

RISK ASSESSMENT FOR GO APE, ADVENTURE FOREST LTD



SUBJECT: TTC Self-Belay Part 1

RISK ASSESSMENT REF: TTC SB P1 02/2020

WRITTEN BY: Operations Team and Head of Health, Safety & Wellbeing

Risk Matrix								
Risk rating guidance	Likelihood (L)	5	5	10	15	20	25	Likelihood (L) x Severity (S) = Risk Rating (RR).
		4	4	8	12	16	20	
		3	3	6	9	12	15	
		2	2	4	6	8	10	
		1	1	2	3	4	5	
				1	2	3	4	
Severity (S)								
Acceptability of risk guidance	High-risk: 15 – 25		High-risk activities should cease immediately. Further effective control measures to mitigate risks must be introduced.					
	Medium-risk: 8 – 12		Medium-risks are an acceptable level based on the reduced likelihood after sufficient control measures are implemented.					
	Low-risk: 1-6		Low-risks are largely acceptable. Where it is reasonable to do so, efforts should be made to reduce risks further.					
Guidance. When completing a risk assessment, you should:	<ol style="list-style-type: none"> 1. Identify the persons at risk and the significant hazards. 2. Calculate an initial RR for the activity. 3. Identify risk control measures that reduce the risks to an acceptable level. 4. Calculate a revised RR - you should consider how much safer the task will be if the control measures are followed. Here, you should consider changing both the likelihood (L) and the severity (S) ratings. 							
Note. Ideally, you should look to reduce the risks so that the task can be classified as "low-risk".								

Likelihood	Definition	Points rating
Inevitable	If the work continues as it is, there is almost 100% certainty that an accident will happen, for examples: A broken stair or broken rung on a ladder, Bare, exposed electrical conductors, Unstable stacks of heavy boxes	5
Highly likely	Will happen more often than not. Additional factors could precipitate an incident but it is still likely to happen without this additional factor.	4
Possible	The accident may occur if additional factors precipitate it, but it is unlikely to happen without them.	3
Unlikely	This incident or illness might occur but the probability is low and the risk minimal.	2
Remote possibility	There is really no risk present. Only under freak conditions could there be any possibility of an accident or illness. All reasonable precautions have been taken - This should be the normal state of the workplace.	1

Severity	Definition	Points rating
Very high	Causing multiple deaths and widespread destruction eg. fire, course/building collapse.	5
High	Causing death, serious injury or permanent disability to an individual.	4
Moderate	Temporary disability causing injury (to member of the public, contractor or employees) or disease capable of keeping an employee off work for seven days or more and reportable under RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995).	3
Slight	Minor injury (to member of the public, contractor or employee), which would allow the individual to continue work after first aid treatment on site or at a local surgery. The duration of the stoppage or treatment is such that the normal flow of work is not seriously interrupted.	2
Nil	Very minor injury, bruise, graze, no risk of disease.	1

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No.	HAZARD	L	S	RR	WHO MIGHT BE HARMED	CONTROL MEASURES	FURTHER CONTROL MEASURES: reviewed annually to formulate Risk Reduction Plan	L	S	RR
	<p>Falling to the ground or onto another person or onto another part of the course or another object due to:</p> <ul style="list-style-type: none"> • Unclipping from safety system then slipping, jumping or falling, either unintentionally or intentionally • Clipping on to the safety wire (system) incorrectly • Failure of part of the course infrastructure • PPE failure, incorrect selection, use, fitting, etc • Tree/pole/suppo se structure failure, falling over or onto the course, etc • Slips and trips <p>This could happen whilst opening or</p>	4	4	16	<p>Employees Course Users Contractors Onlookers Trespassers</p>	<p>See below. Control measures categorised into:</p> <ul style="list-style-type: none"> • admission controls • supervision • provision of information • training • course inspections • PPE provision • operational systems and controls • trees/poles working on the course 		3	4	12

