Developing Useable Black Carbon Information – Case Studies from the IASOA Network

S. Starkweather[1], T. Uttal[2], K. Derry[3], M. Serreze[4] and J. Ogren[2]

[1]Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, CO 80309; 303-497-5247, E-mail: sandra.starkweather@colorado.edu
[2]NOAA Earth System Research Laboratory, Boulder, CO 80305
[3]Polar Field Services, Inc., Littleton, CO 80127
[4]National Snow and Ice Data Center, Boulder, CO 80309

The International Arctic System for Observing the Atmosphere (IASOA) is an International Polar Year (IPY) legacy project whose founding vision was to coordinate pan-Arctic atmospheric observing research to address broad science questions about Arctic change. During the IPY, IASOA efforts developed observing inventories for nine partner stations (Figure 1), created a data portal to facilitate data sharing (iasoa.org), increased value-added observing assets at key locations, and contributed to the development of a clean air observatory in Tiksi, Russia to fill an important spatial gap. Moving beyond IPY, IASOA's long-term vision for enabling pan-Arctic synthesis and assessment science is poised for implementation. The network science leads have prioritized relevant and actionable assessment themes, which include: understanding the role of black carbon and other short lived climate forcers (SLCF's) on regional warming; understanding the role of Arctic clouds and aerosols in the regional climate system; and contributing to atmospheric-surface flux process understanding.

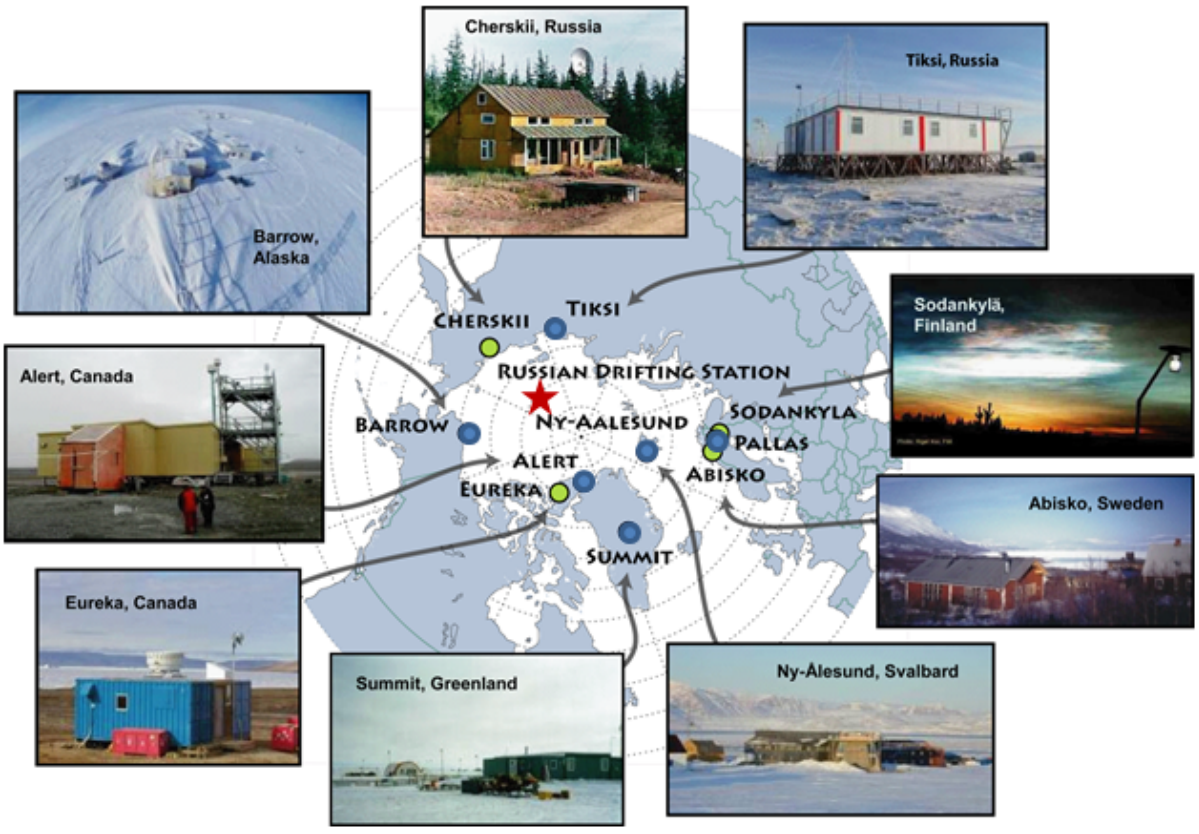

Figure 1. The IASOA member observatories. The red star represents the Russian North Pole drifting station which is the newest member of the consortium. Blue dots indicate current locations of relevant black carbon observations.