



Aleutian Islands

- (1) This chapter describes the Aleutian Islands and the many passes leading from the Pacific Ocean into the Bering Sea. Also described are the harbors of Dutch Harbor on Unalaska Island; Kuluk Bay on Adak Island; Massacre Bay on Attu Island; and many other smaller harbors in the Aleutian Islands.

(2)

Caution

- (3) Certain areas of the marine environment in the Aleutian Islands may contain munitions and explosives of concern (unexploded ordnance). Specifically, these are along the north and northeast end of Unalaska Island (including Unalga Island and part of Akutan Island), the southwest end of Unalaska Island, the northeast end of Umnak Island and the northwest and southeast sides of Kiska Island. These are marked as **Caution Areas** in regions of Unalaska Island and Kiska Island. Mariners are cautioned against anchoring, dredging, or trawling within these areas.
- (4) If unexploded ordnance is encountered, retreat and immediately call Coast Guard VHF-FM channel 16. For additional information about unexploded ordnance, call the United States (U.S.) Army Technical Center for Explosives Safety at 918-420-8919 or visit <https://www.denix.osd.mil/uxo/>.

(5)

Area to be Avoided, Aleutian Islands

- (6) The International Maritime Organization (IMO) has adopted the waters surrounding the Aleutian Islands as areas to be avoided (See IMO SN.1/Circ. 331). In the region of the Aleutian Island Archipelago, all ships 400 gross tonnage and upwards solely in transit should avoid the areas to be avoided bounded by lines connecting the following geographical positions:

(7)

East Area to be Avoided			
1	54°07.94'N., 162°19.48'W.	7	56°19.83'N., 161°04.29'W.
2	54°22.14'N., 164°59.57'W.	8	56°04.91'N., 160°29.04'W.
3	54°43.51'N., 165°09.77'W.	9	55°40.94'N., 159°32.43'W.
4	54°59.45'N., 165°14.74'W.	10	55°22.58'N., 158°49.19'W.
5	55°43.20'N., 163°38.05'W.	11	54°41.38'N., 158°31.66'W.
6	56°08.30'N., 162°22.14'W.	12	54°21.99'N., 159°11.54'W.
Unalaska Area to be Avoided			
13	51°41.19'N., 170°52.93'W.	19	54°21.96'N., 165°43.77'W.
14	51°53.22'N., 171°32.60'W.	20	54°11.15'N., 163°41.63'W.
15	52°41.95'N., 171°50.08'W.	21	53°40.84'N., 163°41.67'W.

16	53°17.64'N., 171°50.31'W.	22	53°24.39'N., 164°07.37'W.
17	54°09.49'N., 169°23.53'W.	23	52°46.62'N., 165°56.33'W.
18	54°17.62'N., 168°11.32'W.	24	51°57.40'N., 168°57.60'W.
Atka Area to be Avoided			
25	50°38.55'N., 180°00.00'W.	30	52°41.07'N., 171°56.15'W.
26	51°11.83'N., 179°50.46'W.	31	51°37.86'N., 171°34.53'W.
27	52°39.35'N., 178°39.78'W.	32	51°15.27'N., 172°36.40'W.
28	53°13.18'N., 173°49.18'W.	33	50°21.63'N., 179°24.20'W.
29	53°02.71'N., 172°51.16'W.		
Amchitka Area to be Avoided			
34	51°51.50'N., 174°47.54'E.	39	52°36.31'N., 179°22.09'W.
35	52°15.54'N., 174°53.24'E.	40	51°32.27'N., 179°41.19'W.
36	52°46.63'N., 176°15.15'E.	41	50°33.65'N., 179°33.12'E.
37	52°57.86'N., 177°37.91'E.	42	50°44.11'N., 178°10.33'E.
38	52°48.39'N., 180°00.00'W.	43	51°21.00'N., 175°59.57'E.
West Area to be Avoided			
44	53°40.90'N., 171°50.53'E.	50	52°08.23'N., 174°21.75'E.
45	53°49.20'N., 172°29.47'E.	51	51°40.59'N., 172°45.27'E.
46	53°47.85'N., 173°25.48'E.	52	52°20.90'N., 171°29.34'E.
47	53°24.41'N., 174°54.79'E.	53	52°40.53'N., 171°10.34'E.
48	53°07.49'N., 175°18.74'E.	54	53°00.92'N., 171°06.20'E.
49	52°19.54'N., 174°51.62'E.	55	53°23.69'N., 171°19.71'E.
Coordinates are North American 1983 Datum (NAD 83)			

(8)

Aleutian Islands

- (9) **Aleutian Islands**, extending in a 900-mile arc from Unimak Island to Attu Island, are a westward continuation of the Alaska Peninsula and form the southern limit of the Bering Sea. The most important groups of islands in the chain are Fox Islands, Islands of the Four Mountains, Andreanof Islands, Rat Islands and Near Islands.

- (10) Most of the islands are mountainous; the coasts are bluff and exposed; the shores are bold, with many off-lying islets, rocks and reefs; the beaches are rocky and narrow; and the water is usually deep close to shore. As a rule, seabottom features are similar to those of the adjacent land.

(11)

Anchorage

- (12) Most of the larger islands in the Aleutians provide some sheltered anchorages as mentioned in the text for the individual places. The better known harbors are Akutan Harbor on Akutan Island, Dutch Harbor on Unalaska Island, Nazan Bay on Atka Island, Kuluk Bay on Adak

Island, Constantine Harbor on Amchitka Island, Kiska Harbor on Kiska Island and Massacre Bay on Attu Island.

(13)

Dangers

(14)

Nearly all beaches in the Aleutian Islands present natural obstacles to landing. The shores are generally precipitous; the breakers are heavy, and in many cases the approaches are filled with jagged rocks and kelp beds that are unusually abundant in the Aleutians. In winter, the kelp disappears entirely. Sand beaches are rare; usually being found only at the heads of bays, and in no case does a beach extend more than 50 yards inland from the high water line.

(15)

When heavy swells and seas are encountered along a beach, a landing in a small boat should not be attempted as there are strong and dangerous undertows accompanied by variable currents. In addition to the lack of surveys, navigation in this region is made difficult by the prevailing thick weather and further by the lack of knowledge of the currents, which attain considerable velocity at times.

(16)

Currents

(17)

South of latitude 50°N., is an east drift across the Pacific. An eddy, accompanying this flow, sets west along the south shore of the Alaska Peninsula and the Aleutian Islands and then drifts through the passes into the Bering Sea. These currents form a part of the general circulation of the North Pacific Ocean.

(18)

Through the Aleutian Islands passes, the velocities of the currents caused by tidal and wind effects are large enough to mask the continual north drift through the passes.

(19)

In the past, numerous reports have been received to the effect that the flood currents flowing into the Bering Sea are very much stronger than the ebb currents. These reports have been largely discounted by observations in a number of the passages, which in general reveal equally strong ebb currents flowing through the passes from the Bering Sea. It is believed that because of the large diurnal inequality in the current of this region, mariners have been deceived by the long periods of flood current that occur near the times of the moon's maximum declination.

(20)

Currents are highly complex, making generalizations impossible. They set counter to general trends in many places along shores, even within major passes. Whirls and eddies in wide distribution further complicate the problem.

(21)

All passages in the Aleutian Islands have strong currents. In the narrow Akun Strait, the current is reported to reach a velocity of 12 knots. Because of the scarcity of reliable observations, definite current predictions can be made for only a few of the passes. Current predictions for some of the more important passes may be obtained from the Tidal Current prediction service at *tidesandcurrents.noaa.gov*. Links to a user guide for this service can be found in chapter 1 of this book. The effect of the tidal

currents has often been felt offshore at a considerable distance from the passes, resulting in unexpected sets. Mariners should guard against such contingency. In the region of the Aleutian Islands the navigator must heed the currents carefully; a vessel is in more danger there from that cause than from any other, except the lack of surveys. In bad weather, the currents cause much heavier seas, and this effect has been noticed as much as 20 miles off the passes.

(22)

In general, tide rips occur to the south of the passes on the ebb and to the north on the flood, furnishing a rough means of determining the set of the current, although local tide rips may be caused by detached banks.

(23)

Tide rips even well off the entrances may appear as broken, choppy seas, with a few steep, short swells near the edge. In rough weather, the effect is to make the seas higher and steeper. The tide rips are much more noticeable during periods of tropic tides. Whirls are more likely to occur in the passes near the times of slack water.

(24)

A characteristic of the currents in the vicinity of the Fox Island Passes is the sudden change from slack to strength of flood. A change from slack to almost 2 knots in 10 minutes has been noted, and in many cases the maximum flood occurs within 1½ hours after slack. It is therefore probable that the worst tide rips occur at the first of the flood, and under exceptional combinations of weather and tropic tides an effect resembling a bore may be caused in the narrower passes.

(25)

In Unimak Pass the current is probably strongest between Scotch Cap Light and Ugamak Island, where at strength of flood or ebb the velocity averages about 3 knots, but the maximum may exceed this figure considerably during tropic tides when 6 knots during the flood and 6.5 knots during the ebb are to be expected.

(26)

The current has a large diurnal constituent that at times of tropic tides may cause the current to set continuously in a flood direction for as much as 18 hours.

(27)

The set of the flood in Unimak Pass averages about 300°. A vessel proceeding from Unimak Pass toward Avatanak Strait will experience a set when off Ugamak Strait and off Derbin Strait. When crossing the deep, usually marked by tide rips, north of Derbin Strait, a strong set in the direction of the axis of the deep is often experienced. Only weak currents are noted along the shore of Tigalda Island, but farther to the north strong ebb currents, setting toward Avatanak Strait, have been encountered.

(28)

Tide rips occur off the east end of Ugamak Island and in places where there is a sudden change of depth.

(29)

Instances have been reported of vessels, hove-to north of Unimak Pass and waiting for clear weather, being carried through the pass by the current and finding themselves on the opposite side when the fog lifted.

(30)

In Akutan Pass the currents have an average velocity at strength of about 5.5 knots; however, velocities of 9 knots may occur.

(31)

The tide rips in Akutan Pass are strong during the periods of largest tides. With a heavy northwest wind, the

rips are menacing in the vicinity of the 15-fathom spot just south of Cape Morgan. They are confused and make a vessel very uncomfortable; they are dangerous for small craft. However, the strongest rips are not generally found in the middle of the pass. With a current setting north, the rips will be strongest in the north entrance, and with a current setting south, the strongest rips will be found at the south entrance to the pass. When the current setting north is opposed by a strong north wind, the tide rips in the north entrance to the pass are dangerous, and it is advisable not to use this pass in a gale. Under ordinary conditions, when there are no strong winds, this pass can be used by full-powered steamers at any stage of the current, but sailing vessels should not use it except at or near slack water. It is said that the most dangerous rips occur at the north entrance to the pass.

- (32) In Unalga Pass, northeast of Fisherman Point near the center of the pass, the average tidal current at strength is about 6 knots. At times of tropic tides, current velocities may reach 9 knots. The maximum velocity occurs in a short stretch between Fisherman Point and Unalga Island, and the strongest current can be avoided by favoring the Unalga Island shore. The current along the south side of Unalga Island will rarely exceed 2 knots.

- (33) The tide rips in Unalga Pass accompanying a flood current are most pronounced northeast of Erskine Point. With an ebb current the most pronounced tide rips occur off Brundage Head. During the periods of tropic tides, however, tide rips may occur throughout the length of the pass. Small boats can avoid the tide rips by keeping close to the Unalga Island shore.

- (34) Treacherous seas caused by wind or ocean swell opposing the current may be encountered in the narrow part of Unalga Pass. When tide rips are heaviest in Akutan and Unalga Passes, the water is broken into heavy choppy seas that board a vessel and make it difficult to control the steering. Tide rips are dangerous for small vessels even if there is no wind or sea.

- (35) Additional information on currents will be found elsewhere in the text under their respective localities.

(36)

Local magnetic disturbance

- (37) Differences have been found in many areas in the vicinity of the Aleutian Islands. On land, differences from normal variations of as much as 8° have been observed, with 3° and 4° rather common. Unusual disturbances have been observed on the northwest coast of Tigalda Island east of Kelp Bay; on the south shore of Akun Bay; on Cape Aiak, Unalaska Island; in Nazan Bay, Atka Island; on Yunaska Island and on Amukta Island.

(38)

Weather, Aleutian Islands

- (39) The weather of the Aleutians is characterized by persistently overcast skies, strong winds and violent storms. It is often variable and quite local. Clear weather is seldom encountered over a large area. North shores are usually better off than south ones. The winter temperatures

are moderated by the relatively warm waters of the Japan Current, so the islands are usually free from ice, which would hamper navigation. At Adak, overcast conditions average nearly 75% of the time during June and July, dropping back to approximately 50% of the time from October through February.

- (40) Winds are variable, local and often strong. From the Fox Islands to the Andreanof Islands, southwest through northwest winds are the most common except in midwinter, when winds from all directions are frequent. There are numerous local variations to this general flow. On Unimak Island, southeasterlies are common in midwinter. Southeasterlies are also prevalent on the north side of Unalaska Island from November through February. At Atka, northwest winds are frequent year round. Williwaws and intense lows bring gales from October through March. Winds have climbed to 65 knots at Dutch Harbor and to 74 knots on Umnak Island. A peak gust of 109 knots occurred at Adak in March 1954. Gales occur in all months of the year at Adak with the greatest chance from December through March.

