

Name _____

The Mystery of Volcanic Ash Clouds: Impact on Aviation Unveiled

Short Answer Key

1. Volcanic ash particles have sharp edges and can scratch and erode aircraft surfaces. They are a concern because they can damage aircraft exteriors, including windows and engines.
2. Volcanic ash clouds can lead to respiratory problems and eye irritation for passengers and crew members if ash particles penetrate the aircraft cabin. In severe cases, ash ingestion by engines can cause engine flameouts, potentially leading to emergency landings or crashes.
3. VAACs monitor volcanic eruptions and ash clouds worldwide and issue advisories and forecasts to help pilots and airlines avoid ash clouds. They play a crucial role in providing information to ensure safe flight paths.
4. When encountering volcanic ash clouds, airlines typically avoid the area or descend to lower altitudes where the ash concentration is lower. These measures are important for safety because they help minimize the risk of engine damage and maintain passenger safety.
5. The 2010 Eyjafjallajökull eruption in Iceland led to the closure of European airspace and the cancellation of thousands of flights. This event highlighted the significant economic impact and inconvenience caused by volcanic ash clouds, emphasizing the need for effective safety measures.

