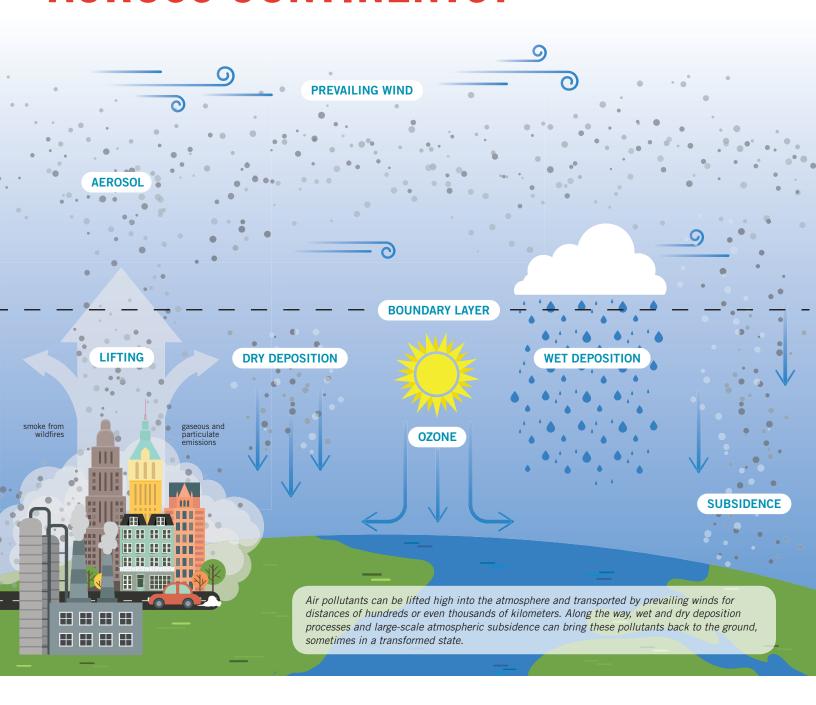
# HOW DOES AIR POLLUTION TRAVEL ACROSS CONTINENTS?



### IN THE NEWS:

# EXAMPLES OF LONG-RANGE POLLUTANT TRANSPORT

#### August 2019

<u>Tiny Bits of Plastic 'Transported by Air' to Remotest Parts of Planet</u>

## February 2019

Smoke from Mexican Agricultural Fires Transported to the U.S.

# June 2018

Saharan Dust Creates Visibility Issues in the U.S.

#### March 2017

Air Pollution in Asia is Wafting Into the USA, Increasing Smog in West

#### **July 2012**

Long-Range Transport the Cause of Acid Rain in New Hampshire's Hubbard Brook

## **GLOSSARY OF TERMS**

**AEROSOL** A suspension of fine solid particles or liquid droplets in the atmosphere.

**BOUNDARY LAYER** A layer (1-2 km) of often turbulent air near the ground generated by surface heating, moisture (condensation), and wind. The boundary layer is typically capped by a stable layer of air.

DRY DEPOSITION A process, such as gravitational settling, that removes airborne material from the atmosphere and deposits it on a surface (e.g., ground or waterbody). It also includes the deposition of gaseous compounds and particles too small to be affected by gravity.

**LIFTING** Mechanisms that cause air to rise in the atmosphere, such as a strong thunderstorm updraft or air going over a mountain range.

**OZONE** A colorless, unstable gas formed in the atmosphere from the reaction of precursor gases (e.g., nitrogen oxides and volatile organic compounds) in the presence of sunlight. Higher ozone levels near the ground are unhealthy for humans to breathe, while higher ozone levels in the upper atmosphere are beneficial, preventing damaging UV light from reaching the Earth's surface.

**PREVAILING WIND** A wind that blows predominantly from a single general direction for a particular region over a particular time period.

**SUBSIDENCE** A descending motion of air in the atmosphere over a rather broad area. This occurs when the air that is several thousands of feet overhead is denser (via cooling) than the surrounding air.

**WET DEPOSITION** The transfer of gaseous and particulate pollutants from the atmosphere to a surface (e.g., ground or water body) by washout during precipitation. Wet deposition frequently involves acidic compounds (i.e., acid rain).



# LET'S TALK AIR QUALITY LOU CORIO

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For more about this topic, check out Lou's article From NIMBY to NIMYSOC: How Groundbreaking Atmospheric Studies Helped Change Our View of Pollution Sources