- (41) In the west Aleutians over the Rat and Near Islands, winds are also strong and variable. From about April through November, south through northwest winds are common, while north through southeast winds blow frequently in winter. Williwaws can be violent; windspeeds reached 91 knots at Attu one February.

- (42) In the Aleutians, about 30 to 75 inches (762 to 1,905 mm) of precipitation occurs on 200 to more than 300 days. This means there are a lot of days with snow and drizzle. For example, at Adak, there is an average of 341 days with measurable precipitation, and better than 72 percent of those see 0.1 inch (2.54 mm) or more measured. Winter is the wettest season and November, the wettest month. Adak averages over 61 inches (1,549 mm) of precipitation a year with the extremes of nearly 93 inches (2,362 mm) in 1954 and 37.37 inches (949.2 mm) in 1960. In general, precipitation increases west along the chain, but exposure can have some influence on larger islands. Snow is a frequent form of precipitation from November through April, when 30 to 100 inches (762 to 2,540 mm) fall on 10 to 25 days per month. The average annual snowfall for Adak is 95 inches (2,413 mm). The snowiest month is January, and every month of the year has seen snowfall except July.

- (43) Temperatures are mild, and their range is small. In the coldest part of the winter, usually January, average daily maximums range from the mid-to upper thirties °F (1° to 3°C), while minimums fall to the 25°–30°F (-4° to -1°C) range. Occasionally a cold air outbreak will drop temperatures into the teens (-11° to -7°C). Extreme low temperatures range from about 8° to 15°F (about -13° to -9°C). This is considerably warmer than along the Alaska Peninsula, where extremes drop well below 0°F (<-18°C). Temperatures begin to moderate after February. July and August are usually the warmest months. Daytime highs from 55° to 60°F (13° to 16°C) are common, while at night temperatures usually fall about 10°F (6°C) to the

45° to 50°F (7° to 10°C) range. Extreme high temperatures range from about 65° to 75°F (18° to 24°C); a few places have had a high of 80°F (26.7°C).

- (44) The extreme maximum temperature at Adak is 75°F (23.9°C), recorded in August 1956, while the extreme minimum temperature is 3°F (-16.1°C), recorded in January 1963 and February 1964. The average annual temperature is 40.8°F (4.9°C). August is the warmest month, with average extremes of 56°F (13.3°C) and 46.6°F (8.1°C), and February is the coldest month, with average extremes of 36.9°F (2.7°C) and 28.4°F (-2°C). Because of the major maritime influence, no month has an average temperature span greater than 10°F (5.6°C).

- (45) The poorest visibilities in the Alaska area occur along the Aleutians. They are best in winter, although even then they can be hampered by fog, snow and rain. In summer when warm air from the Pacific moves over relatively cooler waters near the Aleutians, extensive fog formation takes place. Often the sun's heat has little effect in dissipating this fog, and it takes a change in air flow to clear the region. This advection or sea fog forms most often from June through September. At its peak in July and August, it can reduce visibilities to below two miles on 10 to 20 days per month throughout the chain. It is most likely to affect the south shores, although quite often it blankets the entire region. In winter, land fog is more local and can be expected, along with snow and rain, to drop visibilities to less than 2 miles on 1 to 4 days per month.

- (46) Adak averages 173 days per year with fog. The foggiest months are July and August, when an average of 26 of the 31 days have fog. This number drops dramatically toward the winter season, where the months of December through March have, on average, fewer than 10 days with fog during any one month.

- (47) The **Aleutian Trench** begins off Cape St. Elias in the Gulf of Alaska and parallels the Alaska Peninsula and the Aleutian Islands for more than 2,200 miles. The axis of the trench is 60 to 90 miles south of the Aleutians, and depths range from 2,400 fathoms in the east part to more than 4,000 fathoms in the west part.

(48) **Unimak Island**

- (49) **Unimak Island**, the first of the Aleutian Island chain, is separated from the end of the Alaska Peninsula by narrow Isanotski Strait (also called False Pass). This pass is practically closed by shoals at its entrance from the Bering Sea. Unimak Island is about 50 miles long and 23 miles wide; it is extremely mountainous, bare of trees and generally grass covered.

- (50) Unimak Island is one of the group known as the **Fox Islands**, the others being Unalaska and Umnak and their associated islands. The Krenitzin Islands, a part of the Fox Islands group, are between Unimak and Unalaska Islands. All these islands are bare of trees and are generally grass covered. They are frequented by many

birds, and immense flocks are frequently encountered in the vicinity.

- (51) The higher peaks on Unimak Island are excellent landmarks if they can be seen, but in summer they are usually obscured by fogs or low-lying clouds. The lower hills and islands and objects near the sea level are generally the only landmarks available.

- (52) **Shishaldin Volcano**, 9,372 feet high, near the center of Unimak Island, is cone shaped and very regular in outline, with faint wreaths of smoke and vapor drifting at times from its summit. It is for the most part snowclad, except where the rocky cliffs and projections afford no lodgment.

- (53) **Isanotski Peaks** are east of Shishaldin. They are rugged and have a broken or castellated double summit, the highest point rising to 8,135 feet. The summit is bare and looks as though it were composed of great vertical rock masses. This mountain is known locally as **Ragged Jack**.

- (54) **Roundtop Mountain** is a rounded summit 6,140 feet high, surrounded by snowfields.

- (55) **Pogromni Volcano**, about 9 miles from the west end of Unimak Island, is 6,568 feet high and is a snowclad, conical peak with vertical ridges cropping through the snow. Pogromni is a guiding landmark in clear weather for making Unimak Pass both from south and from the Bering Sea.

- (56) The south coast of Unimak Island has cliffs in places, with lower land and sand beaches, between and is backed by the high mountain masses of the central part of the island. The coast is fairly regular, with no indentations of any extent, and there are no harbors nor sheltered anchorages west of Ikatan Peninsula. The coast is exposed to the ocean swell, and there is generally a heavy surf, which makes landing dangerous. The 10-fathom curve is less than 0.8 mile from the beach in most places, and there are no known outlying dangers.

(57) **Cape Lazaref to Rock Island**

- (58) **Cape Lazaref**, about 800 feet high, on the south coast of Unimak Island, is the southwesternmost of three high cliffs, with sand beaches between them. The northeast cliff of the series is at **Cape Aksit**. From the sharp point of the cape, **Lazaref Reef** extends 1 mile south. On this reef are **North Pinnacle Rock** and **South Pinnacle Rock**, about 100 feet high. Anchorage, with fairly good protection from west winds, can be had northeast of this reef, about 0.5 mile south of a group of rocks that are about 0.4 mile off the east side of the cape, in 10 fathoms, sandy bottom. **Rock Island**, small and 112 feet high, is 1.5 miles west from the cape and 0.4 mile from the beach. In 1984, the NOAA Ship MILLER FREEMAN reported finding anchorage with excellent protection from a north storm close to shore between Cape Lazaref and Rock Island. Outside this protected zone, winds of 50 to 60 knots were encountered.

(59)

Unimak Bight to Unimak Pass

(60) From Cape Lazaref the coast trends west, curving gradually west and south, for about 30 miles to form **Unimak Bight**, broad and open, and having a sandy beach. This sand beach is broken by a lava bed 8.5 miles west of Cape Lazaref, and by three conical hills, the southernmost formed into several columns and reaching the water to make a small projection, **Cape Rukavitsie**, 15 miles west of Cape Lazaref.

(61) At the south end of the sand beach is a broad valley; the south point is a sharp steep-sided projection, about 350 feet high, which forms **Promontory Cove**, small and open to north. The cove is reported to afford anchorage with protection from south winds but not from the swell. The bottom is sandy, and shoaling toward the beach is gradual.

(62) **Cape Lutke**, the southwest headland of Unimak Bight, is a cliff 610 feet high, joined by a lower ridge to the higher land farther back. At this point the coast changes direction to southwest and then west for 13 miles to Seal Cape.

(63) **Seal Cape**, on the north side of Unimak Pass in entering from the Pacific, is not particularly noticeable, but the locality is well marked by Arch Point, Promontory Hill and Scotch Cap. The coast is bold and can be approached close enough (0.3 to 0.5 mile) in moderately thick weather to be seen and followed.

(64) **Arch Point**, 3 miles northeast of Seal Cape, is a rocky projection 172 feet high with an arch through the point near its extremity. The arch is visible only from onshore or close to shore. A small sand beach on the west side of Arch Point is well protected from any weather, except from the south, by the point itself and by a projecting ledge. The heavy surf, which generally prevails along most of this coast, is reported to be absent on this beach. Small boats could probably land here in an emergency.

(65) **Promontory Hill**, 5 miles northeast from Seal Cape, is a short ridge, about 1,100 feet high, having a northwest and southeast direction, and detached from the interior high land. Its outlines are smoothly rounded and it has a slight saddle, the whole having a bare, brown appearance. It is isolated and prominent and together with Scotch Cap is a good landmark for the east entrance to Unimak Pass. Approaching Unimak Pass from the east and southeast, Promontory Hill can often be seen when other landmarks are fog covered.

(66) From Seal Cape around to Cape Sarichef, a distance of 19 miles, the coast of Unimak Island has a number of projecting points, is low in appearance and slopes gradually upward to the high land of the island. Between Seal Cape and Sennett Point, the 10-fathom curve is from 0.3 to 0.7 mile offshore. The 20-fathom curve is close inshore in places and is irregular. A study of the chart will show that great care is required in navigating on soundings alone around the west end of Unimak Island,

which is a region of strong currents. There are no dangers if the coast is given a berth of 0.5 mile.

(67) Along this part of the coast there are several prominent hills. **Red Hill**, a very distinctive formation, is near Cape Sarichef. This isolated hill, 798 feet high, is closer to the shore than the other peaks in the vicinity and is easily recognized by its reddish hue. It is prominent from the north, northeast and west and is often clear when higher peaks are obscured by fog or clouds.

(68) **Scotch Cap**, 420 feet high, is a precipitous cliff of rock that extends along the beach nearly 1 mile. Back of the cliff the land slopes downward for nearly 1 mile, then rises uniformly to the higher land of the island. Scotch Cap can be seen many miles in clear weather and is unmistakable.

(69) **Scotch Cap Pinnacle**, a rock 172 feet high, is 50 yards seaward from the cliff.

(70) **Scotch Cap Light** (54°23'41"N., 164°44'39"W.), 110 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark about 1.8 miles east-southeast of Scotch Cap.

(71) **Sennett Point**, midway between Scotch Cap and Cape Sarichef, is a low, flat, grass-covered bluff with a bold rocky coastline. Many detached rocks are near the surf-worn ledges that extend offshore from the base of the bluff.

(72) About 1 mile north of Sennett Point a reef makes out 0.2 mile from shore; the rocks at the outer end of the reef are 3 feet high. The bight between the reef and Sennett Point offers the best shelter and has the best holding ground in this locality. Anchorage inside the 10-fathom curve is usually free from current, no matter how strong it may be running in Unimak Pass. In 1938 a survey ship rode out several southeast gales at this anchorage.

(73) A good landing is just north of Sennett Point. It is a small protected beach between the rocky ledges of the point and a group of inshore rocks; the highest is 13 feet. In south weather, this is the best small-boat landing on the west coast of Unimak Island. Mail and supplies for both Scotch Cap and Cape Sarichef Lights are landed on this beach when landings cannot be made at either light. A small cabin on the shore is kept in repair by the U.S. Coast Guard and is equipped with stove fuel and a few necessary supplies. In north weather landings are made in the bight south of Sennett Point.

(74) About 2 miles south of Cape Sarichef Light is a small, rocky beach that is well protected by rocks and ledges and could be used as an emergency landing in rough weather. The beach is at the south edge of the black lava flow from a prominent extinct volcano, 1,240 feet high and 3 miles inland.

(75) **Cape Sarichef** is a steep, grassy bluff about 175 feet high; back of it is a tableland, then a gradual slope upward to Pogromni Volcano. The black lava flow extends north along the coast to within 0.5 mile of the light. At **Sealion Point**, 1.5 miles south of the light, is a flat rock, 35 feet high, which is prominent from seaward.

