

RISK ASSESSMENT FOR GO APE, ADVENTURE FOREST LIMITED

GENERAL STRATEGIC (see note 1)

RISK ASSESSMENT NUMBER TTA P2/01/18

PART TWO

Reviewed by Operations Team and H&S Manager – February 2018

TO BE REVIEWED: January 2019

Introduction: 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). AAIAC in conjunction with the European Ropes Course Association (ERCA) produced an update to the “UK Ropes Course Guide” (Edition 4.1) in July 2015. The European Standard forms the basis for and is a key reference document for the Go Ape risk assessment.

Assessing risks is simple in principle. It involves identifying hazards or examining what in a particular situation could cause harm or damage and then assessing the likelihood that harm will actually be experienced by a specified population and what the consequences would be (i.e. the risk). The overall objective is to obtain a view on how to manage the risk or to compare the risk with other risks. At a conceptual level, it has proved useful to make a distinction between an assessment of the risks (the evaluation of the likelihood of harm and its consequences for populations or individuals as described above) and risk control (the prioritisation of risks and the introduction of measures that might be put in place to reduce, if not prevent, the harm from occurring). This stems from the belief that an assessment of risks by and large can be scientific and objective but risk control less so because it integrates the results of an assessment of risks with other critical inputs. (www.hse.gov.uk/risk)

Step 1. Identify the Hazards.

Step 2. Identify “Who may be harmed?”	Course User	People who are taking part in the High Wire Activity Course
	Employees	All Adventure Forest Ltd Staff
	Public	The general public who are not actually taking part in the course (spectators or forest users).
	Contractors	People working for a company or individual contracted by Go Ape to work on or around the course, etc.

Step 3. Evaluate the Risk.

LIKELIHOOD

Very low	Definitely will not happen
Low	Unlikely to happen
Medium	Moderate chance of accident happening
High	Quite likely to happen
Very high	Likelihood will happen

CONSEQUENCE

Very low	Injury very insignificant i.e. splinters
Low	Injury fairly minor i.e. minor cut, grazes, bruising
Medium	Injury would stop casualty continuing with task.
High	Serious injury requiring medical assistance i.e., fractures,
Very high	Very serious injury or possible fatality

Step 4. Existing Control Measures ². These are the measure we have put in place to keep the risk to an acceptable level. The Residual Risk (RR) is the level of risk that remains after putting all the control measures into practice.

RESIDUAL RISK

Very low	Minimal risk, control measure more than necessary
Low	Control measures satisfactory
Medium	Control measures adequate
High	Control measure requires constant supervision. Re-assess situation
Very high	Control measures inadequate. Stop activity

Step 5. The Review Process. Go Ape risk assessments will be reviewed when it is suspected that the assessment is no longer valid or there has been a significant change. In addition they will be thoroughly reviewed annually.

Go Ape risk assessments are written in compliance with the Management of Health and Safety at Work Regulations and in accordance with HSE’s 5 Steps to Risk Assessment. The assessments are reviewed when it is suspected that the assessments are no longer valid or there has been a significant change. They are also reviewed annually. Go Ape recognises that risk assessments are fundamental in ensuring a safely run Adventure Course. By continuous and dynamic assessment of risk by all Go Ape staff, adhering to the

RISK ASSESSMENT FOR GO APE, ADVENTURE FOREST LIMITED

Go Ape operational and training systems¹, risks are reduced to a reasonable level. To carry out daily risk management all staff must be able to fully understand the Risk Assessment procedure as detailed above.

This Risk Assessment is produced in accordance with the Chartered Institute of Environmental Health “Risk Assessment Principles and Practice” programme. This risk assessment looks at the risks associated with the Go Ape ropes courses. The assessment refers to the Go Ape operational and training systems¹.

Note: Where hazards and existing control measures have been included in Part 1, they will not be repeated in Part 2.

SER	HAZARD	LHD	CON	WHO MIGHT BE HARMED	EXISTING CONTROL MEASURES	FURTHERCONTROL MEASURES	RR
2001	<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. GAD 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. Pulleys must be attached to the harness by using a pulley retaining lanyard. (Introduced in 2003). <p style="text-align: center;">Trees/Poles</p> <ul style="list-style-type: none"> • All course trees, wooden poles, metal poles should be visually checked daily, by the instructor opening the course, for loose and broken branches, or loose course hardware 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
2002	<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) <p>Being struck by parts of the course (for example the Tarzan return system)</p>	Low	High	<p>Course users Employees Contractors Public</p>	<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. This is checked by the external inspection body during the inaugural inspection. Materials are finished to provide smooth, surfaces. Zip wires and landing areas are designed at an angle and sag to arrive at an optimum landing speed or appropriate braking mechanisms are installed. • WRGs and swages are covered in protective material where they may cause harm. 		Low

