

# Earthweek: Diary of a Changing World

Week ending Friday, September 24, 2021

By Steve Newman

## Climate Dithering

Despite promises by world leaders to curb the greenhouse gases responsible for the worsening climate emergency, the U.N. warns that the world is now on track to heat up to dangerous levels.

Inaction by industry and governments to reduce carbon emissions now means there is likely to be a rise of 2.7 degrees Celsius this century above preindustrial levels, according to Patricia Espinosa, the U.N.'s chief climate negotiator.

Climate experts had hoped to keep the temperature rise to only 1.5 degrees, thus avoiding the worst consequences of global heating.

"The disruption to our climate and our planet is already worse than we thought, and it is moving faster than predicted," warned U.N. Secretary-General António Guterres.

## Tropical Cyclones

Late reports say remnants of Typhoon Chanthu left six people injured across Japan.

• Tropical storms Odette, Peter and Rose churned in the open waters of the Atlantic.

## Ozone Hole

The annual hole in the layer of stratospheric ozone over Antarctica has surged in size to now cover an area larger than the continent itself.

Stratospheric ozone helps protect the Earth's surface from dangerous ultraviolet radiation.

While a worldwide ban on the chemicals responsible for ozone depletion is showing signs of helping the hole to heal, scientists say it will still take decades because those chemicals are slow to break down.

The European Space Agency says this year's hole is now larger than 75% of those since the late 1970s.

The ozone holes typically reach their largest size between mid-September and mid-October.

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## Volcanic Disaster

Hundreds of structures were destroyed by a volcanic eruption on Spain's Atlantic island of La Palma, in the Canary Island archipelago.

Some of the thousands of residents in the path of lava had less than an hour to prepare to evacuate as lava surged toward densely populated areas and the ocean.

Experts warned that the lava could produce toxic gases if it comes in contact with Atlantic waters.

Island residents have also been warned of strong tremors, ash and acid rain, with scientists predicting the eruption could last for months.

## Orcas vs. Boats

An increasing number of boats off Spain and Portugal are mysteriously being attacked by orcas, with one sailboat being bashed by about a dozen of the "killer whales" for two hours.

A total of 41 attacks were reported in July alone, with most near Gibraltar.

Orcas had previously been known to lurk around fishing boats and steal tuna that had been caught. But the new encounters are stumping marine scientists, who are not sure they are actual attacks.

"I don't think we can consider them attacks if we can't fully understand their motivation," said cetacean expert Susana García-Tiscar.

## Wildfire Emissions

The firestorms that raged across parts of Siberia, North America and the Mediterranean this summer released a record amount of CO<sub>2</sub>, according to Europe's Copernicus Atmosphere Monitoring Service (CAMS).

The unprecedented blazes were triggered by heat waves, drought and parched soil, which experts say were amplified by global heating.

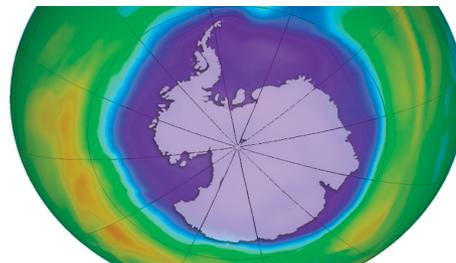
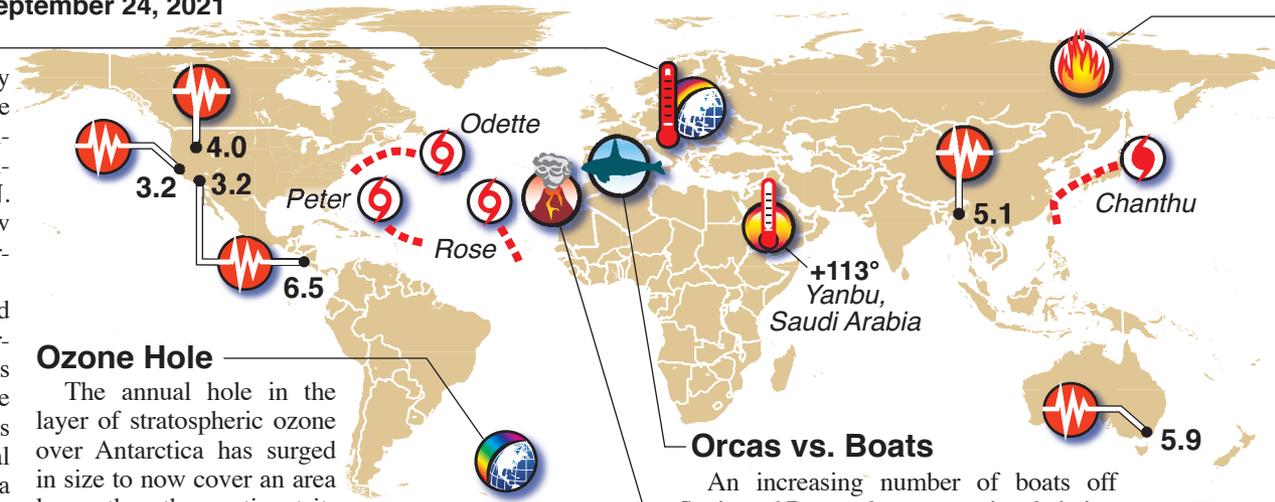
"What stood out as unusual were the number of fires, the size of the area in which they were burning, their intensity and also their persistence," said CAMS senior scientist and wildfire expert Mark Parrington.

He added that summers with disastrous firestorms are now more likely, due to global heating.

## Earthquakes

A rare and unusually strong tremor for southeastern Australia caused scattered structural damage around Melbourne.

• Earth movements were also felt in the India-Myanmar border region, western Nicaragua, southern Idaho, the eastern San Francisco Bay Area and the low deserts of Southern California.



This year's ozone hole over Antarctica has grown to a massive size despite the ban on ozone-killing chemicals. Image: NASA-Ozone Watch