Feb. 29, 2016 – Tyler King, a Ph.D. student in the Department of Civil and Environmental Engineering at Utah State University, received an outstanding student paper award in hydrology at the fall meeting of the American Geophysical Union.

King presented on a new technique to use aerial imagery to extract channel geometric properties that are crucial for dynamic river temperature and solute modeling. He and his major professor, CEE Associate Professor Dr. Bethany Neilson, are conducting research in Northern Alaska where they study the dynamics of the energy balance between river temperature and climate change.

“There’s no down time,” King said about his field experience. “In the field you are working six days a week, 12 to 18 hours a day. It's nonstop. Because the sun doesn’t set, you don’t feel tired so you keep on working.”

He and the team are thoroughly engrossed in questions about water temperature: what are the pathways of energy entering and leaving the river? How does the river gain heat from the air and sunlight? How much heat does it in turn transfer to the surrounding environment?

“We’re there in the field every day measuring water discharge, temperature and depth,” King tells the USU Office of Research and Graduate Studies. “The ultimate goal is to be able to predict river temperature in the future given different climate conditions.”
King was also the CEE Grad Student Research of the Year and is a USU Presidential Doctoral Research Fellow. Contact info:

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