RISK ASSESSMENT FOR GO APE, ADVENTURE FOREST LIMITED

	<p>Collision</p> <ul style="list-style-type: none"> • On Zip wires • At Zip landing 				<ul style="list-style-type: none"> • Landing sites are constructed to provide a soft and moveable surface of woodchip or wood peel. • Protective padding is provided where there is the possibility of collision. The zip braking spring is covered in rubber or foam protection. • Where required zip landing sites are fenced off to stop members of the public and children wandering into them. • Warning signs are in place to warn members of the public of the risk of collision. • Tarzan exit frames are used to ensure course users cannot collide with other course users on nearby elements and to control the Tarzan return system. • The speed of the Tarzan return system is monitored and further controlled by changing the mass of the weight, ensuring the return mechanism cannot hit course participants. <p style="text-align: center;">Operating Procedures</p> <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 wire at any one time. Safety Brief & Written Safety Rules and Advice. <p style="text-align: center;">Provision of Information</p> <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 wires. Written Safety Rules and Advice which must be read by 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 wire. • Safety signage at the start of each zip wire. • Course participants recommended to wear appropriate footwear, with soles with good grip, closed toe and heel. Sandals not allowed. Customer advice. 		
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RISK ASSESSMENT FOR GO APE, ADVENTURE FOREST LIMITED

					<ul style="list-style-type: none"> Zip speeds are taken and recorded periodically to identify any changes in speed of landing. 	
2003	<p>Entanglement in ropes nets, cables or chains and body parts trapped in moving parts of the course</p> <ul style="list-style-type: none"> Zip wire Tarzan 	Low	High	<p>Course users Employees Contractors</p>	<ul style="list-style-type: none"> Course designed to minimise the risk of entanglement or entrapment <p style="text-align: center;">Operating Procedures</p> <ul style="list-style-type: none"> Hair tied back, suitable clothing Reduce risk through not wearing helmets. GAD Helmet Policy. Effective supervision Regular patrolling <p style="text-align: center;">Information and Training</p> <ul style="list-style-type: none"> Tarzan signage Specific Tarzan training in safety brief 	Low
2004	<p>Unsuitable PPE: Incorrect assessment of loadings including premature failing or malfunctioning of PPE</p>	Low	V High	<p>Course users Employees Contractors</p>	<p>See Part 1, 1006</p> <p style="text-align: center;">Damage to PPE</p> <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
2005	<p>Slips and trips and uneven ground</p>	V High	Low	<p>Course users Employees Contractors Public</p>	<ul style="list-style-type: none"> Pathways Sturdy footwear recommended Path surfaces reviewed and levelled Design of course Flat level platforms kept clear Pre-opening inspection Work area management Cabins / offices kept clean and tidy Tool storage areas 	Low
2006	<p>Foot/Step Ladders</p>	Medium	V High	<p>Employees Contractors</p>	<ul style="list-style-type: none"> Training Consider using cherry pickers Consider back-up safety system 	Low
2007	<p>Inclement Weather</p> <ul style="list-style-type: none"> Lightning High Wind Ice and snow Extreme Cold Heat stroke 	V High	Medium	<p>Course users Employees Contractors</p>	<ul style="list-style-type: none"> Course closure for lightning, high winds, heavy ice and snow. Duty Manager guidelines on cold weather. GAD Evacuation Plans Suitable clothing Communications and use of radios Rest periods 	Low

RISK ASSESSMENT FOR GO APE, ADVENTURE FOREST LIMITED

					<ul style="list-style-type: none"> • Training • Staff breaks • Consultation with weather experts • Consultation with tree expert • Inspection policy following inclement weather • Patrolling instructors observations (Beaufort land scale) • Provision of water 		
2008	Darkness and inadequate lighting <ul style="list-style-type: none"> • Disorientation • Inability to read safety signs • Unable to see landing • Impaired supervision 	High	Low	Course Users Employees Contractors	<ul style="list-style-type: none"> • Closure of course • Careful planning of session availability • Provision of sufficient, well sited and effective lighting • Adequate supervision • Staff assistance 		Low
2009	Fire	Low	Medium	Course Users Employees Contractors Public	<ul style="list-style-type: none"> • Evacuation Plan • Fire extinguishers (water and powder) • Heaters kept clear • Heaters must be maintained in accordance with manufacturers instruction • Fire Extinguisher Serviced annually 		Low
2010	Electrocution	Low	V High	Course Users Employees Contractors	<ul style="list-style-type: none"> • Appropriate electrical checks in the cabin 		Low
2011	Workstation <ul style="list-style-type: none"> • Posture injury • Eye strain 	Medium	Medium	Employees	<ul style="list-style-type: none"> • Provision of furniture/seating • Staff breaks 		Low
2012	Psychological effects <ul style="list-style-type: none"> • Stress • Trauma 	Low	Low	Employees	<ul style="list-style-type: none"> • Adequate welfare arrangements • Employee Assistance Programme 		Low
2013	Other Forest Users <ul style="list-style-type: none"> • Cyclists collision • Traffic collision • Horses bolting 	Low	Medium	Course Users Employees Contractors Public	<ul style="list-style-type: none"> • Signage • Awareness training • Instructors aware when leading groups 		Low
2014	Clothing & Jewellery <ul style="list-style-type: none"> • Footwear • Covered waists 	Medium	Medium	Course Users Employees	<ul style="list-style-type: none"> • Prohibit sandals, waist must be covered, no hoop earrings, necklaces tucked away. • Instructor check • Written Safety Rules and Advice 		Low
2015	Medical conditions <ul style="list-style-type: none"> • Pregnancy • Fatigue 	Medium	V High	Course Users Employees	<ul style="list-style-type: none"> • Medical and Disability Policies and Pregnancy Policy • Disclaimers self certification 		Low

