

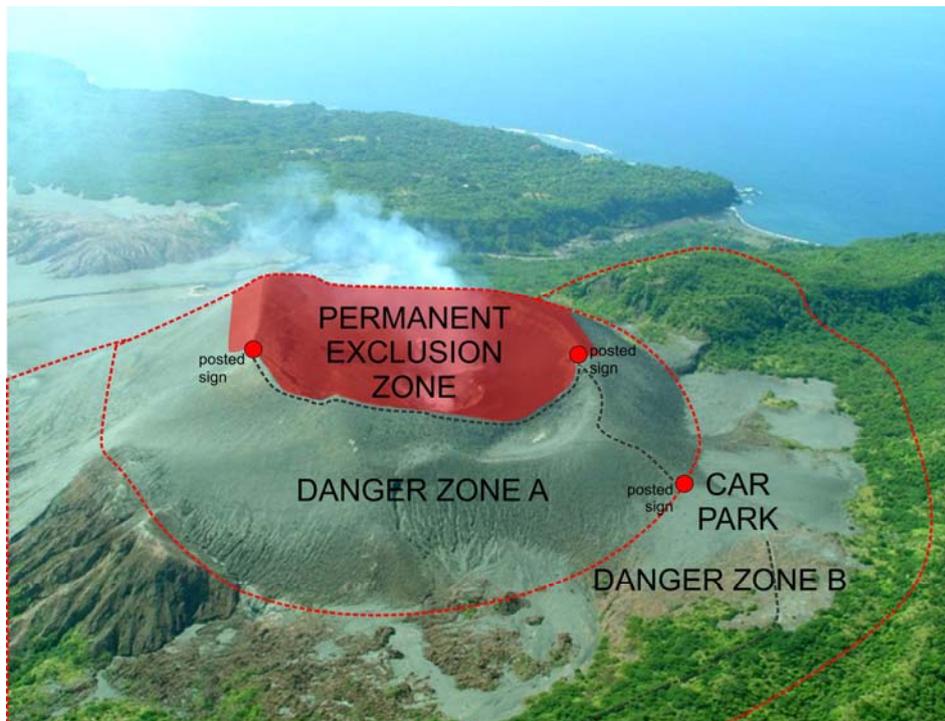
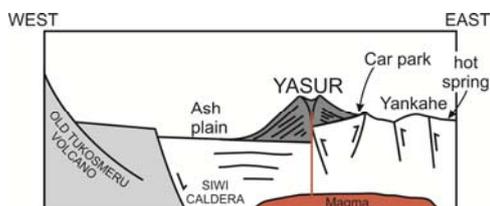
Yasur Volcano – Yenkahe Caldera



Description

- Yasur, located at the SE tip of Tanna Island, is a mostly unvegetated 361-m-high scoria cone with a nearly circular, 400-m-wide summit crater.
- Yasur is the most frequently visited of the Vanuatu volcanoes.
- It has been in more-or-less continuous activity since Captain Cook observed ash eruptions in 1774.
- This style of activity may have continued for the past 800 years.

(www.volcano.si.edu)



Type

Yasur is a basaltic scoria cone that typically has up to five active vents. These produce a combination of two eruption types

Strombolian - bubbles of glowing magma burst, spraying bombs of lava into the air

Vulcanian – explosions that burst through a blocked vent, generating showers of bombs and also clouds of fine ash, which blow downwind

- Erupted Magma is up to 1000°C and bombs remain very hot for up to an hour from eruption. Ash is not hot.
- Yasur's summit is 361 m above sea level and the crater is 600 m across at its widest point.

Volcanic history

- Yasur is the youngest of a group of Holocene volcanic centres constructed inside a larger volcanic caldera.

Yenkahe Caldera

- The Yenkahe caldera is a 4-km-wide, horseshoe-shaped depression that collapsed during two large eruptions that blanketed almost all of southern Tanna in thick ash and scoria. This deposit forms the cliffs along the SE and S coasts.

Yenkahe hill

This huge block of ground beside Yasur has been pushed up, probably by magma underground.

Hot springs

- Groundwater heated by the magma comes up fractures around the Yenkahe hill.

Earthquakes and ground movement

- Earthquakes in this area have raised the Yenkahe hill and Port Resolution Harbour more than 20 m during the past 300 years.

Cause

- Vanuatu volcanism is caused by subduction of the Indo-Australian plate below the Pacific plate under Vanuatu.
- A large magma chamber is located a few km below Yenkahe caldera, feeding Yasur and pushing up Yenkahe hill and adjacent areas.

Monitoring

- There are a seismograph, two cameras and a microbarometer stationed at Yasur, monitored remotely by VMGD in Port Vila. The data and photos can be seen at:

<http://www.geohazards.gov.vu/>

Safety

- **Bombs can land in any zone at any time.** The only way to avoid all risk of bombs is to stay off of Yasur.
- **Stay out of the permanent exclusion zone** – the danger is extreme
- **The exclusion zone may be extended** - during periods of larger or more frequent explosions to include Zone A, or to include Zone A & B.
- **Check which zone(s) are closed in the latest bulletin** - click on 'Tanna' at: <http://www.geohazards.gov.vu/>

Flying bombs are always a danger

Wear a hard hat – it will help protect you, but it will not stop larger bombs.

Watch for bombs in the air - especially after explosions. Stand still unless you see bombs that are not moving left/right or up/down – these are coming towards you, and you should avoid them.

- **Bombs fly very fast** - even though they look to move slowly at first. The time from an explosion to bombs landing at the rim is often only a few seconds.
- **Falling into the crater** – beware that the edge of the crater is slippery and unstable.

