



# Reasons Why Balloons Might Not Fly

## Wind Speed

**We look at two different wind speeds: Surface and Upper**

The Surface wind speed is what you get on the ground, so effecting take-off and more importantly landing. This wind should not exceed 12kts (14mph) for an experienced pilot. Upper winds are between 500 to 2,000ft in height and can be up to 16kts (18.5mph) these winds can be higher as you are cruising not landing.

## Wind Gusts

These are variations in wind speed increasing from the norm for short periods of time. They are very hard to forecast and should always be treated with care, especially on landing. Gusts greater than 12kts (14mph) would prevent flying.

## Thermal Instability

Happens on a hot summer's day, when you have had good sunshine for a number of hours. The air becomes unstable due to pockets of air at vastly different temperatures, usually near lakes and built up areas.

## Thunder Activity

Very similar to thermal instability, however it is caused by cloud and rain build up.

## Tethering / Night Glow

The surface winds need to be below 8kts (9mph) and ideally closer to 4kts (4.5mph) for a good safe tether.

## Flying Early Morning and Early Evening

Added to the above weather conditions, forecasting, which is not a science, is harder with the times when we are flying. Most weather forecasters, even the Met Office will include tolerances in wind speed, which may or may not be present on the ground.





## Additional Information

**Hot Air Balloons are registered aircraft with the UK Civil Aviation Authority and are controlled by the Air Navigation Order, which are the rules that must be complied with.**

**Balloon Pilots have either Private or Commercial licences and are also governed by the CAA with limits on flying / tethering operations.**

**A Flight Director is a Senior Commercial Pilot with many years experience operating balloons at commercial public events. Their job is to ensure safety and that all CAA rules are complied with. They are also known in ballooning circles as the 'Responsible Adult', the one that says "NO"!**

**Balloon Ownership - Most of the balloons attending the Northampton Town Festival are privately owned and are not sponsored, and are therefore someone's pride and joy that they want to keep in excellent condition for a number of years.**



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