

BACKGROUND: PART ONE – SUPPORT INFORMATION

A. SUBAREA PLAN

This Subarea Contingency Plan (SCP) supplements the Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases (the **Unified Plan**). The SCP in conjunction with the Unified Plan describes the strategy for a coordinated federal, state and local response to a discharge or substantial threat of discharge of oil or a release of a hazardous substance from a vessel, offshore facility, or onshore facility operating within the boundaries of the Southeast Subarea. For its planning process, the federal government has designated the entire state of Alaska as a planning “region” and the southeastern portion of the state as a planning “area.” The State of Alaska has divided the state into ten planning regions of which one is the “Southeast Region.” As part of the Unified Plan, this SCP addresses this Southeast Region or, to avoid confusion with federal terms, Subarea.

The SCP shall be used as a framework for response mechanisms and as a pre-incident guide to identify weaknesses and to evaluate shortfalls in the response structure before an incident. The plan also offers parameters for vessel and facility response plans under OPA 90. Any review for consistency between government and industry plans should address the recognition of economically and environmentally sensitive areas and the related protection strategies, as well as a look at the response personnel and equipment (quantity and type) available within the area (including federal, state, and local government and industry) in comparison to probable need during a response.

B. SUBAREA DESCRIPTION

The Southeast Subarea matches the area of responsibility for the USCG MSO Juneau Marine Inspection and Captain of the Port Zone and is identical in area to that identified in State of Alaska statute as the Southeast Region. (Geographic boundary coordinates for MSO Juneau are detailed in Title 33, Code of Federal Regulations, Part 3.85-10.)

The Southeast Subarea is comprised of the State of Alaska east of a straight line commencing at 60.01.3 degrees north latitude, 142 degrees west longitude, thence proceeding northeasterly to its end at the international boundary between the United States and Canada at 60.18.7 degrees north latitude, 141 degrees west longitude. The offshore boundary is 142.00 degrees west longitude from shore to the offshore extent of the Exclusive Economic Zone (EEZ) thence southerly and easterly along the boundary of the EEZ to the international boundary at Dixon Entrance. This area includes all of Southeast Alaska from Dixon Entrance to the south up to and including Icy Cape to the north, a distance stretching over 530 miles. (See Figures E-1, E-2, E-3, E-4, E-5, and E-6 for boundary and map/nautical chart referral information.)

Southeast Alaska is a narrow panhandle 525 miles long and 120 miles from east to west composed of a narrow strip of mainland mountains and over a thousand offshore islands of the so-called Alexander Archipelago. An intimate interfringing of land and sea, most of the subarea is “wet” or temperate rainforest scattered in its northern aspect and higher altitudes with ice fields and glaciers. The region is heavily forested with spruce, hemlock and cedar. Average temperatures in winter are 20 to 40 degrees above zero, while mid-summer temperatures average 50 to 60 degrees. Average annual precipitation is heavy, ranging from 80 to over 200 inches. Towns are generally nestled along the narrow strips of flat land lying between the water’s edge and the steep mountain slopes. Travel in the region is mostly facilitated by private vessel, state ferries, float planes and larger commercial aircraft.

The three largest cities in the Southeast Subarea are Juneau, the state capital with approximately 30,000 people, Ketchikan in the south with a borough population near 13,000, and Sitka, along the outer coast and site of the historic capital of Russian America, with a population just under 9,000. The central Southeast towns of Petersburg and Wrangell come in at approximately 3,000 and 2,000, respectively. The town of Haines in the north has nearly 1600 people and the largest town on Prince of Wales Island to the south is Craig with 1100. All other towns in Southeast Alaska have less than 1000 inhabitants. Its primary industries are tourism, fishing, and logging. It is also the home to Tlingit and Haida native groups, famous for their totems and their marine and forest adaptations.

The subarea encompasses a very diverse array of topographical features, including:

- a vast archipelago with numerous small, uninhabited islands;
- steep-sided fjords;
- rocky or boulder-strewn shorelines;
- pebble and gravel pocket-beaches;
- areas of substantial forests, often old-growth, and other areas of clear-cut or recent forest growth;
- extremely mountainous terrain;
- tundra;
- extensive ice fields;
- tidewater and piedmont glaciers;
- river deltas and broad tidal mudflats;
- and vast fields of muskeg.

