

# HASTINGS PIER CHARITY

HASTINGS  
PIER

## Wind and Weather Around the Pier



Hastings Pier, early 20<sup>th</sup> Century, (HPC096.016)



Supported by

**The National Lottery®**  
through the Heritage Lottery Fund



[www.hastingspier.org.uk](http://www.hastingspier.org.uk)

## Wind and Weather Around the Pier

### How have Extremes of Wind and Storms affected Hastings Pier?

The most severe storm ever to have struck Hastings was as long ago as February 1287, before the Pier was built. The storm was so severe that the actual outline of the coast was altered. In those days, there was no modern weather recording equipment or coastal defences. The port city of Winchelsea was completely destroyed, to the east of the pier. The cliff at Hastings collapsed and fell, taking with it a part of the castle. The sea washed away the port area of Hastings.

In more modern times the Great storm of October 1987 caused much damage and there was loss of life. However, our modern coastal built defences meant that the sea was prevented on causing the severe material damage to the coast that would have occurred in early periods of history.

The sea is powerful and marine defences need to be constantly monitored and repaired to protect the built coastal communities.

### Common Wind Directions and How the wind Affects us.

The **PREVAILING WIND** blows from the south west. This is related to the **GULF STREAM**. The Gulf Stream is a current originating in the Gulf of Mexico and crossing the Atlantic to the English Channel where we are. This current is of warm water and with the air flow from that direction we experience a mild, wet Atlantic weather pattern. In winter this Atlantic weather keeps away frost and brings in moisture, giving up a temperate climate. During the summer the same influence brings some rainfall and also allows warm weather without conditions becoming too hot.

When the Atlantic moderating influence is weaker we can have weather from other quarters. Easterly winds in winter will bring cold dry air from the Continent. This will make it feel chilly as there is a lack of cloud cover leading to heat radiating away, especially at night. Also, the air itself may be coming from areas such as Scandinavia and Russia which have snow and ice.

During the summer these same easterly winds have a heating affect as they bring hot dry air from a heated Continent. Cloudless days allow the sun to heat up the ground and sea and we experience a prolonged heat wave.

Southerly winds tend to bring up warm air from the Mediterranean and in summer we can find Saharan dust settled on the Pier.

Occasional severe winter weather can originate from the North. Unlike the cold dry easterly winds, we receive cold but damp air from the Northwest or Northeast! This type of weather is relatively uncommon but it can bring proper snowfall to Sussex and the moisture in the cold wind creates an uncomfortable degree of cold. It is worth mentioning here that, just like being on a boat in the winter, the pier allows a greater exposure to the elements and a cold wind like this can be truly appreciated!

These influences from all points of the compass give Sussex weather that special variety so that no two days are the same. It also contributes to the beauty of the sea and sky here as the light is constantly changing.

### **Wind and Clouds around Hastings Pier**

Weather changes every day – it is caused by the temperature, the wind and the moisture in the air. Through the seasons of the year there are patterns of weather and over many years these patterns come to create a climate, which is the typical weather on average for the season. The weather and climate is different in different parts of the world. Here we have a ‘temperate’ climate which means in the middle between very cold and very hot.

Moisture in the air causes clouds and there are many different types. Types of cloud have Latin names and typical kinds are Altocumulus, Altostratus, Cirrocumulus, Cirrostratus, Cirrus, Cumulus, Cumulonimbus, Nimbostratus, Stratocumulus and Stratus.

We get south westerly winds quite often here and they are warm and moist from the sea. When the north wind blows, it can bring cold and dry air down from the Arctic. Warmer air holds moisture and tends to rise up,

while colder air has less moisture. The patterns of warmer and colder air moving by winds form the different kinds of clouds and add such variety to the appearance of the sky from day to day.

During the summer the sun is nearer and higher in the sky. Temperature is higher. In winter the sun is low on the horizon, there is less warming here and cold weather can arrive from the Arctic or the cold Continent. When cold air meets warmer air, there is the potential for storms because energy is released quickly. Heavy rain and gales and thunder and lightning occur.

Lightning is a bolt of electrical energy created by these weather types and the thunder is the noise of the lightning.

Rain falls to earth due to the force of gravity and in cold weather very low temperatures cause the rain to fall in a frozen form of snow or hail. Weather stations with recording equipment measure the weather. There is one on the hill behind the Pier and recordings are taken every day. Rainfall and sunshine and temperature and wind speed and direction are all recorded.

Please note that this information is provided free of charge and whilst Hastings Pier Charity makes every effort to keep the information on the website accurate, the majority of the information comes from the general public and volunteers. We therefore disclaim any warranty or representation, express or implied about its accuracy, completeness or appropriateness for a particular purpose. If there are any errors, please contact Hastings Pier by email [info@hpcharity.co.uk](mailto:info@hpcharity.co.uk)

[www.hastingspier.org.uk](http://www.hastingspier.org.uk)