

## Hatherleigh Market Site – Meteorological Data

### Meteorological Observations

There are no meteorological stations observing wind speed and direction in Hatherleigh. The locations of the closest official stations with readily available historical data are indicated in figure 1.



***Figure 1 Nearest Meteorological Stations With Historical Wind Speed and Direction Data***

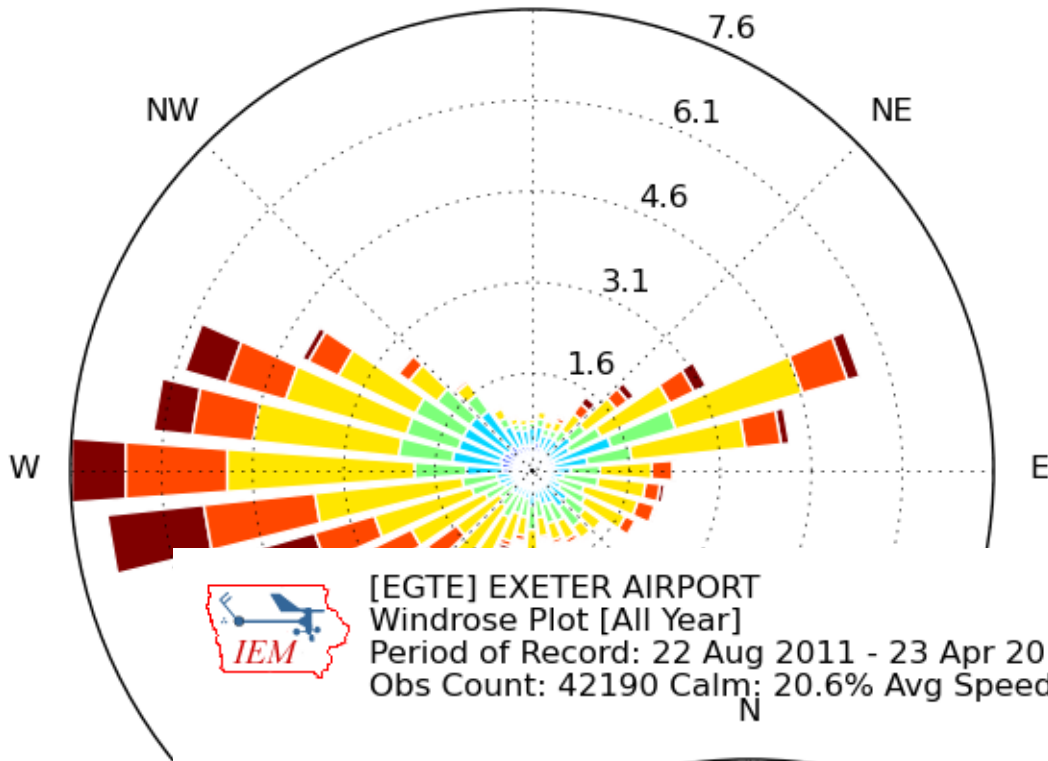
The closest is St Athan RAF (EGDX) approximately 20 miles north, near Barnstaple. In the East is Exeter Airport (EGTE) at a distance of approximately 29 miles. To the south is Plymouth Roborough (EGHD) at about 33 miles.

Long term wind-roses for each of these stations are reproduced in figures 2, 3 and 4.



[EGDX] ST ATHAN RAF  
 Windrose Plot [All Year]  
 Period of Record: 22 Aug 2011 - 23 Apr 2014  
 Obs Count: 22731 Calm: 5.8% Avg Speed: 10.9 mph

