐ Belay Cable



☐ Facilitator Rappel Clip-in Point



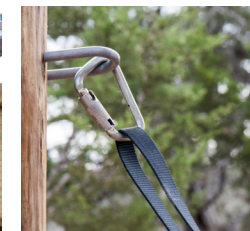
☐ Pole Wrap



## UNACCEPTABLE Facilitator Attachment Points



✗ Dead End of Cable with Serving Sleeve



✗ Staples



✗ Thimble of Cable

## Common Practice Specifications

Design and operate the challenge course to restrict unauthorized use.

Access to the high course areas should be minimized.

No Trespassing signs should forbid unauthorized use and must be clearly posted.

**Daily visual inspections** should focus on the three E's

Environment	Element	Equipment
Limbs	Hardware properly intact	Harnesses free of tears, frayed edges, and rusted or cracked buckles
Roots	Wood parts free of splinters & cracks	Hardware free of scoring
Stumps	Check for wasp nests & other hazards	Ropes inspected tactilely & visually
Poisonous plants & insects		
Weather forecast		All aspects of element setup are correct and in working order

**Periodic internal inspections** are focused on the visual and tactile examination of all structural components of a given element as required by ACCT standards and accredited professional vendor members. Any findings will be recorded and addressed accordingly.

**Annual inspections** are performed once per year by an accredited professional vendor member. The organization shall take appropriate actions based on the results and recommendation of the annual inspection report provided.

## Installation Specifications

Anyone involved in challenge course construction should properly research and network with recognized professionals in the field to determine accepted techniques. Some acceptable materials used throughout the industry include:

### Cable —

3/8-inch Galvanized Aircraft Cable, 7x19 construction, 14,400 lbs. tensile strength

1/2-inch Galvanized Aircraft Cable, 6x26 construction, 26,600 lbs. tensile strength

**Belay Cable** — Must have a full-strength backup component or system in place

### Cable Terminations —

Galvanized Drop-Forged Cable Clamps

Zinc Plated Copper Swages

Galvanized Drop-Forged Fist Grips

**Bolts and Hardware** — Must be Galvanized and Drop-Forged

**Poles** — When used for belay systems should be class 2 decay resistant or treated. Poles are installed at a depth equal to 10% of their length plus two feet, or a minimum of 4 feet.

## Equipment Specifications

- All hardware is used appropriately according to manufacturer ratings and specifications.
- On dynamic belay systems, the belay rope should run over a fitting with a minimum diameter of 12 mm. This is known as shear reduction.
- Carabiners and rapid links must be of locking type.
- ATCs (Air Traffic Controllers), Tubers, Stitch Plates, Just-Right-Descenders, Gri-Gri, and specified belaying figure eights are recommended for descending/belaying. Any belay device used must be used in accordance with the manufacturer's specification.
- A harness designed for challenge courses is recommended. Any other type used must comply with manufacturer's guidelines.
- Helmets used on challenge courses must meet UIAA 106 or CE 12492 (Union of International Alpine Association/Community European Norm) standards for rock climbing helmets.

*A complete listing of all standards pertaining to challenge course installation, inspection, and operations can be found in the most recent edition of the Association for Challenge Course Technology Standards manual.*



**Aluminum Supersafe Carabiners**



**Steel Supersafe Carabiners**



**Steel Screw-Gate Carabiners**



**Petzl® Gri-Gri® 2**



**Petzl® Gri-Gri® PLUS**



**Petzl® Tandem Speed  
Zipline Pulley**



ATC™ Belay Device



Hawserlaid Lobster Claw  
with Load-Limiting Device



Seat Harness



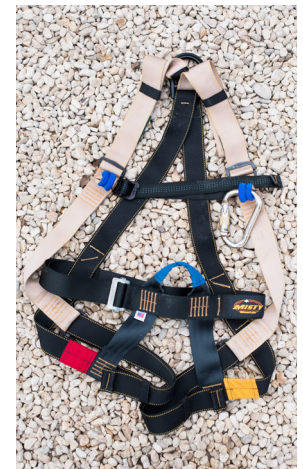
Youth Full Body Harness



Hawserlaid Rope



Chest Harness



Adult Full Body Harness



Kernmantle Rope



Small/Medium Helmet "S/M"



Medium/Large Helmet "M/L"



Small Medium Helmet "Size 1"



Medium Large Helmet "Size 2"

## Equipment Requirements

To ensure that all the equipment used in the the Foundation High Ropes program is in top condition, the equipment must be inspected. The retirement criteria and minimum tensile strengths for all equipment is as follows:

- Kernmantle rope — Manufacturer's Recommendation or Condition
  - » Dynamic — stretch of 7% to 10%
  - » Static — stretch of 2% to 3%
  - » 5,000 lbs./22.2 KN minimum breaking strength
- Tethers — Manufacturer's Recommendation or Condition
  - » 5,000 lbs./22.2 KN minimum breaking strength
- Carabiners, belay devices, and pulleys
  - » Scoring is the wearing away of metal caused by heat and friction. If scoring compromises the integrity of the hardware or could possibly cause damage to a rope, it must be retired.
  - » Aluminum devices must be retired after a fall of more than six feet onto a hard surface (like a rock, for example).
  - » Sticky gates on carabiners can be lubricated with powdered graphite only.
- Helmets — Manufacturers recommendation or condition
  - » Helmet must also be UIAA/CE Certified
- Harnesses — Manufacturer's recommendation or condition
  - » 5,000 lbs./22.2 KN minimum breaking strength
- Other equipment — Manufacturer's recommendation or condition

### Notes:

- All equipment must meet ACCT standards for strength and application
- Any Facilitator may take any piece of equipment out of service at any time for any reason. The High Ropes Directors or Sr. Director of Outdoor School will decide if the piece of equipment needs to be retired or can be repaired and placed back into service.
- 1 KN = 224.79 force lbs.
- 22.2 KN = 5,000 force lbs.

