

Yellowstone super volcano: Spate of quakes reveal a restless beast

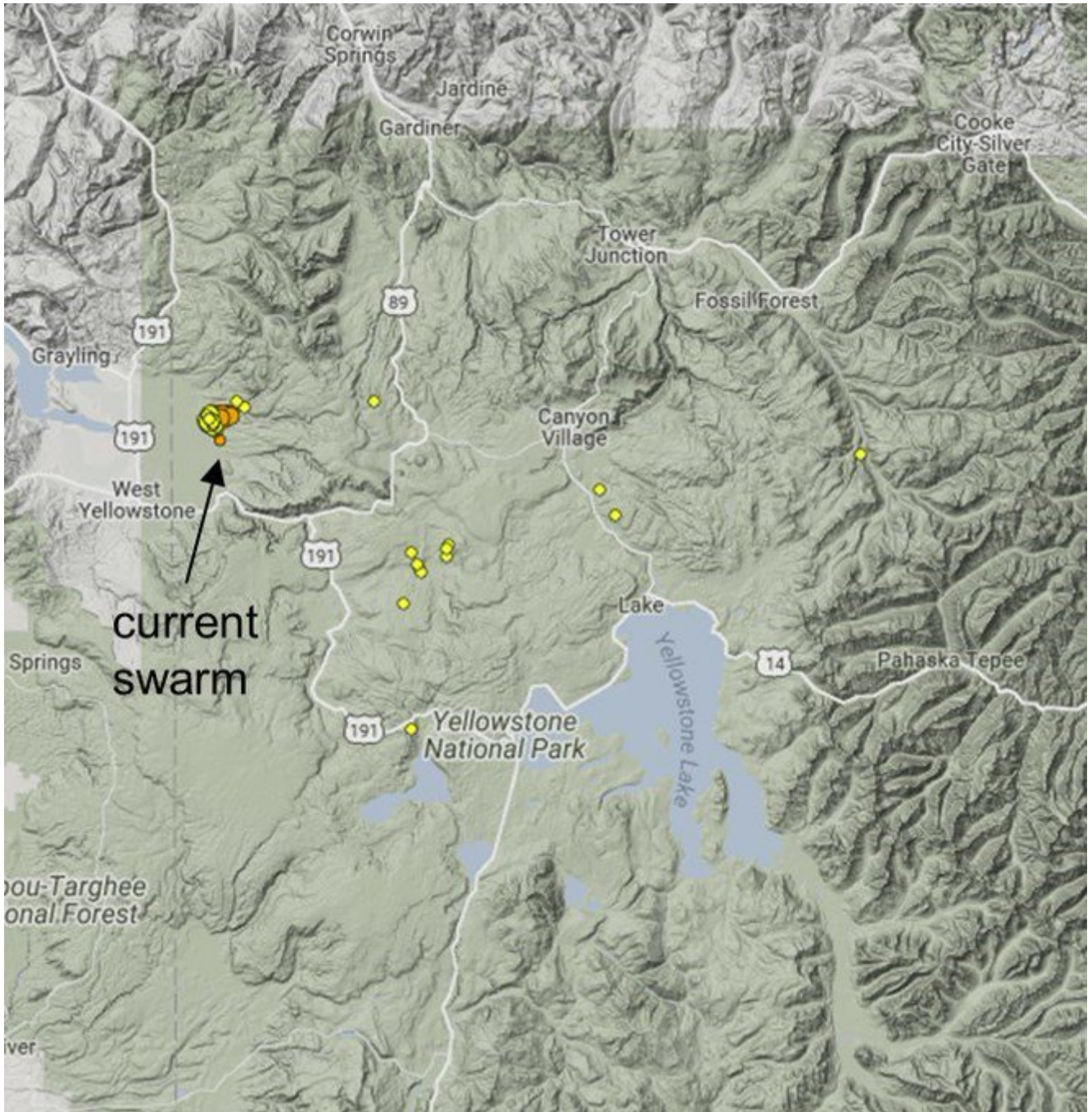
AN OMINOUS swarm of two hundred earthquakes has been detected beneath the notorious Yellowstone supervolcano, revealing just how volatile it is.

SOMETHING is causing the Yellowstone supervolcano to stir in its sleep.

A swarm of some 200 earthquakes has been detected beneath the slumbering giant since February 8. The number of accompanying tremors is countless.

Given the Earth-shattering power of this super volcano — which is capable of covering much of the United States under a thick blanket of lava and ash — it's enough to raise some serious eyebrows.

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But none of the quakes have been huge: the biggest came in at just magnitude 2.9.

