

Welcome to the 2nd edition of the Kluane Lake Research Station (KLRS) Newsletter. We take this opportunity to thank the researchers and students who stayed with us this summer. We hope that your visits have been comfortable and fruitful. Please get in touch with any requests or suggestions for next season. It is not too late to start planning for 2018! The station will be open for winter use, and full staffing will resume in mid-April. Check online at arctic.ucalgary.ca for updates, and to book your stay at: KLRReservations.

It was a busy summer of upgrades and improvements at KLRS, to bring the station into alignment with the policies and practices of our home institution, the Arctic Institute of North America, University of Calgary. This included fire-smarting, site cleanup, bringing the kitchen up to commercial code, distribution of safety equipment (first aid kits, radios, bear spray, fire extinguishers) in all cabins, and refurbishment of all stoves and chimneys to meet safety codes. Oil-drip and propane stoves have been replaced with wood, in pursuit of our goal to wean the station off fossil fuels. Locally-sourced wood is stored in a new woodshed behind the wash house. Hot water heaters were replaced in the kitchen and the women's washroom, a new water pump was fitted, and a new 20-kW generator was installed.

Two new high-speed satellite dishes were added to double the Wi-fi capability, and new solar and battery systems were installed to support year-round internet and phone availability.



Sunset at Beach House, August 2017. Photo by D. Roberts.

Station Operations, Winter 2017-2018

KLRS will be open to support winter research activities, from November 2017 through April 2018.



Walter Wood building, October 2017. Photo by M. Schmidt.

Facilities for winter usage are as follows:

Accommodation: The Walter Wood building is available for winter use and will accommodate about 5 users and 1 AINA staff member. Additional users (larger groups) can be accommodated in cabins. Station users need to provide their own food, sleeping bag, and other personal gear. There will be pillows, pillow cases, and sheets for the beds.

Power: The generator will be fired up for all multi-day bookings, and can be kept on while users are away from the site to ensure continued heat and power for instruments, samples, liquids, etc. Other lab spaces can be opened on request, depending on requirements – please contact us to discuss.

Heating/Kitchen: Heating in the Wood building is available via wood stoves and electric heaters. Wood supplies have been stock-piled. Kitchen facilities include an electric cook top, microwave, toaster, fridge, and kitchen supplies (bowls, plates, pots, utensils, etc.). There is no running water, and the summer washroom and laundry facilities are not available. Two outhouses are available for users.

AINA staff will either be on-site or stopping by regularly to provide assistance with winter research support, as needed (with generators, wood, etc.). Winter rates for 2017-2018 are \$25/day per person through to March 31, 2018. Winter rates increase to

\$30/day effective April 1, 2018-March 31, 2019. For larger groups, please contact AINA for information on winter facilities, services, and pricing.

Research and Education

AINA continues to meet its research and education mandate through KLRS, hosting a rich array of station users in summer 2017. We were successful in securing NSERC funding under the Operations and Maintenance Support program for 2017-2019. Huge thanks to NSERC and to our many co-Is across the country for their involvement in this application. Our success reflects the exceptional long-term research based out of KLRS.

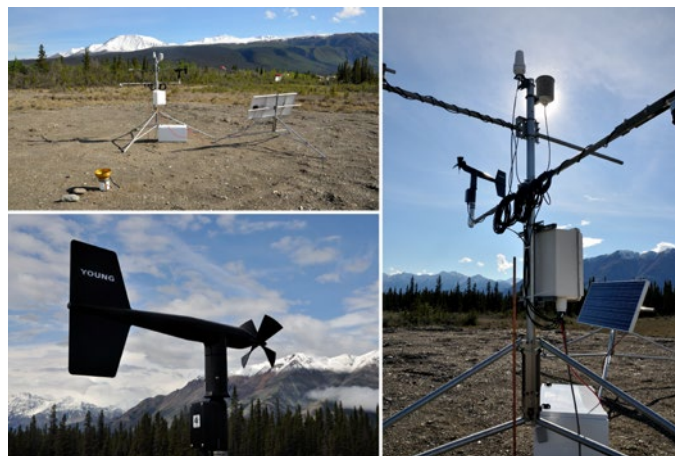
Highlights from the summer research and education programs include a large group from the University of Exeter, the first International University field school at KLRS, hosting of an exceptional Artist in Residence, Cedra Wood (<http://cedrawood.com/work/>), research visits from the Universities of Turku (Finland) and Copenhagen (Denmark) through the INTERACT transnational access program, and hosting of a BioBlitz Canada event in June.



Exeter field school, September 2017. Photo by M. Schmidt.

June also marked a successful Open House at KLRS, attended by numerous community members, the AINA Board of Directors, and the newly struck KLRS Research and Education Advisory Committee, which had their first meeting at KLRS on June 15. This committee will help us to build research capacity in Yukon, promote KLRS researcher engagement with local First Nations, and expand our regional, national, and international partnerships.

KLRS has now been formally approved as a CryoNet station within the World Meteorological Organization (WMO) [Global Cryosphere Watch](#) (GCW) initiative. We join Eureka, Nunavut as the 2nd Canadian GCW site. We were awarded funds from Polar Knowledge Canada (2017-2019) to support the GCW implementation at KLRS, in partnership with SFU, University of Ottawa, and Yukon College/Yukon Research Centre. The KLRS weather station was upgraded with the addition of a four-component radiometer and satellite data transmission. A Geonor precipitation gauge will be installed in spring 2018. The WMO has selected KLRS as one of only two GCW international pilot sites for implementation practices.



KLRS GCW weather station installation. Photos by D. Roberts.

AINA postdoc David Roberts is working with the GCW implementation at KLRS, studying the changing environment of the Kluane Lake region, including trends in the timing of lake freeze/thaw dates, ground thermal regime, and glacier mass balance. David is developing and testing methodologies for climate projections and reconstructions to model these systems. He is also establishing a scientific research history of the Kluane Lake region. Inter-active online map products will allow simple access to local geographic and scientific data and research, with links to publications and metadata.

Stay tuned! And as always, contact us with any questions or concerns, at arctic@ucalgary.ca. We look forward to a productive year at KLRS in 2018.