

RISK ASSESSMENT FOR GO APE TREE TOP JUNIOR COURSE

SUBJECT: Fall From Height	SITE: Moors Valley	RISK ASSESSMENT NUMBER:
WRITTEN BY: Rob Davies		REVIEW DATE: February 2013

SER	HAZARD	LHD	CON	WHO MIGHT BE HARMED	EXISTING CONTROL MEASURES	FURTHER CONTROL MEASURES	RR
001a	<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 cable (system) incorrectly • Failure of part of the course infrastructure • PPE failure, incorrect selection, use, fitting, etc • Tree failure, falling over or onto the course, etc • Slips and trips <p>This could happen whilst opening or closing the course, operating the course, participating on the course, carrying out inspections or carrying out a rescue</p>	Low	V High	<p>Employees Course Users Contractors Onlookers Trespassers</p>	<ul style="list-style-type: none"> • Continuous Belay Safety System does not require Customer Course Users to unclip their safety lines at any point. • Karabiners to be tightened using Mole Grips to prevent customers tampering. • Instructors to attach customers to safety system on the ground • Minimum height of 1m wearing footwear to enable users to move their safety lines around the safety system. Height markers installed. Instructors carry out check if unsure. • Under 6 year olds to be accompanied by an adult (1:2) to assist with safety lines. • Maximum weight of 20.5 stone / 130 kg due to load limits of course (Altus load testing advice). Scales provided at sites. Information provided to customers on booking confirmation documents, RAD and website. • Anyone who is deemed to be under the influence of alcohol or drugs is not permitted access onto the course. • Anyone who does not have the correct footwear (e.g. sandals) or clothing that may lead to a slip or a trip will not be allowed onto the course. • Instructors will access the course using the standard Go Ape Safety Lines and system of use (see Training below). • Only mature and competent instructors will be allowed to supervise the Tree Top Junior (an age limit of 21 is suggested); this is to ensure they can handle difficult groups when under pressure. • Instructors to be trained and assessed in moving customers on the Tree Top Junior course. GAD “TTJ Moving Customers Method Statements” 		Low
001b					<p style="text-align: center;">Training</p> <ul style="list-style-type: none"> • Instructors must be competent at working on the course. GAD “Opening and Closing the Course”. WAH regs. See note 2 below re Instructor Training 		Low

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					<ul style="list-style-type: none"> • Instructors trained in rescue procedures (see separate risk assessment for this and associated procedures). WAH regs. • Instructors trained in the correct fitting and 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. • Site Managers must undergo a 1 day PPE inspection course so they are competent to inspect Go Ape Explorer PPE. 		
001c					<p style="text-align: center;">Course inspections and checks</p> <ul style="list-style-type: none"> • Pre-use course checks and inspections carried out by instructor when opening up course to ensure course is safe to use and no overnight damage has occurred. This must be completed from the base of the zip line where possible so any overnight vandalism can be checked. WAH regs. • Periodic site inspections (2 monthly) are carried out and recorded by the Site Manager or a competent person appointed by the Site Manager. • Annual inspection of the course, including all anchor points and points used for rescues (note: large maillons are fitted in areas where there is no obvious identifiable attachment points), by an external competent person / company. LOLER & PUWER regs • Records of inspections and examinations, maintenance, testing and certificates of conformity to be kept. (See Daily Report and Monthly Course Inspection). WAH regs • 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. • Inspection records are to be checked by the Area Manager during Site Audits. 		Low
001d					<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 regs. • Advice on selection of correct PPE that is fit for purpose and use must be sought from industry experts and suppliers. • All equipment must be used correctly as directed by manufacturers guidelines. A copy of each new batch of 		Low