Equipment	Strength (FAS)	Retirement
Harnesses	Min. 5000 lbs./22.2 KN	Manufacturer's Recommendation or Condition
Helmets	UIAA/ CE Certified	Condition or Manufacturer's Recommendation
Carabiners, Steel	Min. 5000 lbs./22.2 KN	Scoring, Chemical Exposure

Equipment	Strength (FAS)	Retirement
Carabiners, Aluminum	Min. 5000 lbs./22.2 KN	Scoring, Dropping, Chemical Exposure
Belay Devices	Min. 5000 lbs./22.2 KN	Scoring, Dropping, Chemical Exposure
Kernmantle Rope	Min. 5000 lbs./22.2 KN	1,000 Participants or Condition
Hawserlaid Rope	Min. 5000 lbs./22.2 KN	5 years or Condition
Load Limiting Device	Min. 5000 lbs./22.2 KN	5 years or Condition

**We strongly recommend that you read the instructions of any harness prior to use, follow them, and only use for the intended purpose.**

## Legal Liability

“You should not have to worry about legal liability; you should worry about causing harm to someone. If you take care of your people on your zip tour, legal liability should not become an issue.”

—Tim Kempfe

### Definitions

**Legal liability** — A situation in which a company is held responsible in circumstances of tort to pay for any damage incurred.

**Tort liability** — A wrongdoing against a person who suffers damages.

**Negligence** — An act in which a reasonably prudent person would foresee risk of harm through his or her omission or commission of such an act.

**Omission** — An act that should have been done to protect the individual but was not.

**Commission** — An act was done, but done incorrectly.

**Standard of Care** — What a reasonable and prudent professional would have done in the same or similar situation. It is the practice of other experienced professionals.

## Risk Management

There is risk in everything we do, and organizations must be mindful of risk. This means to examine situations cautiously and think ahead of potential consequences of decisions and actions. A systematic way to manage risk is to start with a Risk Management Plan that is implemented to reduce the likelihood of injury. The three stages of a Risk Management Plan are as follows:

### Pre-Event Stage

- Proper selection of equipment, materials, and trained personnel
- Regular inspections and maintenance of the facilities and program. Active preventative maintenance is necessary
- Pre-training, in-services, and instruction to LOPs
- Established zip line/canopy tour policies and procedures manual (including emergency procedures)
- Check weather forecast
- Waiver/Risk and Release Forms
- Medical screening (verbal, written, and informal common-sense screening)

### Event Stage

- Visual inspection of the Three E’s-Element, Equipment, and Environment
- Close Supervision
  - » General Supervision—The leader must be within an area overseeing the activity. The leader must be accessible to anyone who needs him or her.
  - » Specific Supervision—The leader must be in a specific location and give specific information at the activity.
- Adequate safety instruction—Rules, regulations, and procedures should be established and **enforced**.
- Sequencing should be based on a progression of activity in accordance with Participant’s skills, experience, ability, size, maturity, and age.
- Plan activities appropriate for the Participants.
- Appropriate spotting and belaying techniques should be used.
- Monitor the physical condition of each Participant.
- Use the “Participate by Choice” philosophy.
- Supervisors should do a periodic safety “spot check.”

## Post-Event Stage

- Practice rescue skills.
- Review first aid and emergency procedures.
- Document incidents and/or accidents (including near misses).
- Provide follow-up counseling in the event of death or serious injury for Participants and families.

## Local Operating Procedures

Local Operating Procedures (LOPs) are prescribed procedures specific to a certain challenge course to be followed routinely. Local operating procedures are determined by a facility considering the policies and or procedures recommended by the builder, trainer, and manufacturer of the element. These local procedures are specific to the daily function of a challenge course. They must be known and followed by any staff that operates the challenge course to limit risk of injury to a Participant. A Level 1 Facilitator must know the local operating procedures for any site at which they work.

## Medical Screening

Medical screening has become an important procedure in this industry. Screening can help to minimize injury and/or other physical health problems. Medically screening your Participants can be done in several ways including written forms, verbal questions, and informal common-sense observations. The process of screening Participants must follow local operating procedure of the facility and the protocols for various states.

**Written** — The Participant completes a written form and an assessment and then the screening process will occur. If it is determined that the Participant is at some sort of risk, the Facilitator should explain the risk to the Participant and let them decide whether or not to participate, or the Facilitator should refer the Participant to a physician for further screening and written permission to participate in the activities. This procedure should be done with a witness present.

**Verbal** — Asking verbal questions regarding medical history can create an opportunity for a Participant to disclose relevant information to a Facilitator prior to participating in an activity. After discussing the inherent risks involved in an activity, the Facilitator should offer an opportunity for Participants to share relevant medical information that could have an effect on their participation in the activities.

**Common Sense/Visual** — Observing Participants throughout activities can provide clues about a Participants' medical status. You may notice a cast on a person's arm, observe a person limping, or even see a person get short of

breath or become dizzy. Common sense observation should be occurring throughout all activities and steps should be taken to prevent injury due to the observed risks.

When screening a group, keep in mind that this is a process to help prevent medical problems. If a specific medical opinion is required, only a licensed physician can provide the needed information.