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<p>closing the course, operating the course, participating on the course, carrying out inspections or repairs or carrying out a rescue.</p>									
<p style="text-align: center;">Admission Controls</p> <ul style="list-style-type: none"> • Minimum age of 10 years, due to learning ability for attaching to safety system. Age confirmed on Risk Acknowledgement and Disclaimer. • Minimum height of 4ft 7in / 1m 40 cm (wearing footwear) due to course construction and ability to attach to safety system due to height. Safety Rules “before starting”. Height markers installed at all courses. Instructors carry out check if unsure. • Maximum weight of 20.5 stone / 130 kg due to load limits of course. Scales provided at sites. Information provided to customers on booking confirmation documents, Safety Rules “before starting” and website. Instructors carry out check if unsure. • Alcohol. Anyone who is deemed to be under the influence of alcohol or drugs is not permitted access onto the course. • Existing physical injuries. Anyone who has an existing physical injury must inform the staff and complete a notification stating they are aware of the risks. • Pregnancy Policy to recommend that pregnant people do not take part on the course. • Accessibility. A document outlining Go Ape’s policy on participants with special needs is available to ensure such participants are attached at all times and have assistance and supervision levels as required. Policy available on website. Policy: Advice on Accessibility document. • Unable to fit harness. The maximum waist measurement of the customer harness is 110 cm and leg loops is 70 cm (Gym) and < 75 cm (Panji), waist 125cm and leg loops 80cm (Edelrid Radilalis Comp). Anyone who does not fit into a harness correctly cannot participate on the course. BTC. Instructor check. Policy: Don’t Fit Can’t Go. • Anyone who does not comply with the SR and / or unattaches from the safety system will be / is removed from the course. Instructor patrol check. Red and Yellow Card Policy. • Footwear: Anyone who does not have the correct footwear (e.g. unsuitable sandals) or clothing that may lead to a slip or a trip is not allowed onto the course. • Assessments of course participants during the Safety Brief (SB) element, so that if a participant completes the first 3 obstacles incorrectly they are required to repeat the first 3 obstacles (e.g. site 1 ladder, crossing and zip); if they still fail to complete this part safely (i.e. they have not understood or cannot understand the safe system of completing the course on their own), they will be / are removed from the course (and offered a full refund). Instructor check. 									
<p style="text-align: center;">Supervision</p> <ul style="list-style-type: none"> • Supervision by instructors to comply with The EN Standard on levels 1, 2 and 3 supervision. E.g. direct supervision (level 1) provided at the training site • Participating adults maintain in supervision of children in their care and ensure the children read, understand and follow rules set out in SR and training provided by instructors. • Supervision ratios implemented whereby a participating adult accompanies under 16 year olds (this was changed for 2015 season). One participating adult is permitted to supervise up to two 10-15 year olds. (Changed for 2007 season after advice). This is to ensure under 16’s remain attached to the safety system and follow the safety rules. • 16-17 year olds are responsible for their own supervision but will not be permitted to supervise any under 16 year olds. 16-17s are deemed to be mature enough to understand the safety rules and the importance of following them. • 10-15 year olds must be under direct supervision and the supervising adult must be able to see attachments at all times and they cannot be more than 1 platform in front of or behind the supervising adult. • Supervision of under 16’s (e.g. by another person who has not signed for them or from the ground) must follow the Supervision Policies. There must be a handover of responsibility and paperwork is signed to acknowledge this. Patrolling instructor check. 									