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					<p>PPE’s manufacturing guidelines is to be kept on the site PPE file by the Site Manager.</p> <ul style="list-style-type: none"> • PPE compatibility policy (where more than 1 item of PPE is being worn) is to be checked by an Operations Manager who must have undertaken the 4 day PPE inspection course and who must seek advice from reputable suppliers on compatibility. This ensures that it is safe for two pieces of PPE to be used together in a system and applies to chest harnesses and fall arrest lanyards, etc. PPE regs. • All PPE must be checked for faults prior to first use (from the manufacturer) PPE regs. • PPE must be inspected every two months. Where PPE is thought to be defective it is to be placed in the quarantine box until examined by the PPE trained Operations Manager or Operations Director. Faulty PPE is to be returned to the supplier for repair or replaced. • PPE to be visually checked prior to each use. This includes harnesses and rescue equipment that must be inspected by a trained instructor to ensure it is safe to use. PPE regs. • PPE is to be stored in a dry, clean area, away from any chemicals. PPE must be cleaned and dried as detailed in the manufacturers guidelines. • All PPE must be identifiable, documented and thoroughly examined annually by an Operations Manager who has undertaken the 4 day PPE inspection course. PPE regs. (Note that an examination and inspection are different.) • All PPE must be documented and logged by the Site Manager, including inspection and maintenance records. These records must be checked periodically by the Operations Team. GAD Site Audits. PPE regs. • The Operations Managers and Site Managers are to ensure that all instructors are trained in the correct fitting of PPE, its operation and its operating limits, inspection of the PPE and are to record the training on the individual staff “Training Record Sheet”. PPE regs. • A selection of harnesses and lanyards are to be break tested periodically (suggest annually) to ensure that they are still strong enough and suitable for the purpose. This will be controlled by the Operations Director at Lyon Equipment or Petzl. These records must be kept until the PPE or batch is retired from service. • PPE replacement is to follow manufacturers guidelines. • A trained instructor must check all course participants’ harnesses before they go onto the course to ensure they 		
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				<p>are correctly fitted.</p> <ul style="list-style-type: none"> • If a course user removes their harness for a rest break or toilet break, they must be checked for correct fitting prior to the course user returning onto the course. • 2 styles of harness are used for the TTJ Course. Full body “Simba” harnesses for those up to 40kg and “Gym” harnesses for others. • Chest harnesses are to be fitted to course users in Gym Harnesses who have little or no hip definition whereby a normal sit harness may slip off their hips (this includes course users with large bellies or slim hips). • Only PPE approved by the Operations Director can be used on a Go Ape course. Personal PPE must not be used, (except in exceptional circumstances by a contractor – clearance for this is required from the Operations Director). • Safety helmets are to be worn for all construction work and rescue training (to mitigate a fall). • Site Manager undergo a 1 day PPE inspection training course so they can identify problems with PPE. Site Managers must then train their instructors in PPE inspection and the identification of likely problems. The PPE inspection poster is to be displayed at all sites as a reminder. <p>Builders and contractors PPE should be visually checked when being used on the course.</p>	
001e				<p style="text-align: center;">Operation systems and controls of the course</p> <ul style="list-style-type: none"> • The continual belay system will be used by all customers on the course. • Instructors to use a system for clipping onto the safety system throughout the course that has a backup, so that a “junction” can be passed without completely unclipping. Therefore two lanyards must be used. Likewise in rescues there must always be a back up safety system. GAD Rescue Procedures. • In lightning, high winds, heavy ice and snow, the course must be evacuated and closed. Duty Manager Guidelines and Emergency Evacuation Procedures. • 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 must be secured to the user to prevent them falling. Cameras must also be secured. • Course participants who wear glasses must have them secured when going around the course. This can be done 	Low

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					<p>effectively using rubber bands.</p> <ul style="list-style-type: none"> • When the course is “closed” or is to be left unmanned the trapdoor on to the main platform should be locked shut. • Any tasks being undertaken apart from the normal day to day running of the course (opening, closing) must be 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 cables). GAD method statements. 		
001f					<p style="text-align: center;">Trees</p> <ul style="list-style-type: none"> • Prior to a new course opening all trees that form part of the course are to be inspected for stability and disease by a qualified arboricultural expert. AFNOR standard. • All trees are to be inspected annually by an arboriculturalist and a written report of these inspections is to be kept. AFNOR standard. 		Low
002	<p>Falling objects</p> <ul style="list-style-type: none"> • from the course onto the course 	Medium	Medium	<p>Course users Employees Contractors Public</p>	<p style="text-align: center;">Retainers and Lanyards</p> <ul style="list-style-type: none"> • Course users must attach all loose items to themselves (such as cameras) or have them secured within pockets. Information must be supplied to course users during the Safety Brief. • When instructors are carrying out maintenance tasks at height, tools must be retained by using a retaining cord or lanyard. • All individual PPE, including pulleys, must be attached to the course user. Instructors Pulleys must be attached to the harness by using a pulley retaining lanyard. (introduced in 2003). <p style="text-align: center;">Trees</p> <ul style="list-style-type: none"> • All course trees should be visually checked daily, by the instructor opening the course, for loose and broken branches that may become dislodged and fall. Deadwood likely to fall onto the course should be removed so it does not fall onto course users. • 	•	Low
003	<p>Impact including:</p> <p>Course users swinging into something solid</p> <ul style="list-style-type: none"> • On the course • At the landing (e.g. resulting in lower leg injury) 	Low	High		<p style="text-align: center;">Course design</p> <ul style="list-style-type: none"> • Design of the course must take into consideration the possibility of impact problems. Materials are finished to provide smooth, surfaces. Zip slides and landing areas are designed at an angle and sag to arrive at an optimum landing speed. • Landing sites are constructed to provide a soft and moveable surface of woodchip or wood peel. • Zip landing sites are fenced off to stop members of the 		Low