## Confidentiality

Confidentiality refers to maintaining a group's or individual's private information and experiences, and that they remain private. Information that may be considered private includes:

**Medical Information** — A Participant may submit medical information to a facility at the request of the facility. However, that medical information still belongs to the Participant and the facility should take measures to protect it. This information can be valuable to plan the group's activities and make other Facilitators aware of known injuries or limitations. When addressing a medical issue with a Participant make sure it is done aside from the group in a discreet manner. Facilitators should share relevant medical information with other Facilitators, but it must be done with care with respect to the Participant's confidentiality.

**Photos and Video** — Every Participant has the right not to be photographed or videotaped without permission. Any Participant under the age of 18 must have permission from a parent or guardian as well as the Participant. If photos or videos are being taken of a group, permission must be received from each person prior to the experience. Use care when displaying photos or video for zip line/canopy tour promotional materials.

**The Experience itself** — Facilitators must keep in mind that the zip line/canopy tour experience can solicit strong emotions, behaviors, or recollection of events that the Participant would rather leave on the course or be restricted only to other group members. These experiences may be embarrassing situations, personal discussions, or an intense emotional response that occurs during the day's events. Facilitators should be mindful that the Participant's experiences while on the course should not become stories shared with others outside of the group without the Participant's permission.

SECTION 3  
FACILITATOR GUIDE





# ALPINE TOWER

□ Facilitators—Check the **3 E's**: Environment, Element, and Equipment

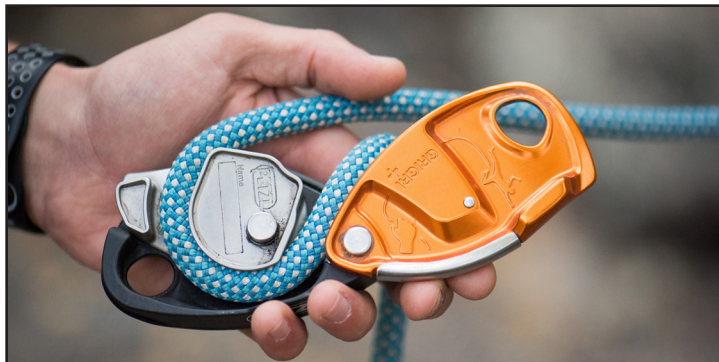
□ Facilitators—Check the **5 H's**: Helmet, Hair, Harness, Hardware, Human

## Procedures:

1. Check Participant's 5 H's
2. Clip Participant into Climbing Rope
3. Climbing Commands
4. Assist Participants while they are Climbing
5. Loading Command
6. Slowly Lower Participant
7. Unclip Participant



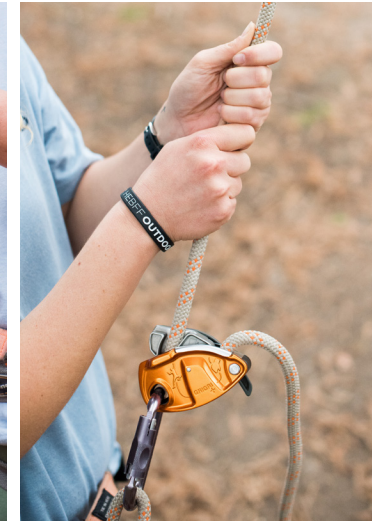
△ Facilitators—Make sure the **Climber is on the inside** of the pole and the **Belayer is on the outside** of the pole.



Proper loading of a GriGri +



Proper belay position



Make sure to perform pull test the GriGri + to ensure proper loading.

## Safety Specifics While Belaying:

- Always check the Five H's before allowing a Participant to climb
- Have a strong body position close to the element
- Place belay system directly above the climbing route
- Use proper commands
- Ensure the belay path is clear of objects and people
- Maintain proper tension on the rope
- **NEVER LET GO OF THE ROPE WITH YOUR BRAKE HAND!**
- Lead your Participant across the element
- Maintain visual contact with your Participant
- Have an anchor
- Have a rope tender
- Always have a stopper knot in the end of your rope

# ALPINE TOWER continued

## Safety Specifics For Lowering Participants:

- Make sure belay rope is tight
- Participant should be directly under their belay anchor point to avoid swinging
- Give clear instructions (see below for commands)



Proper Lowering with a GriGri +



Participant lowering body position.

## Commands

Commands are important because they create a verbal contract between the Participant and the Facilitator. It is good to explain the meaning of terms to the Participants, so they know what they are asking. The use of a person's name is important when using these commands to personalize the contract that is made.

Participant: **Spotters Ready?**

Spotters: **Ready, <name>!**

Participant: **On Belay?**

Belayer: **Belay On, <name>!**

The verbal contract begins. Constant communication between the belayer and the Participant provides guidance and trust for the Participant's experience.

Participant: **Climbing, <name>?**

Belayer: **Climb On, <name>!**

Participant: **Tension! or Up Rope!**

The Participant asks the belayer to tighten up the belay rope.

Participant: **Loading <name>?**

The Participant warns the belayer that they are about to receive their weight.