This means the shake was just strong enough to be barely felt by some people. But there was no damage to any structures.

EXPLORE MORE: NASA wants to save the US from Yellowstone

And the underground movements that caused them are not likely to have had any impact on the 250 billion cubic kilometre ticking time bomb of molten rock.

That we know of.



Fragile beauty ... Yellowstone National Park sits atop one of the most unstable parts of our planet. Picture: *iStockSource:Supplied*

SHAKE AND BAKE?

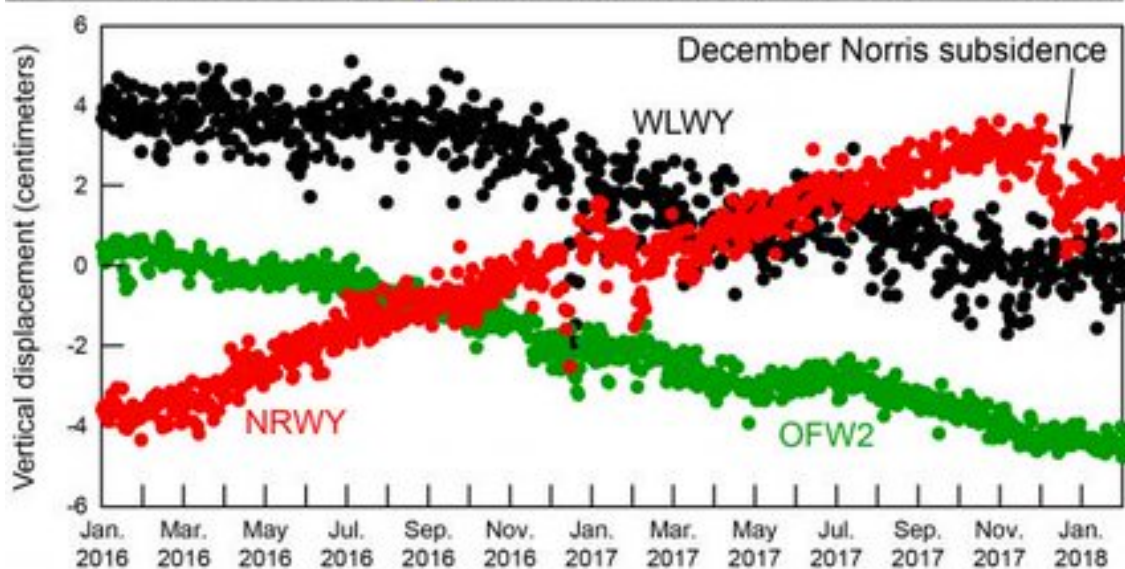
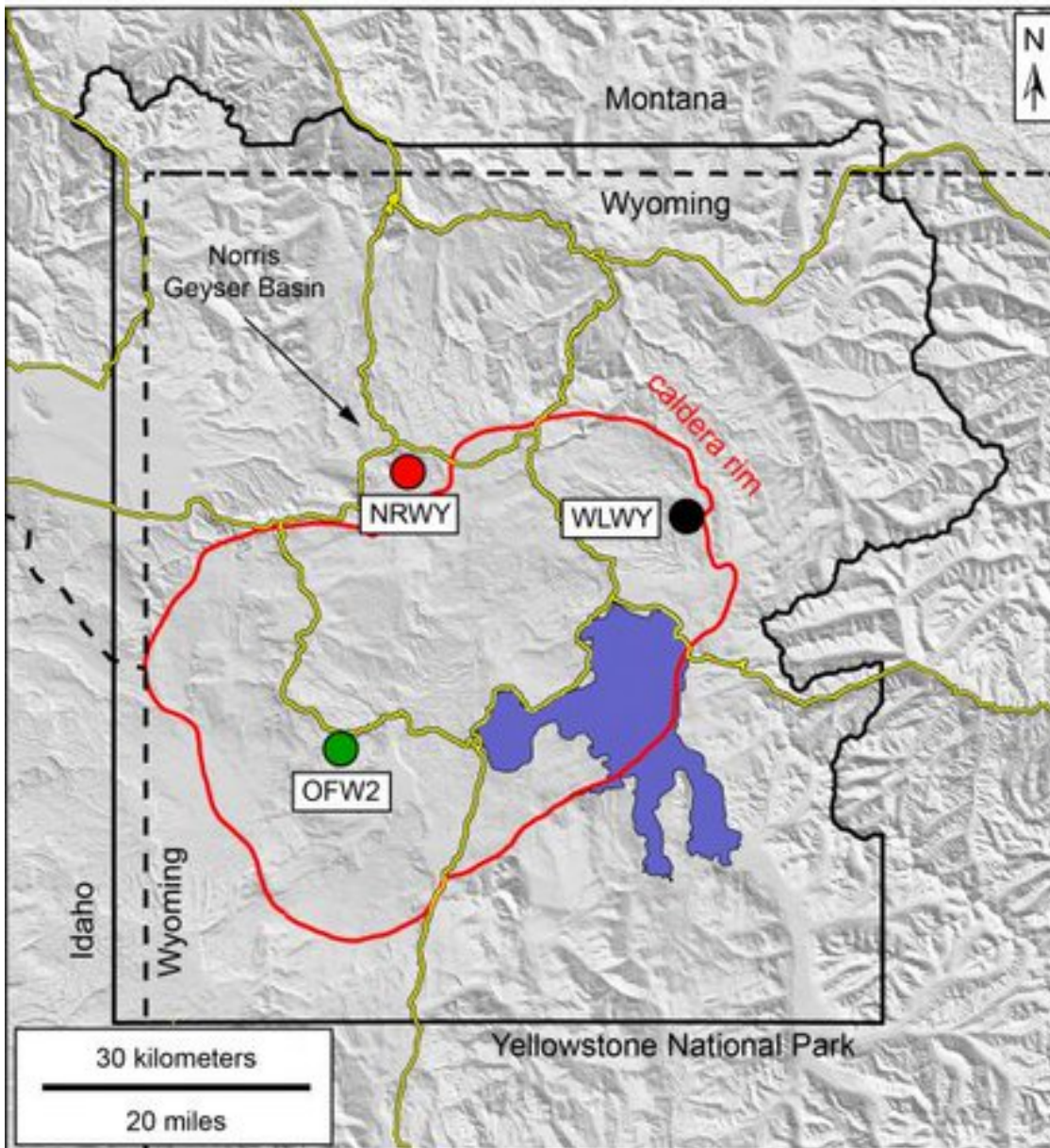
The United States Geological Service says most of the flurry of activity came at a depth of about 8km, near West Yellowstone, Montana.

