BRITISH KITE FLYING ASSOCIATION

Notes on Risk Assessment

1 Introduction

Kite equipment is perfectly safe when used in the correct way; however there may be hazards from the equipment and its use that must be addressed.

This document presents a method for risk assessment which has been developed from a number of sources:

- a process developed by the Midland kite fliers
- a document produced by PKSF (Power Kite Sports Federation)
- a meeting of BKFA representatives at which some of the UK's most experienced kite fliers reviewed an earlier draft and extended and improved it in the light of their combined experience.

These have been collated and put together by John Dobson and Jerry Swift.

The scope of this risk assessment is given in the Section 2 of this document. Note that it does not include man-lifting kites, for which a much more serious and detailed process would have to be developed. It is intended that this method be used at any event which will be open to the public. For private fly-ins and informal events, a more lightweight method based on this document could be used.

The Sections referenced are those to be found in the associated BKFA Risk Register, a copy of which is available on the BKFA website – www.bkfa.org.uk.

2 Different codes of kite flying

2.1 Simple Kite Flying

Single line kites are by far the commonest form of kite. They can vary in size from tiny (a few cm across) to huge (measured in tens of metres). They can also be used for dropping objects, particularly teddy bears, either with or without parachutes. A development is sports kites controlled by 2, 3, or 4 lines of fixed length where the flight can be controlled in movement, though obviously the height is limited by the length of the lines. Section 4.1 identifies the risks associated with single line or sports kite flying, with additional pages dealing with particular risks associated with dropping objects from kites (Section 4.2) and with very large kites (Section 4.3).

2.2 Power Kiting

When flying a kite and the pilot is dragged/pulled by the force of the kite, this is Power Kiting. Power kites can be simple kites or a specific traction kite used for kite buggying, kite land boarding or even kite surfing. Such kites are normally made from lightweight ripstop nylon and can either be single or double skin. Land based kites are either air filled or have carbon spars to hold their shapes, while kites designed for kite surfing will be either valved ram air, or have an inflatable leading edge. All kites are controlled via Dyneema lines of up to 40m which attach to handles or a control bar. Section 4.4 identifies the risks associated with power kiting in general. Sections 4.5 to 4.8 identify particular hazards associated with particular uses of kite traction.

2.3 Kite Buggying (Parakarting) (Section 4.5)

Kite buggying is one of the many activities which uses the power and traction generated by a powerkite as its engine. Instead of resisting the pull of a power kite you can harness its power for traction in much the same way you can with a sailing boat or land yacht. Kite buggies are three wheeled carts, generally made from stainless steel and approx 1m wide and 1.5m in length. Steering is normally controlled by foot-pegs either side of a single front wheel.

2.4 Kite Landboarding (Section 4.6)
Kite Landboarding has developed from the more typical board sports. Many landboards are developments from either skateboards or mountainboards. The kite's power is used while standing facing the kite on these kite landboards and is ridden similar to a skateboard. The board is steered by leaning against the front or rear edge of the board. Kite landboards have four 10cm -25cm wheels and are normally 1m in length and 0.5m wide.

2.5 Kite Surfing/Kiteboarding on sea (Section 4.7)
Kite Surfing (sometimes called Kiteboarding) is a recent development in kite sports. The kites are usually water re-launchable and much larger in size than the normal land based kites. The most typical boards are twin tips that allow riders to travel in either direction without having to move their feet positions. The kites are launched on the land before entering the water, then the board is secured by foot-straps and directed by resisting the kite's power in much the same way as yacht sailing.

2.5 Kite Snowboarding/Kite Skiing (Section 4.8)
Kite Snowboarding and Kite skiing is much the same as kite surfing. The use of the kite is identical and many people use the same board technique. Away from the mountains and valleys kite snowboarding and skiing has opened up the use of low lying flat areas.

3 Method

Risk Assessment is a standard approach to the identification of, assessing, and resolution/minimisation of risk.
This consists of the following processes:

1 Identify the Hazard:
Identify events which may cause harm to persons or property.

2 Estimate the Severity:
The degree of harm is estimated on a 3-point scale:

3: High	Death or serious injury or major damage to property
2: Moderate	Causing injury that could keep individual away from normal activities; easily repairable damage
1: Low	At most, minor injury or damage

3 Estimate the Likelihood:
The likelihood of the hazard actually occurring is estimated on a 3-point scale:

3: High	If nothing is done, an accident may well occur
2: Moderate	An accident may happen if pushed by other factors
1: Low	Small likelihood of an accident occurring

4 Calculate the Risk:
The combination of these two scales determines the level of risk:

Severity	Likelyhood		
	1	2	3
1	2	3	4
2	3	4	5
3	4	5	6

The higher the total, the higher the risk:

6-5 High 4 Medium 3-2 Low

5 Implement Control Measures:
What measures can be introduced to minimise or remove the risk? These controls should act so as to reduce the severity or the likelihood or both.

6 Re-assess the risk in the presence of controls:
Follow steps 3.2, 3.3, 3.4 again assuming the controls are present and effective.

In addition to carrying out a risk assessment as detailed above, it is important to keep the risks and controls under constant review. A club committee should consider how well the controls are working, and any unforeseen hazards at an annual review, or in response to a serious incident. The question to be asked is, having put measures into place, are they now working or do new or additional measures need adding?

It is also important to establish good practice, and a **written code of conduct**, given to each club member, which should show how to minimise and deal with risk. A code of conduct for general kite flying is also available on the BKFA website. It might also be useful to know how many fliers attending an event belong to clubs who have such a written code.