

# The Pembroke Dangler

Unstable polar maritime airstreams in Autumn and Winter typically give showery conditions, particularly to exposed coastal areas. These showers can spread well inland where there is little shelter from the sea, such as those which travel through Cheshire towards the midlands in a NW airstream. However, in the case of the **'Pembroke Dangler'**, more is involved than simply exposure to an onshore wind.

The term was coined by Jon O'Rourke, a regular contributor to USW. It is used to describe a line of showery precipitation which forms in a NNW to NNE airflow, typically from Pembroke to Cornwall. This often results in frequent showers, or even more persistent rain, in quite a narrow band. When this occurs a narrow strip can receive quite a high rainfall total, whilst the rest of the south west is virtually dry.

It is by no means an unusual phenomenon, occurring several times a year, particularly in Autumn and Winter. The long fetch across 'warm' water from the Irish Sea to Cornwall, provides the right conditions for showers to form. The shape of the Pembrokeshire Peninsula has the effect of concentrating this unstable northerly flow, in the same way as an obstruction in a stream would concentrate the flow around it. The resultant line of often heavy showers is a convergence zone.

The long and narrow Cornish peninsula protrudes into this line of precipitation, and often has the affect of intensifying it further.

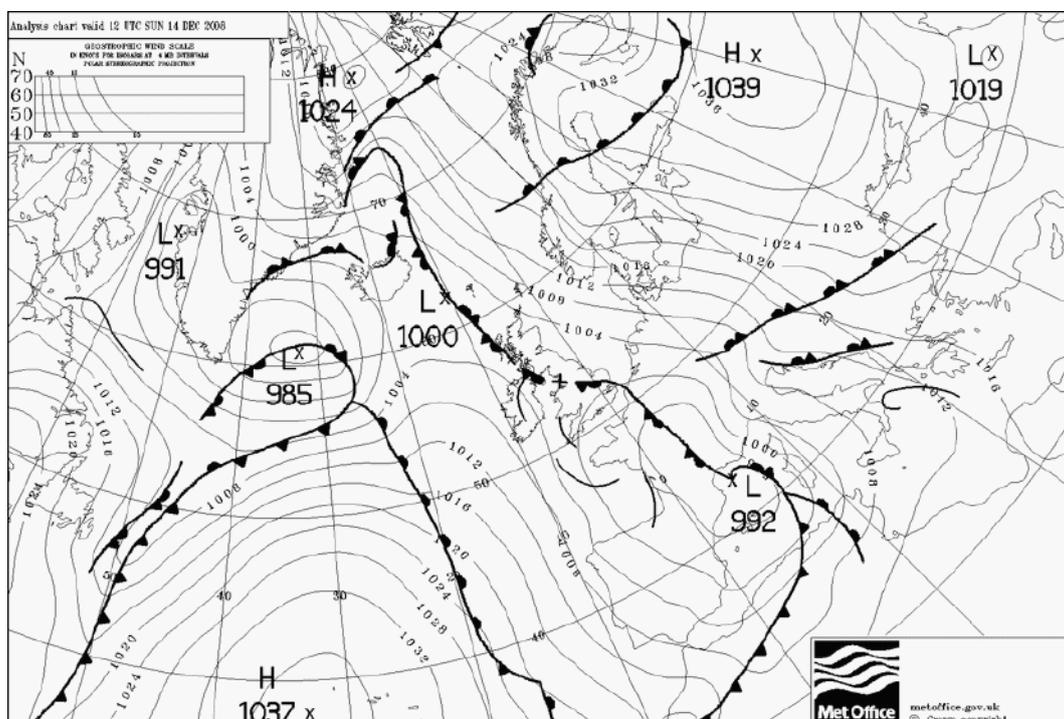
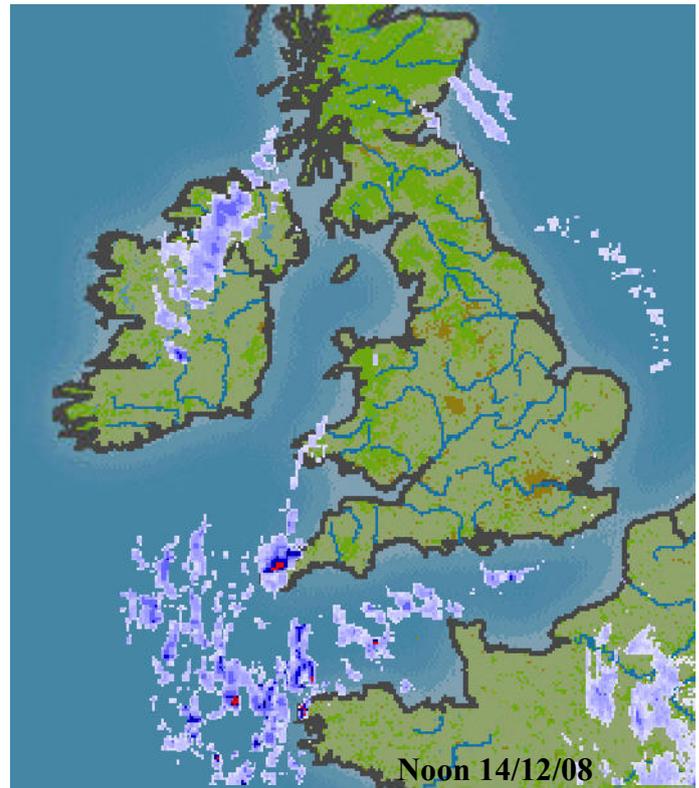
Below are just 2 examples from 2008.

## 1. 14th December 2008

The rainfall radar image shows the situation at noon. There was little change for several hours.

In Penzance around 23mm of rain, together with some sleet in the heavier bursts, fell in the 12 hours from 03:00 - 15:00. Central and eastern Cornwall were mainly dry during this period.

The synoptic chart is shown below.



## 2. 30th November 2008.

On this occasion the wind direction was NNE, with depressions centred in the Baltic, and over central France. By mid morning the line of precipitation was clearly visible on the radar image, and it persisted for many hours.

The wind direction meant this convergence line passed just to the west of Cornwall. It was mainly dry in western Cornwall, but decidedly wet on Scilly.

