

A Trio of Plumes South Atlantic Ocean

The uninhabited South Sandwich Islands include several active stratovolcanoes. Due to their remote location, these volcanoes are some of the least studied in the world, though satellites often catch them erupting.

The combination of clouds and ice at these latitudes can make it difficult to see plumes of volcanic ash in natural-color imagery. But using portions of the electromagnetic spectrum that are typically invisible to the naked eye (such as infrared) enables satellites to distinguish ice from ash and clouds. The Aqua satellite captured this false-color image in September 2016. Note the three bright white plumes running down the middle third of the page; they are warmer and brighter in infrared than the cooler ice clouds (teal) around them.

Researchers have learned that even small eruptions like this can affect cloud cover and weather. The tiny solid and liquid particles in the plume (aerosols) act as seeds for the formation of cloud droplets.