Approximately 77% (16.8 million acres) of Southeast Alaska lies within the Tongass National Forest and within the forest are the largest tracts of virgin old-growth trees (600 years old on up) left in the United States. Moreover, Southeast Alaska contains the highest density of brown bears and bald eagles of any other place in the world. As with all areas within Alaska, the southeast region supports a wide range of wildlife. Larger, terrestrial mammals include moose, Sitka deer, brown, black and the elusive glacier bears, wolf, coyote, red fox, wolverine, and the mountain goat. Smaller mammals include beaver, hare, lemming, marmot, marten, mink, muskrat, pika, porcupine, river otter, shrew, squirrel, vole, and weasel. Marine mammals found in the Southeast Subarea include humpback whale, orca, Steller's sea lion, harbor seal, and sea otter.

Many songbirds, shorebirds and waterfowl reside in the region or stay as seasonal residents. During the spring and fall, the inland and shoreline areas become a haven for migratory waterfowl and other birds. This is especially true for larger river deltas, such as the massive one at the Stikine River, which sees one of the larger influxes of migratory birds in North America. The lower Chilkat River near Haines witnesses every autumn one of the largest gatherings of bald eagles in the world.

Some residents engage in a subsistence lifestyle and have long depended upon the availability of plant and animal resources in the area. Several communities rely on certain marine mammals as a traditional food source, and these mammals are present in concentrated areas during certain times of the year. Any spill of significance could devastate the subsistence food harvest and seriously threaten the normal means of existence for many residents. Long-term impacts to these food resources could have a deleterious effect on Native and subsistence lifestyles. The Sensitive Areas Section provides detailed information on the specific resources vulnerable to spills and the locations of these resources within the subarea.