Belayer: **Load On <name>!**

Called by the Participant whenever anything is dislodged or dropped from above to warn those below of possible danger:

Participant: **Rock!**

# BATTLESHIP RAPPEL

Facilitators—Check the **3 E's**: Environment, Element, and Equipment

Facilitators—Check the **5 H's**: Helmet, Hair, Harness, Hardware, Human

## Procedures:

### 1. Facilitator clips into Tether

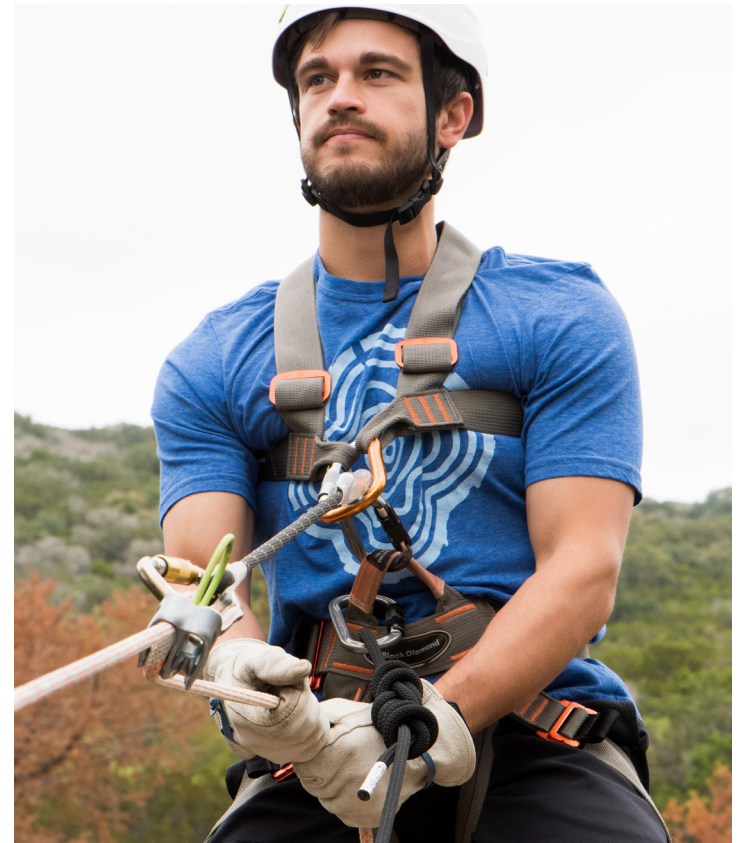
2. Ties Cat Knot
3. Checks Participant's 5 H's
4. Clips them into Belay Rope
5. Checks Cat Knot
6. Participant says, "On Belay?" Facilitator replies, "Belay On!"
7. Participant steps into Rappel Area
8. Connects extension and ATC to Participant's Belay Loop
9. Participant says, "On Rappel?" and Facilitator replies, "Rappel On!"
10. Explains proper body positioning and how to brake with hand pressure
11. Takes out Cat Knot

### 12. KEEPS HAND ON BRAKE ROPE ALWAYS

13. Instructs Participant to begin
14. Slowly feeds Belay Rope through Facilitator ATC
15. Facilitator at the bottom yells, "Rappel Right/Left Off"  
Facilitator on top yells, "Off Rappel Right/Left."



Always tie a "CAT" knot



# ECHO BLUFF RAPPEL

Facilitators—Check the **3 E's**: Environment, Element, and Equipment

Facilitators—Check the **5 H's**: Helmet, Hair, Harness, Hardware, Human

## Procedures:

- 1. Facilitator clips into Tether**
- Ties Cat Knot
- Checks Participant's 5 H's
- Clips them into Belay Rope
- Checks Cat Knot
- Participant says, "On Belay?" Facilitator replies, "Belay On!"
- Participant steps into Rappel Area
- Connects extension and ATC to Participant's Belay Loop
- Participant says, "On Rappel?" and Facilitator replies, "Rappel On!"
- Explains proper body positioning and how to brake with hand pressure
- Takes out Cat Knot
- 12. KEEPS HAND ON BRAKE ROPE ALWAYS**
- Instructs Participant to begin
- Slowly feeds Belay Rope through Facilitator ATC
- Facilitator at the bottom yells, "Rappel Right/Left Off"  
Facilitator on top yells, "Off Rappel Right/Left."



Always tie a "CAT" knot



# ECHO BLUFF CLIMBS

Facilitators—Check the **3 E's**: Environment, Element, and Equipment

Facilitators—Check the **5 H's**: Helmet, Hair, Harness, Hardware, Human

## 1. EVERYONE AT THE CLIMBING SITE MUST WEAR HELMETS.

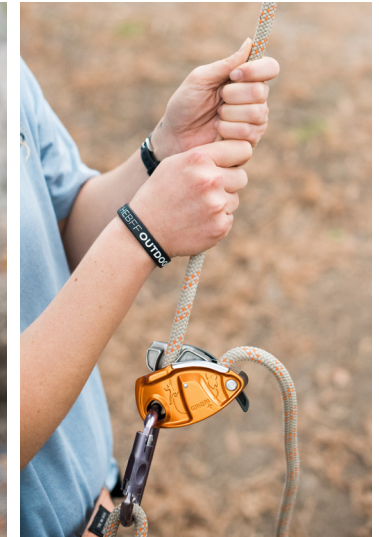
2. Check Participant's 5 H's
3. Clip Participant into Climbing Rope
4. Pre-climbing Commands
5. Assist Participant while they are Climbing
6. Loading Command
7. Slowly Lower Participant
8. Unclip Participant



Proper loading of a GriGri +



Proper belaying position



Make sure to perform pull test the GriGri + to ensure proper loading.

