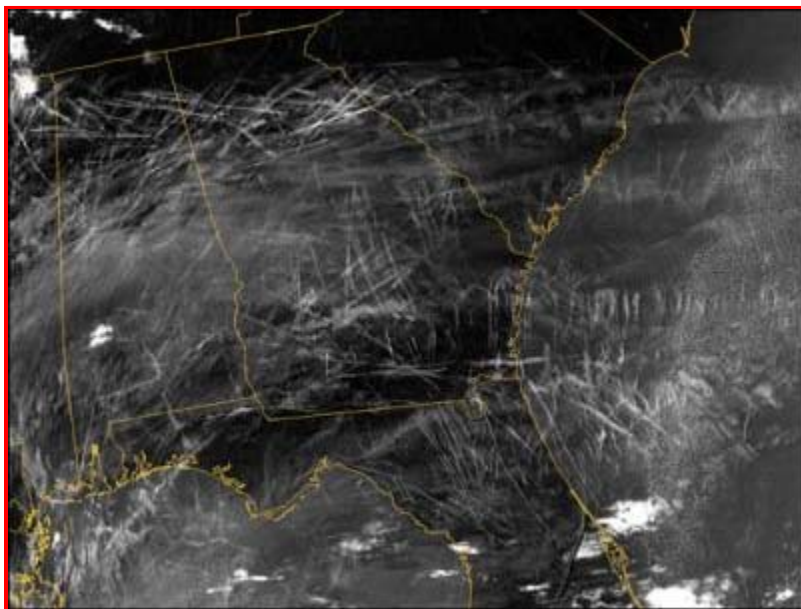


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Each day a different image or photograph is featured, with an accompanying caption, that deals with various topics in Earth Science.

Contrail Clutter



Provided by:

[Earth Observatory, NASA GSFC](#)

The enhanced infrared image above, showing a profusion of contrails over the southeastern U.S., was captured by the Moderate Resolution Imaging Spectroradiometer (MODIS), aboard NASA's Terra satellite on January 29, 2004. The contrails are the crisscrossing white lines that form from jet aircraft exhaust (commercial and military) flying in different directions and at different altitudes. These contrails move with the winds at upper levels of the troposphere and spread or expand as a result of both wind conditions and moisture availability -- when the atmosphere is dry, the contrails are short-lived.

Scientists at NASA's Langley Research Center have found that cirrus clouds, formed by contrails from jet engine exhaust, are capable of increasing average surface temperatures enough to account for the warming, which has occurred in the U.S. between 1975 and 1994. It's estimated that there has been a one percent per decade increase in cirrus cloud cover over the United States, during the past several decades -- likely due to increased air traffic. Cirrus clouds allow most of the Sun's visible light to pass through them but then trap some of the resulting heat emitted by the surface and lower atmosphere.

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