Figure E-1: Location of Southeast Subarea



Figure E-2: The Southeast Subarea

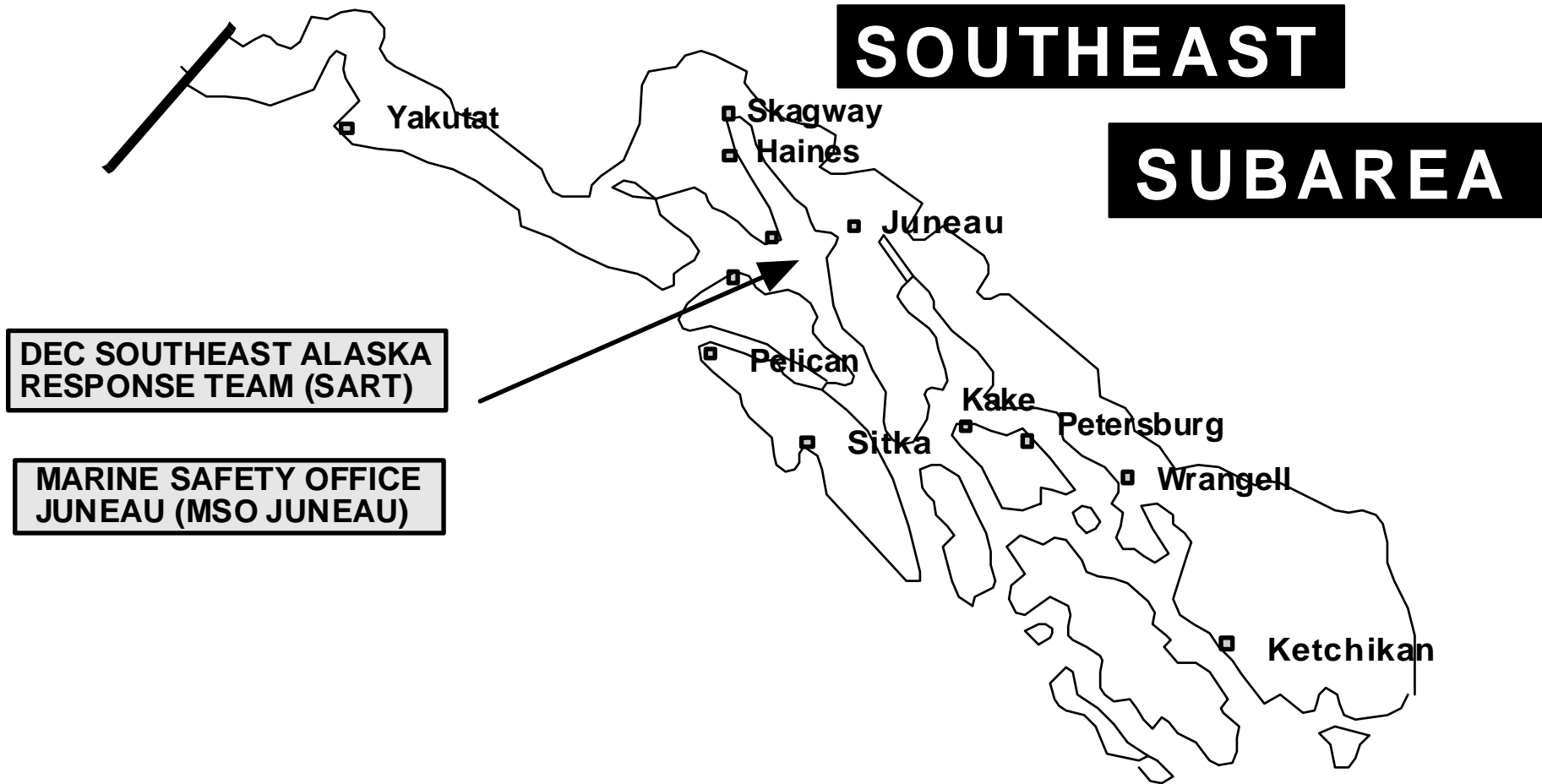