- (76) A shoal area extends west from Cape Sarichef for about 3 miles. Depths on the shoal are 7½ to 15 fathoms; the bottom is mainly gravel, with some rocky patches. The shoal appears to be a submerged extension of the lava flow on the coast. Ships should avoid crossing it because of the heavy tide rips, overfalls and eddies; the current reaches a velocity of 4 to 6 knots. During favorable weather and sea, passage may be made inside the rocky patches by following the shore at a distance of 0.5 mile.
- (77) **Cape Sarichef Light** (54°35'54"N., 164°55'40"W.), 170 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the west end of Unimak Island. Several large buildings are near the light. In very smooth weather, boats can land in the small cove directly below the light.
- (78) **Unimak Pass** is the first ship passage southwest of the Alaska Peninsula into the Bering Sea. It is about 10 miles wide between the southwest end of Unimak Island and Ugamak Island, which is one of the smaller islands of the Krenitzin Group.
- (79) Unimak Pass is the widest of the Fox Islands Passes and the most generally used by deep-draft vessels. Unalga and Akutan Passes, 50 miles farther to the west, are convenient under certain conditions if bound for Dutch Harbor, but Unimak Pass is the only one of the three that is lighted.
- (80) Besides being a gateway to the Bering Sea, Unimak Pass is also used by some vessels to effect a shorter and better weather route across the North Pacific Ocean. The route west via the Bering Sea avoids the prevailing head winds and heavy seas that are encountered south of the Aleutians.
- (81) Unimak Pass is free from outlying dangers, but the currents and prevailing thick weather make it necessary to exercise unusual care in approaching the pass, especially from south. The Krenitzin Islands furnish considerable protection from south and southwest weather, but during east or north weather the seas in Unimak Pass are accentuated by the current. A northeaster will also augment the prevailing southwest current along the Alaska Peninsula. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Unimak Pass. Links to a user guide for this service can be found in chapter 1 of this book.
- (82) Southeast of Unimak Pass is **Davidson Bank**, on which the depths vary between 35 and 50 fathoms; the seaward edge of the bank drops off sharply into deep water. At times there is a marked change in the color of the water from blue to green when coming from deep water onto the bank. The current runs west with an average velocity of about 0.2 knot; with an east wind it reaches a velocity of more than 1 knot along the 100-fathom curve. Tide rips are of frequent occurrence.
- (83) A vessel should be sure of its position before attempting to enter Unimak Pass and in thick weather should not attempt the other passes.
- (84) Vessels should approach Unimak Pass through the prescribed **Unimak Pass Shipping Safety Fairway**. The Fairway is composed of an east-west route with a connecting north-south route in the west section. (See **33 CFR 166.100** through **166.110** and **166.400**, chapter 2, for limits and regulations.)
- (85) Approaching Unimak Pass from the east, care must be taken to avoid Sanak Reef and Aleks Rock. A good rule is to stay on (or south of) 54°N. and make 163°W. while still outside the 100-fathom curve, then stand west-northwest across Davidson Bank for a position about 3 miles south of Scotch Cap Light.
- (86) If the weather is very clear, the mountains of Unimak Island can be seen and recognized, but under ordinary conditions the first land sighted will be Promontory Hill, Ugamak Island or Tigalda Island. From a distance Tigalda Island will appear as a number of small islands, but closer to, it is one island with six distinct peaks or short ridges. Some navigators prefer to stand west on 54°N. beyond 164°W. so as to sight Tigalda or Ugamak Islands; these islands often show when Unimak Island is fogged in.
- (87) The comparatively low land in the depression on the middle part of Avatanak Island is often clear when no other land is showing, especially in north weather. The grotesque irregularities of the topography make it easy to identify the locality. If approaching from the south, this stretch probably offers the best chance for identification of surroundings, especially since it is easy of approach and comparatively free from current.
- (88) **Ugamak Island to Little Bay**
- (89) **Ugamak Island**, marked by a light on its north side, is the easternmost of the **Krenitzin Islands**, which extend from Unimak Pass to Akutan Pass. The island has a sharp peak, 1,042 feet high, at the east end; when viewed from the southeast, several pinnacles protrude from the side of this peak, giving it an extremely rugged appearance. Near the middle of the island is a knob 905 feet high. The island is mainly tundra covered. The shore is backed by bluffs 50 to 1,000 feet high. Off the southeast point of the island is a conical pinnacle, 310 feet high, which is separated from the island by a narrow gorge 10 to 15 yards wide. About 0.3 mile off the southeast end are two rocks awash, generally marked by breakers. Twin grassy islets, the north of which is 127 feet high, are 0.6 mile south of the east point of **Ugamak Bay**, a cove on the south side of Ugamak Island. The islets are separated by a deep gorge and appear as one; the collective name of **Round Island** is applied to them.
- (90) Strong currents sweep around the east end of Ugamak Island and heavy tide rips occur. It is advisable to give this end of the island a berth of about 2 miles.
- (91) The east end of Ugamak Island is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around this rookery that encompasses the entire island and the islands and islets within the 3-mile

limit. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

(92)

Local magnetic disturbance

(93)

Differences of as much as 5° from the normal variation have been observed on Tigalda Island and as much as 3° between Akutan and Rootok Islands.

(94)

Aiktak Island, 556 feet high, is south of the west part of Ugamak Island; the two islands are separated by a pass 0.5 mile wide and 3¼ to 6¾ fathoms deep. Small vessels use this pass for temporary anchorage, but moderately strong currents make the anchorage unfavorable. On the south side of Aiktak Island are sheer bluffs, the tops of which approach the highest parts of the island. The islet off the northeast end is grass covered and less than 100 feet high.

(95)

Temporary anchorage in north weather may be found in Ugamak Bay in 16 fathoms about 0.5 mile from shore. In south weather, some shelter may be found on the north side of Ugamak Island in a small bight 1.5 miles on the east end; depths are 16 to 20 fathoms, 0.3 mile from shore.

(96)

Ugamak Strait has a width of 3 miles between Ugamak and Aiktak Islands on the north and Kaligagan Island on the south. A detached shoal, covered 10 fathoms, is in the middle of the northwest entrance to the strait. Heavy rips and swirls occur in this area at certain stages of the tide. Passage of Ugamak Strait has been made on a **288°** course, heading approximately for Billings Head on Akun Island; this course passes about 1.3 miles north of the northernmost rock off Tigalda Island. Allowance must be made for the current that sets across this course. The velocity of the current is 3.8 knots; velocities greater than 6 knots have been observed. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Ugamak Strait. Links to a user guide for this service can be found in chapter 1 of this book.

(97)

Tigalda Island, on the south side of Ugamak Strait, is 11 miles long in an east-west direction and 3 miles wide. It has six mountain ridges, 1,000 to 1,600 feet high, which trend northwest and are separated by low valleys. The west end of the island is comparatively low. Grass and tundra cover the island.

(98)

Kaligagan Island, in Ugamak Strait, 0.8 mile off the northeast end of Tigalda Island, is 0.8 mile long and 478 feet high. A large number of bare rocks or islets extend 2.5 miles west and northwest of Kaligagan Island. The northernmost is the highest (63 feet) and is about 1.8 miles north of the Tigalda Island shore. Passages between groups of these rocks are deep and safe for small craft.

(99)

Proceeding to Tigalda Bay from among the islets, care should be taken to avoid a group of rocks awash that extend 270 yards off the north side of the entrance point of the bay. These rocks are marked by thick kelp. Currents in the passage between Kaligagan and Tigalda Islands

are approximately as strong as in the main passage of Ugamak Strait, and currents are present among the groups of islets.

(100)

Tigalda Bay, on the north side of Tigalda Island, 3 miles from its east end, is sheltered from all except northwest winds. The bay is about 0.6 mile wide and 1.5 miles long in an east-west direction and has depths of 8 to 10 fathoms, rocky bottom. Because of the poor holding bottom, the anchorage is not secure in strong winds. An anchorage off the entrance to the bay in 12 to 15 fathoms, gravel bottom, is preferred, and furnishes just as good shelter in south and east weather.

(101)

The small bay just east of Tigalda Bay is not recommended as an anchorage for small craft because the swell making in from the north or west is not broken up by the group of islets.

(102)

Welcome Bay, just west of Tigalda Bay, is an open bay 0.8 mile wide. At the head, a narrow passage leads to a lagoon largely bare at extreme low water. The passage at its narrowest part is 90 yards wide and 2½ fathoms deep. The bay anchorage is in 15 fathoms, sand and gravel bottom, 0.4 mile from shore. An anchorage for small craft is in 4 to 6 fathoms, sand bottom, at the entrance to the passage.

(103)

Kelp Bay, on the north side of Tigalda Island and 2 miles from the west end, provides temporary anchorage in south weather. The entrance is constricted by a reef that extends 0.3 mile from the west entrance point. The point to the east of the bay is marked by several off-lying rocks, the outermost showing 9 feet. Because of a shoal area that extends 0.8 mile north of the point, large vessels should pass at a distance of not less than 1 mile. Anchorage is found in the center of Kelp Bay in 7 to 10 fathoms just inside the entrance.

(104)

A small bay 2 miles east of Kelp Bay provides anchorage for small craft in south weather. Care should be taken to avoid covered rocks 170 yards off the east entrance point and others 150 yards offshore on the west side. Anchorage in 7 fathoms is found 0.3 mile from the head of the bay.

(105)

At the west end of the south shore of Tigalda Island is a pinnacle rock, 165 feet high and about 100 yards offshore, that shows prominently in a southeast and northwest direction. The point about 3 miles east of the west end is marked by **Derbin Island**, about 0.4 mile long and 206 feet high, lying close to the shore. East of this point the south shore of Tigalda Island consists of high cliffs intersected by low valleys. About 2.5 miles east of Derbin Island are two round bare rocks, 85 and 27 feet high, about 0.4 mile from the shore. The section of the coast abreast of the rocks is a steep rocky bluff rising to a 1,682-foot peak. About 2.5 miles east of the two rounded rocks is a 191-foot pinnacle near the shore. An arch through the pinnacle rock gives it the appearance of a huge chair.

(106)

Derbin Bay, the bight east of Derbin Island, provides temporary anchorage in north weather. The recommended anchorage is in 16 to 18 fathoms, 0.5 mile

from shore and 0.8 mile from Derbin Island. The east shore of the bight is foul, with a covered rock 300 yards southwest of a 134-foot rocky islet. Small craft should favor the west shore of the bight in running to anchorage in 7 to 10 fathoms, 0.4 mile from the head of the bight.

- (107) A small indentation, 0.3 mile long and 0.1 mile wide, is 1 mile southwest of the east extremity of Tigalda Island. Rocky bottom and rocks awash along the shores make this anchorage acceptable only in case of an emergency. The depths range from 5 to 7 fathoms. A low pass extends in a northwest direction across the island to Tigalda Bay.

- (108) **Derbin Strait**, separating Tigalda and Avatanak Islands, is a little over 1 mile wide. A safe course through the strait is 326° in midchannel, with Billings Head of Akun Island ahead. On the east side of the south entrance is Derbin Island; on the west side is a bare rock, 30 feet high and 400 yards off Avatanak Island.

- (109) A $1\frac{3}{4}$ fathom sounding is off the west end of Tigalda Island in about $54^{\circ}05'51''\text{N.}$, $165^{\circ}13'53''\text{W.}$ A reef awash at half tide extends 330 yards west from the 165-foot pinnacle rock about midway on the east side of Derbin Strait. On the west side of the north entrance is a bare rock 2 feet high, 400 yards off the northeast point of Avatanak Island.

- (110) Tidal currents in Derbin Strait average about 5.5 knots, although velocities of almost 8 knots have been observed. The flood sets northwest and the ebb southeast. In midchannel, with wind and current opposing, the strait becomes exceedingly rough. A swell from southwest to southeast makes into the strait and is accentuated by the current. There are numerous eddies and cross currents near the shore. The ebb current causes tide rips a considerable distance offshore, especially on spring tides. Small boats should avoid Derbin Strait except under favorable conditions. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Derbin Strait. Links to a user guide for this service can be found in chapter 1 of this book.

- (111) **Avatanak Island** is 9 miles long and 3 miles wide at its east end, but the west half of the island averages less than 0.8 mile in width. The middle of the island is a depression less than 100 feet high, the sides of which slope gently upward to 1,635 and 1,276 feet on the east and west ends, respectively. The low land of the depression is often clear when no other land is showing, especially in north weather. There are many grotesque irregularities in the topography.

- (112) **Avatanak Point**, the south end of the island, is sharp and bold and has a ragged chain of rocks and rocks awash that extend over 0.3 mile in a south direction. The southernmost of these is a symmetrical oval rock 6 feet high.

- (113) In 1981, the NOAA Ship MILLER FREEMAN anchored in the center of the bight east of Avatanak Point in a 35-knot north-northwest wind; good holding ground was in 15 to 16 fathoms, sand bottom.

- (114) Two pinnacle rocks are west of the west extremity of the island; the highest and outermost is 200 yards offshore and 60 feet high.

- (115) Near the center of the island on the south side is **Chimney Cove**, which affords temporary protection to small craft from north weather. It is exposed to the ocean swell. The cove is marked by a vertical chimney-shaped slab of rock, over 200 feet high, which projects from the ground surface on the west point of the cove. The rock also shows in Avatanak Strait over the low-lying middle ground. Larger vessels may find temporary anchorage in 15 to 20 fathoms south of this rock, well clear of any currents.

- (116) **Rootok Strait**, separating Avatanak Island from Rootok Island, is a little more than 1 mile wide, but the clear channel is reduced to about 0.5 mile by a reef that extends from the east side and by rocks that extend from the west side. The reef, composed of separate rocks and heavily fringed with kelp, is bare at various stages of the tide and extends 525 yards in a southwest direction from the highest of the two pinnacle rocks off the west extremity of Avatanak Island. The rocks on the west side extend 250 yards from the Rootok Island shore. Depths less than 10 fathoms extend almost 0.5 mile north and northeast from the northeast point of Rootok Island.

