

CHEM 302: Atmospheric Environmental Chemistry

Case Study 1: The Mysterious Case of Pollutants in Far Away Places

Presented by Erik Krogh, Sept. 29th, 2017

Main Reading:

Fort McMurray fires cause air pollution spike on other side of continent,

Margo McDiamond, CBC News, posted Sept. 26, 2017

<http://www.cbc.ca/news/politics/fort-mcmurray-fire-connecticut-ozone-1.4305787>,

accessed Sept 27, 2017

Additional Background Reading

1. Airborne Asian Chemicals Polluting B.C. Waters, *Vancouver Sun*, Friday Nov 27, 1998
2. Blowing in the Wind, *Chemical and Engineering News*, 79 (26), 30-31, 2001
3. A River of Air Pollution, *Environmental Science and Technology*, 34 (15), 330A, 2000
4. Introduction to Atmospheric Chemistry, D. Jacob, Princeton University Press, 1999; section 4.2, The General Circulation, p.50-52
5. Environmental Chemistry (3rd Ed), G.W. vanLoon and S.J. Duffy, Oxford University Press 2011; Photochemical Smog, Chapter 4: Photochemical smog
6. Global Distillation, In Long Range Atmospheric Transport of Pollutants, University of Otago, Chemistry, Retrieved September 15, 2011 from <http://neon.otago.ac.nz/chemistry/kjh/pollutants/>
7. The Dirty Dozen: First Generation Persistent Organic Pollutants (POPs) Identified in 2001 Stockholm Convention, Retrieved September 15, 2011 from <http://www.pops.int/documents/pops/default.htm>
8. Persistent Organic Pollutants – POPs, Environment Canada, Retrieved September 15, 2011 from http://www.dax.ca/air/pops_e.shtml
9. Is Santa Claus Toxic Because of Toxic Food Up by the North Pole? In ScienceDaily, Retrieved September 15, 2011 from <http://www.sciencedaily.com/releases/2010/12/101206093504.htm>
10. Flame-Proofing the Arctic, K.S. Betts, *Environmental Science and Technology*, 36 (9), 188A, 2002
11. Arctic Pollution 2009, Arctic Monitoring and Assessment Programme (AMAP), <http://www.amap.no/>
12. Persistent Organic Pollutants in the Arctic, National Oceanic and Atmospheric Administration (NOAA) http://www.arctic.noaa.gov/essay_calder.html
13. Persistent Organic Pollutants: A Global Issue, A Global Response, United States Environmental Protection Agency (USEPA), <http://www.epa.gov/international/toxics/pop.html>

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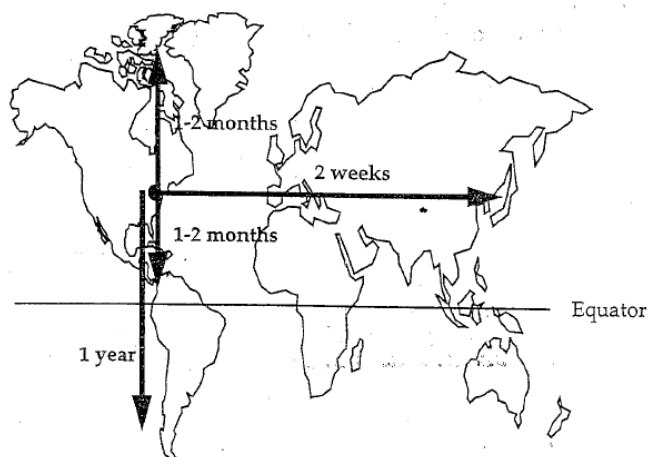


Fig. 4-12 Typical time scales for global horizontal transport in the troposphere.

Ozone?

