

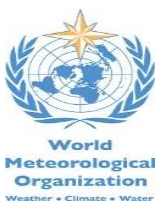


Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Country Profile:

Montserrat



1. PHYSICAL GEOGRAPHY

Montserrat (/mɒntsəˈræt/) is a Caribbean island—specifically in the Leeward Islands, which is part of the chain known as the Lesser Antilles, in the Caribbean. It is a British Overseas Territory. The island of Montserrat is approximately 480 km (300 mi) east-southeast of Puerto Rico and 48 km (30 mi) southwest of Antigua. It comprises 104 km² (40sqmi) and is gradually increasing owing to the buildup of volcanic deposits on the southeast coast. The island is 16 km (9.9 mi) long and 11 km (6.8 mi) wide, with rock cliffs rising 15 to 30 m (49 to 98 ft) above the sea and a number of smooth bottomed sandy beaches scattered among coves on the western side of the island. Montserrat has two islets, Little Redonda and Virgin, as well as Statue Rock (CARICOM 2009; <https://en.wikipedia.org/wiki/Montserrat>). In July 1995, Montserrat's Soufrière Hills volcano, dormant for centuries, erupted and soon buried the island's capital, Plymouth, in more than 12 metres (39 ft) of mud, destroyed its airport and docking facilities, and rendered the southern part of the island, now termed the exclusion zone, uninhabitable and not safe for travel (<https://en.wikipedia.org/wiki/Montserrat>)

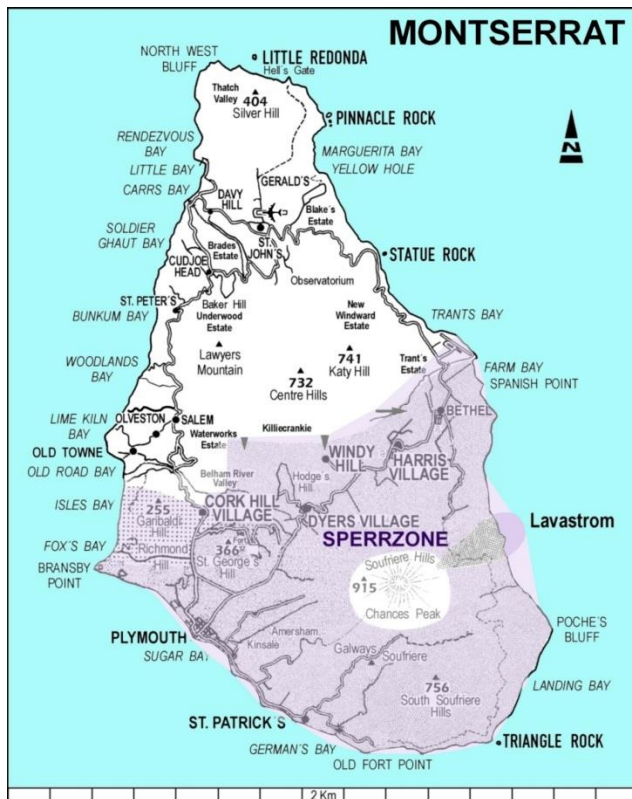


Figure 1 Map of Montserrat. (Credit: Wiki Commons)

This climate of Montserrat is considered tropical rainforest (Af) according to the Köppen-Geiger climate classification (<http://en.climate-data.org/country/126/>). The annual rainfall sum is around 1500 mm at the airport, with the wet season spanning May to November, where the monthly average is about 174 mm. The dry season runs from February to April with February being the driest month (see Figure 1). Temperatures are fairly constant throughout the year and average about 27 °C (<http://www.antiguamet.com>; <http://en.climate-data.org/location/282835/>).

2. CLIMATOLOGY

Meteorological needs of Montserrat are served by the Antigua and Barbuda Meteorological Services (<http://www.antiguamet.com/>). There is however a manual climatological station sited at the John A. Osbourne Airport (16.5° N, 62.1° W) at an elevation of 168m.