- (117) A detached shoal covered $3\frac{1}{2}$ fathoms is near the middle of the south entrance, about 1 mile northeast of the east end of Rootok Island. Another detached shoal covered $3\frac{3}{4}$ fathoms is near the middle of the north entrance, 0.5 mile west of the western tip of Avatanak Island.

- (118) A flat-topped rock about 20 feet high is just off the east end of Rootok Island, and other rocks extend 400 yards from the rock into the strait.

- (119) In the bight indenting the east shore of Rootok Island, a rock awash at low tides is about 500 yards from the shore. Several pinnacle rocks fringe the south shore of this bight.

- (120) To make the passage through Rootok Strait, steer 298° for the north end of Rootok Island, leaving the east end of the island 0.6 mile to port; when the west end of Avatanak Island is abeam, change course to 331° and pass in midchannel between the bare rocks off Avatanak Island and those close to the north end of Rootok Island.

- (121) The currents in Rootok Strait have an estimated maximum velocity of 4 knots. Tide rips and whirls occur off the north entrance, but, as this area is sheltered from winds from most directions, they are mild compared to the rips that occur in other passes.

- (122) **Rootok Island**, the westernmost island on the south side of Avatanak Strait, is 3 miles by 2.2 miles in extent. The island's most prominent features are the twin peaks, 1,545 and 1,532 feet high and 600 yards apart in an east-west direction. The south side of the island is a continuous cliff broken only by a small valley slightly east of the twin peaks. A flat-topped rock about 20 feet high is off the east point of Rootok Island. The island is fringed with rocks and kelp and affords no secure anchorage. It is used as a

fox farm, the buildings being in the south valley of the bight on the east side.

- (123) **Akun Island**, 23 miles southwest of Unimak Island, is the northernmost island of the Krenitzin Group. It is about 12 miles long and very irregular in shape, being nearly divided by Akun Bay and Lost Harbor and a low depression joining them. The island is high and rugged, particularly its north part, which reaches an elevation of 2,620 feet at **Mount Gilbert**, an extinct crater on the north side of Lost Harbor.

- (124) **Avatanak Strait** is a broad passage separating Avatanak and Rootok Islands from Akun Island. The strait has a general northeast-southwest direction and is 3 miles wide at its narrowest part. There are no hidden dangers over 0.3 mile from shore, and navigation is not difficult in clear weather. It is reported that strong northwest winds draw heavily through Akun Strait into the west end of Avatanak Strait.

- (125) Currents with a velocity of 6.5 knots have been observed in Avatanak Strait, but average strengths of flood and ebb are about 4 knots and 3.5 knots, respectively. The ebb sets to the west, and the strength of the current is felt well to the west of Rootok Island, but to the east of the strait along the north side of Tigalda Island the currents are weak. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Avatanak Strait. Links to a user guide for this service can be found in chapter 1 of this book.

- (126) Tide rips and swirls occur in the narrowest part, off the entrance to Akun Strait, and among the islands off the south shore of Akun Island. A pronounced set is often experienced when crossing the narrow depression abreast of Derbin Strait, and light tide rips occur there.

- (127) **Basalt Rock**, in Avatanak Strait and 1 mile north of Avatanak Island, is a symmetrically rounded rock 50 feet high; it is steep-to and the channel inside is clear, with depths of 10 to 20 fathoms.

- (128) **Jackass Point**, the south extremity of Akun Island, terminates in a chain of irregularly shaped rocky islets, the highest of which is 80 feet. Tall and conspicuous **Pinnacle Rock**, 145 feet high, is 0.5 mile west of Jackass Point and 0.3 mile offshore.

- (129) **Easy Cove**, at the south end of Akun Island, is 0.4 mile wide with about the same distance to its head. Small vessels may find temporary shelter from north winds in 8 to 10 fathoms.

- (130) **Poa Island**, about 2.5 miles northeast of Jackass Point, is steep sided, about 0.6 mile long in an east-west direction, and 305 feet high.

- (131) **Tangik Island**, about 1 mile northeast of Poa Island, is about 0.4 mile long and 225 feet high at its east end. It is surrounded by rocks, and a reef extends about 350 yards southwest from its southwest end. The channel between Tangik and Poa Islands is clear except for reefs close to the south side of Tangik Island, which should be given a berth of at least 0.3 mile.

- (132) **Trident Bay**, west of Tangik and Poa Islands, is about 0.8 mile wide and 1 mile long. The entrance is constricted to less than 0.5 mile by an islet, 82 feet high, on the north side and a chain of rocks, terminating in a flat-topped rock 32 feet high, on the south side. Three small coves indent the shore at the head of the bay. A rock awash at low water is about 225 yards off the point between the middle and south coves. The heads of the coves are shoal.

- (133) Anchorage can be found in the middle of Trident Bay in 20 fathoms, with good protection from all directions but the southeast; however, the islands off the entrance provide some protection from this direction. With a southwest swell, small boats find better protection at the entrance to the west cove in 2 to 6 fathoms. The survey ship found this bay the best sheltered in the vicinity, and had sufficient swinging room.

- (134) To enter Trident Bay from south, steer **350°**, heading for the west tangent of the islet at the north entrance point. Pass midway between Pao Island and the land to the west. When the outermost flat-topped rock is abeam to port, swing sharply to **300°**, heading for the sand beach in the middle cove with the south tangent of Poa Island directly astern. In making this turn, favor the flat-topped rock which is steep-to, as the currents eddying around the entrance to the bay have a tendency to keep the ship's head from coming around. A bank of 8 fathoms extends across the entrance channel.

- (135) **Cross Bay** is an indentation about 1 mile wide on the southeast side of Akun Island and to the north of Tangik Island. Rocks, covered with kelp, extend about 450 yards off the middle point of the bay. The channel north of Tangik Island is clear, but the channel west of the island, with a depth of $3\frac{3}{4}$ fathoms, should be avoided.

- (136) **Round Head**, the southeast point of the peninsula that extends east from Akun Island, is a rounded steep-sided headland 465 feet high; a pinnacle 52 feet high is 200 yards off the point. From Round Head the shore of Akun Island trends west for 3 miles and is less rugged. It then turns to the south for 1.5 miles to **Cross Point** forming an indentation known as **Seredka Bay**. Anchorage with good shelter from north and west winds can be found in 10 to 20 fathoms about 0.4 mile from the shore. The northeast side of Cross Point is fringed with rocks and kelp.

- (137) **Tanginak Island**, of small extent but 270 feet high, is 2.2 miles off the east end of Akun Island. Although it appears to be one rounded island, it is in reality two islets separated by a narrow passage. The passage between Tanginak and Akun Islands is deep, but strong currents sweep through it, accompanied by tide rips and swirls.

- (138) About 4.8 miles north of Tanginak Island and in the approach to Akun Bay is **Fathometer Reef**, a $\frac{3}{4}$ -fathom rocky shoal, which is about 0.3 mile in diameter and is surrounded by depths of over 30 fathoms. Heavy tide rips and swirls occur in the vicinity except at slack water. Vessels should keep well clear of the reef, as no

kelp has been reported on it and breakers may not be distinguishable from the tide rips.

- (139) **Akun Bay** is the broad indentation in the northeast side of Akun Island; it affords anchorage at its head except with winds from the southeast to northwest, but heavy williwaws are experienced with offshore winds. There are no known dangers in the bay except close to shore. At its head, where the bay is 2.5 miles wide, there are two large bights; the north bight is known as **Helianthus Cove**. Anchorage may be made in either of the bights, about 0.5 mile from shore, in 10 to 15 fathoms. Small vessels can find fairly good shelter from all directions in the south part of Helianthus Cove. Both bights have freshwater lakes at the head; the lakes are about 10 feet above high water. A very low depression extends across the island from Helianthus Cove to Lost Harbor.

- (140) A long peninsula extends east from the middle of Akun Island; off the north point at the outer end of the peninsula is a twin pinnacle, 230 feet high, which marks the southeast limit of Akun Bay. A gully indents the cliffs at the most east point of the peninsula.

- (141) The north ends of Akun Island are **Billings Head** and **Akun Head**, 4 miles to the west. These massive heads, separated by Little Bay, both have precipitous faces. Akun Head has a flat top 1,645 feet high. The bluffs on its north and west sides are marked by rust-colored stratification. Billings Head rises to 1,660 feet.

- (142) **Billings Head Bight**, on the north side of Billings Head, is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the rookery which encompasses Akun Head, Little Bay, Billings Head and the north portion of Akun Bay. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

- (143) **Billings Head Light** (54°17'48"N., 165°31'28"W.), 210 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the north side of the head.

- (144) **Little Bay** indents the north end of Akun Island. A spit makes out from the west shore. The area south of the spit is closed by a rocky bar and only boats drawing a few feet can enter. Anchorage outside of the spit may be had in 8 to 10 fathoms, sandy bottom.

(145)

Akun Strait to Ridge Point

- (146) **Akun Strait**, between Akun and Akutan Islands, is about 1 mile at its narrowest part, but the navigable channel is reduced to 400 yards by reefs that extend from the east shore and by Race Rocks on the west. Race Rocks, a flat rocky islet 25 feet high and some smaller bare rocks, are near the north end of the strait and 0.3 mile from its west shore. **Akun Strait Light** (54°07'55"N., 165°39'35"W.), 46 feet above the water, is shown from a skeleton tower on Race Rocks.

- (147) Shoal water and heavy kelp surround Race Rocks for a distance of about 250 yards; **Swirl Rock**, awash at half tide, is 250 yards north of the light and is conspicuous

by the heavy overfall and swirls. The main channel is to the east and north of Race Rocks and Swirl Rock and has a least depth of 4½ fathoms. The channel to the west of Race Rocks has a least depth of 2 fathoms and is subject to currents that are just as strong as in the main channel.

- (148) With northwest winds in the summer, a bank of fog frequently streaks through Akun Strait, but under such circumstances, vessels navigating Avatanak Pass will usually sight the south shore of Akutan Island.

- (149) Currents in Akun Strait attain an estimated velocity of 12 knots in the narrowest part, setting north with the flood. The slack period is very short. Tide rips, swirls and overfalls occur and with a north wind or swell are extremely heavy. By skirting the kelp off Race Rocks and passing within 100 yards to the north of Swirl Rock, local vessels are able to keep out of the strength of the current.

- (150) **Green Bight**, indenting the southeast shore of Akutan Island at the entrance to Akun Strait, offers temporary anchorage in 6 to 8 fathoms 0.4 mile from shore. It is convenient while waiting for slack water to pass through the strait.

- (151) The west or Akutan Island shore of Akun Strait is low, except in the middle where a rounded peak 650 feet high forms a steep cliff on the north point of Green Bight. Shoal water marked by heavy kelp extends about 500 yards east from this point.

- (152) From this low point with an arch, 1.6 miles west from Jackass Point, the east shore of Akun Strait extends northwest for about 2 miles to a point with a flat grassy islet, 80 feet high, close by. Shoal water marked by heavy kelp fringes this shore. A rounded rock, 10 feet high, is 650 yards northwest from the arch. A group of rocks, bare at low water, are about 500 yards northwest of the rounded rock and about the same distance off the east shore of the strait.

- (153) The west end of the flat grassy islet can be approached to within 250 yards on the west, but shoal water marked by heavy kelp extends about 700 yards south. A flat islet, 200 feet high, is 0.4 mile north of the grassy islet; the passage between the two islets is obstructed and foul.

- (154) **Akutan Bay** opens into the Bering Sea between Akun Head and North Head. This approach from the Bering Sea is used to reach Akutan Harbor and other arms of the bay. Akun Strait, previously described, connects Akutan Bay with Avatanak Strait and the Pacific, but it is comparatively shoal and contracted and is not recommended.

- (155) **Akutan Harbor** opens into Akutan Bay on the north side of the peninsula that juts into Akun Strait from Akutan Island; the preferred approach to the harbor is from north through Akutan Bay. The harbor is 4 miles long and from 0.5 to 1.8 miles wide. Except for crabpots, there are no known dangers over 300 yards from shore. From the head of the harbor, a trail leads inland to the hot springs.

- (156) **Akutan Point**, on the north side of the entrance to Akutan Harbor, is a grassy hummock 175 feet high,

which is connected with the island proper by a low grassy neck. A light is on the point.

- (157) **Akutan** is on the north side of the harbor about 2 miles west from the east end of Akutan Point. Two wharves are at Akutan. A sector light (54°07'56"N., 165°46'54"W.) is southwest of Akutan. On the opposite side of the harbor 1 mile farther west is a former whaling station with a pier in ruins. A concrete piling, covered at high water, is just off the pier; this wharf is not recommended for mooring. There is a post office in Akutan. Seaplane flights and ferry service are available. An airport servicing Akutan is located approximately 6 miles east across Akutan Bay on the southwest side of Akun Island.

- (158) A recommended anchorage is about 300 yards off the village in 22 fathoms. Vessels can also anchor in the broad bight in the south shore in 15 fathoms, with the east end of Akutan Point bearing **018°**. The bottom at both anchorages is very sticky. The harbor is well sheltered from all except east winds, but heavy williwaws are encountered during gales.