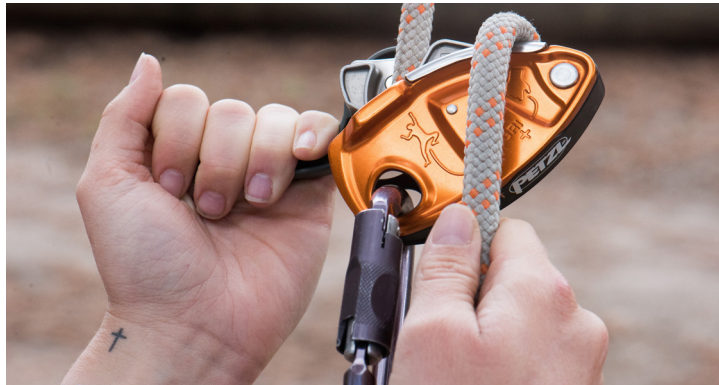
## Safety Specifics While Belaying:

- Always check the Five H's before allowing a Participant to climb
- Have a strong body position close to the element
- Place belay system directly above the climbing route
- Use proper commands
- Ensure the belay path is clear of objects and people
- Maintain proper tension on the rope
- **NEVER LET GO OF THE ROPE WITH YOUR BRAKE HAND!**
- Lead your Participant across the element
- Maintain visual contact with your Participant
- Have an anchor
- Have a rope tender
- Always have a stopper knot in the end of your rope

## ECHO BLUFF CLIMBS continued

### Safety Specifics For Lowering Participants:

- Make sure belay rope is tight
- Participant should be directly under their belay anchor point to avoid swinging
- Give clear instructions (see below for commands)



Proper GriGri lowering position



Participant lowering position

### Commands

Commands are important because they create a verbal contract between the Participant and the Facilitator. It is good to explain the meaning of terms to the Participants, so they know what they are asking. The use of a person's name is important when using these commands to personalize the contract that is made.

Participant: **Spotters Ready?**

Spotters: **Ready, <name>!**

Participant: **On Belay?**

Belayer: **Belay On, <name>!**

The verbal contract begins. Constant communication between the belayer and the Participant provides guidance and trust for the Participant's experience.

Participant: **Climbing, <name>?**

Belayer: **Climb On, <name>!**

Participant: **Tension! or Up Rope!**

The Participant asks the belayer to tighten up the belay rope.

Participant: **Loading <name>?**

The Participant warns the belayer that they are about to receive their weight.

Belayer: **Load On <name>!**

Called by the Participant whenever anything is dislodged or dropped from above to warn those below of possible danger:

Participant: **Rock!**

## ALPINE TOWER SWING-BY-CHOICE

⚠ **Equipment needed for all swings:** Steel supersafe carabiner(s), Participant harnesses, helmets, pull up mechanism/rope, release mechanism.

### How to hook into the Participant:

- Check the Participants 5 H's (helmet, hair, human, harness, hardware).
- Front: one steel supersafe carabiner is hooked into the Participant's front belay point
- Weighted harness/carabiner check is acknowledged by a second Facilitator
- Participant will put one hand on the cable in front of them and the other hand on the quick release.
- The quick release hooks into the front belay loop.
- The releasing end of the quick release hooks to a steel carabiner which is attached to the pull rope.



Proper Participant connection

## ELDORADO CLIMBING AREA

□ Facilitators—Check the **3 E's:** Environment, Element, and Equipment

□ Facilitators—Check the **5 H's:** Helmet, Hair, Harness, Hardware, Human

### Daily Inspection:

- Before each use, visually and tactilely inspect the device. Inspect the webbing and carabiner for damage, wear, and missing parts. Follow all manufacturers' recommendations.
- Fully extend and return the webbing by hand, visually and tactilely inspecting the webbing for signs of excessive fraying and UV degradation, and ensuring it extends and returns in a smooth and continuous action with resistance. **Refer to manufacturer's recommendations regarding yearly service requirements.**

### Safety Specifics:

- DO NOT start the descent at or above the device
- DO NOT pull out excess webbing prior to descent
- Follow all manufacturer's specific instructions (weight limits, etc.)
- Use appropriate commands

### Device Operation for Auto Belay:

- Check the Participant's 5 H's (Helmet, Hair, Harness, Human, Hardware)
- Ensure carabiner is attached appropriately to the belay loop
- Perform a "squeeze check" to confirm the carabiner has closed fully
- Inform the Participant of the safety specifics and use spotters if necessary
- Participant must descend in an upright position, using feet to walk down the wall



# CRATE STACKING

Facilitators—Check the **3 E's**: Environment, Element, and Equipment

Facilitators—Check the **5 H's**: Helmet, Hair, Harness, Hardware, Human

## Daily Inspection:

- Before each use, visually and tactilely inspect the device. Inspect the webbing and carabiner for damage, wear, and missing parts. Follow all manufacturers' recommendations.
- Fully extend and return the webbing by hand, visually and tactilely inspecting the webbing for signs of excessive fraying and UV degradation, and ensuring it extends and returns in a smooth and continuous action with resistance. **Refer to manufacturer's recommendations regarding yearly service requirements.**

## Safety Specifics:

- DO NOT start the descent at or above the device
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## Device Operation for Auto Belay:

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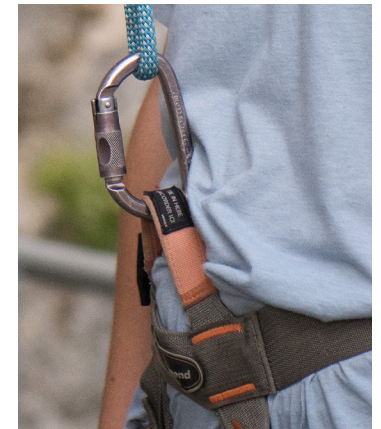
# SINGING HILLS CLIMB

Facilitators—Check the **3 E's**: Environment, Element, and Equipment

Facilitators—Check the **5 H's**: Helmet, Hair, Harness, Hardware, Human

## 1. EVERYONE AT THE CLIMBING SITE MUST WEAR HELMETS.

2. Check Participant's 5 H's
3. Clip Participant into Climbing Rope
4. Pre-climbing Commands
5. Assist Participant while they are Climbing
6. Loading Command
7. Slowly Lower Participant
8. Unclip Participant



Proper loading of a GriGri +



## SINGING HILLS CLIMB continued



Proper belaying position



Make sure to perform pull test the GriGri + to ensure proper loading.

