Site specific balloonists forecast – Guidance for balloonists

This note provides guidance on:
- the availability & update times of the ballooning forecasts
- terminology commonly used in these forecasts, and
- the wind forecast data sources

Availability & update times of the ballooning forecasts

The following table describes the forecasts that balloonists are able to view at any given time.

Examples:

1. at 0830 UTC, the full current AM and PM forecasts will be issued, along with site specific model data for following morning'
2. by 2030 UTC, the full current PM and tomorrow's AM forecasts will be issued, along with site specific model data for tomorrow afternoon.

note that all times are UTC and that updated forecasts will be available on the website after a short period after the time of issue

TIME	AM TODAY	PM TODAY	AM TOMORROW	PM TOMORROW
00:00	Full forecast	forecast data available		
00:30	Full forecast	forecast data available		
01:00	Full forecast	forecast data available		
01:30	Full forecast	forecast data available (updated)		
02:00	Full forecast available	forecast data available		
02:30	Full forecast (updated)	forecast data available		
03:00	Full forecast available	forecast data available		
03:30	Full forecast available	forecast data available		
04:00	Full forecast available	forecast data available		
04:30	Full forecast available	forecast data available		
05:00	Full forecast available	forecast data available		
05:30	Full forecast available	forecast data available		
06:00	Full forecast available	forecast data available		
06:30	Full forecast available	forecast data available		
07:00	Full forecast available	forecast data available		
07:30	Full forecast available	forecast data available	forecast data available (issued)	
08:00	Full forecast available	forecast data available	forecast data available	
08:30	Full forecast available	Full forecast (issued)	forecast data available	
09:00	Full forecast available	Full forecast available	forecast data available	
09:30	Full forecast available	Full forecast available	forecast data available	

10:00	Full forecast available	Full forecast available	forecast data available	
10:30	Full forecast available	Full forecast available	forecast data available	
11:00	Full forecast available	Full forecast available	forecast data available	
11:30	Full forecast available	Full forecast available	forecast data available	
12:00		Full forecast available	forecast data available	
12:30		Full forecast available	forecast data available	
13:00		Full forecast available	forecast data available	
13:30		Full forecast available	forecast data available (updated)	
14:00		Full forecast available	forecast data available	
14:30		Full forecast (updated)	forecast data available	
15:00		Full forecast available	forecast data available	
15:30		Full forecast available	forecast data available	
16:00		Full forecast available	forecast data available	
16:30		Full forecast available	forecast data available	
17:00		Full forecast available	forecast data available	
17:30		Full forecast available	forecast data available	
18:00		Full forecast available	forecast data available	
18:30		Full forecast available	forecast data available	
19:00		Full forecast available	forecast data available	
19:30		Full forecast available	forecast data available	forecast data available (issued)
20:00		Full forecast available	forecast data available	forecast data available
20:30		Full forecast available	Full forecast (issued)	forecast data available
21:00		Full forecast available	Full forecast available	forecast data available
21:30		Full forecast available	Full forecast available	forecast data available
22:00		Full forecast available	Full forecast available	forecast data available
22:30		Full forecast available	Full forecast available	forecast data available
23:00		Full forecast available	Full forecast available	forecast data available
23:30		Full forecast available	Full forecast available	forecast data available

'Full forecast' contains all site specific model and forecaster data
'Forecast data available' contains just site specific model data

Terminology used in balloon forecasts

Elements of the site specific ballooning forecasts such as the Regional Summary and Outlook sections are written by our trained meteorologists.

The nature of our British weather highlights the need to often convey wide ranging conditions for an area as succinctly as possible. We will endeavour to provide as much specific information as possible. You will sometimes find phrases used in these forecasts whose definition may not be obvious. The following is a short list of the most common ones:

Phrase used	Definition
Wind	
Gentle	An average wind speed of between 7 to 10 KTs.
Variable	Wind direction varying by at least 60 degrees
Visibility	
Poor	Surface visibility less than 2 KM
Moderate	Surface visibility 2-5 KM
Good	Surface visibility 5-10 KM
Excellent	Surface visibility greater than 10KM
Weather	
Isolated	Weather conditions occurring randomly and which can easily be avoided. Used to describe weather occurring over up to 25% of the area defined at some point in the forecast period
Local/Locally	Weather conditions clustered into small areas which can easily be avoided out of these areas.
Occasional	Infrequent weather conditions which can be avoided. Used to describe weather occurring between 25 to 50% of the area defined at some point in the forecast period
Frequent	Weather conditions affecting many places which will be difficult to avoid. Used to describe convective weather occurring over 50% of the area defined at some point in the forecast period
Widespread	Weather conditions affecting many areas which will be difficult to avoid. >50% of the defined area affected
General	Weather conditions generally expected within the region.

	>75% of the area affected
Cloud	
Few	Up to ¼ of the sky covered by a cloud layer
Scattered	Between ¼ to ½ of the sky covered by a cloud layer
Broken	Between ½ to 7/8 of the sky covered by a cloud layer
Overcast	Sky completely covered by a cloud layer

Comparison of wind forecast data sources provided on the Aviation Briefing Service

The Met Office issues forecasts for a range of people, whether they are general public or aviation users. All have different specific requirements but all require the most appropriate data for their use.

Whilst the Met Office strives to provide consistency in its forecasts, sometimes subtle differences in the forecasts may be evident depending on the forecast being accessed at a particular time.

Reasons for this include the model data source being used, and the times that the updates to the forecast are presented.

	Model data source	Timesteps provided	Model update times	Time updated data become available	Resolution
Balloon site forecasts	Best data	Hourly (up to 36 hours ahead)	Hourly	0130, 0730, 1330 & 1930 UTC	Optimised to the spot location
GA map layer winds	Global model	To T+36 hours at 3hr intervals, then 6hr intervals to T+120 hours	0000, 0600, 1200 & 1800 UTC	4.5 hrs after each model run i.e. at: 0430, 1030, 1630 & 2230 UTC	17km
Public wind forecasts	Best Data	Hourly (days 1 & 2), 3hly (days 3 to 7)	Hourly	Approximately 35mins past each hour (hh:35)	Optimised to the spot location

Conclusions
1. The map layer is most useful for obtaining a *broad* overview of wind flow over an area
2. The balloon site forecast wind data is optimised for each ballooning site and uses the most recent hi-resolution data available at the times the forecasts are updated
3. The public forecasts are also optimised for the location selected (but note that this is not necessarily the same as the ballooning site!). The forecast data will always be within 1 hour old.

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