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	<ul style="list-style-type: none"> • Under 16's are to be no more than 1 crossing away from their supervising adult. Supervising adults who need glasses to drive are advised to wear them when participating on the course so they can clearly see. BTC. SR. • Site 2, first 5 obstacles monitored by an instructor under level 2 supervision, paying particular attention to change overs. • Regular patrolling of the course, by an instructor, to take place whenever anyone is on the course to ensure they are safe and completing the course correctly and are not in difficulty. • Site specific patrol plans written by Site Manager to identify areas where more / less supervision is required. • Only competent instructors are allowed to give a Safety Brief; this is to ensure they do not forget essential information and can handle difficult groups when under pressure. This is checked by initial then periodical SB assessments, which are recorded. <p>Accessibility Policy for those with special needs who may require additional supervision whilst on the course to ensure they remain attached to the safety system at all times. Available on the website.</p>
	<p style="text-align: center;">Training</p> <ul style="list-style-type: none"> • A Training Manual (TM) with a Training and Assessment Policy and accompanying presentations (some including film) are maintained and up to date • Instructor training. Instructors must be competent at working on the course and have completed all required training demonstrating they are competent, as stated by an assessment procedure laid down in the TM. Individual training records are maintained by the Site Manager. • Instructors must be competent at delivering the SB to course participants in order to be able to do so. • Instructors SB Assessments by competent person ensure instructors are including all the correct critical safety information in the SB. • Training then assessment of course users to ensure they are safe to complete the course and understand that they must remain attached at all times. • 4 stage Training Session to drip feed critical information, starting participants off at ground level and slowly gaining height: <ol style="list-style-type: none"> 1. Course users read SR at office in a calm environment (not under pressure) and complete RAD. 2. Course users trained in how to use PPE and attach to the safety system (at ground level) whilst wearing PPE 3. Demonstration on how to safely negotiate the course (off ground, low level). Assessment: Course users must demonstrate safe use and competence before being allowed to continue. 4. Course users are monitored while completing the next 5 elements and must be within instructor's field of view so any mistakes can be identified and rectified. Monitoring of Site 2. OD. • Specific additional training is provided at ground level for the correct use of the Tarzan Swing. Where Site 2 Tarzan Swing cannot be seen or used when walking to Site 1, an additional training sign is used at the SB. • Specific additional training is provided on Site 1 for the correct use of Zip Wires. • A Rescue Policy, Rescue Training and Rescue Procedures document is maintained detailing rescue procedures, training requirements, equipment and checks that are to be carried out. • A minimum of one qualified rescue trained person (Manager or Instructor) is available whenever there is anyone (employee or course user) at height. A rescue bag is available, maintained with the correct equipment and checked regularly • Instructors are trained in the correct fitting and basic inspection of PPE to ensure they are safe for course participants and they cannot fall out of the harness and the harness is in good order and will not break. • All Managers and instructors are trained in the correct use of ladders for access and egress from the course to ensure they do not fall whilst climbing a ladder. • During initial training of instructors ascending zip wires, brake lines are used. • Duty Managers undergo further training to ensure they are competent to operate the course when the Site Manager is not at site. • All training is recorded on the individual "Staff Training Record".
	<p style="text-align: center;">Course design, inspections and checks</p> <ul style="list-style-type: none"> • Courses are designed and constructed in compliance with EN Standard, including choice of materials, loads, support systems, marking, inspection and maintenance and documentation. Inaugural and annual inspection check.

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	<ul style="list-style-type: none"> • The course is designed so that there is a stockade surrounding the access ladders, with a secure coded door lock and self-closing hinges so that an onlooker (perhaps young) cannot access the ladder and climb up onto the course (without wearing the appropriate PPE and having received instruction). • The course is designed so that the safety system that course users attach to is easily identifiable, by being colour coded red. This includes placing a red buffer at each end of a crossing. • Pre-use course checks and routine visual inspections are carried out by instructor when opening up the course to ensure the course is safe to use and no overnight damage has occurred. This is completed from the base of the zip wire where possible so any overnight vandalism can be checked. This includes checking correct functioning of stopfalls and condition of the safety system and obstacles. • Inaugural inspections by an appropriately qualified Type A inspection body. • Annual periodical inspection of the course by a competent person (Type C). • Records of inspections and examinations, maintenance, testing and certificates of conformity are maintained. • Following high winds, snow and lightning the course must be checked thoroughly for any damage, initially from the ground and then on the course, prior to opening the course to participants. • Wire rope is inspected for breaks during course checks. • Hauling systems and bracing wires are either inaccessible to participants or clearly identified as not being a safe connection point. Bracing wires have a device that prevents misuse or uncontrolled descent (e.g. either out of reach so customers cannot attach with their PPE or a no entry disc with wire rope grip).
	<p style="text-align: center;">PPE provision and checks</p> <ul style="list-style-type: none"> • Effective procurement and management system, using reputable suppliers to ensure all PPE is of the correct standard (CE marked, etc) and design and has correct information provided for use and is therefore safe and appropriate for its intended use. • PPE must be/is assembled correctly, and correct procedures are documented. • Each site will have a minimum of one competent person trained in PPE inspection. Instructors are trained internally in PPE checks. • PPE will be checked prior to first use (from the manufacturer) • PPE is visually checked prior to and after each use. • PPE examinations are carried out and recorded by a competent person in accordance with EN standards. • Where PPE is thought to be defective it is placed in the quarantine box. • PPE is to be stored in a dry, clean area, away from any chemicals. • PPE must be cleaned and dried as detailed in the manufacturer's guidelines. • All PPE is documented and logged, including inspection and maintenance records. • The Site Managers ensure that instructors are trained in the correct fitting of PPE, its operation and its operating limits, inspection of the PPE and record the training. • A selection of equipment is break tested as required to gather information. • Trained instructors check course participants' harnesses are fitted correctly before participating in the activity. • Patrolling instructors carry out visual checks of course users to ensure that PPE remains fitted correctly. • Different types of harness are used for the Continuous Belay Courses to fit people of different shapes and sizes. • Personal PPE must not be used, (except in exceptional circumstances by a contractor – clearance for this is required). • Helmets are worn for all construction work, rescue training and during rescues when moving off the normal customer route to carry out inspections, maintenance and repairs (to mitigate a fall or objects falling onto the rescue participants and workers). • Builders and contractors using their own PPE are responsible for ensuring it is fit for use. • Maillons on sit harnesses are tightened with a spanner so they cannot be undone by hand. • No smoking whilst wearing PPE • No use of chemicals