- (159) A cannery (54°07'55"N., 165°47'12"W.), about 0.5 mile west of Akutan, has a dock with 1,600 feet of total berthing space and 15 to 35 feet alongside. The dock can receive and ship cargo, petroleum products and seafood. Fuel, water, fishing supplies and a 17-ton crane are available. The cannery monitors VHF-FM Channel 6.

(160)

Pilotage, Akutan

- (161) Pilotage, except for certain exempted vessels, is compulsory for all vessels navigating the waters of the State of Alaska.

- (162) The Aleutian Islands are served by the Alaska Marine Pilots. (See **Pilotage, general** (indexed), chapter 3, for the pilot pickup stations and other details.)

- (163) **Surf Bay**, on the Akun Island side of Akutan Bay and just north of Akun Strait, is an open bight exposed to the west and north. A group of rocky islets, the highest 64 feet, is in the middle of the bay about 1 mile from shore. A group of rocks, awash at low water, is 0.3 mile north of the islets, and irregular bottom, with least depth of 2½ fathoms, is found 0.3 mile northwest of the rocks. The channel south of the islets is clear, and anchorage can be found in 10 fathoms, 0.4 mile from shore, with good shelter in south and east weather. On the east side of Surf Bay is a sand beach about 1 mile long.

- (164) **Lost Harbor**, 3 miles north of Surf Bay, affords fairly good shelter, although in northwest weather considerable swell rolls in from Akutan Bay. The north side of the harbor has gently sloping sand bottom, with depths of 6 fathoms or more 0.4 mile from shore. A prominent stack and buildings mark the remains of a former sulphur mine on the north shore.

- (165) In 1990, numerous submerged obstructions were reported about 0.6 mile east of the stack in about 54°14'07"N., 165°36'39"W.

- (166) **Sandy Cove** is a small bight about 3 miles northwest of Akutan Point. Small craft can anchor in the center of

the bay in about 5 fathoms, sandy bottom. The cove is exposed to the northeast.

- (167) **Hot Springs Bay** is a wide indentation in Akutan Island opening into Akutan Bay. The point on the northwest side of the entrance is a high, rock cliff; **Ridge Point**, on the east side of the entrance, is a narrow ridge about 356 feet high, which has bare rock cliffs on its west side but slopes rapidly on its east side into a grassy valley and sandy cove. At the head of the bay are three bights; a stream drains into the middle bight from the hot springs 0.5 mile inland.

- (168) A rock, covered 2¼ fathoms, is 0.5 mile from the southeast shore 1.5 miles inside Hot Springs Bay from Ridge Point. There are no other known dangers in the bay. Anchorage in south and west weather can be found in the west part of the bay 0.5 mile from shore, in 14 to 16 fathoms, sandy bottom.

(169)

Akutan Island to Flat Bight

- (170) **Akutan Island**, largest of the Krenitzin Group, is about 9 miles northeast from Unalaska Island and is separated from the latter by Akutan and Unalga Passes.

- (171) The shore of Akutan Island bordering on Akutan Bay and Akun Strait is described in connection with those bodies of water.

- (172) **Akutan Peak**, 4,244 feet high, rises about 600 feet on the south rim of a crater, about 1.2 miles in diameter, to form a sharp summit. It is the highest peak between Unimak and Unalaska Islands.

- (173) **North Head**, the north end of Akutan Island, is a high bold cliff, with a large, deep grassy valley in the otherwise high shore on its east side. About 2 miles southwest of the cape, a narrow, grassy valley separates the high ridge behind North Head from another high ridge; the west side of the valley is a bluff. **North Head Light** (54°13'16"N., 165°58'50"W.), 60 feet above the water, is shown from a pole with a red and white diamond-shaped daymark on the point 1.5 miles west of the head.

- (174) **Open Bight** is an indentation just east of North Head. No depths greater than 10 fathoms are found in the bight. It is exposed to north swell from the Bering Sea and is not recommended as an anchorage.

- (175) A rock awash is about 250 yards off the rounded point just east of Open Bight; a covered rock is inshore from the rock awash.

- (176) **Lava Point**, 6 miles southwest of North Head, is a fairly flat lava bed varying in elevation from 150 feet along the shore to 300 feet at the base of the hill back of it. The cliffs all around the point are nearly vertical except in places where they are broken off. Numerous tunnels are under the cliffs. The northwest face of the hill back of the point is concave and very steep.

- (177) At the end of Lava Point is a flat rock having the same height as the point and slightly detached from it. In foggy weather low points will sometimes be seen below the fog, and the lava flow terminating in Lava Point

often enables the navigator to identify this point. Due to the similarity of the headlands along these islands, this area is one where the navigator has unusual difficulty in identifying landmarks.

- (178) **Lava Bight**, just south of Lava Point, provides temporary anchorage in south and east weather. On the south shore of the bight are several waterfalls, including a large one to the east of a group of small ones. The anchorage is in 12 to 15 fathoms, sandy bottom, 0.5 mile from shore, with the large waterfall bearing **160°**.

- (179) A large circular reef is off the west coast of Akutan Island between Lava Bight and Reef Point; the outer edge of the reef is about 0.9 mile from the shore. The reef is marked by heavy kelp and is studded with numerous rocks that uncover 3 feet. The west part of North Head open at Lava Point is a good range to clear this reef in passing to the north of it. Between the reef and the shore is a passage which has a least depth of $2\frac{3}{4}$ fathoms and is clear of kelp; small boats use the passage to avoid the disturbed water outside.

- (180) **Reef Bight**, on the south side of the reef, is not recommended for anchorage because of poor holding ground.

- (181) **Reef Point**, the west extremity of Akutan Island, is steep and rocky and reaches a height of 500 feet. A low rock 150 yards off the point has the appearance of a stranded freighter when seen from the north or south.

(182)

Currents

- (183) Flood currents with an estimated velocity of 2 knots set along the west shore of Akutan Island as far north as Reef Point. Near Lava Point an ebb current of 1 knot has been observed. Off North Head, currents are weak. A north wind blowing against a flood current produces tide rips as far north as Lava Point.

- (184) The south shore of Akutan Island between Green Bight and Sarana Bay is a steep rocky bluff with numerous boulders that extend about 200 yards offshore. A rectangular rock, 75 feet high, is 225 yards offshore, about 1 mile southwest from the south end of Green Bight. Numerous waterfalls are visible along this shore in rainy weather.

- (185) **Talus Point**, on the east side of the entrance to Sarana Bay, is the end of a rocky ridge, about 1,700 feet high, which has several massive pinnacles split from the top. It is more easily distinguished from offshore than Battery Point.

- (186) **Sarana Bay**, between Talus Point and Battery Point, is 4 miles wide at its entrance, but narrows rapidly to an inner cove about 1 mile wide and 0.7 mile to its head. **Vulcan Point**, on the east side of the entrance to the inner cove, is marked by a flat-topped rock 45 feet high; a reef extends 450 yards southeast from the rock. Anchorage in 5 to 10 fathoms can be found in the inner cove, but the shore should not be approached closer than about 450

yards. The bay is wide open to the south and in a south swell is very uncomfortable.

- (187) **Battery Point**, the southernmost headland of Akutan Island, is marked by a peak with a distinctively shaped conical top resembling a liberty cap; it is faced by steep, high cliffs. Large vessels should give Battery Point a berth of 1.5 miles to avoid a 7-fathom shoal 1.3 miles offshore in a southeast direction; swirls and tide rips mark the shoal. A $3\frac{3}{4}$ -fathom shoal, marked by kelp, is 0.4 mile off the southeast side of Battery Point, and a rock awash is 370 yards off the southwest side.

- (188) **Broad Bight** and **Cascade Bight** are the east and west bights, respectively, between Battery Point and Cape Morgan. This region can be used only for temporary anchorage in north weather. The heads of the two bights have beaches of sand and gravel and each is backed by a low, grassy valley. The bights are separated by a ridge terminating in a bold rocky headland with steep cliffs 800 feet high. Anchorage in Broad Bight can be found in 16 to 20 fathoms, sandy bottom, 0.8 mile from the beach and 1.1 miles 105° from the point of the headland; anchorage in Cascade Bight is in 14 to 16 fathoms, sandy bottom, 0.8 mile from the beach and 0.6 mile west of the same point.

- (189) About 1.3 miles southwest of Cascade Bight is a group of rocky islets; one of them, 298 feet high, is 0.8 mile east of Cape Morgan. Close to these islets on the offshore side the depth is 14 fathoms.

- (190) **Cape Morgan**, the southwest end of Akutan Island, is a prominent headland with steep, high cliffs intersected by dikes of hard rock of characteristic color. **Triplet Rocks**, three pinnacles 8 to 15 feet high, are 600 yards off the cape. In navigating Akutan Pass, Triplet Rocks should be given a berth of over 0.5 mile.

- (191) Cape Morgan is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around this rookery that encompasses Flat, Cascade and Broad Bights and Triplet Rocks. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

- (192) **Flat Bight** is north of a bold headland that forms the northwest part of the Cape Morgan peninsula. At the headland, foul ground with thick kelp extends 0.5 mile offshore, and a covered rock is near a rock awash 0.3 mile north of the headland. The bight is bordered by a gravel beach 1 mile long, which in turn is backed by a low, grassy valley. Temporary anchorage in east weather can be found 0.6 mile from shore in 12 fathoms, sand bottom.

- (193) A large rock 2 feet high is 1 mile off Reef Point and 400 yards from shore. A depth of 12 fathoms can be carried to the face of this rock. There is no kelp around it. Several other rocks are inshore of this one, but they are inside the kelp line. A rock awash is 0.8 mile farther to the south and 250 yards from shore.

- (194) The shore between Reef Point and Flat Bight is an eroded bluff 300 to 600 feet high; when close by, a reddish outcrop is discernible.

(195)

Akutan Pass to Lofty Mountain

(196) **Akutan Pass** and Unalga Pass, on either side of Unalga Island, are ship passages, secondary to Unimak Pass, for entering the Bering Sea from the Pacific through the east part of the Aleutian Chain. Akutan Pass is 2.5 miles wide in its narrowest part between the Baby Islands on the southwest and Triplet Rocks off Cape Morgan. The depths in the pass are very irregular, but no hidden dangers have been found. Depths less than 10 fathoms extend about 0.4 mile south from Triplet Rocks, and the tide rips there are intensified, appearing as breakers. Small craft should avoid them. A narrow shoal with a least depth of 7 fathoms is 3.5 miles northwest from Cape Morgan. The shoal can be detected by the swirls and tide rips marking it.

(197) Akutan Pass is wider than Unalaga Pass, but the currents and tide rips are similar. However, the current is felt over a much greater distance, so that with an adverse current it has been found that better time can be made by using Unalaga Pass. On the larger tides, the flood creates such heavy tide rips north of Unalaga Island, even in calm weather, that it is advisable to be prepared to take seas aboard. Tide rips 15 feet high have been observed. In approaching both Akutan Pass and Baby Pass, fewer rips will be encountered if courses are directed for the area southeast of the Baby Islands and then swing over to either pass. This area is comparatively quiet on the ebb when both of the passes have heavy tide rips.

(198) Akutan Pass, in the daytime and with clear weather and a fair current, furnishes a convenient route for vessels bound to or from Unalaska Bay. From east it is recommended that courses be steered to make land in the vicinity of Tigalda Island and Avatanak Island then follow the south side of these islands until the course is shaped from Rootok Island to Cape Morgan. A midchannel course through the pass is recommended.

(199) Remarks on currents in Akutan Pass will be found in the first part of this chapter. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Akutan Pass. Links to a user guide for this service can be found in chapter 1 of this book.

(200) **Baby Islands**, a group of six low islands in Akutan Pass and north of the east end of Unalga Island, have numerous rocks among them. The islands are all tundra covered. On the west island is a large rookery and the ground is very pitted over almost the entire top. The southeast island is used as a fox ranch. When seen apart from Unalga Island, the Baby Islands are prominent although they tend to blend together to appear as one island.

(201) Numerous submerged rocks, covered 1½ fathoms, in 54°00'13"N., 166°06'05"W., are about 1.0 mile northwest

of the northwest island. Mariners should use extreme caution in this area.

(202) Strong currents sweep among the Baby Islands. The south end of the passage between the two southeast islands is blocked by a reef bare at low water, forming a small protected bay, but strong currents make it a rather uncomfortable anchorage for small boats.

(203) **Baby Pass**, about 0.8 mile wide, separates Unalga Island from the Baby Islands. Ledges along the shore restrict the navigable width, but depths up to 20 fathoms will be found in midchannel. Less water and numerous rocks, described previously, are found at the north end of the pass. A 3½-fathom depth in 54°00'06"N., 166°07'16"W., is at the northwest end of the pass and about 0.65 mile from shore.

(204) On the Unalga shore of Baby Pass is a shallow cove in which small boats may get fair protection from south and west weather; however, a rock awash at low water is a little south of the middle of the cove. Off the north point of the cove is a group of bare rocks that extend into Baby Pass. The outer rock, 12 feet high, is 300 yards from the point. Foul ground extends 400 yards into Baby Pass from the 0.8 mile stretch of shore west of the cove.