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	Being struck by parts of the course Collision • On Zip slides At Zip landing				public and children wandering into them. Operating Procedures <ul style="list-style-type: none"> Landing areas are to be prepared (raked or dug) on a regular basis to ensure they comply with guidelines (GAD landing sites). Only 1 course participant is allowed on a crossing or on the zip slide at any one time. Safety Brief & Written Safety Rules and Advice. Provision of Information <ul style="list-style-type: none"> Provision of suitable and sufficient information and training to course participants to ensure they are safe when crossing obstacles and descending zip lines. Written Safety Rules and Advice which must be read or read to all course participants, Instructors Safety Brief given to all course participants. e.g. Course participants informed on landing technique to minimise risk of injury when completing a zip line. Course participants recommended to wear ankle supporting boots. Sandals not allowed. Customer advice. 		
004	Head impact on safety system junctions	Med	Med	Course Users Employees	Helmets to be worn by all participants including instructors		
005	Entanglement in ropes nets, cables or chains and body parts trapped in moving parts of the course • Zip wire	Low	High		Course Design <ul style="list-style-type: none"> Course designed to minimise the risk of entanglement or entrapment. Operating Procedures <ul style="list-style-type: none"> Hair pulled back under helmets, suitable clothing Effective supervision 		Low
006	Unsuitable PPE: Incorrect assessment of loadings including premature failing or malfunctioning of PPE	Low	V High		See Point 001d Damage to PPE <ul style="list-style-type: none"> No smoking whilst wearing harnesses No use of chemicals near PPE (insect repellent, sun cream) Use of experienced and competent course designers Records of materials 		Low
007	Inadequate Supervision <ul style="list-style-type: none"> Incompetence Children rushing ahead Distracted attention of adult Distance between supervisor and children 	High	V High	Course Users Employees	<ul style="list-style-type: none"> Booking Terms and Conditions Instructor check Written Safety Rules and Advice Training Supervision <ul style="list-style-type: none"> 1 to 2 for under 6s 1 to 6 recommended for over 6s either on the ground or participating on the course additional adults advised for larger groups 		Low

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	Inadequate patrolling				<ul style="list-style-type: none"> • 2 to a crossing, only on to be an adult • 4 on a platform • instructors present on the main platform • instructor to radio base if leaving platform 		
008	Rowdy Groups	Medium	High	Course users	<ul style="list-style-type: none"> • Instructors to monitor from platform • Advice to supervising adults • Exclusion from course where necessary • Written Safety Rules and Advice 		Low
5016	Unauthorised Users	Low	V. High	Public	<p style="text-align: center;">Access to course</p> <p>Access hatch to be</p> <ul style="list-style-type: none"> ○ Locked overnight ○ locked when an instructor not present on platform. ○ Shut if instructor leaves platform 		Low
Refs	HSW Act 1974, MHSW regs amend 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, HSE Info Sheets (Ents) No 14 & 15, HSE 5 Steps to Risk Assessment INDG 163, HSE A Guide to Risk Assessment requirements INDG 218, AFNOR standard, HSE ADIPS standard. GAD = Go Ape documents						

Notes: 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.)

LEVEL	LHD = LIKELIHOOD	CON = CONSEQUENCE	RR = RESIDUAL RISK
Very low	Definitely will not happen.	Injury very insignificant i.e. splinters.	Minimal risk, control measure more than necessary.
Low	Unlikely to happen.	Injury fairly minor, i.e. minor cut, graze, bruising.	Control measures satisfactory.
Medium	Moderate chance of accident happening.	Injury would stop casualty continuing with task.	Control measures adequate.
High	Quite likely to happen.	Serious injury requiring medical assistance, i.e. broken bones, deep cut.	Control measure requires constant supervision. Re-assess situation.
Very high	Likelihood will happen.	Very serious injury or possible fatality.	Control measures inadequate. Stop activity.

Note 1: 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.)

Note 2: Instructors Training - Go Ape instructors must pass through a rigorous training and assessment programme before they can instruct on Go Ape. To be selected for training prospective instructors must demonstrate they have the requisite aptitude and experience. They then undergo training in safety instruction and procedures, operational limits on the use of the course, course inspections during daily course opening and closing, patrolling techniques, personal protective equipment, harness fitting and inspection, emergency operations, health and safety and customer management. Only instructors with climbing experience and the correct aptitude are selected for additional training in rope rescue techniques. Instructors are First Aid trained. Go Ape's training objectives and 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). 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.