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	<p style="text-align: center;">Operation systems and controls of the course</p> <ul style="list-style-type: none"> • Courses are operated in compliance with EN Standard Part 2 to include documentation, participant information, safety instruction, equipment, supervision, inspection and maintenance and emergency plans and where not written mitigation is to be provided. • The system for clipping onto the safety system throughout the course has a backup (except when making a changeover on a stable platform), so that a “junction” can be passed without completely unclipping. Therefore, two lanyards are used. Likewise, in rescues there is a backup safety system. • Operating restrictions of 3 customers per platform and 1 customer per obstacle to ensure elements are not overloaded and there is not overcrowding but to allow for correct supervision. • In lightning, high winds, heavy ice and snow, the course is evacuated and closed. • Whilst on the course, the use of mobile phones as telephones is not permitted as this can lead to distraction and unclipping from the course. Mobile phones can be used to take photographs but should be / are secured to the user to prevent them falling. Cameras should be / are also secured. Lanyards available. This is at the managers discretion. • When the course is “closed”, the ladders allowing access onto the course are lifted up onto the platforms and locked so that trespassers cannot access the course. The Tarzan Swing rope and the Tarzan Net, where it is below 4.5 metres, is also raised and locked • Where there are ground launch zips, a mechanism is fitted when the course is not in operation to reduce the chance of overnight access. • A door closing mechanism is fitted to stockade doors so that children do not access the course without the correct safety equipment and supervision. • Any tasks being undertaken apart from the normal day to day running of the course (opening, closing) must be / are carried out by a minimum of two people; this includes any work involving moving obstacles or moving off the normal route of the course (platforms and wires) including changing the Tarzan net. Method statements. • Instructors patrol the course regularly and are available to assist course users where necessary. • Tarzan assists are completed from the ground rather than by accessing the course wherever possible. All customer assists are initially from the ground, then the platform prior to rescuing from obstacles, unless an instructor is already at height. • Lone Working Radio Procedures during opening and closing of the course so instructors’ locations are known. • There is to be no racing around the course due to the possibility of mistakes and shortcuts being made at changeovers. A challenge can be introduced whereby people are fully attached to the safety system and then are timed from leaving one platform to arriving at another (but no manipulation of the karabiners is required). • Whistles are supplied on harnesses to allow customers to alert instructors if there are problems. • First aid supplies are available and there is a minimum of 1 First Aid qualified member of staff on duty each day. • Emergency evacuation procedure are produced by Site Managers for each course and included in the training to ensure safe course evacuation should it be required. • Guidelines are available for organisations wishing to conduct filming at height.
	<p style="text-align: center;">Trees/Poles</p> <ul style="list-style-type: none"> • Prior to a new course opening all trees that form part of the course are inspected for stability and disease by a qualified arboriculture expert. • All trees are to be inspected annually by an arboriculture expert and a written report provided. • System for monitoring trees where a potential problem has been identified. • Measures are taken to protect tree roots from compaction.
	<p style="text-align: center;">Working on the course</p> <ul style="list-style-type: none"> • When maintenance is taking place on the course either by Altus or Go Ape personnel the relevant training documents for the maintenance being undertaken must be adhered to. • When work is taking place on the course, the area below must be / is cordoned off, including provision of danger and exclusion zones, so that onlookers do not stray into the area.