Earthquake swarms are nothing new.

Especially in Yellowstone.

They can be triggered by a shift in pressure along a fault line.

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This can be caused by changes in the amount of nearby subterranean water or gas. As well as movements of magma.

Yellowstone has an excess of all three.

Movements in the massive tectonic plates that shape our planet's surface can also play a part.

One of these is also at play under Yellowstone.



Grand Prismatic Spring In Yellowstone National Park is a mere pimple compared to what lies beneath. Picture: GettySource:Supplied

DEVIL IN THE DETAIL

The US National Parks Service says that, on average, Yellowstone is generally shaken by between 1000 and 3000 quakes every year.

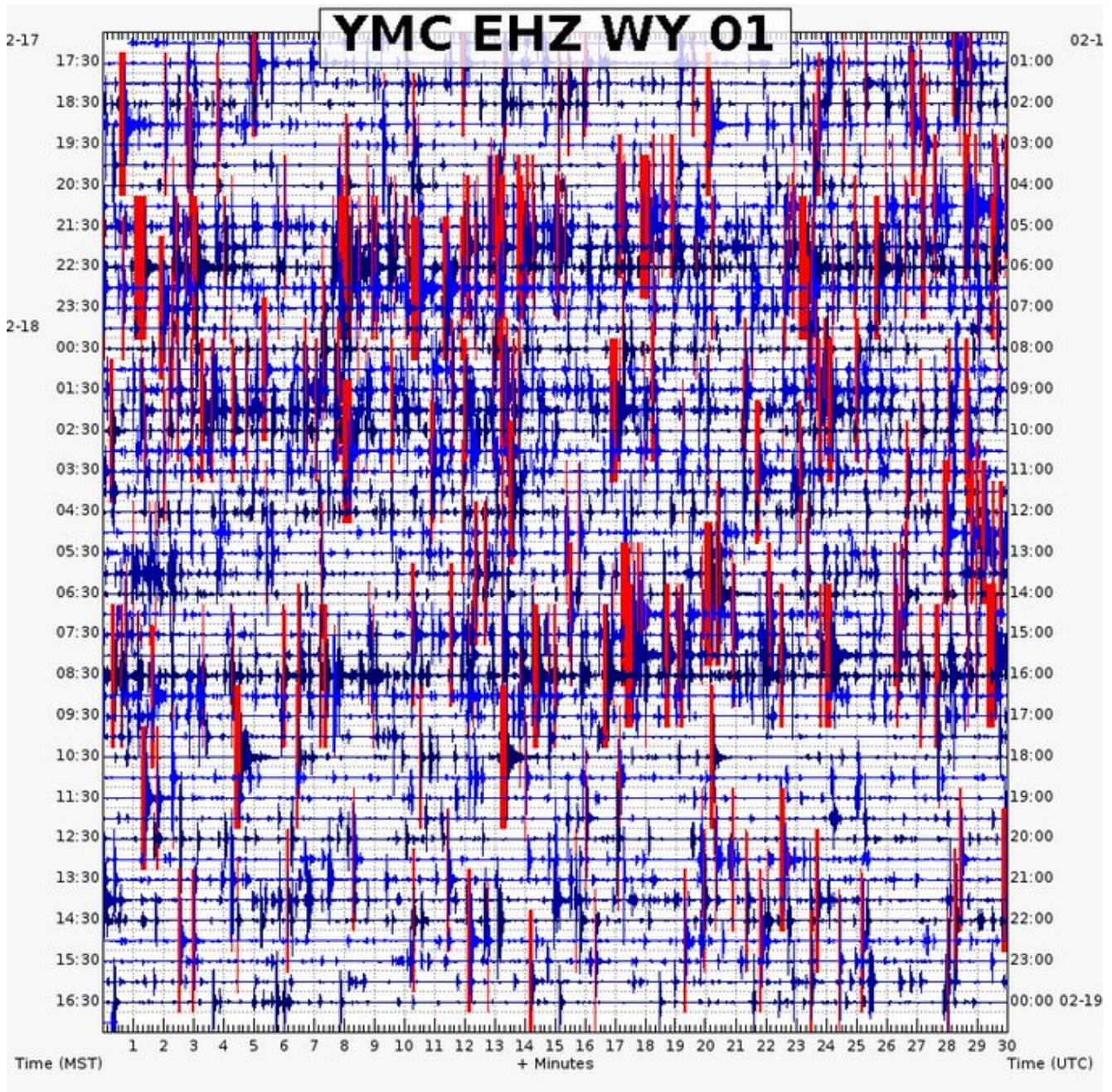
“It is not an imminent hazard,” volcanologist Guillaume Girard told *National Geographic*. “Every study has concluded that there is no magma that is ready to erupt within any foreseeable future.”

DELVE DEEPER: Yellowstone's supervolcano is twice as big as thought

But last year, 2400 earthquakes registered on seismic sensors between June and September alone.

“This is what Yellowstone does; this is Yellowstone being Yellowstone,” scientist-in-charge of the USGS Yellowstone Volcano Observatory Michael Poland told *Live Science*. “It experiences swarms all the time.”

YMC seismic record for 24-hour period during Feb 17-18, 2018, showing swarm-related quakes.



The biggest quake last year was magnitude 4.4: a strength people would feel, but not likely to cause anything more than minor damage.

So far, the biggest recorded quake in the supervolcano was a magnitude 7.3 in

1959. Dozens of people died in landslides. At this level, most buildings within the affected area were seriously damaged, or collapsed.

