Daily Ozonesonde Launches at Barrow, Alaska: April 1-20, 2008

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NOAA ESRL, in partnership with Environment Canada, launched daily ozonesondes at 11 locations (see map below or http://croc.gsfc.nasa.gov/arcions/) from April 1-20, 2008, during the Arctic Research of the Composition of the Troposphere from Aircraft and Satellites (ARCTAS) campaign, one of the most comprehensive examinations of the chemistry of the troposphere in the North American Arctic, carried out by researchers from NASA, various universities, and with collaboration from NOAA Earth System Research Laboratory scientists and Environment Canada (EC). Ozone profile data from the Barrow Observatory will be presented and compared to satellite and Dobson total column ozone. The ozonesonde balloon flights, going by the name Arctic Intensive Ozonesonde Network Study (ARCIONS), were coordinated with aircraft campaigns being conducted by NASA and NOAA during this time. In the spring phase of this project the focus of the ozonesonde measurements will be long-range transport into the Arctic, boundary layer ozone depletion over the Arctic Ocean, and stratosphere/troposphere exchange. The daily ozonesonde flights follow a model developed in the summers of 2004 and 2006 for earlier Intensive Ozonesonde Network Study (IONS) campaigns that provided a new understanding of the sources of tropospheric ozone over the mid latitudes of the US and Canada. In addition, these soundings provide valuable information for validation of satellite retrievals of tropospheric ozone profiles and for the flight planning for the campaign aircraft by providing a broad context of conditions in the Arctic.

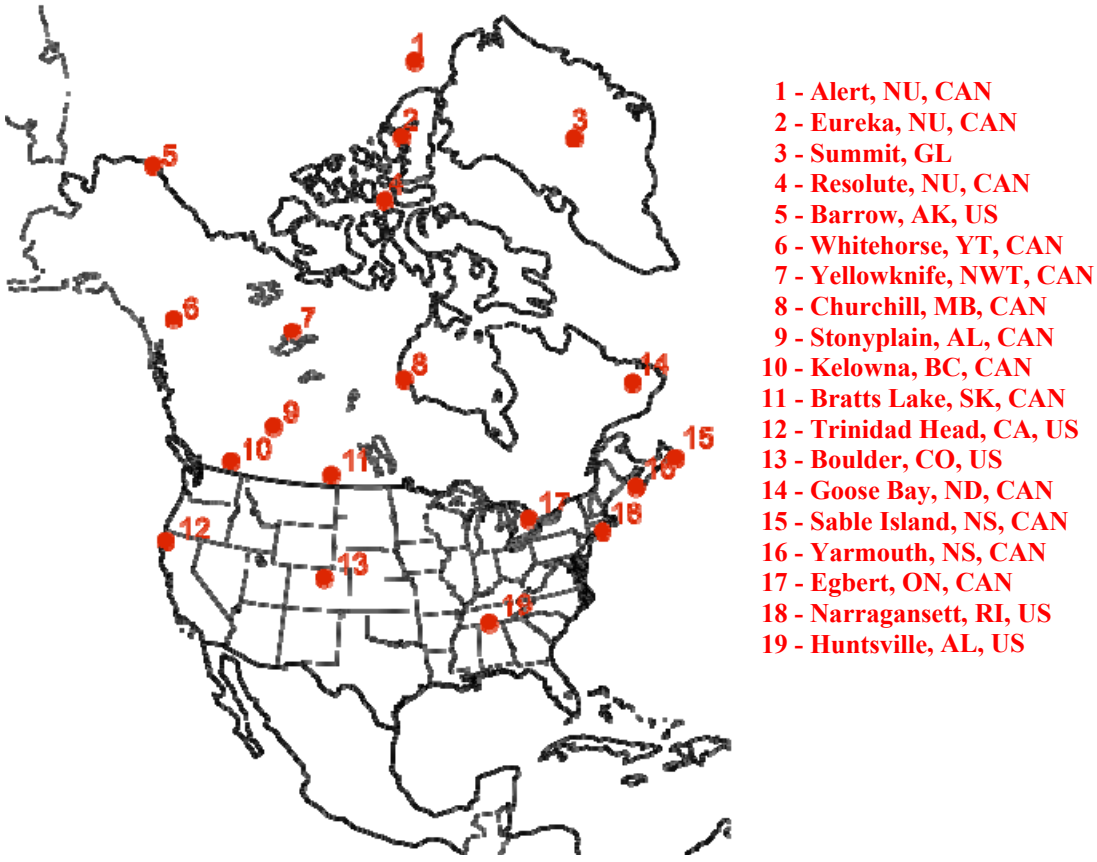

Figure 1. Arctic Intensive Ozonesonde Network Study (ARCIONS) ozonesonde sites.