

## Observations of the Surface Radiation Budget and Cloud Radiative Forcing From Pan-Arctic Land Stations

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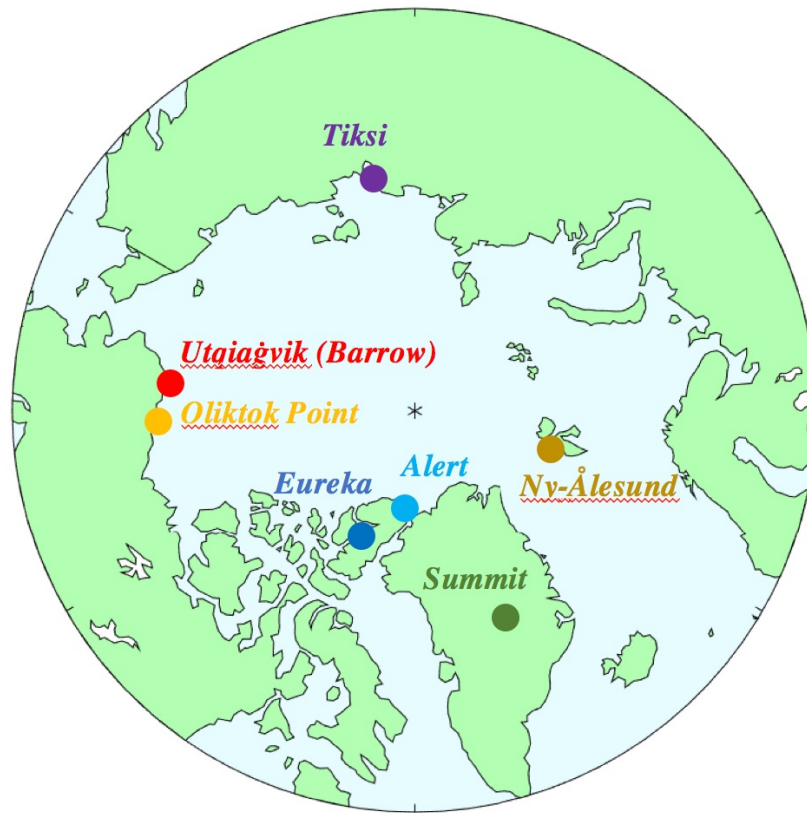
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High-quality, continuous, long-term observations of radiative fluxes are collected from land stations surrounding the Arctic Basin, including through the Baseline Surface Radiation Network (BSRN). The Radiation Working Group of the International Arctic Systems for Observing the Atmosphere (IASOA) is currently analyzing data acquired from Utqia█vik (Barrow), Alaska (1993-2016), Alert, Canada (2004-2016), Ny-Ålesund, Svalbard (1993-2016), Eureka, Canada (2007-2016), Tiksi, Russia (2011-2016), Oliktok Point, Alaska (2014-2016) and Summit, Greenland (2010-2012). The measurements include upwelling and downwelling longwave and shortwave fluxes, as well as direct and diffuse shortwave flux components, and surface meteorology. The observations are post-processed using the Radiative Flux Analysis method, which in addition to basic quality control provides value-added metrics such as cloud radiative forcing, optical depth and fractional sky cover. Inter-site comparisons are presented as well as temporal analyses of both the net surface radiation and individual components of the surface radiation budget.



**Figure 1.** Stereographic map of the Arctic showing the locations of IASOA stations that are the focus of the analysis.