Figure E-3: Southeast Subarea Detailed Map

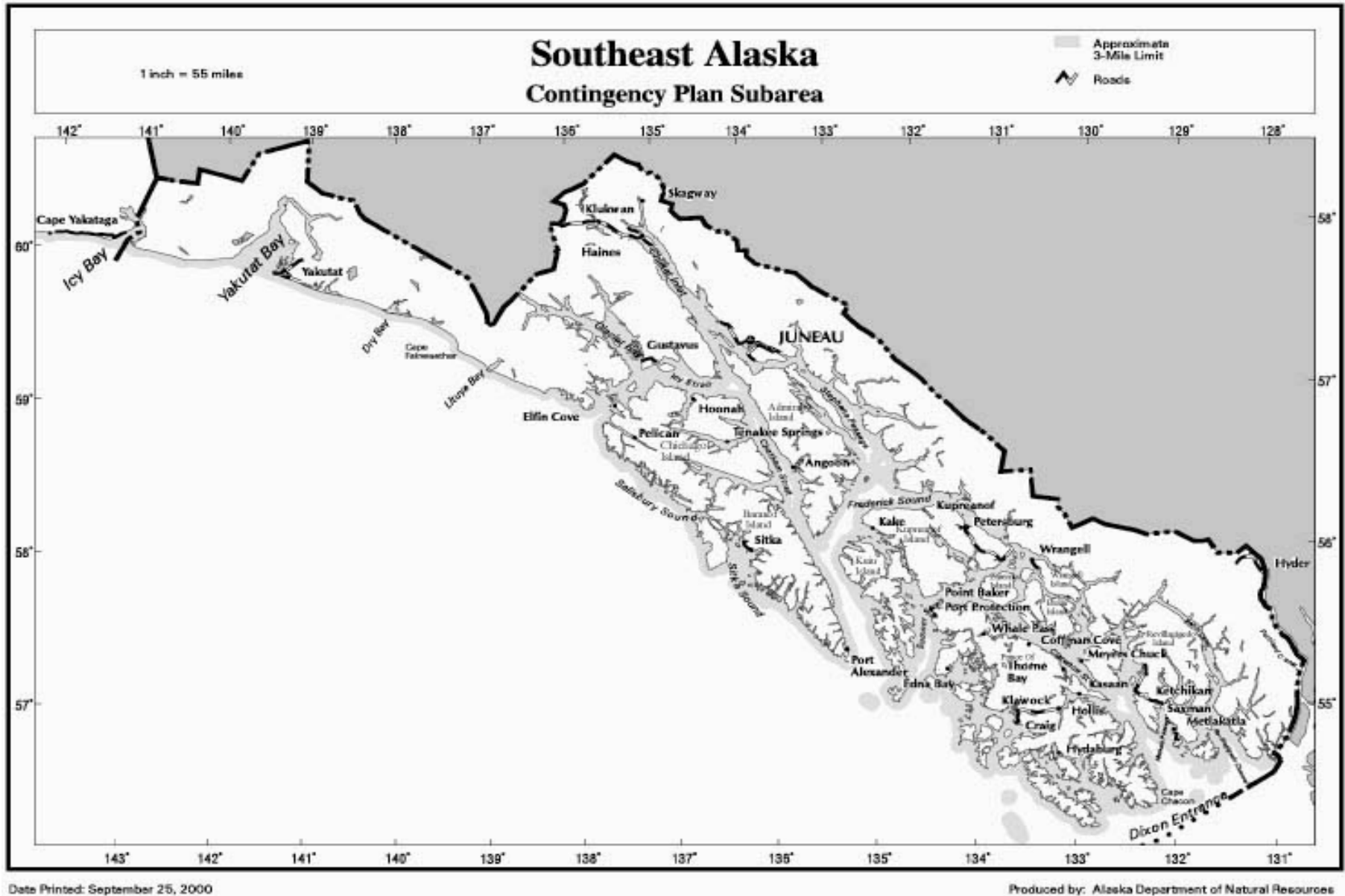


Figure E-4: Southeast