(205) Very heavy tide rips occur to the northwest of the Baby Islands on the flood and extend a considerable distance to the southeast on the ebb. (See remarks on tide rips in Akutan Pass.) The flood and ebb current velocity is about 4 and 5 knots, respectively. Flood and ebb velocities of 5.5 and 7 knots occur at times of tropic tides. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Baby Pass. Links to a user guide for this service can be found in chapter 1 of this book.

(206) **Unalga Island** is separated from Unalaska Island by Unalga Pass. The island is low compared with the neighboring islands, the highest point being a rounded hill of 707 feet southwest of the central point. The east end of Unalga Island is a flat-topped hill, 145 feet high.

(207) **Malga Bay**, on the northwest side of Unalga Island, is about 0.6 mile in diameter and affords shelter in south weather. The east shore of the bay is a chain of jagged rocks and islets, the highest being 106 feet. Temporary anchorage in south weather can be found in the center of the bay in 11 fathoms.

(208) On the north coast of Unalga Island, precipitous bluffs rise 100 to 200 feet, blending abruptly at the top into rolling, slightly rising, tundra-covered tableland. There is generally no beach, though a flat rock shelf, from 10 to 30 feet wide, extends from the bluffs to the water's edge. In places a few scattered boulders may be found on the shelf.

(209) On the south shore of Unalga Island, a prominent cylindrical rock, 120 feet high, is 0.5 mile south of the east end of the island and 375 yards offshore. A point terminating in a rounded knoll, 150 feet high, is 1.8 miles southwest of the east extremity.

- (210) A large barn, about 1 mile southwest of the east end of Unalga Island, is on the side of a hill over 100 feet high, and is conspicuous from the south. Several small houses are in the gully below the barn but can be seen only when close-to.
- (211) Numerous boulders and rocks border the south shore of Unalga Island. A dangerous rock, covered 2¼ fathoms, is 700 yards off, midway of this shore.
- (212) Off the southwest extremity of Unalga Island, a group of rocks extend about 200 yards into Unalga Pass, and a rock about 4 feet high near the outer end of the group is conspicuous while entering the pass. The 4-foot rock should be given a berth of 300 yards.
- (213) **Unalga Pass**, the narrowest of the three principally used passes in the east Aleutians, is about 1.3 miles wide in its narrowest part and, with the exception of rocks which make out a short distance from Unalaska and Unalga Islands, is free from dangers. The depths in Unalga Pass vary from 8 fathoms at the south end of the pass in about 53°56'16"N., 166°11'25"W., to over 50 fathoms.
- (214) Under normal conditions the pass is not difficult to navigate as the current sets fair with the pass. In thick weather the shore of Unalga Island can be approached close enough to pick up an echo and followed through the pass. The soundings, especially in the south approaches, furnish numerous characteristic depths to assist a vessel, equipped with echo sounding apparatus, to determine its position. For these reasons, coupled with the fact that this pass has been thoroughly surveyed, it is believed that it has distinct advantages over Akutan Pass for vessels going north, especially in thick weather. However, under exceptional circumstances, currents and tide rips of unusual magnitude may be encountered, and treacherous seas, particularly in the narrow part of Unalga Pass, caused by wind opposing the current, often sweep a vessel without warning. These have caused severe damage and men have been washed overboard with resultant loss of life. There are temporary anchorages, easy of access, at either end of Unalga Pass where better conditions may be awaited.
- (215) South of Unalga Pass, a belt of deep water leading into Beaver Inlet makes the approach to the pass on echo soundings comparatively easy; the 50-fathom curve can be followed along the east limit of the deep and the 100-fathom curve along the north limit. In the outer reaches of Beaver Inlet it has been found possible to catch a glimpse of the shore during the summer fogs. For this reason and because of ease of access, it can be recommended as good practice in thick weather to make the slight detour into the inlet to check the vessel's position before entering Unalga Pass. The currents in the entrance to Beaver Inlet generally do not exceed 2 knots.
- (216) See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Unalga Pass. Links to a user guide for this service can be found in chapter 1 of this book.
- (217) **Deep Bay**, indenting Unalaska Island on the north side of the entrance to Beaver Inlet, is protected on the northeast by rocks awash and small islets which make offshore about 0.3 mile; the ledge continues, totally submerged, 0.3 mile farther and terminates in a kelp-marked ¾-fathom rocky shoal that breaks in southeast weather. A kelp-marked 1¼-fathom rocky shoal is 0.3 mile off the bluff point on the southwest side of the entrance. Temporary anchorage in northwest weather can be found at the entrance to the small cove in the northwest corner of the bay, in 10 to 20 fathoms.
- (218) Beaver Inlet is described later in this chapter.
- (219) From the ledge marking the east part of Deep Bay, the shore extends northeast for 2 miles to Brundage Head. This stretch of shore has numerous rocks and islets that extend as much as 0.3 mile offshore, and strong currents are noticeable.
- (220) **Brundage Head**, on the west side of the south entrance to Unalga Pass, has a knoll 192 feet high at its outer end. A pinnacle rock, 22 feet high and 300 yards east of the point, has deep water outside of it.
- (221) **Fisherman Point**, about 1 mile northwest from Brundage Head, is 140 feet high. A reef, with several bare rocks about 15 feet high and marked by heavy kelp, extends over 400 yards north from the point. The shore between Fisherman Point and Brundage Head is fringed with rocks, but none extend more than about 300 yards into the pass.
- (222) **English Bay**, on the west side of Fisherman Point, is a secure anchorage for small vessels. The west shore of the bay trends due south for about 2 miles to a low point, where it turns sharply west for 0.9 mile to the head of an arm about 0.3 mile wide. The most secure anchorage is in this narrow arm, southwest of the low point at the turn. The width of this anchorage between the 5-fathom curves is about 300 yards. Good anchorage with more swinging room can be found east of the low point in 8 to 10 fathoms, but a shoal area that extends 400 yards off the shore north of the point must be cleared.
- (223) In entering English Bay, account must be taken of the strong currents in Unalga Pass: follow a midchannel course, giving the west shore a berth of at least 0.3 mile, and when heading into the arm at the head of the bay favor the south shore slightly. Good holding ground in 12 to 20 fathoms will be found near the entrance.
- (224) From English Bay north, the Unalaska shore of Unalga Pass is much higher.
- (225) **Erskine Point**, about 3 miles northwest of Fisherman Point, is the north extremity of a ridge 1,432 feet high. Along the shore from English Bay to Erskine Point are numerous rocks, but none are more than 250 yards off.
- (226) **Lofty Mountain**, 2,284 feet high and 2.5 miles southwest from Erskine Point, is a symmetrically-shaped conical peak, the highest point in the vicinity. It is easily identified and, as it is often clear when surroundings are obscured, makes a valuable landmark.

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Unalaska Island

(228)

Unalaska Island, one of the larger of the Fox Islands that form the east group of the Aleutian Island chain, is about 67 miles in length along the axis of the chain. The island is mountainous, and during the greater part of the year the higher elevations are covered with snow. The irregular coastline is broken by three long deep bays; Beaver Inlet, Unalaska Bay and Makushin Bay; as well as by numerous smaller bays and coves. In general, the bays have deep water close to shore, sometimes too deep for convenient anchorage. Makushin Volcano, the highest point on the island, is near the northwest side and about 25 miles from the east end of the island. In clear weather the volcano is a prominent landmark for vessels bound to Dutch Harbor, in Unalaska Bay.

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Naval Defensive Sea Area and Airspace Reservation

(230)

Under the authority of Executive Orders 8680 of February 14, 1941, and 8729 of April 2, 1941, Unalaska Island is a designated Naval Defensive Sea Area and Airspace Reservation. Restrictions imposed under the authority of the above executive orders have been suspended subject to reinstatement without notice at any time that the interests of national defense may require such action.

(231)

Kalekta Bay to Summer Bay

(232)

Kalekta Bay is a broad, open bay in the north end of Unalaska Island just east of Unalaska Bay. An obstruction, covered 11 feet, is reported to be 800 yards off the west shore of the bay in about 53°59'N., 166°21'W. There are no other known dangers over 400 yards from shore. There are a number of places where a vessel may anchor, but as this bay is open north, English Bay and Dutch Harbor are recommended. A pinnacle rock is off Erskine Point, the east point at the entrance, somewhat similar to Priest Rock off Cape Kalekta, but the rock off Erskine Point is distinguished by a smaller one between it and the point. On the west side of Kalekta Bay, 1.8 miles in from Cape Kalekta, is a narrow pinnacle rock 45 feet high, 100 yards offshore.

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On the west side of Kalekta Bay, 3 miles south from Cape Kalekta, a gap cuts through to Constantine Bay in a west-southwest direction. This gap is filled by a lagoon not connected with either bay. A reef extends 400 yards offshore just south of this gap. Anchorage may be found in the south end of the bay 0.5 mile from shore in 12 to 20 fathoms, sandy bottom. Small craft may find anchorage in the center of the small bight 0.5 mile in diameter on the east side of the bay, 1 mile in from Erskine Point, in 5 fathoms, rocky bottom. The holding ground is poor and this bight is not recommended for anchorage except in emergency.

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Unalaska Bay opens into the Bering Sea between Cape Kalekta and Cape Cheerful when on the north side of Unalaska Island. The bay has little commerce except for diesel oil and supplies for the local village of Unalaska. The shores of the bay are in general mountainous, with precipitous sea faces. Amaknak Island is near the south end of the bay. West of the island the water is deep, but there is no good harbor in this part of the bay; east of the island are the important harbors and anchorages of Iliuliuk Bay, Dutch Harbor and Iliuliuk Harbor. The channel to Iliuliuk Bay and Dutch Harbor is free from dangers, except along the shores. Iliuliuk Harbor is obstructed at its entrance by ledges, but with the aid of the buoys, it is not difficult to enter with a vessel under 250 feet in length.

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Unalaska Bay is open to navigation at all seasons. It is reported that on two occasions the drift ice of Bering Sea entered Unalaska Bay, but such an occurrence is so rare that it need not be considered. Ice often forms in the sheltered coves and harbors in cold, calm weather, but it never attains any thickness or interferes with navigation.

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Prominent features

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Makushin Volcano, 6,680 feet high, is the highest point on Unalaska Island. The volcano can generally be seen in clear weather. Table Top Mountain, 2,710 feet high, back of Cape Cheerful, and the crater of an extinct volcano with three points, the highest being 2,293 feet, west of Eider Point, are distinctive. Either peak may be used as a leading mark in approaching Cape Cheerful until close enough to distinguish the surrounding features; however, the crater west of Eider Point can be used only when it is not obstructed from view by the higher elevations northwest of it. On getting close to the island, when the fog hangs over the land but leaves a clear space just along the water's edge, Wislow Island forms a good mark. It is in a small bay about 2 miles west of Cape Cheerful; is a small, rounded island, regular in shape; and stands far enough from the land to be seen as not a part of the main island. West, under similar conditions, Koriga Point can be seen at times. The land slopes gently to the point from Makushin Volcano and ends in a small peak-like formation. From east the cascade southeast of Cape Cheerful is also useful as a mark, particularly in low visibility. Strangers, when in the vicinity and uncertain of the identity of the bay and its landmarks, should endeavor to pick out Ulakta Head. Looking into the bay, its flat top breaking off abruptly to sloping sides presents an appearance unlike any other in the vicinity and shows up well against the background of mountains. When sighted, steer for it, leave it on the starboard hand, and follow around, keeping out of kelp.

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Chelan Bank, the extensive 45-fathom bank that extends about 7 miles northeast from the vicinity of Cape Cheerful, may be found useful in fixing the position of a vessel by soundings. The bottom on the bank is composed of black sand and gravel; on the shelving areas the bottom

is of gray sand and gravel up to about the 80-fathom depth. Chelan Bank, at its northeast end, almost makes a junction with a similar bank that extends north and west from Cape Kalekta, the two banks practically enclosing Unalaska Bay. A light tide rip occurs along the outer edge of Chelan Bank.

(238.001) **Caution**

(238.002) A former 1947 Ordnance Disposal Area containing unexploded ordnance is located approximately 12 miles north of Reese Bay, Unalaska Island at about 54°11'N., 166°41'W. Unexploded ordnance has been brought forth within fishing nets approximately 6.5 miles north of Cape Cheerful at approximately 54°06.5'N., 166°38.0'W. The unexploded ordnance are potentially hazardous and mariners are advised against anchoring, dredging, or trawling in this area due to their presence.

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Routes

(240) **Routes, Unalaska Bay.**—When bound for the bay from any part of Bering Sea, it is recommended to shape the course for Cape Cheerful. In thick weather it is better to fall west of Cape Cheerful and then round it than to fall to the east, with the possibility of being carried by currents into the dangerous regions of the passes.

(241) **Cape Kalekta** is the headland at the east side of the entrance to Unalaska Bay. The headland has two summits 785 and 904 feet high, and a ridge, which sags to about 700 feet, connects the headland with the mountains to the south. The rounded extremity of the cape is the base of the slope from the lesser summit. When viewed sidewise, this slope, which forms the end of the headland, is rounded in outline, rising precipitously at the water's edge and then bending gradually to meet the lesser summit.

