## Effects of volcanic ash on aviation

Volcanic ash from Mount Rinjani in Lombok has led to flight cancellations in and out of Bali airport. The ash poses a range of safety hazards to aviation.



NOTE: 1 micrometre is one-millionth of 1m

## What happens in the engine



- Temperatures up to 2,400 deg C melt the ash, turning it into liquid glass and rock
- The liquid coats and solidifies on fuel nozzles, combustion chamber and turbines, making them less efficient
- This can cause loss of engine thrust, flame-outs and even complete engine failure