

Alaska's Heritage

CHAPTER 1-4: CLIMATE

Several climatic zones are found in Alaska

Parts of Southeast Alaska can receive as much as 220 inches a year of rain and snow. At the other extreme, arctic Alaska seldom receives more than four inches of rain and snow annually. Three distinct climatic zones exist in Alaska. The climatic zones are determined in part by the location of mountain ranges, the proximity to the ocean, and the presence of the Kuroshio (Japanese) Current. The Kuroshio Current is a river of warm ocean water that flows north along the islands of Japan then westward across the North Pacific. It is similar to the Gulf Stream in the North Atlantic that gives the British Isles and northern Europe their temperate climate in spite of their high latitude. Where it reaches the west coast of North America one arm swings north, warming Southeast Alaska, the land bordering the Gulf of Alaska, and Southwest Alaska. The other arm turns south.

The Pacific coast of Alaska is part of the marine west-coast climatic zone that extends as far south as Oregon. Because it is near an abundant water source, the area receives much rain and snow. Seasonal temperature differences are relatively small due to the proximity of the ocean. Summers are cool and winters are moderately warm.

Inland the effect of the ocean is not felt. The climatic zone there is termed continental. Because of Interior Alaska's high latitude, its continental climate is called subarctic. Characteristics of this zone are a great annual temperature range, and less precipitation than typical of the marine west-coast zone. Both the highest and lowest temperatures in Alaska have been recorded in the continental zone. In 1915 the thermometer registered 100 degrees Fahrenheit at Fort Yukon, a community on the Yukon River. In 1971 a low temperature of -80 degrees Fahrenheit was recorded at Prospect Creek, in northern Interior Alaska.

North of the Brooks Range is the arctic climatic zone. The Arctic Ocean affects the area it touches quite differently than the way in which the Pacific Ocean does. The Arctic Ocean is frozen for many months and is not a good source of moisture. In addition, the warm-ing Kuroshio Current does not flow north past the submarine mountains of the Aleutian chain. For these reasons the arctic climate is not moderated by the ocean. The climate is characterized by very little precipitation, cold winters, and cool summers. The mean monthly temperature in the arctic is never greater than 50 degrees Fahrenheit. The sun is not seen at aM above the Arctic Circle for 67 days during the winter months. The reverse is true in the summer. For 67 days the sun is visible all day and

all night long. In addition, strong winds blow across the flat, barren, coastal plain of the Arctic giving the temperature an extreme wind-chill affect.

The warm air generated by the Kuroshio Current meets the cold air generated by the Bering Sea along the Aleutian Islands. The resulting violent release of energy yields fog, rain and snow, and dangerously strong winds called williwaws that can occur at any time.

Chapter 1-1: Geological and Glacial History
Chapter 1-2: Geographic Position and Physiographic Features
Chapter 1-3: Natural Resources
Chapter 1-4: Climate
Chapter 1-5: People and the Land
Unit 1: Suggested Reading
Chapter 2-1: Alaska's Prehistoric and Protohistoric Past
Chapter 2-2: Tlingits And Haidas
Chapter 2-3: Athabaskans
Chapter 2-4: Eskimos
Chapter 2-5: Aleuts
Chapter 2-6 Cultures Meet and Mix
Unit 2: Suggested Readings
Chapter 3-1: Russians Come To Alaska
Chapter 3-2: Settlement And Population Patterns
Chapter 3-3: Food, Shelter, Clothing and Technology
Chapter 3-4: Exploration
Chapter 3-5: The Fur Trade
Chapter 3-6: Other Economic Activity
Chapter 3-7: Political and Social Organization
Chapter 3-8: Art, Culture, Education, Recreation and Religion
Chapter 3-9: Spanish, French, and British Contacts with Russian America
Chapter 3-10: American Contact with Russian America
Unit 3: Suggested Readings
Chapter 4-1: Americans Come to Alaska
Chapter 4-2: Overland Exploration
Chapter 4-3: Population And Settlements
Chapter 4-4: Food, Clothing, and Shelter
Chapter 4-5: Alaskans and the United States
Chapter 4-6: Alaskans and Each Other
Chapter 4-7: Alaskans and the World
Chapter 4-8: Ocean Transportation
Chapter 4-9: River Transportation
Chapter 4-10: Road Transportation

Chapter 4-11: Railroad Transportation
Chapter 4-12: Air Transportation
Chapter 4-13: Communications
Chapter 4-14: Trading and Trapping
Chapter 4-15: Mining
Chapter 4-16: Fishing and Sea Hunting
Chapter 4-17: Farming, Herding, and Lumbering
Chapter 4-18: Tourism
Chapter 4-19: Art, Literature, Science, Cultural Institutions, and Recreation
Chapter 4-20: Education
Chapter 4-21: Health and Medicine
Unit 4: Suggested Readings