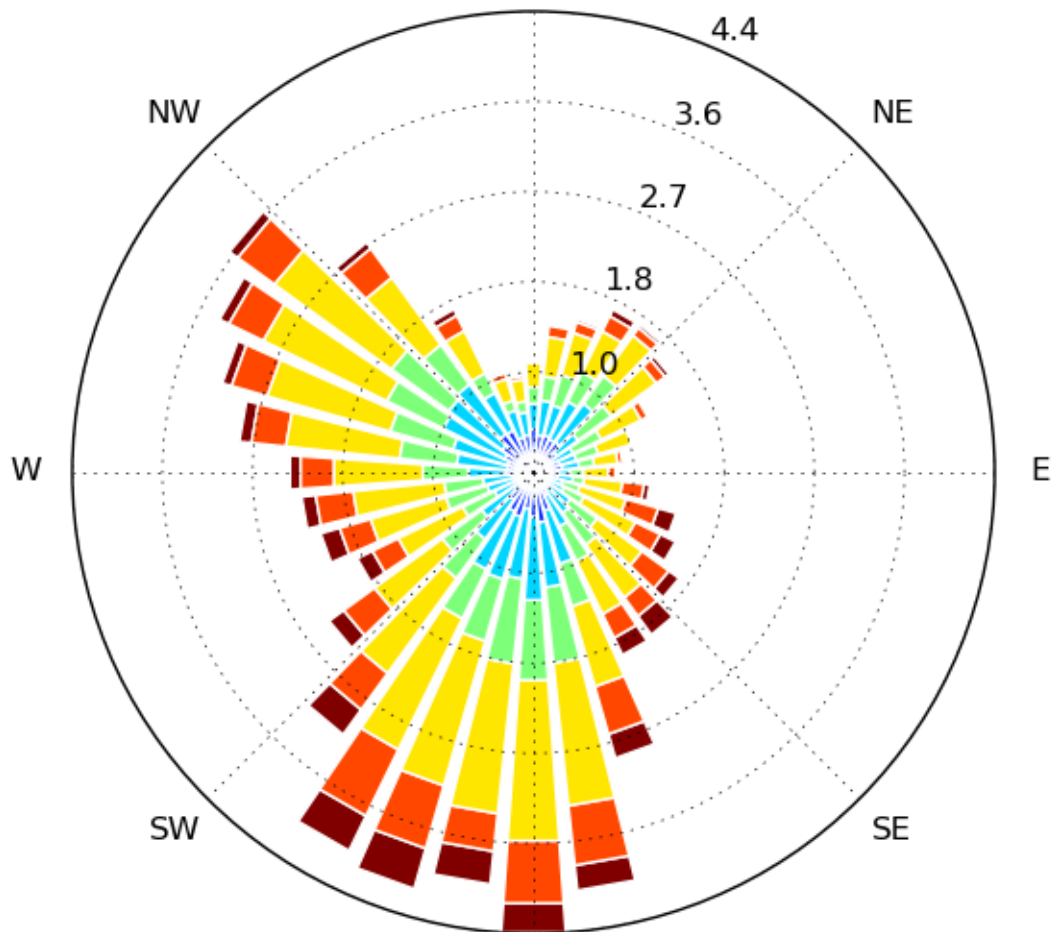
Figure 2  
 Windrose at St Athan 22 August 2011 - 23 April 2014



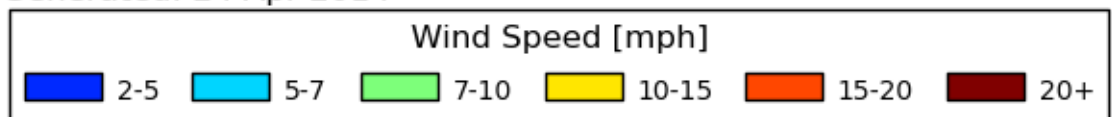
[EGTE] EXETER AIRPORT  
 Windrose Plot [All Year]  
 Period of Record: 22 Aug 2011 - 23 Apr 2014  
 Obs Count: 42190 Calm: 20.6% Avg Speed: 8.6 mph

Generated: 2  
  
 4

Figure 3 Windrose at Exeter Airport 22 August 2011 - 23 April 2014



Generated: 24 Apr 2014





[EGHD] PLYMOUTH/ROBOROU  
Windrose Plot [All Year]  
Period of Record: 22 Aug 2011 - 04 Jan 2012  
Obs Count: 9401 Calm: 62.1% Avg Speed: 4.2 mph