### Safety Specifics While Belaying:

- Always check the Five H's before allowing a Participant to climb
- Have a strong body position close to the element
- Place belay system directly above the climbing route
- Use proper commands
- Ensure the belay path is clear of objects and people
- Maintain proper tension on the rope
- **NEVER LET GO OF THE ROPE WITH YOUR BRAKE HAND!**
- Lead your Participant across the element
- Maintain visual contact with your Participant
- Have an anchor
- Have a rope tender
- Always have a stopper knot in the end of your rope

### Safety Specifics For Lowering Participants:

- Make sure belay rope is tight
- Participant should be directly under their belay anchor point to avoid swinging
- Give clear instructions (see below for commands)



Proper GriGri lowering position



Participant lowering position

## SINGING HILLS CLIMB continued

### Commands

Commands are important because they create a verbal contract between the Participant and the Facilitator. It is good to explain the meaning of terms to the Participants, so they know what they are asking. The use of a person's name is important when using these commands to personalize the contract that is made.

Participant: **Spotters Ready?**

Spotters: **Ready, <name>!**

Participant: **On Belay?**

Belayer: **Belay On, <name>!**

The verbal contract begins. Constant communication between the belayer and the Participant provides guidance and trust for the Participant's experience.

Participant: **Climbing, <name>?**

Belayer: **Climb On, <name>!**

Participant: **Tension! or Up Rope!**

The Participant asks the belayer to tighten up the belay rope.

Participant: **Loading <name>?**

The Participant warns the belayer that they are about to receive their weight.

Belayer: **Load On <name>!**

Called by the Participant whenever anything is dislodged or dropped from above to warn those below of possible danger:

Participant: **Rock!**

## SINGING HILLS RAPPEL

□ Facilitators—Check the **3 E's**: Environment, Element, and Equipment

□ Facilitators—Check the **5 H's**: Helmet, Hair, Harness, Hardware, Human

### Procedures:

#### 1. Facilitator clips into Tether

2. Ties Cat Knot
3. Checks Participant's 5 H's
4. Clips them into Belay Rope
5. Checks Cat Knot
6. Participant says, "On Belay?" Facilitator replies, "Belay On!"
7. Participant steps into Rappel Area
8. Connects extension and ATC to Participant's Belay Loop
9. Participant says, "On Rappel?" and Facilitator replies, "Rappel On!"
10. Explains proper body positioning and how to brake with hand pressure
11. Takes out Cat Knot
- 12. KEEPS HAND ON BRAKE ROPE ALWAYS**
13. Instructs Participant to begin
14. Slowly feeds Belay Rope through Facilitator ATC
15. Facilitator at the bottom yells, "Rappel Right/Left Off" Facilitator on top yells, "Off Rappel Right/Left."



Always tie a "CAT" knot

# ZIP CANOPY TOUR

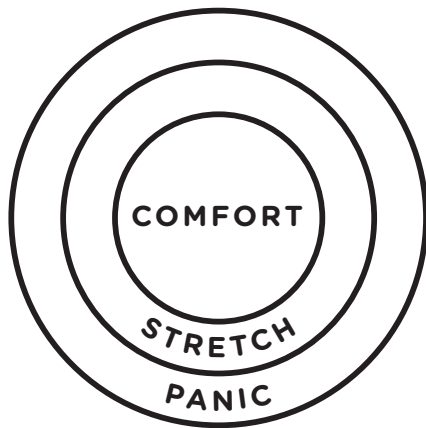
□ Facilitators—Check the **3 E's**: Environment, Element, and Equipment

□ Facilitators—Check the **5 H's**: Helmet, Hair, Harness, Hardware, Human

## Zip by Choice

The “zip by choice” philosophy should permeate the entire canopy/zip line tour experience. As a Facilitator, you are not only obligated ethically but legally to establish this basic premise. This ideology should be stated and referred to often. This concept empowers your Participants to choose to what extent they are willing to participate. By allowing the Participant to decide at what level he or she is willing to participate, the possibility of physical or emotional injury is reduced.

This overall theme establishes a basic trust between the canopy/zip line tour Facilitator and the Participants. This trust is vital for a valuable experience to take place. Participants need to know that their Facilitators and the other Participants respect their comfort zones. The bulls-eye below illustrates what a Participant’s possible state of mind can be at any given moment.

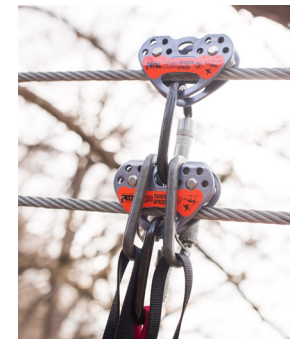


The Participant is most comfortable while in his/her comfort zone. Life is normal, everyday-good. A goal as a Facilitator is to “stretch” your Participants by offering challenges that make them feel a little uncomfortable, causing them to view what is most often “normal,” differently. Personal growth takes place in the “stretch” zone. Nothing positive is accomplished for a person who has entered their panic zone. Most often, individuals in the panic zone cannot even think logically, let alone grow personally.

