

The eruption of Tambora in April 1815 led to immediate local destruction and loss of life from pyroclastic flows, tsunamis and whirlwinds, but its influence on the atmosphere became much more widespread because of the volcanic material, particularly sulphur dioxide, which was injected high into the atmosphere. The stratospheric winds caused the fine particles formed to be distributed locally, which acted as a veil to reduce the amount of sunlight entering the atmosphere. Such stratospheric particles typically persist for one to two years and can act to modify the usual weather patterns. Through using modern computer models of the atmospheric circulation, which are configured to simulate the effect of Tambora, insights into the likely effects of the eruption can be generated. Although some summers of the early 1800s were cold, the measurements of the time indicate that, in some regions at least, the weather systems during 1816 were highly unusual.