Subarea USGS Topo Map Index

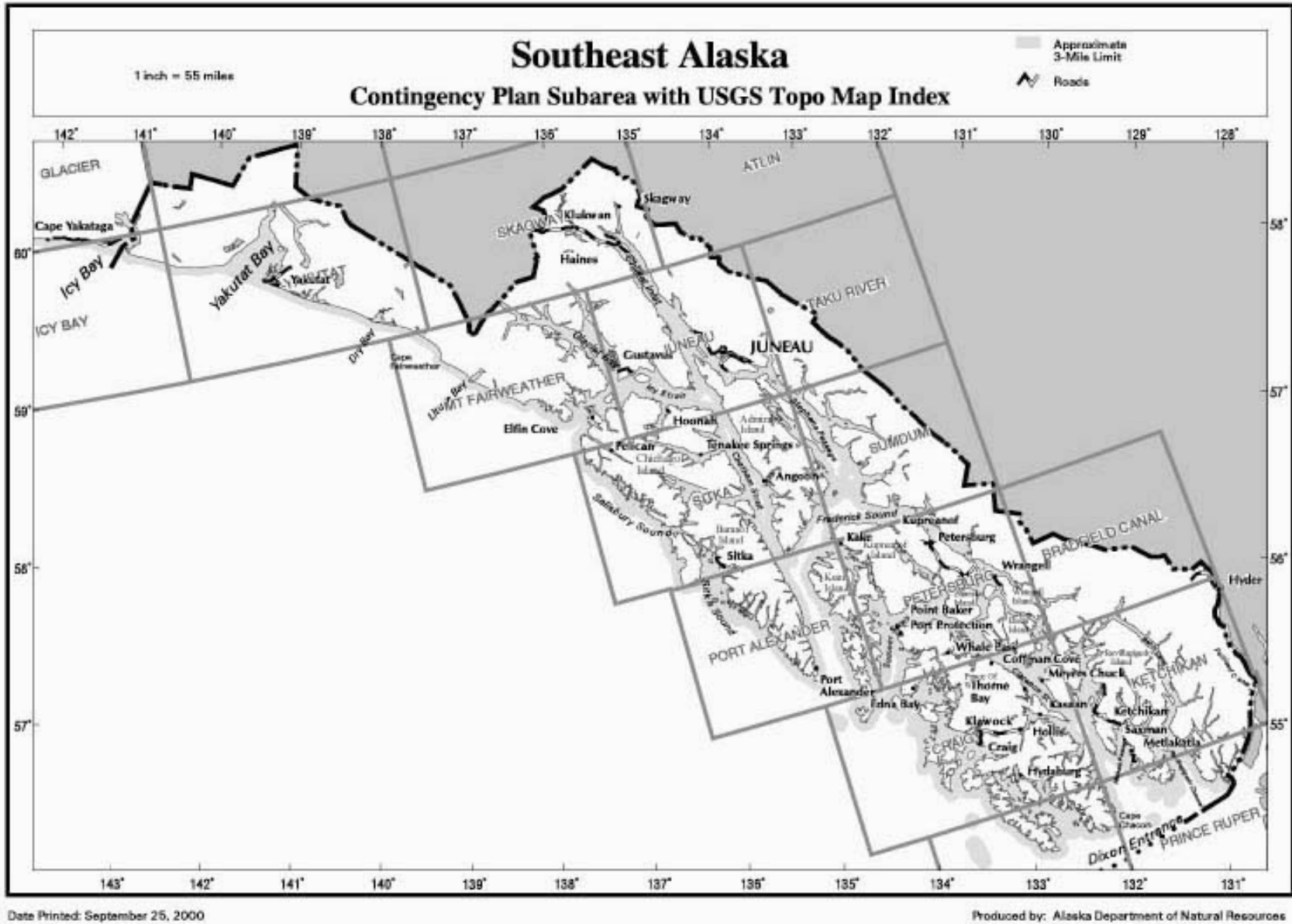
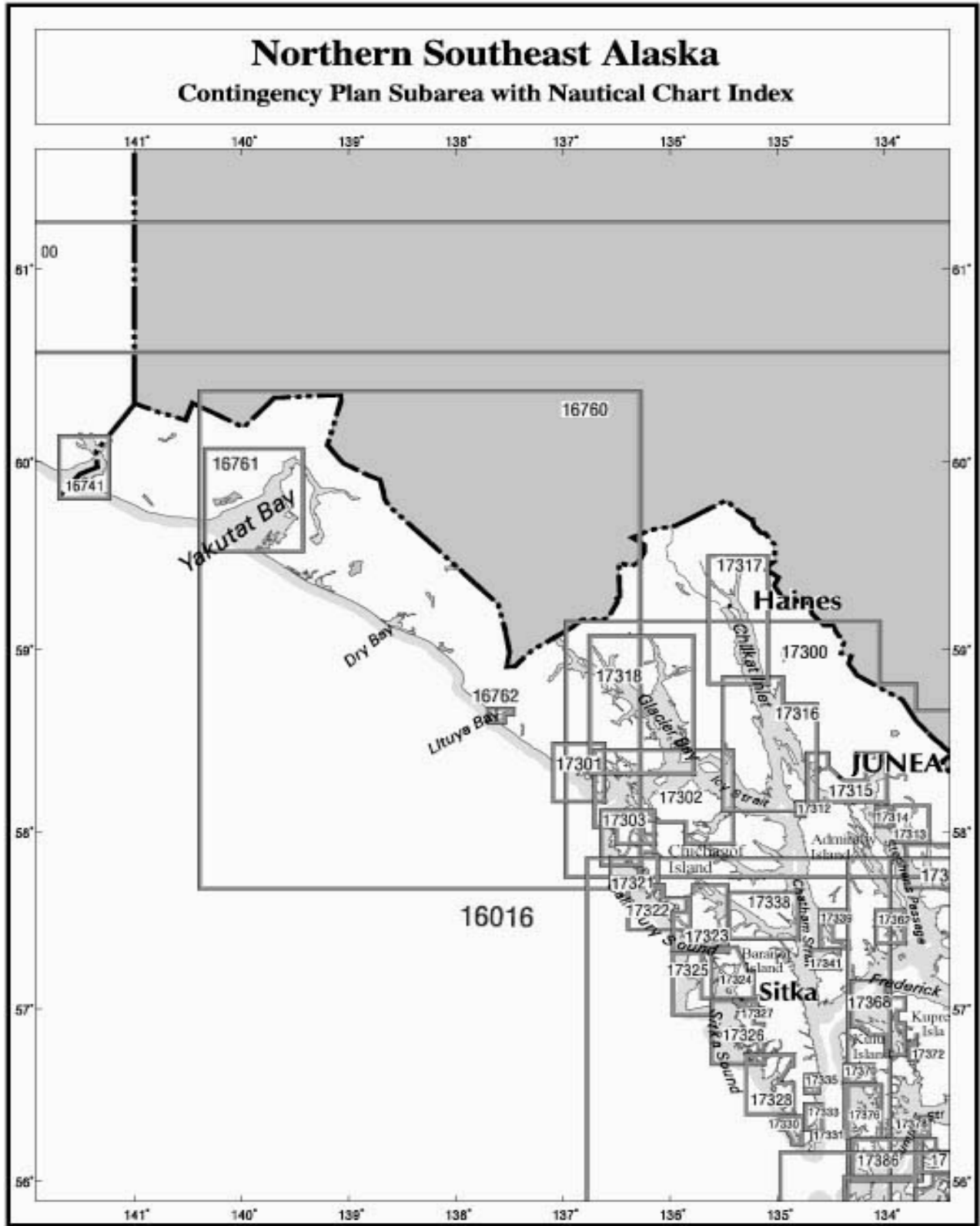