## Zip Line Sendoff Procedures:

Nine Steps to properly send a Participant off the zip line.

- 1. Transfer** — Transfer the Participant to a static belay on the zip platform (ex. clip the long tether of the Y-lanyard to an appropriate clip in point).
- 2. Check** — Check the Participant’s Five H’s (Helmet, Hair, Harness, Human, and Hardware).
- 3. Check** — Check the zip pulleys, zip tether, and carabiners for proper working order.
- 4. Clear** — Check to see the alley is clear of other Participants or obstructions.
- 5. Clip** — Clip the zip tethers to the zip line cables and ensure system is connected to the Participant’s front belay loop.
- 6. Unclip** — Unclip the Participant’s platform belay from his/her belay loop and clip to the zipline and place on top of the zipline pulley.
- 7. Sweep** — Sweep the area around the Participant to be sure nothing other than the zip tethers is attached to him/her.
- 8. Instructions & Commands** — Instruct the Participant to get into the proper zipping position. Then, indicate a clear command for zipping (ex. “zipping?” “zip on!” hand signals; radio calls).
- 9. Spot** — Spot the Participant’s head, neck, and shoulders as he/she leaves the platform.



# ZIP CANOPY TOUR continued

## Zip Line Receiving Procedures:

- **Prepare** — Prepare braking system before the Participant gets to platform.
- **Catch** — Apply pressure to the braking system; reach around Participant to assist them as they come into platform.
- **Transfer** — Transfer the Participant to a static belay on the zip platform (ex.: clip the long tether of the Y-lanyard to an appropriate clip in point).

## Zippering Body Position:

- "L" shape seated position (attach chest harness to zip lanyard if not able to maintain "L" position)
- Feet crossed to avoid kicking catcher
- Proper hand placement

## Braking System

- Must wear gloves.
- Facilitator should stay clear of zip path to allow clear alley for Participant and prevent injury to Facilitator.
- Braking system should slow pulley before the Participant approaches the tree/pole/platform.
- The Facilitator must catch the Participant before they roll away from the platform.
- **THE BRAKE SYSTEM SHOULD BE RESET OR CHECKED AFTER EACH USE.**



## Reach, Throw, Go

**Reach** — As the Participant comes into the platform and you engage the prusik braking system, reach around the Participant so they do not roll back towards the center of the zipline. Help them regain their footing as they stand from the ride.

**Throw** — When the Participant is unable to self-rescue to the platform, hook-up the throw bag. Toss the weight/pulley setup out to the Participant. Instruct the Participant to grab hold and then pull them in using the rope.

**Go** — When the Participant is unable to hold on to the weight that has been tossed to them, the Facilitator must ease out to pull the Participant in. Once reaching the Participant, attach the long leg of the Facilitator's Y-lanyard to the Participant's pulley setup and self-rescue back to the platform. If the Facilitator is unable to self-rescue themselves and the Participant, then someone on the platform can pull both in using the throw bag's rope.



## ZIP CANOPY TOUR continued

### **Pulley Swap—only to be performed by rescue trained personnel**

#### **Attach a new set of zipline pulley equipment**

The rescuer sets up a new pulley system on the cable, which will be for the Participant. An extra supersafe is helpful so that the Participant only has to step up once.

#### **Attach Etrier to zip cable**

Attach the etrier to the zipline cable with a steel locking carabiner.

#### **Access the Participant**

The rescuer will attach themselves to the zipline cable and position the new zipline pulley and etrier in front of their zip pathway. Approach the Participant with the etrier directly in front and the Participant's new pulley system in front of the etrier.

#### **Attach the Participant to the new zipline pulley equipment**

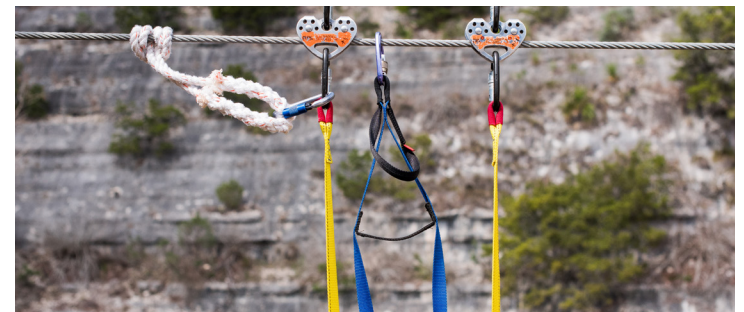
The Participant steps up on the etrier while the rescuer clips in the new pulley system to the belay loop.

#### **Remove the damaged zipline pulley equipment**

The Participant steps up on the etrier while the rescuer unclips the damaged pulley system from the belay loop.

#### **Retrieve the Participant**

The rescuer clips his long Y-lanyard's caribiner to the Participant's new pulley system and self-rescues back to the platform.



# ZIP CANOPY TOUR continued

Rarely will rescue situations occur, but when they do, time is of the essence. Typically a rescue will occur on a static belay (2-point system), although items such as clothing or hair can cause a dynamic belay (3-point system) to be rendered useless, thus initiating a cut-away rescue. **Most often a rescue will be a result of an emotional situation (ex. panic), medical situation (ex. heart attack), or equipment failure.**

## ⚠ **Cut-Away Rescue Procedures:**

### **1. Access the Participant's belay cable**

Self-belayed climb to belay cable. Wrap around pole with lobster claws to keep both hands free. It is suggested to use a retired carabiner to hang the rescue bag, making it easier to work.

### **2. Clip Rescue 8 to the belay cable**

Hang belay system with one steel locking carabiner. Ensure carabiner is locked.

