


UTC Project Information	
Project Title	River Ice Measurements for Transportation Safety in Rural Communities
University	University of Alaska
Principal Investigator	Svetlana Stuefer
PI Contact Information	sveta.stuefer@alaska.edu
Funding Source(s) and Amounts Provided (by each agency or organization)	University of Washington PacTrans \$64,048 University of Alaska Fairbanks \$ 64,048
Total Project Cost	\$128,096
Agency ID or Contract Number	69A3551747110
Start and End Dates	September 16, 2019–September 15, 2021
Brief Description of Research Project	<p>This project is relevant to the cold areas of Federal Region 10, where transportation routes occur on the frozen surface of lakes and rivers for 3–4 months each year. The project team collaborates with the city of Tanana, a rural Alaska community that builds a winter ice road across the Yukon River to connect to the state road system. Transportation safety on ice roads is a complex problem that involves people, vehicles, river ice, and weather conditions. While all these factors must be considered, the focus of this study is on river ice measurements for ice road construction and transportation safety. Ice thickness measurements are critical in determining the bearing capacity of river ice cover and assessing the risk of breakthrough on ice roads.</p>
Describe Implementation of Research Outcomes (or why not implemented)	<p>Project outputs were summarized in one M.S. thesis, one peer-reviewed paper, final report, four conference abstracts, and five presentations. Project outputs will be incorporated in new guidelines for ice road establishment and management in Alaska that are currently being developed by UAF's Arctic Infrastructure Development Center.</p>
	



Impacts/Benefits of Implementation (actual, or anticipated)

This project contributes to a larger ongoing effort undertaken by FHWA and its partners in providing Alaska-specific protocols and guidelines for seasonal transportation safety on river ice.

Web Links

- Reports
- Project Website

Video poster presentation "River Ice Measurements for Transportation Safety in Rural Communities" for the 2020 PacTrans | CSET Regional Transportation Conference, Mobility for a Rapidly Changing Society
<https://www.youtube.com/watch?v=18q-Ko0rJI8>