

REGIONAL DISTRIBUTION OF STREAM ICINGS IN ALASKA

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ABSTRACT. Stream-icing zones in mainland Alaska were mapped based on analysis of multi-date Landsat imagery. Mapped features include late winter overflow, residual ice-sheets and braided streams possibly susceptible to icings. Results of the 1:250,000 scale mapping were generalized and the regional distribution of icings displayed.

Almost all icings occur in or near upland or mountainous terrains. The Brooks Range and northeastern Alaska have the largest and greatest number of occurrences. The number and size of icings generally decrease to the south except in the vicinity of the Alaska Range. In northern Alaska many icings develop east of the Colville River but few to the west. This difference appears to be related to the availability of freshwater. In interior Alaska occurrences are numerous but small and are restricted to tributary stream channels.

(Key Terms: Stream-icings, aufeis, naleds, Landsat, Alaska)