### **3. Drop bag**

The command "Rope!" is called making sure the area below is clear and to prepare rescue belayer to receive the bag.

### **4. Clip Etrier to the belay cable**

Clip Etrier using one steel locking carabiner to the belay cable behind the belay point (Rescue 8).

### **5. Clip Scissors to self**

Remove scissors from the single aluminum carabiner and connect them to the proper side of your harness. (Right handed = right side)

### **6. Clip rescuer into rescue system**

Rescuer connects to the knot using the single aluminum locking carabiner. Ensure carabiner is locked with a squeeze check.

### **7. Establish rescue belayer**

Rescue belayer holds the dead end of the rope with both hands in a seat belay. Commands: "On Belay?" "Belay on."

### **8. Position rescuer above Participant**

The rescuer removes the lobster claws and loads the line. The rescue belayer's job is to keep the proper amount of tension in the line. Too much or too little tension might impede the ability of

the rescuer to move to the Participant. The rescuer positions the rescue equipment against the equipment of the Participant.

### **9. Offer Etrier**

The rescuer offers the Etrier to the Participant to assist him or her in righting himself or herself.

### **10. Lower and clip to Participant**

If the Participant is unable to right himself or herself, the rescuer should be lowered in maximum two-foot increments to the Participant. The rescuer is lowered between the legs of the Participant, supporting the Participant and enabling the rescuer to clip the Participant to the rescue rope. **DO NOT CONNECT THE PARTICIPANT TO YOUR FACILITATOR HARNESS BELAY LOOP, BECAUSE IT IS ONLY RATED FOR ONE PERSON.**

### **11. Disconnect or cut the Participant's original belay**

Try to unclip the Participant from his or her original belay by having Participant stand on the Etrier to release tension. If this is not possible, the rescuer should place the Participant to the side and separate the rescue rope from the original belay rope by placing their shoulder between the rescue rope and the Participant's rope, insuring the proper rope is cut. The command "1-2-3 CUT!" is called preparing the rescue belayer to receive the weight of two people.

### **12. Lower to the ground**

The rescue belayer now safely lowers both the rescuer and Participant to the ground. While lowering, the rescue belayer should have both hands on the rope, using a seat belay.

### **Contents:**

- UV Ray Protective Rope Bag (Orange preferred)
- 1/2" Static Kernmantle Rope (Twice the height of the highest element plus 10 ft.)
- 2 Steel locking carabiners
- 4 Aluminum Locking Carabiners (Supersafe preferred)
- 1 Rescue 8
- 1 Etrier
- 1 Approved Cutting Device
- 4 ft. of P-Cord



**SECTION 4**  
**APPENDICES**

## Appendix Contents

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**Definitions** — This is a list of the terms used in this manual and the specific way that the terms are used.

**Near-Miss Report Form** — This is a form for Facilitators to fill out if they experience a “near miss” while operating a High Ropes element. A “near miss” is when something could have gone wrong but didn’t, something happened that caused a Participant to have a bad experience, or a Participant was injured in a minor way that did not require medical attention. For more serious injuries, the camp nursing staff will fill out an Accident Report Form with input from the Facilitator.

## Definitions

**ACCT** — stands for the Association for Challenge Course Technology. This is the professional trade organization that sets Facilitator lines for the construction, operation, inspection, and staff training for challenge and zip courses. ACCT is a valuable resource in the management of the Outdoor School’s High Ropes Program because it defines “industry standard” and gives our program an outside standard to align with. This is critical from a safety prospective, as well as a liability perspective. The Outdoor School is a member of ACCT.

**High Ropes (HR) Activity** — any specific use of an element or equipment by a trained Facilitator for the benefit of a group.

**High Ropes Directors** — People who have trained and certified to this level are the on-site managers of the High Ropes program in the Canyon. They have received additional training and are competent in all areas of the High Ropes program. These people are trained to perform any rescues that might be needed.

**Assistant Director of Adventure Rec** — this is the full-time Foundation employee who is directly responsible for the management and oversight of the High Ropes program.

**Element** — a permanently mounted structure used by a specific High Ropes activity. This would include the Alpine Tower, the Goliath platform, and cable swings, etc.

**Equipment** — this refers to any removable and/or portable tool used to facilitate any High Ropes activity. “Equipment” would include harnesses, ropes, carabiners, etc.

**Facilitate** — the process of leading a group through a High Ropes activity.

**Facilitator** — a certification level. People who have trained and certified to this level are the operators of the High Ropes elements and equipment in the Canyon. Facilitators are the staff members who lead the Participants through the given activities.

**Participant** — a guest in the Canyon that chooses to participate in a High Ropes activity.





## NEAR-MISS REPORT FORM

**Note:** If a Participant was **injured**, fill out an Accident Report Form instead

---

YOUR NAME:

---

DATE:

---

OTHER FACILITATORS ON DUTY:

---

HIGH ROPES DIRECTOR:

---

HIGH ROPES ELEMENT:

---

GIVE A DETAILED DESCRIPTION OF WHAT HAPPENED:

---

IN YOUR OPINION, WHAT IS A GOOD SOLUTION SO THIS DOES NOT HAPPEN AGAIN:

---

ANY OTHER IMPORTANT INFORMATION WE NEED TO KNOW:



## ACCT PORTFOLIO: TRAINING LOG

DATE	COMPANY & WORKSHOP NAME	BRIEF DESCRIPTION	LOCATION	TRAINER	HOURS
Challenge Course Trainings					
<b>Subtotal:</b>					
Other Trainings					
<b>Subtotal:</b>					
<b>Total:</b>					