“One of the potential explanations for why this area is so swarmy is that the whole crust in the area is still adjusting to the big earthquake in 1959,” Poland says.



Lava is seen flowing out of a volcanic ash cloud. Yellowstone is far more likely to experience devastating earthquakes than an eruption, scientists say. Picture: AP
Source: AP

SIGN OF THINGS TO COME

“People tend to focus on the possibility of a huge eruption, which is vanishingly small,” Poland told *Live Science*.

But the real threat comes from a more traditional, but still extreme, earthquake.

Something in the area of a magnitude 7, for example.

“When they do happen, they’re going to shake the region pretty severely, so

people should be prepared for that,” Poland says.

Yellowstone Volcano Observatory, Yellowstone Lake, 2018-02-05 09:30:03 MST



But the fact there is a supervolcano right there will continue to play on everybody's mind.

It blew big time 630,000 years ago. Most of the current national park sits in its enormous caldera. Its ancient ash and lava flows can be found over almost all of the continental United States.

RELATED: Rising dome reveals supervolcano strengthening beneath Japan

It last experienced an eruption — a much smaller one — about 70,000 years ago.

When it comes to supervolcanos, there is as yet no way to tell when an explosion is due.

So US scientists are constantly watching the three fault lines that cross the park.

And every tremor adds to their understanding of what lies beneath.

Source: <http://www.news.com.au/technology/environment/natural-wonders/yellowstone-supervolcano-spate-of-quakes-reveal-a-restless-beast/news-story/4f48bc3fdd4708bc77677b3d767c7573>

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