

## **Climatic Consequences of Nuclear Conflict: Nuclear Winter Still a Threat**

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A nuclear war between Russia and the United States, using the reduced arsenals of 4000 total nuclear weapons that will result by 2017 in response to the New START treaty, could still produce nuclear winter. A nuclear war between India and Pakistan, with each country using 50 Hiroshima-sized atom bombs as airbursts on urban areas, could produce climate change unprecedented in recorded human history and global-scale ozone depletion. Furthermore, there would be massive ozone depletion with enhanced ultraviolet radiation reaching the surface. New results (<http://climate.envsci.rutgers.edu/nuclear/>) show a reduction of agricultural production in the US and China by about 20% for a decade. Using climate models, we injected different amounts of soot aerosols that would be generated by fires from regional and global nuclear wars into the upper troposphere, and examined the climatic and stratospheric chemistry responses. The soot is lofted into the stratosphere, and the effects of regional and global nuclear war would last for more than a decade, much longer than previously thought. The continued environmental threat of the use of even a small number of nuclear weapons must be considered in nuclear policy deliberations in Russia, the U.S., and the rest of the world.