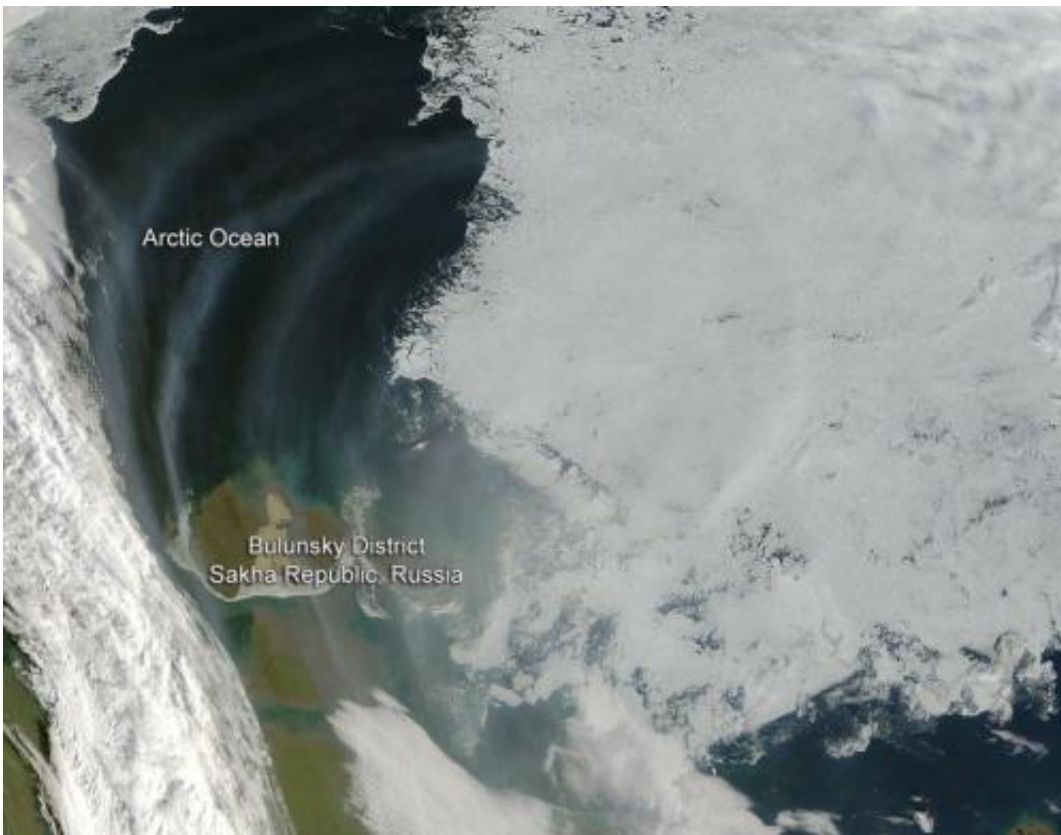


Image: Smoke from Russian fires over Arctic Sea

August 13 2014



Credit: NASA image courtesy Jeff Schmaltz, MODIS Rapid Response Team.

Numerous wildfires have dotted the Russian landscape this past summer fire season. Although not quite as the adage says, although still true, where there's fire there's smoke. The smoke in this image has drifted from the Eastern Russian wildfires to the Arctic Sea. Other images that

have been collected over the summer show both the fires that have broken out and the accompanying smoke.

The blaze of a fire is dangerous enough but smoke is an insidious by-product of fires as well. Winds carry the smoke out of the immediate area to other parts of the world not affected by the direct fire. That smoke can cause multiple problems in the areas that it is carried to. The smoke released by any type of [fire](#) (forest, brush, crop, structure, tires, waste or wood burning) is a mixture of particles and chemicals produced by incomplete burning of carbon-containing materials. All smoke contains carbon monoxide, carbon dioxide and particulate matter (PM or soot). Smoke can contain many different chemicals, including aldehydes, acid gases, [sulfur dioxide](#), nitrogen oxides, [polycyclic aromatic hydrocarbons](#) (PAHs), benzene, toluene, styrene, metals and dioxins. The type and amount of particles and chemicals in smoke varies depending on what is burning, how much oxygen is available, and the burn temperature. As always, exposure to high levels of smoke should be avoided.

This natural-color satellite image was collected by the Moderate Resolution Imaging Spectroradiometer (MODIS) aboard the Aqua satellite on August 12, 2014. Actively burning areas, detected by MODIS's thermal bands, are outlined in red.

Provided by NASA's Goddard Space Flight Center

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