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- Managers and instructors working on the course from time to time, either carrying out maintenance or inspections are to follow the correct procedures and method statements, including during the following tasks: inspecting the Tarzan wire, changing Tarzan pulley, changing the bungee on the Tarzan net, flipping the Tarzan net or making changes to other obstacles. At all times to remain attached to the safety system. A short or dynamic risk assessment to be carried out prior to completing the task.
- Where repairs are carried out at height, there is to be no lone working and each job should be risk assessed including the correct use of PPE and attachment of tools.

References: HSW Act 1974, MHSW Regs amended 1999, WAH Regs 2005, PUWER 1992, LOLER 1998, PPE Regs 1992, Workplace HSW Regs 1992, H&S (Safety Signs) Regs 1996, First Aid Regs 1981, Occupiers Liability Act 1984, , European Standard for ropes courses EN 15567 Part 1 and Part 2, HSL “Guide to good practice in safety management of aerial ropes courses March 2010. AAIAC “UK Ropes Course Guide” (3rd edition) March 2011., Go Ape GAD, OD, TM.

¹ **Go Ape operational and training systems.** These include the following: Go Ape Operations manual(OD) and Appendices on how to run a Go Ape course, Go Ape Training Manual including training and assessment policy, online training, training objectives, generic PowerPoint presentations and training videos, Go Ape Duty Manager Training (DMT), Go Ape Rescue Package (RP), Go Ape Company Handbook and further library documents listed on the Document Library (OD).

² **Control Measures.** Where a control measure has been identified, it is only included once and not repeated under every serial number. Therefore for a specific hazard identified, a control measure in a serial above may apply to that hazard. (HSE RA guidance.)

³ **Instructors Training.** Go Ape instructors must pass through a full training and assessment programme before they can instruct on Go Ape. They undergo training in accordance with the Go Ape Online Training / Manual, training and assessment policy and training objectives which includes the delivery of safety instruction, operational limits on the use of the course, course inspections during daily course opening and closing, supervision and patrolling techniques, personal protective equipment, harness fitting and inspection, emergency operations, health and safety and customer care. Instructors are First Aid trained. Only instructors with the correct aptitude are selected for additional training in rope rescue techniques. Go Ape’s rescue procedures have been developed in conjunction with an external specialist technical advisor who holds the Mountaineering Instructors Certificate and the European Mountain Leader Award (rescue procedures updated in 2005 by Berwyn Evans MIC). Training and assessment of rescue trained instructors is only carried out by our trained and qualified persons, who have been formally assessed as competent to do so by the Operations Manager responsible for training. Duty Managers complete an additional Duty Manager Training package. Site Managers attend annual Managers Training and quarterly Managers Meetings where they are updated on any operational changes including training requirements.

Abbreviations:

- AM = Go Ape Area Manager
- BTC = Go Ape Booking Terms and Conditions
- DMT = Duty Manager Training
- EN(1), EN(2) = European Standard Part 1 (Construction and safety requirements), Part 2 (Operation requirements)
- GAD = Go Ape Company Handbook and further library documents listed on the Document Library
- OD = Go Ape operational Documents (including Operations Manual; exact titles of documents may change from time to time)
- RAD = Risk Acknowledgement and Disclaimer
- RP = Go Ape Rescue Package
- SB = Safety Brief
- SR = Safety Rules
- TM = Go Ape Training Manual including training and assessment policy, online training, training objectives, generic PowerPoint presentations and training videos
- The EN Standard / EN (1) / EN (2) = The European Standard “Sports and recreational facilities – Ropes courses” comes in two parts: EN 15567-1:2015 (Construction and safety requirements) and EN 15567-2:2015 (Operation requirements)

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