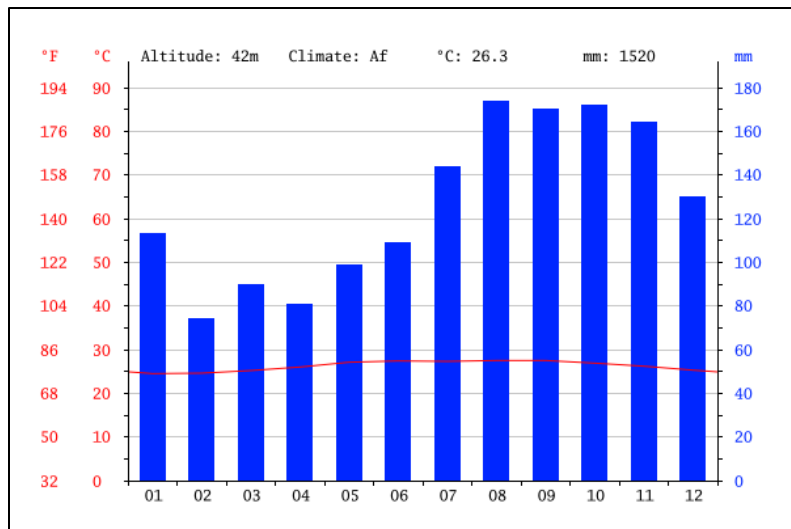


Figure 2 Rainfall and Temperature Climatology for Montserrat. Source: <http://en.climate-data.org/location/282835/> Note: the data plotted on the graph could not be verified. Therefore, the graph may not accurately represent the climate of Montserrat.

3. SOCIO-ECONOMIC LANDSCAPE

Montserrat’s population is approximately 5143 (<http://countrysmeters.info/en/Montserrat>) and with a density of 44 persons per Sq. km. After the destruction of Plymouth and disruption of the economy, more than half of the population left the island, which also lacked housing. The GDP is estimated at USD43.5 million (USD8,500/capita) <https://en.wikipedia.org/wiki/Montserrat> and export of aggregates is the chief economic activity; especially in the aftermath of recent hurricanes and volcanic eruptions.

4. KEY NATIONAL STAKEHOLDERS AND THEIR NEEDS

A 2015-2016 survey of user climate information needs in the Caribbean captured responses from 2 sectoral users representing the agriculture and disaster risk management sectors. There were no responses from the Energy, Health, Water and Tourism sectors. No sectoral users from Montserrat participated in the interviews nor the focus group discussions convened in 2016. This very small sample reflects the limitations of the territory’s size, population and the potential market for the delivery and use of climate services.

Users in Montserrat obtain seasonal climate forecast information from a variety of sources including government agencies and departments, research institutes and the Caribbean Institute for Meteorology and Hydrology (CIMH). Respondents reported that climate services are of high value in their organisation’s operations and planning and as such, they routinely try to integrate climate information considerations to inform and manage the day-to-day operational activities.

5. RANGE OF CLIMATE SERVICES

As of September 2015, the John A. Osborne Airport-Meteorological Service classified itself as a Category 1 climate services provider offering a basic range of climate data services and information products. The Service does not deliver climate information that is tailored, packaged and delivered to meet specific user needs, nor does the organisation tailor any regional climate products for the national context.

The level of interaction between the organisation and the users of climate information has been reported to be moderate, where users are engaged at the later stages of the climate services project. The socio-economic sectors that currently benefit from climate information in Montserrat are the agriculture, water, disaster risk management, fisheries and tourism sectors. The John A. Osborne Airport-Meteorological Service also interacts with the statistics department and the Montserrat Volcanic Observatory. Other sectors that have been identified to potentially benefit from climate services in the future are the health and maritime sectors. Montserrat is yet to convene a National Climate Outlook Forum.

The John A. Osborne Airport-Meteorological Service's recommendations for improving its climate services capability include:

1. Expansion of the observation network with new automated instruments for improving data measurement;
2. Assistance with instrument calibration;
3. Dedicated database management system (WMO approved) with greater storage capacity and data backup mechanism;
4. Establishment of a research division that collaborates with other sectors;
5. Training and capacity building in the development of climate services tools and products, especially tailored products for the agriculture, water, disaster management and physical planning sectors;
6. Capacity building in the interpretation/translation of technical product information for sectors; and
7. A dedicated online portal (website) for the dissemination of information and receipt of user feedback.

6. REFERENCES

CARICOM. 2009. Caricom Capacity Development Programme (CCDP). In Collaboration With The Canadian International Development Agency (CIDA)- 2000 Round Of Population And Housing Census Data Analysis S Sub-Project National Census Report Montserrat. The CARICOM Secretariat

Web Sites

<https://en.wikipedia.org/wiki/Montserrat>
<http://en.climate-data.org/country/126/>

<http://countrysimeters.info/en/Montserrat>
<http://www.antiguamet.com>