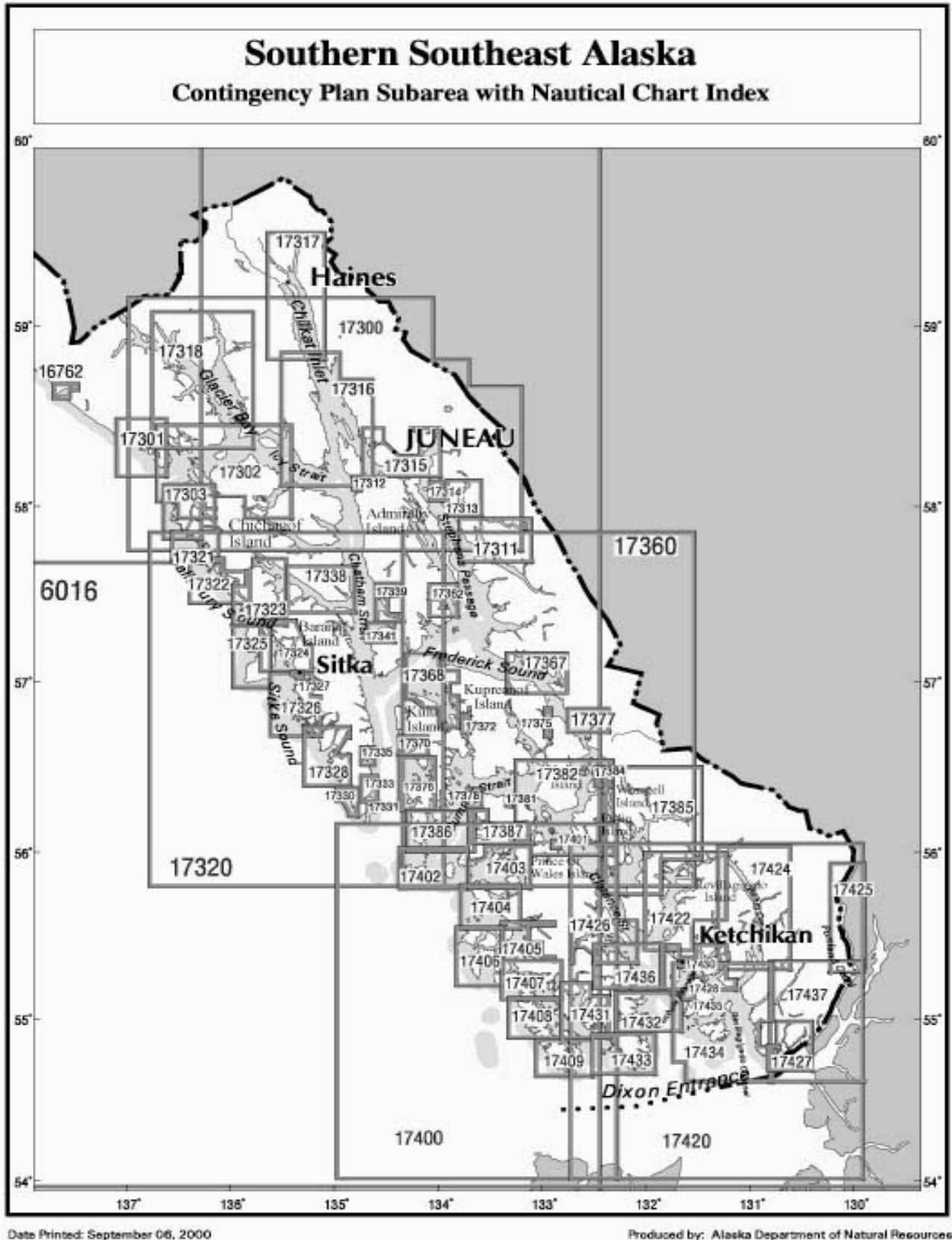
Figure E-5: Southeast Subarea Nautical Chart Map, North



