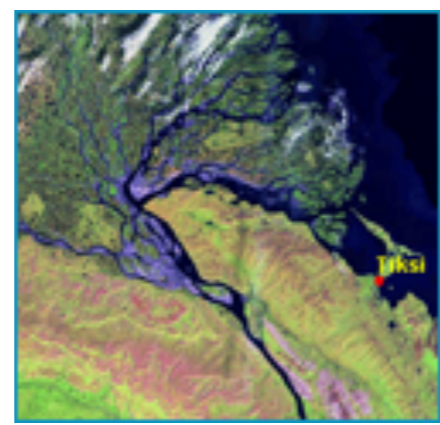


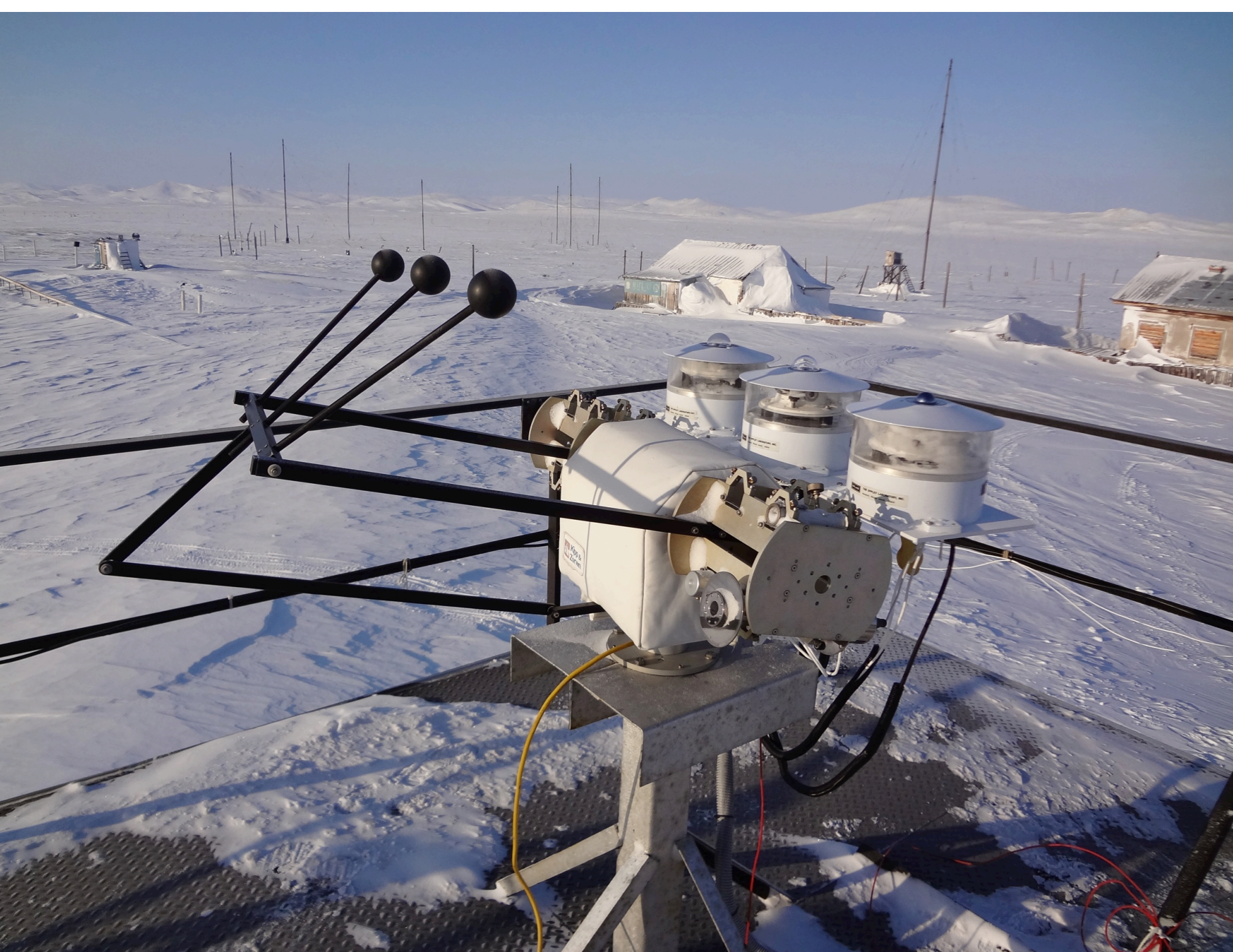
BSRN station in Tiksi status.

Short-wave and long-wave radiation balance (2010 – 2015)

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Polar Hydrometeorological observatory (HMO) Tiksi is located on the shore of the Buor-Khaya Gulf of the Laptev Sea, southeast of the delta of Lena River. Measurements of downward fluxes of short-wave and long-wave solar radiation were started at June, 2010. The measurements of upwelling fluxes were stated at April, 2011. HMO Tiksi is the part of International Arctic System for Observing the Atmosphere (IASOA).



The radiation balance as the resultant value of the incoming and outgoing SW and LW radiation, Radiation absorbed and emitted by the surface is a function of a large complex of physico-geographical and meteorological factors, that in different seasons in different ways affect the value of radiation balance. There is are many factors affecting on the variability of the radiation balance, it is regulating mainly by clouds and the properties of the underlying surface. As daylight increases the effect of absorbed radiation, the value and variability are determined by the global radiation and mainly surface albedo. From May to August, the radiation balance is positive, at the period from September to February - during the polar night - radiation balance caused only by effective radiation and the average value of the radiation balance is negative. Detected an anomaly of incoming long-wave radiation in April 2011 and from June to September 2010.

