



**Airship & Balloon**  
Company

**HEALTH & SAFETY ASSESSMENT**

**FOR**

**INFLATION OF HOT AIR BALLOON**

**N. J. Langley - 2016**

## **INTRODUCTION**

This Health & Safety assessment has been prepared for the inflation of a hot air balloon.

The purpose of the assessment is to prevent injury to employees, the public and damage to property, prior to free-flight.

## **PRINCIPLES**

The pilot and crew are both experienced in the inflation and tethering of hot air balloons at similar events throughout the United Kingdom.

The Pilot is trained in first aid and fire fighting by the safety staff at Bristol International Airport.

The pilot has been trained to the highest Commercial rating for hot air balloon operation and is tested for competence and health on an annual basis.

A hot air balloon is a registered aircraft and, as such, falls under the control of the Civil Aviation Authority (CAA). The balloon is inspected by the CAA on an annual basis and issued with a renewal of its Certificate of Air Worthiness.

Great emphasis is placed on the importance of safety in all aspects of balloon operation by Airship & Balloon Company Ltd.

The balloon is used for Public Transport of passengers and as an advertising hoarding for the balloon sponsor. Great importance is placed on maintaining our reputation as a responsible company. Any relaxation of safety rules is totally unacceptable to Airship & Balloon Company Limited.

## **EQUIPMENT**

The equipment used consists of a wicker basket, an envelope of rip-stop nylon and Nomex, a gas burner and gas storage tanks, ropes, karabiners and other various restraining devices.

All flight equipment used is certified for aviation use.

The equipment is transported in a box trailer towed by a 4x4 vehicle which is used as the tether restraint on site, prior to free-flight.

## **PROCEDURE**

The balloon requires a clear area of 50m square which should be delineated by red and white striped tape, which acts as a crowd control barrier.

It is preferable to have trees on at least one side of the site to provide shelter during inflation of the balloon, prior to take off.

The balloon is attached to the retrieve vehicle, prior to cold inflation, by way of a quick release mechanism and rope with karabiners.

The balloon is firstly inflated by using a motorized fan (with metal mesh guard) and once it has taken a basic shape it is fully inflated with hot air using the burner, powered by propane gas stored in aviation standard 60 litre gas tanks strapped inside the basket.

The balloon can be inflated in winds which must not exceed 10 knots during the inflation period. This is because the balloon could potentially drag the vehicle at higher wind speeds. Should the wind increase during the inflation period, the Pilot will use the deflation system on the balloon to make the balloon safe.

## **PERSONAL PROTECTIVE CLOTHING AND SAFETY EQUIPMENT**

Both pilot and crew wear cotton clothing. They will also wear gloves to protect against unexpected problems with fire and to protect against rope burns.

A fire extinguisher is carried in the balloon basket with another strapped inside the trailer. Pilots and Crew have attended a CAA Approved Fire Fighting and First Aid Course.

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