RISK ASSESSMENT FOR GO APE, ADVENTURE FOREST LIMITED

	<ul style="list-style-type: none"> Other 				<ul style="list-style-type: none"> Pregnancy self certification Terms and Conditions Staff training Written Safety Rules and Advice Systematic assessment of risk Dynamic assessment of risk Patrolling Supervision Instructor assistance with Tarzan rescue Users advised to seek medical advice 		
2016	<p>Inadequate Supervision</p> <ul style="list-style-type: none"> Poor eyesight Incompetence Children rushing ahead Distracted attention of adult Distance between supervisor and children Inadequate patrolling 	High	V High	Course Users Employees	<ul style="list-style-type: none"> Ratios see Part 1, 1003 <p style="text-align: center;">Visual checks</p> <ul style="list-style-type: none"> RAD Booking Terms and Conditions Instructor check Written Safety Rules and Advice Included in training (pre brief) Supervisor descends zip line last Training Group management advice provided to the supervisor. <p style="text-align: center;">Supervision</p> <ul style="list-style-type: none"> Supervision control that under 16's no more than 1 tree away from supervisor. Activity Specific supervision ratios to be followed Instructors patrol course as per site-specific patrolling method statement. 		Low
2017	Rowdy Groups	Medium	High	Course users	<ul style="list-style-type: none"> Exclusion from course Written Safety Rules and Advice Terms and Conditions Patrolling Verbal red/yellow warning 		Low
2018	Unauthorised Users	Low	V. High	Public	<p style="text-align: center;">Access to course</p> <ul style="list-style-type: none"> Course open: Ladders protected by stockades, self-closing doors, coded locks changed regularly. Course closed: Ladders taken up and locked to platforms. Low nets raised. Tarzan Swing padlocked. Signage on gates 		Low

RISK ASSESSMENT FOR GO APE, ADVENTURE FOREST LIMITED

					Operating procedures	
					<ul style="list-style-type: none"> • Patrols • Observing for signs of attempts to access course out of hours 	
2019	Missing persons	Low	Medium	Course Users Public	<ul style="list-style-type: none"> • Radios • Liaise with other agencies: Rangers, Police etc. 	Low
2020	Construction and Course Work including: SEE GAD CDM Working at Height <ul style="list-style-type: none"> • Fatigue • Entrapment and crushing • Vertigo, motion sickness • Strains, sprains and other manual handling injuries • Weather: Cold, hypothermia and heat stress 	Medium	V High	Employees Contractors	<ul style="list-style-type: none"> • No lone working • Method statements • Effective supervision • Selection and use of suitable PPE • Use of work restraint and fall arrest equipment • Helmets worn • Back up safety system • Suitable clothing • Rest periods • Trained person on site • Emergency plan • Training • Manual handling, correct use of ladders and cherry pickers 	Low
2021	Access and egress to the work area <ul style="list-style-type: none"> • Including zip wires 	Low	V High	Employees Contractors	<ul style="list-style-type: none"> • Use of ladders and cherry pickers • Work area management including provision of danger and exclusion zones and signage • Consultation with landowner • Appropriate signage 	Low
2022	Inappropriate use of equipment <ul style="list-style-type: none"> • Chainsaws, generators, electrical equipment, tools, vehicles, ladders. 	Low	V High	Employees Contractors	<ul style="list-style-type: none"> • Training • Correct use of appropriate equipment, including PPE • Safe fuel management • Supervision • Directives to contractors 	Low
2023	Electrocution	Medium	V High	Employees Contractors	<ul style="list-style-type: none"> • Electrical equipment appropriate for all weather use • Battery power tools (and 240V versus 110V – consult further guidance) 	Low

Note 1: 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.

RISK ASSESSMENT FOR GO APE, ADVENTURE FOREST LIMITED

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, HSE 5 Steps to Risk assessment INDG 163(rev3), HSE A Guide to Risk Assessment requirements INDG 218 (discontinued), 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. HSE Information Sheet Entertainment Sheet No 14 & 15 (withdrawn 2009), 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 Online Training / Manual (TM), including training and assessment policy and 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 Online Training Manual including 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 Part 1 (Construction and safety requirements) and EN 15567 Part 2 (Operation requirements)

Further advice has been sought from: Chief Adventure Play Inspector RoSPA , EHO SLDC, AALA guidelines (industry consultation), Consultation with Petzl, Altus, Lyon Equipment and HSE Specialist Inspector, Lightning Report by Ben Fuest, Tree Surveys by John Harraway, Insurers risk control survey reports, Chester West and Cheshire Local Authority Lead EHO, industry best practise consulted, compliance with manufacturers guidelines.