(242) The 904-foot summit is very close to the west side of the cape. It is predominant, being the highest point on the headland. Viewing the cape from either side, this summit has somewhat the shape of a crown. When off the extremity of the cape it appears as a sharp peak, and the outline of a spur along the west descent becomes visible. This spur is composed of the massive protuberances, the most prominent of which takes the shape of a vertical shaft of rock rising above the level of the top of Priest Rock.

(243) Cape Kalekta is rugged and precipitous at its extremity and particularly so on its west side. The headland rises almost vertically at the waterline, with a few detached rocks including Priest Rock but no beaches. The area about the extremity is foul and marked by kelp, and a dangerous ledge that uncovers 1 foot, usually marked by breakers, is nearly 0.4 mile north from the cape. The ledge is roughly in line with the pinnacle of Priest Rock and the west parts of the low islets north of Priest Rock. Broken bottom extends about 200 yards farther out. The north end of the cape should be given a berth of at least 1.2 miles to avoid being carried toward the dangers by strong currents. There are pronounced tide rips.

(244) **Priest Rock**, close-to, off the north side of Cape Kalekta, is a pinnacle 204 feet high. It is one of the most important landmarks in making Unalaska. Priest Rock should not be confused with the pinnacle rock off Erskine Point. Two low rocky islets of appreciable area are north of Priest Rock.

(245) The cascade south of Cape Cheerful is visible off Cape Kalekta.

(246) The point on the east shore of Unalaska Bay, about 1.4 miles south of Priest Rock, presents a smooth, rounded profile and is grass covered. The shore on either side of the point has little or no irregularity. The land about the point rises somewhat abruptly at the shore to about 150 feet, then rounds to assume a more or less flat area. This area has a gentle slope toward the steeper slopes leading up to a series of jagged peaks 0.5 mile inland from the point. The peaks have no particular distinctiveness. The 10-fathom depth curve is almost 0.5 mile off the point and broken bottom with a 1½-fathom spot is inside the curve.

(247) **Princess Head**, on the east side of Unalaska Bay, about 1.9 miles southwest of Priest Rock, is a wall-like rock formation that extends out for 200 yards from the shore cliff of that locality. The outer 200-foot length forms the highest part or head of the feature. The head has a fairly level top 214 feet high. The side facing the southwest presents the surface of a rough square, distinguished from the remainder of the rock formation by its lighter shade. Small knobs on the top of the head mark the upper corners of the square. The head is an important and distinctive landmark, especially when in close to the east shore of Unalaska Bay, in thick weather or when fog closes out the peaks. Two low detached rocks are off the end of Princess Head.

(248) The rounded shore in the vicinity of Princess Head is the base of a mountain rising to a peak 1,729 feet high. The south slope of this mountain descends gradually to the lagoon in a low gap which bisects Cape Kalekta peninsula. The point on the rounded shore is a spur from the base of the mountain. The spur parallels Princess Head and is 0.3 mile southwest of it. A smaller projection from the shore is close north of the point. A group of bare rocks are off the point; about 100 yards off the outer one of this group is a rock that uncovers 2 feet.

(249) **Constantine Bay**, on the east side of Unalaska Bay, has shoal and irregular depths, less than 10 fathoms, and its use as an anchorage, except by small craft under favorable conditions, is not recommended. The shore at the head of the bay is sandy. The southwest shore is fringed with rocky ledges. On the east side of the bay is a gap in the land that extends east-northeast to Kalekta Bay. This gap is filled with a lagoon which is not connected with either bay.

(250) The headland west of Constantine Bay is rugged and precipitous and the area near and around its extremity is foul with rocks and kelp. The bluffs along the 1.5-mile stretch of shore south of the extremity, facing Unalaska Bay, are especially high. They are very rugged and have gray, rocky knobs and deep vertical scars, giving the

(264)



appearance of vertical stratification. **Split Top Mountain** marks the south end of this formation; the bluffs rise to more than 1,600 feet near the peak.

- (251) **Summer Bay**, a wide opening in the east shore of Unalaska Bay, opposite Ulakta Head, is composed of several coves, the heads of which are low and sandy. **Morris Cove**, on the east side just north of a prominent headland, has depths less than 4 fathoms, and the bottom is somewhat irregular. In the small cove between the south cove and the headland, the depths decrease uniformly from 4 fathoms in midchannel to the sand shore at the head. The depths in the south cove are shallow and irregular.

(252)

Second Priest Rock to Iliuliuk Harbor

- (253) **Second Priest Rock**, a pinnacle 75 feet high, is close to the north side of the headland between Summer and Iliuliuk Bays. The pinnacle stands on the reef bordering the shore of the headland. A dangerous rocky shoal extends 0.2 mile north from the headland.

- (254) **Ulakta Head**, the north end of **Amaknak Island**, is about 900 feet high. It has a flat top, and in clear weather it is one of the best landmarks for fixing the position of Unalaska Bay. Looking into the bay, its flat top, breaking off abruptly to sloping sides, presents an appearance unlike any other in the vicinity and shows up well against

the background of mountains. From its northwest point a reef extends 0.1 mile, marked by **Needle Rock**, similar in appearance to Priest Rock, but not so large.

- (255) **Ulakta Head Light** ($53^{\circ}55'27''\text{N.}$, $166^{\circ}30'32''\text{W.}$), 61 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the reef bordering the northeast side of Ulakta Head. A pinnacle rock, 30 feet high, adjacent to the shore, is about 50 yards west of the light. Another rock, 20 feet high, is 75 yards northwest of the light.

- (256) **Mount Ballyhoo**, 1,589 feet high, dominates Amaknak Island.

- (257) **Iliuliuk Bay** has its north entrance between Ulakta Head and Second Priest Rock. The entrance is marked by a lighted bell buoy. North of Spithead is a covered ridge that extends across the bay with at least 6 to 7 fathoms near the middle of the bay; kelp has been seen on this ridge in about midchannel. South of this ridge the depths increase to 18 fathoms. There is anchorage almost anywhere in the bay. The usual anchorage is at the head, off shore from the APL container facility, in 14 to 16 fathoms, muddy bottom, where, even with north winds, the force of the sea does not seem to reach. In severe weather, anchorage in Iliuliuk Bay is subject to restrictions. Vessel operators are encouraged to contact the Port of Dutch Harbor at 907-581-1254.

- (257.001) **Caution** - Unexploded ordnance has been observed within nearshore waters of southeast Iliuliuk Bay,

adjacent to the Dutch Harbor Landfill. The unexploded ordnance are potentially hazardous and mariners are advised against anchoring, dredging, or trawling within nearshore waters of southeast Iliuliuk Bay, adjacent to the Dutch Harbor Landfill due to their presence.

- (258) At the head of Iliuliuk Bay, behind the town of Unalaska, is a ravine or break in the mountains that extends through to the water southwest. This is sometimes useful as a guide in entering the bay. Buildings at Unalaska, on the lowland at the head of the bay, are prominent.

- (259) **Spithead** is the end of the long, low sandspit that forms the east side of Dutch Harbor. **Spithead Light** (53°53'51"N., 166°30'56"W.), 38 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the south end of the spit. Shoal water, less than 6 fathoms, marked prominently by kelp, extends 0.3 mile into Iliuliuk Bay from the middle part of the sandspit.

- (260) The west shore of Iliuliuk Bay south of the sandspit is fringed with rocks and should not be approached closer than 0.3 mile.

- (261) **Rocky Point** has a kelp-marked reef that extends 400 yards toward Spithead; the outer limit is marked by a lighted buoy. Along the east side of Rocky Point the reef is extensive; the 10-fathom curve, which marks the outer limit of broken bottom in this part of Iliuliuk Bay, roughly parallels the side of the point at a distance of nearly 400 yards.

- (262) A signal station and six oil storage tanks are on the hillcrest west of Rocky Point. Eight additional tanks are 0.1 mile south of Rocky Point.

- (263) **Dutch Harbor**, on the west side of Iliuliuk Bay, has its entrance between Spithead and Rocky Point. The water is deep close to the shores and in all parts of the harbor except off Rocky Point. The entrance is about 0.5 mile wide and 12 to 18 fathoms deep.

- (263.001) **Caution** - Unexploded ordnance may be present within the nearshore waters of southwest Dutch Harbor near Rocky Point. The unexploded ordnance are potentially hazardous and mariners are advised against anchoring, dredging, or trawling within Dutch Harbor due to their potential presence.

- (265) Anchorage may be had within the harbor in 13 to 18 fathoms. Violent williwaws are experienced during gales, especially from the southwest, and the best shelter will be found under the high part of the island well north of the entrance. Southwest gales practically have a clear sweep across the entrance because of the lowland west. Vessels forced to moor at Delta Western, Dutch Harbor Terminal Wharf during the early spring and fall will find it necessary to use chains and wire cables in addition to mooring lines during the severe gales. Vessel operators are encouraged to contact the Port of Dutch Harbor at 907-581-1254 and consult the **Severe Storm Plan** found at the Marine Exchange of Alaska website at www.mxak.org.

(266) **Wharves**

- (267) Numerous wharves, piers and docks are at Amaknak and Unalaska Islands.

- (268) **Delta Western, Dutch Harbor Terminal Wharf** (53°53'29"N., 166°32'04"W.): a T-head pier about 0.3 mile northwest of Rocky Point; 425-foot face; 35 to 50 feet alongside; deck height, 18 feet; pipelines extend from wharf to storage tanks in rear, total capacity of 187,650 barrels; receipt and shipment of petroleum products; and fueling vessels; owned and operated by Delta Western, Inc.

- (269) Large vessels berthing at this pier should drop anchor well offshore and warp in to enable them to get away at once in case of a sudden onshore wind.

- (270) **City of Unalaska, Marine Center Wharf (City Dock)** (53°54'06"N., 166°31'47"W.): 0.7 mile north-northeast of Delta Western, Dutch Harbor Terminal Wharf; 690-foot face, 2,150 feet total berthing space with dolphins; 40 feet alongside; deck height, 18 feet; 6,000 feet of covered storage area; open storage area for 1,500 containers; receipt and shipment of containerized general cargo; landing for passenger-and-vehicular ferry; and fueling vessels; owned by City of Unalaska and operated by various operators.

- (271) **City of Unalaska, Ballyhoo Wharf** (53°54'09"N., 166°31'41"W.): across from Spithead; 231-foot face; 40 feet alongside; deck height, 18 feet; receipt and shipment of conventional general cargo; handling supplies and equipment for fishing vessels; and fueling vessels; owned by City of Unalaska and operated by City of Unalaska and North Pacific Fuel.

- (272) **North Pacific Fuel, Dutch Harbor Ballyhoo Wharf** (53°54'11"N., 166°31'39"W.): across from Spithead; 156-foot face; 42 to 45 feet alongside; deck height, 18 feet; receipt of petroleum products; and fueling vessels; owned by City of Unalaska and operated by North Pacific Fuel.

- (273) **City of Unalaska, International Port of Dutch Harbor, UMC USCG Wharf (Coast Guard Dock)** (53°54'16"N., 166°31'34"W.): across from Spithead; 526-foot face; 626 feet total berthing space with dolphins; 25 feet alongside; deck height, 18 feet; mooring U.S. Coast Guard vessels; and fueling vessels; owned by City of Unalaska and operated by U.S. Coast Guard, State of Alaska, and North Pacific Fuel.

- (274) **Kloosterboer, Dutch Harbor Wharf** (53°54'36"N., 166°30'46"W.): near the head of Dutch Harbor; 660-foot face; 660 feet total berthing space; 30 feet alongside; deck height, 16 feet; receipt and shipment of frozen cargo; handling supplies and equipment for fishing vessels; owned by Kloosterboer Dutch Harbor LLC, and operated by Kloosterboer Dutch Harbor LLC.

- (275) **North Pacific Fuel, Dutch Harbor Resort Wharf** (53°54'41"N., 166°30'40"W.): near head of Dutch Harbor; 285-foot face; 25 feet alongside; deck height, 16 feet; receipt of petroleum products; and fueling vessels;

owned by Western Pioneer, Inc. and operated by North Pacific Fuel.

- (276) **Trident Seafoods Corp., Dutch Harbor Wharf** (53°54'44"N., 166°30'32"W.): near head of Dutch Harbor; 450-foot face; 20 feet alongside; deck height, 16 feet; handling supplies and equipment for fishing vessels; and fueling vessels; owned by Western Pioneer, Inc. and operated by Trident Seafoods and North Pacific Fuel.

- (277) **Icicle Seafoods, Dutch Harbor Docks** (53°54'15"N., 166°30'25"W.): two parallel, opposite-hand, L-shaped piers at the head of Dutch Harbor; 20 feet alongside; deck height, 16 feet; receipt of seafood; and handling supplies and equipment for fishing vessels; owned by Ounalashka Corp. and operated by Icicle Seafoods, Inc.

- (278) **City of Unalaska, Light Cargo Dock** (53°54'28"N., 166°30'33"W.): 0.7 mile north of Spithead; 150-foot face; 395 feet total berthing space with bollards; 25 feet alongside; deck height, 20 feet; handling supplies and equipment for fishing vessels; owned and operated by City of Unalaska.

