



Oopsie: Earth Heats Up Due To Clean Air During Economic Lockdown

Climate alarmists will have some crow to eat now that it is documented that the earth heated up as man-made economic activity decreased. This is diametrically opposed to their claims that man's activity and increased industrial activity is the cause of global warming. □ TN Editor

Earth spiked a bit of a fever in 2020, partly because of cleaner air from the pandemic lockdown, a new study found.

For a short time, temperatures in some places in the eastern United States, Russia and China were as much as half to two-thirds of a degree (.3 to .37 degrees Celsius) warmer. That's due to less soot and sulfate particles from car exhaust and burning coal, which normally cool the atmosphere temporarily by reflecting the sun's heat, Tuesday's study in the journal *Geophysical Research Letters* reported.

The study states:

"The COVID-19 pandemic changed emissions of gases and

particulates. These gases and particulates affect climate. In general, human emissions of particles cool the planet by scattering away sunlight in the clear sky and by making clouds brighter to reflect sunlight away from the earth. This paper focuses on understanding how changes to emissions of particulates (aerosols) affect climate. We use estimates of emissions changes for 2020 in two climate models to simulate the impacts of the COVID-19 induced emission changes. We tightly constrain the models by forcing the winds to match observed winds for 2020. COVID-19 induced lockdowns led to reductions in aerosol and precursor emissions, chiefly soot or black carbon and sulfate (SO₄). This is found to reduce the human caused aerosol cooling: creating a small net warming effect on the earth in spring 2020. Changes in cloud properties are smaller than observed changes during 2020. The impact of these changes on regional land surface temperature is small (maximum +0.3 K). The impact of aerosol changes on global surface temperature is very small and lasts over several years. However, the aerosol changes are the largest contribution to COVID-19 affected emissions induced radiative forcing and temperature changes, larger than ozone, CO₂ and contrail effects.”

Overall, the planet was about .05 degrees (.03 degrees Celsius) warmer for the year because the air had fewer cooling aerosols, which, unlike carbon dioxide, is pollution you can see, the study found.

“Cleaning up the air can actually warm the planet because that (soot and sulfate) pollution results in cooling” which climate scientists have long known, said study lead author Andrew Gettelman, an atmospheric scientist at the National Center for Atmospheric Research. His calculations come from comparing 2020 weather to computer models that simulated a 2020 without the pollution reductions from pandemic lockdowns.

This temporary warming effect from fewer particles was stronger in 2020 than the effect of reduced heat-trapping carbon dioxide emissions, Gettelman said. That’s because carbon stays in the atmosphere for more than a century with long-term effects, while aerosols remain in the air about a week.

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