



KAMARAJ IAS ACADEMY
Only IAS Academy by Grandson of "Perunthalsivam Kamarajar"

Scientists discovered that Mount Erebus is the only known volcano to release metallic gold in solid form.

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Context

It is **Antarctica's southernmost active volcano** located on **Ross Island**, towering 12,448 feet above the icy landscape.

Nomenclature- Mount Erebus was named after the Greek god Erebus, the deity of darkness, by Sir James Clark Ross, a British explorer who discovered the volcano during his Antarctic expedition in 1841.

It is the **2nd tallest volcano in Antarctica, after Mount Sidley**.

Type-It is a glaciated intraplate **stratovolcano**, part of the **Pacific Ring of Fire**.

Last eruption –2025

Gold Emission–It emits **micro-crystals of gold**. These particles, as small as 20 micrometers, are carried by volcanic gas and have been detected over 600 miles away.

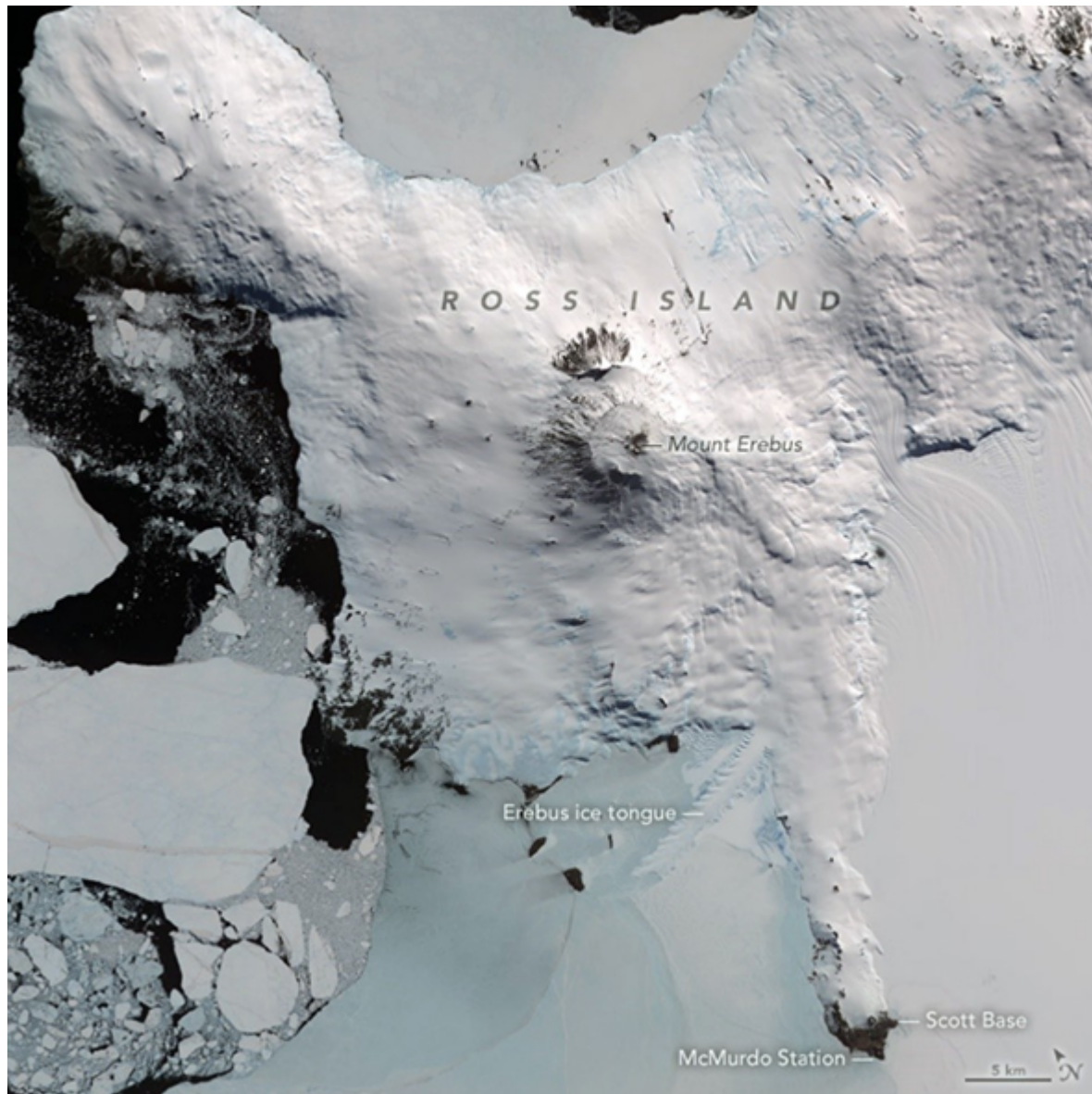
Daily emissions amount to around 80 grams, valued at \$6,000 (roughly Rs 5 lakh), produces about 64 pounds of gold annually, valued at around \$2 million.

Crystallization in **Extreme Cold** -When the magma reaches the surface, the freezing temperatures of Antarctica cause the **gold to solidify instead of remaining in gas or liquid form**.

Mining this gold is too dangerous due to the volcano's unpredictable eruptions.

It is home to a colony of approximately 500,000 **Adelie penguins**.

Because of the remote location, activity is primarily monitored by satellites.



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