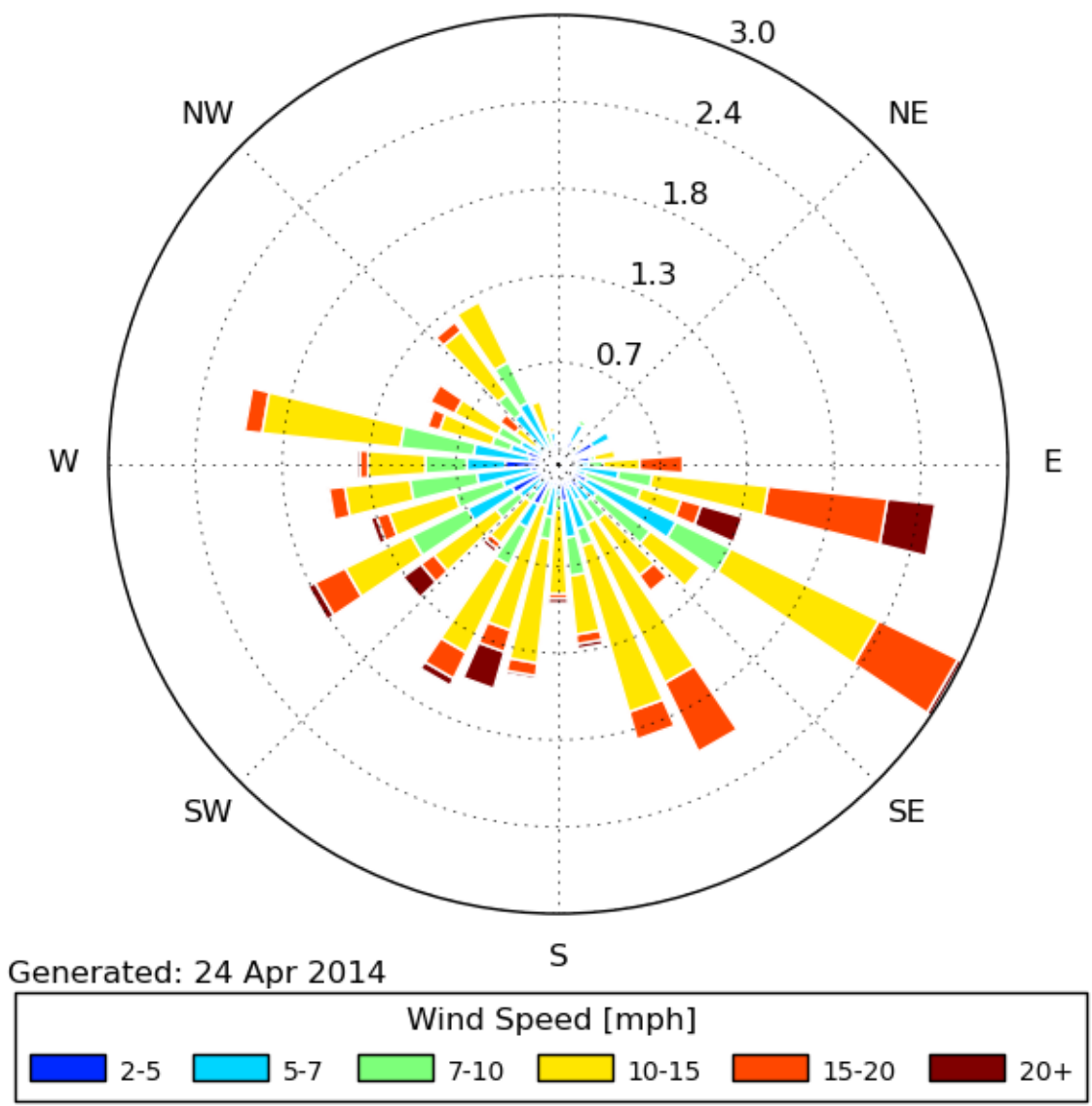


Figure 4  
Windrose at Plymouth Roborough 22 August 2011 - 4 January 2012

Wind speed and direction data are also

collected by the personal weather station network.

This is the world's largest, with over 30,000 active stations and growing. Observations are taken by a group of dedicated amateur meteorologists who have purchased their own meteorological instruments. The data that they collect are fed into a proprietary forecasting model, to provide the group with accurate local weather forecasts.

The closest PWS stations to Hatherleigh are in Okehampton, Holsworthy and Torrington. Wind speed and direction data from these stations is not displayed as a traditional windrose but rather as two graphs as shown in figures 5, 6 and 7.

# Okehampton

Okehampton, United Kingdom > 50.734° -4.002° > 581 ft

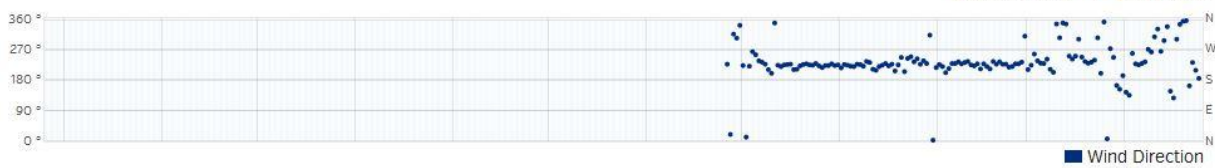
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Graphs

Tables

PAST YEAR

May 2013 Jun 2013 Jul 2013 Aug 2013 Sep 2013 Oct 2013 Nov 2013 Dec 2013 Jan 2014 Feb 2014 Mar 2014 Apr 2014



