EDITORIAL

Climatic 9/11

In the United States, 9/11 (“nine eleven”) has become shorthand for September 11, 2001—the day terrorists crashed planes into the World Trade Center and the Pentagon. 9/11 showed how vulnerable the world’s superpower is to cataclysmic attack. Events surrounding 9/11 may have also confirmed the existence of a global climatic catastrophe in the making.

In response to 9/11, the U.S. Secretary of Transportation grounded all commercial flights for three days. The skies over the U.S.—the most heavily trafficked in the world—became eerily quiet, and the contrail clusters normally visible above metropolitan areas and air corridors disappeared. During that period many people noticed that the days seemed brighter and warmer than usual, and for good reason: they were.

9/11 woke-up Americans to the dangers of Islamic terrorism, but it should also serve to wake up people everywhere to the dangers of global dimming. Global dimming is the term climatologists use to describe the reduction in global solar irradiance. In layman’s terms, it means less and less solar energy is reaching the earth’s surface.

Global dimming is thought to be caused by atmospheric pollution—in particular, by the increased presence of aerosol particles that are the products of modern industry and transportation. When there is a lot of aerosol in the atmosphere, cloud droplets become smaller and more numerous, which makes the droplets more reflective. The more aerosol particles (like those contained in jet contrails) there are in atmosphere, the more they change the properties of clouds that reflect sunlight. The more sunlight is reflected back into space, the less heat from the sun gets through the clouds to warm up the earth at ground level. Those super-reflective clouds can, moreover, alter rainfall patterns, thereby causing droughts.

The first scientific observations of global dimming were made in the late 1960s. In the following decades, independent research conducted around the world—from Russia to the Maldives—seemed to confirm the existence of the phenomenon, but nobody was really sure until 9/11. A study of the climate in the continental United States during the three-day grounding of America’s air fleet showed that the absence of jet contrails (just one of many aerosol pollutants) in the atmosphere produced an immediate change in the earth’s surface temperature.

Recent research indicates that the dimming trend may be reversing in Europe, where governments have enacted the world’s strictest clean air laws. That’s good news, right? If other governments followed Europe’s lead global dimming could be reduced worldwide and we’d all be better off, wouldn’t we? Well, yes and no. You see, climatologists believe that global dimming has been partially masking the full effect of global warming. Solving the global dimming problem may exacerbate global warming. Consequently, global dimming and global warming need to be tackled in tandem. Addressing one problem while ignoring the other would actually make the unaddressed problem worse. Addressing neither problem would be tantamount to humanity committing suicide.

In a 1963 address, President John Kennedy said, “Our problems are man-made; therefore, they can be solved by man.” Kennedy was right. And, fortunately, the world doesn’t lack the way to eliminate global dimming and global warming. Eco-friendly technologies, the adoption of which could halt both global warming and global dimming, are available today. What the world does lack is the will to take the steps necessary to secure a brighter and cooler future.

Some scientists believe that we’re just a decade away from reaching the point of no return. Will the world’s business and political leaders find the will to act in time? That depends on us—on our will to exercise our power as consumers and voters.

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