

Abstract

Forecasting Frazil Ice Jams on the Kenai River

David Streubel¹

Frazil ice jams formed during the freeze up process on the Kenai River can cause minor flooding and damage to docks and low lying structures. An analysis of air temperatures, wind, discharge and frazil ice jam occurrence was done from 1981 to 2001. Results show a fairly strong correlation between the intensity and duration of cold air temperatures and the formation of frazil ice jams on the Kenai River. Accumulated freezing degree days during two different temperature regimes can be used with predicted air temperature from meteorological models to provide a forecast for the likelihood of frazil ice problems on the Kenai River.

¹National Weather Service River Forecast Center, Anchorage, Alaska