
River Ice Guide

National Weather Service Chicago, IL

Adapted from: US Army Corps of Engineers CRREL River Ice Guide (1997)

Frazil Ice

Slush



Pans/Pancake



Sheet Ice



Border Ice



Ice Jams

Freeze Up



Break Up



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GLOSSARY

Frazil ice

Fine, small, needle-like structures or thin, flat, circular plates of ice suspended in water. In rivers and lakes it is formed in super-cooled, turbulent water.

Slush ice

A floating agglomeration of loosely packed frazil ice that remains separate or only slightly frozen together.

Pancake ice

Circular, flat pieces composed of frazil and slush ice with a raised rim; the shape and rim are due to repeated collisions.

Anchor ice

Submerged ice attached or anchored to the river bed, regardless of the nature of its formation.

Sheet ice

A smooth, continuous ice cover formed by freezing in the case of lake ice, or by the accumulation of ice floes into a single layer in the case of river ice.

Candled ice

Decayed sheet ice that assumes the appearance of thin vertical crystals shaped like candles.

Break up jam

Accumulation of broken ice pieces that restrict the flow of water; may contain frazil ice or remnants of freeze up jam.

Freeze up jam

Accumulation of frazil that restricts the flow of water; may contain some broken border ice pieces.

Shear walls

Ice left along shoreline when a freeze up or break up jam fails and moves downstream.