**Figure 5 Wind Speed and Direction Data recorded in Okehampton**

# Holsworthy

Holsworthy, United Kingdom > 50.811° -4.354° > 430 ft

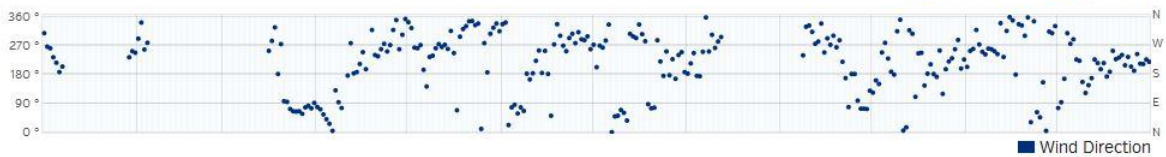
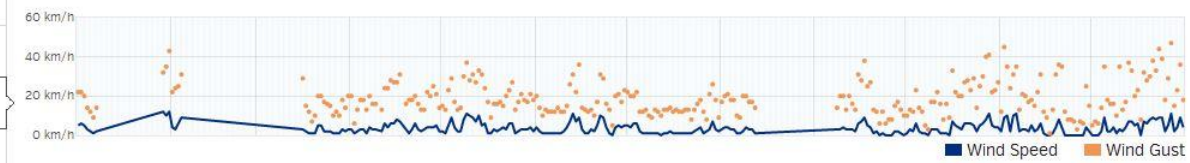
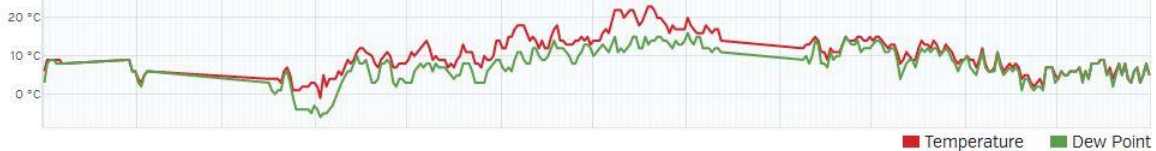
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01 JAN 2013 - 31 DEC 2013

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec



**Figure 6 Wind Speed and Direction Data recorded in Holsworthy**

# Great Torrington

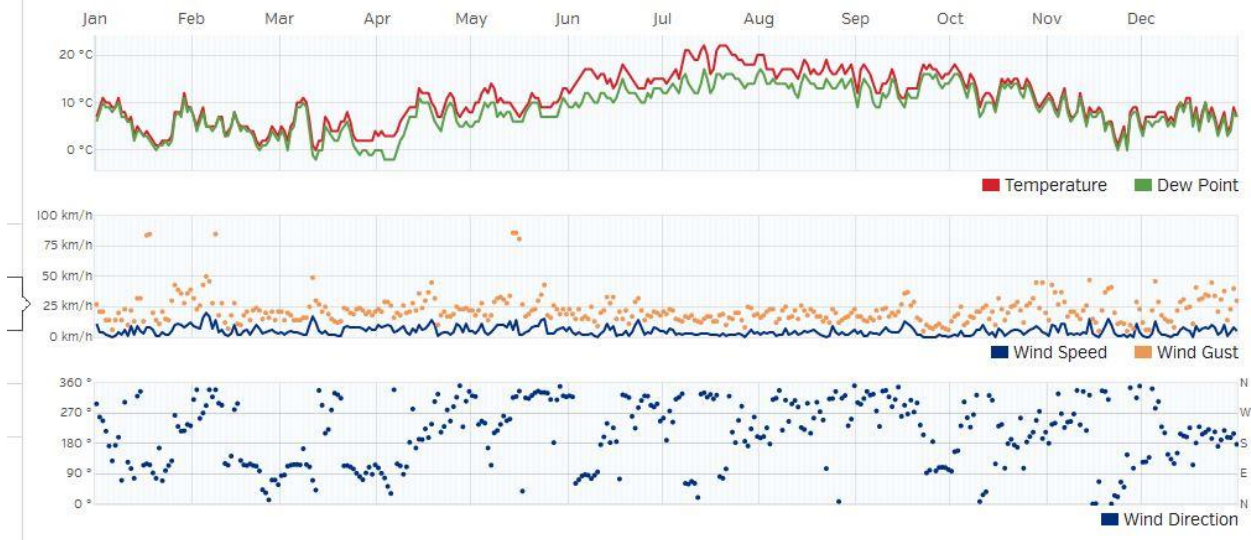
Great Torrington, United Kingdom > 50.955° -4.141° > 253 ft

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01 JAN 2013 - 31 DEC 2013



**Figure 7 Wind Speed and Direction Data recorded in Torrington**

## Significance to the Market Redevelopment

The meteorological data collected at the three airports/airfields extends over a longer period and is probably more reliable than that provided by the PWS network. However the PWS data was collected much closer to Hatherleigh. Regardless of this all data sets tell the same story. Wind direction in this part of the country is variable. The prevailing wind is from the SW but this will generally occur for less than 20% of the time depending on the angle of the sector considered. Winds from the north ie from the abattoir to the proposed housing area occur for a less but still a significant period of time, particularly based on the local PWS data.