

Local Winds

Different regions on earth experience different types of atmosphere. These result in local winds that blow in a definite pattern in certain atmospheric conditions over certain regions. The various types of local winds around the globe are caused by various geographical factors such as mountains, water bodies, etc. They are impacted by the local geography of a region and in turn, impact the weather and climate of that region.

Local winds often blow in a certain direction for a certain period of time. They have a pattern which is repeated over a set amount of time. As they are specific to regions, they are divided into five types that are, trade winds, southwest winds, southeast winds, northeast winds and northwest winds. They are also divided on the basis of their nature which is dry and cold.

What Causes Local Winds?

Local Winds are also known as Tertiary Winds. These types of winds are created because of the temperature differences between two spots on Earth that are adjacent to each other and have a space large between them to produce enough to cause wind. As the earth rotates and revolves around the sun, the land of different continents tends to get warm or cold at a rate which differs from that of the oceans. This difference in temperatures of ocean and land causes local winds. The speed of the winds is often determined by the speed of the earth's rotation. On other hand, the pattern and direction of local winds can often be predicted based on where the two points causing the winds are located.

Local Winds of the World

Different regions of the earth experience different types of local winds that are different in nature. Understanding this is often also helpful in ascertaining the climatic conditions of various regions. Hence, we have provided the List of Local Winds in the table below to provide information about various types of winds along with their nature and location.

List of Local Winds		
Name of the Local Winds	Nature	Location
Santa Ana	Hot	South California
Norwester Local Wind		New Zealand

Chinook Winds (Snow eaters)	Hot and Dry	The Rockies mountains
Foehn		The Alps
Harmattan Wind (Guinea Doctor)		West Africa
Khamsin		Egypt
Siroco	Hot and moist	Sahara to the Mediterranean Sea
Solano		Sahara to the Iberian Peninsula
Mistral	Cold	The Alps and France
Blizzard Local Wind		Tundra region
Purga		Russia
Levanter		Spain
Bora	Cold and Dry	Blows from Hungary to North Italy
Punas		The western side of Andes Mountain
Karaburun (black storm)	Hot and Dusty	Central Asia
Calima	Dust-laden and Dry	Saharan Air Layer in Canary Islands
Elephanta	Moist wind	Malabar coast (During Monsoon)

Cold Winds

Cold winds are the types of winds that rise near the earth's surface. They are not known to be very frequent and are weaker than the hot winds. Cold local winds are dangerous for the environment as they often cause air pollution. They are known to blow air pollutants as well as sand into the regions in which they blow, causing breathing issues to the inhabitants. Cold local winds rise up from the ground and have a colder temperature. In the areas with lower atmospheres, they cause rain and frosting. Mistral, Purga, Blizzard, Boras and Punas are some of the cold wind names that are known to cause low temperatures and cold weather in the regions in which they blow.

List Of Cold Local Winds

During the winter, the local chilly winds flow down the slopes and into the valleys from the snow-covered mountains. They go by several names depending on where you are.

- Pampero
- Gregale
- Bora
- Tramontane
- Mistral

Hot Local Winds

Hot winds are produced when the ground surface gets heated. These types of winds are known to have a warm and dusty quality to them, often signifying dry weather in the regions they blow in. Hot local winds cause high temperatures and in extreme conditions, can cause various health issues as they carry dust with them which often causes breathing problems in humans as they inhale those particles.

The most common and harmful type of hot local wind is Loo, it is known to cause fevers and other health issues. Some other hot local winds such as Chinook are also known to help melt the ice as they blow. The other types of hot winds include Santa Ana, Foehn, Khamsin, Harmattan, etc.