Date Printed: September 06, 2000

Produced by: Alaska Department of Natural Resources

Figure E-6: Southeast Subarea Nautical Chart Map, South



Commercial and sport fisheries play an important part in the lives and the economies of Southeast Alaska. Dolly Varden, trout, halibut, herring, lingcod, and the five species of salmon are among the many fish sought from the waters of Southeast. Presently, the region boasts eighteen active salmon hatcheries. The mariculture industry is growing in size and importance, and the shellfish/aquatic plants being raised in Alaska include Pacific oysters, blue mussels, littleneck clams, scallops, bull kelp, and *Porphyra* species of red/brown algae. (Note: Alaska Statute prohibits finfish farming.)

This biologically rich and diverse maritime region sees significant vessel traffic ranging from pleasure craft and fishing boats to small tankers, freighters and large cruise ships. Marine-related petroleum products pose an everyday threat of spill and possible pollution to a largely pristine environment. The coastal vessel route extending from the State of Washington through Southeast Alaska is usually quite wet, with low ceilings and frequently changing weather conditions being typical. Surface winds are greatly affected by the mountainous terrain, and sudden wind changes of as much as 180 degrees are commonplace.

While there is more flying in Alaska than in other states and a great reliance on vessel traffic, there is less weather reporting here. Of 168 weather radars in the country, only seven are in Alaska – an area one-fifth the size of the rest of the United States. While Florida's coast has 47 buoys collecting weather data, for example, there are none for an equivalent area off Alaska's Southeast coast. Alaska has one manned weather observation site for every 8,000 square mile. Effort is underway to increase the number of automatic weather stations that include live video feeds.

The “*Southeastern Alaska Oceanographic Conditions*” by John Whitney, NOAA, September, 2001, provides the following ocean current information, as well as further details.

Aspects of the net surface ocean circulation for Southeast Alaska have been studied, but no overall model exists. The Pacific Subarctic Gyre and its associated northward flowing Alaska Current (see Figures E-6 and E-7) appear to influence the circulation in the region by producing a predominantly northward surface circulation along the outer coast and through the inland passages.

Along the west coast of Baranof Island, coastal waters of the northward flowing Alaska current enter Sitka Sound from the south and exit around Cape Edgecombe, producing a weak counterclockwise gyre. But seaward of Sitka Sound, a large clockwise eddy, estimated at roughly 100km in diameter, persists in the Alaska Current for periods up to a half year, though duration, size and magnitude often vary. (See Figures E-8 and E-9)

Wind data for Southeast Alaska show a preponderance of south southeasterly winds generated by a dominant low pressure region off the Prince of Wales/Queen Charlotte Islands region. These winds tend to reinforce the net northward water surface circulation, producing the characteristic rainy climate conditions with winds of 5 to 35 knots. Mountains and fjords, found throughout the subarea, tend to create localized channeled winds that may be at large angles to the regional climatic winds. Large glaciers at the heads of many of the fjords tend to produce drainage winds.

Strong northerly and easterly Taku winds occur most commonly during the winter when the Yukon High over the interior land mass to the north extends into Southeastern Alaska. This causes katabatic winds to cascade from the interior of the continent through the Coast Range passes with wind speeds typically 30 to 70 knots, gusting to 100 knots. Taku wind conditions can persist for periods of three days to three weeks and can induce a massive flushing of surface waters throughout southeastern Alaska. Rapid surface transport out Icy Strait and Chatham Strait occurs during such wind-induced flushing.