- (279) **City of Unalaska, Spit Dock** (53°54'17"N., 166°30'42"W.): 0.45 mile north of Spithead; 980-foot face; 1,975 feet total berthing space; 50 feet alongside; deck height, 12 feet; mooring commercial vessels, fishing vessels and barges; owned and operated by City of Unalaska.

- (280) **APL Limited, Dutch Harbor Wharf** (53°53'00"N., 166°31'52"W.): 0.35 mile southwest of Rocky Point; 538-foot face, 1,050 feet total berthing space; 45 feet alongside; deck height, 12 feet; cranes to 40 tons; open storage area for 1,000 containers; receipt and shipment of containerized and conventional general cargo; and fueling vessels; owned by Dutch Harbor Development Corp. and operated by APL Limited and Delta Western, Inc.

- (281) Immediately south of the container pier and fronting Iliuliuk Bay are the ruins of another oil pier; submerged piles and broken dolphins may exist.

(282) **Pilotage, Dutch Harbor**

- (283) Pilotage, except for certain exempted vessels, is compulsory for all vessels navigating the waters of the State of Alaska.

- (284) The Aleutian Islands are served by the Alaska Marine Pilots. (See **Pilotage, General** (indexed), chapter 3, for the pilot pickup stations and other details.)

- (285) Dutch Harbor is a **customs station**.

- (286) An **Immigration and Naturalization Service** office is located in Dutch Harbor. (See chapter 3, Vessel Arrival Inspections, and Appendix A for address.)

(287) **Supplies**

- (288) Provisions and fuel are available in Unalaska and Dutch Harbor.

(289)

Repairs

- (290) In Dutch Harbor, a marine repair plant on two permanently moored barges is located north of the Coast Guard Dock with cranes up to 70 tons.

(291)

Communication

- (292) Passengers, freight, and mail for Dutch Harbor are handled by air. Dutch harbor has regular airline service year round. Telephone service is available. The Dutch Harbor marine operator monitors VHF-FM channel 16 or 14.

- (293) An outpatient clinic in Dutch Harbor has two physician's assistants on call 24 hours a day. The clinic monitors 4125 kHz during working hours and may also be reached through the Unalaska Police Department on VHF-FM channel 16.

- (294) **Unalaska** is on a low strip of land between the shore at the head of Iliuliuk Bay and a stream that empties into Iliuliuk Harbor. The wharf is at the west end of the strip of lowland. The north side of the wharf faces the passage connecting the bay and harbor and the west side faces the harbor. The channel approach to the passage is endangered by Iliuliuk Reef, which is off the town in Iliuliuk Bay.

- (295) Unalaska is the largest settlement in the Aleutian Islands. The original Russian settlement was known as Iliuliuk. The principal sources of income are fishing and seasonal employment in the Pribilof Islands. Unalaska has a public grade and high school and a general store.

- (296) A radio station is at Unalaska. Telephone service is available as well as cellular phone service for some carriers although coverage may be intermittent. Internet service is also available, however speeds are limited. Passengers, freight and mail for Unalaska are handled by air.

- (297) **Iliuliuk Reef** is a ledge extending 250 yards in an east-west direction due north of **East Channel** leading into **Iliulik Harbor**. The reef bares in places, and from the east dry rocks, a ledge covered 12 to 15 feet and marked by kelp, extends 100 yards south. A lighted buoy, due south of the reef, marks the approximate west extent of the reef.

- (298) **East Channel**, connecting Iliuliuk Bay and Harbor, is dredged and marked by lighted buoys at the southeast end and a buoy on the north edge near Iliuliuk Reef. **South Channel**, connecting Iliuliuk Harbor and Captains Bay, is marked by daybeacons. A fixed highway bridge with a clearance of 20 feet crosses South Channel about 300 yards south-southeast of Expedition Island.

- (299) The channel north of Iliuliuk Reef should not be attempted without local knowledge.

- (300) **Iliuliuk Harbor**, the harbor for Unalaska, may be entered through East Channel from Iliuliuk Bay or through South Channel from Captains Bay. The latter channel carries the greater depth and is the most easily

navigated during north weather. The distance through East Channel is shorter for vessels from Dutch Harbor or the Bering Sea, but South Channel is nearer for vessels from Captains Bay. Iliuliuk Harbor is small but landlocked with good holding ground and has general depths of 5 to 9 fathoms. There is sufficient room for backing and filling in turning a moderate-sized ship. Violent williwaws are experienced with south gales. Vessels under 200 feet in length have ridden out gales here, but the short scope of chain allowable usually causes the anchor to drag. Because of the limited swinging room, an anchorage in Dutch Harbor or Unalaska Bay is recommended during severe weather. During the fishing season, the harbor entrances become highly congested with fishing vessels, and caution should be exercised when entering or leaving.

(301) Seafood processing facilities are along the shores of Iliuliuk Harbor.

(302) **Expedition Island** is a small peninsula in the south part of Iliuliuk Harbor. On the peninsula is a small grove of evergreens. The trees are from Sitka and were transplanted in 1805 by a Russian Orthodox priest. A similar grove is near the old Indian village of Amaknak. The trees are 25 feet in height and their number apparently has not increased. A small-craft facility operated by the city of Unalaska is along the south side of the peninsula.

(303) **Bailey Ledge**, near midchannel at the south end of the passage leading from Captains Bay to Iliuliuk Harbor, is of small extent, steep-to, and marked by a light with a red and white daymark. Only a small amount of kelp marks this ledge, which uncovers 2 feet.

(304) **South Amaknak Rocks** is in a foul area that extends from the south extremity of Amaknak Island. The smaller 15-foot rock near the south edge of the foul ground is about 250 yards southeast of the larger 30-foot rock. A deepwater channel is located between the lighted buoy marking this group of rocks and Bailey Ledge and also about 350 yards east of the easternmost South Amaknak Rock, thence deep water may be carried to the south entrance of Iliuliuk Harbor by favoring midchannel.

(305)

Captains Bay to Nateekin Bay

(306) **Captains Bay** is the arm at the head of Unalaska Bay. Its entrance from Unalaska Bay direct is west of Amaknak Island. The bay is also entered, as previously indicated, by passing east of Amaknak Island through Iliuliuk Harbor and through the channel leading south from the harbor.

(307) The entrance to Captains Bay west of Amaknak Island is marked by **Arch Rock Light 3A** (53°52'36"N., 166°34'01"W.), 15 feet high, adjacent to the point 0.8 mile from the south extremity of the island. Directly opposite Arch Rock is a bold point marking the west side of the entrance. A reef extends 220 yards channelward from the bold point, and from the reef a bar of 5 to 8 fathoms extends to a point nearly three-quarters of the distance across the entrance toward Arch Rock. Large

vessels in entering should pass about 100 to 200 yards off Arch Rock as the deepwater channel will be found at those distances.

(308)

Wharves

(309) Numerous wharves, piers, and docks are on the east side of Captain's Bay. Many of the seafood industry facilities are not listed.

(310) **Westward Seafoods, Unalaska Dock** (53°51'27"N., 163°33'20"W.): about 1.0 mile south of Unalaska-Amaknak Island Bridge; 800-foot face; 35 to 45 feet alongside; deck height, 15 feet; 1,110 feet total berthing space; receipt of seafood and petroleum products; handling supplies and equipment for fishing vessels; and fueling vessels; owned by Westward Seafoods, Inc. and operated by Westward Seafoods, Inc. and North Pacific Fuel.

(311) **North Pacific Fuel, Captain's Bay Terminal Wharf** (53°51'05"N., 163°34'24"W.): about 1.5 miles south of Arch Rock Light 3A; 507-foot face, 43 to 60 feet alongside; deck height, 12 feet; 617 feet total berthing space; receipt and shipment of conventional general cargo; receipt of seafood and petroleum products, handling supplies and equipment for fishing vessels; and fueling vessel; owned by Crowley Marine Services, Inc. and operated by North Pacific Fuel and Crowley Marine Services, Inc. In 1982, unexploded ordnance was reported about 40 feet seaward of the wharf; vessels are advised not to use anchors in this area.

(312) **Northland Service, Dutch Harbor Wharf** (53°50'34"N., 165°34'53"W.): about 0.6 mile south of Captain's Bay Terminal Wharf; 200-foot face; 30 feet alongside; deck height, 15 feet; 360 feet total berthing space; receipt and shipment of conventional and roll-on/roll-off general cargo and seafood; handling supplies and equipment for fishing vessels; owned by Offshore Systems, Inc. and operated by Northland Services, Inc.

(313)

Anchorage

(314) Anchorage may be had in 17 to 20 fathoms, even bottom of mud and sand, about 0.4 mile east of the northernmost island of the group at the head of Captains Bay. In approaching this anchorage favor the east shore to avoid **Swallow Reef** and the shoal to the south, which is northeast and east of the northernmost island. A lighted buoy is on the east side of Swallow Reef. Small craft may obtain secure shelter in 9 fathoms, sand and mud bottom, at **Port Levashef**, east of the most south of the larger islands.

(315) **Hog Island**, 300 feet high, is off the west side of Amaknak Island in Unalaska Bay. Foul ground, marked by a lighted buoy, extends nearly 0.5 mile north of Hog Island. The reef that extends 0.3 mile from the north point, a part of the foul ground, has numerous rock ledges jutting up from the rocky bottom. Clear passage exists between Hog Island and Amaknak Island. Favor Amaknak Island to avoid a 2¾ fathom shoal that is foul with kelp, 450

yards northeast of the south end of Hog Island, and a 3¾ fathom shoal that is 550 yards east-southeast of the south end of Hog Island. Additionally, a 5-fathom shoal exists 850 yards east-southeast of the south end of Hog Island. A large, thick kelp patch, marked by a lighted buoy on its southwest end, is south of Hog Island and should be avoided.

(316)

Caution

(317) Mariners are advised that low-flying aircraft may be present over Hog Island Channel in the vicinity of Dutch Harbor Airport. The Federal Aviation Administration (FAA) has requested that vessels transit with caution and not anchor within the area.

(318) **Nateekin Bay**, on the southwest side of Unalaska Bay, affords good anchorage, except for northeast winds, for small craft in 3 to 4 fathoms, 490 yards east of the head of the middle bight on the northwest shore. A shoal area covered 1 fathom is southeast of this anchorage.

(319)

Broad Bay to Eider Point

(320) **Broad Bay**, a bight in the west shore of Unalaska Bay 2.5 miles south of Eider Point, affords fair anchorage in 25 fathoms, sandy bottom, 0.5 mile offshore. The anchorage is exposed to northeast weather.

(321) **Wide Bay**, 1.2 miles southwest of Eider Point, also affords fair anchorage in 25 fathoms, mud and sand bottom, 1 mile from the west head of the bight.

(322) **Makushin Valley**, which borders on Broad Bay, is flat, covered with grass and about 15 feet above high water. A sizable stream courses through the valley. The shore along Broad Bay is composed of very coarse sand. A similar valley and shore are found at Wide Bay. The cascade just north of Broad Bay can be seen only in the restricted area to the southeast.

(323) **Eider Point** is at the south end of a rocky bluff-formation of great height that characterizes the coast for several miles along the west side of the entrance to Unalaska Bay. In places along this shore there are massive accumulations of loose rock and earth lying at the base of the bluffs, formed by slides. These accumulations are bordered by flat, smooth, sandy bottom stretches. The bluffs are of horizontal strata and like those about Cape Cheerful have a distinct reddish hue. Eider Point is a comparatively low projection pointing south, and from it a narrow reef extends in the same direction for 0.6 mile into Unalaska Bay and is marked at the southern extent by a lighted buoy. The reef uncovers 2 to 4 feet and usually breaks at high tide but not generally along its outer limit. Although deep water can be carried from seaward to the vicinity of the end of the reef, Eider Point should be given a berth of at least 1 mile when passing south of it.

(323.001) **Caution** - Unexploded ordnance has been reported along the nearshore waters of Eider Point. The unexploded ordnance are potentially hazardous and mariners are

advised against anchoring, dredging, or trawling near Eider Point due to their presence.

(324) A 133-foot-high cascade, 1.5 miles north of Eider Point, is the most distinguishable feature between the point and Cape Cheerful. It is an excellent landmark during a low-ceiling fog when only the lower part of the cascade can be seen. The bluff at the cascade has a remarkably smooth, stratified face, up to an elevation of about 100 feet, where it forms a distinct horizontal line directly above which the upper strata have very irregular surfaces and appear to overhang in places. The cascade emerges from a slight depression at the top to form a comparatively narrow white waterfall to a sea level bench at the foot of the bluff. On either side of the cascade are rockslide and earthslide accumulations.

(325)

Cape Cheerful to Cape Kovrizhka

(326) **Cape Cheerful**, on the north coast of Unalaska Island just west of Unalaska Bay, consists of a main and secondary headland about 1 mile apart, the two headlands being separated by a low grassy valley emerging on the coast. The valley is flat at the base and resembles an amphitheater; it is called The Dry Dock.

(327) The main headland is the west of the two and is adjacent to Reese Bay; it projects farther to seaward and is marked by a peak 1,808 feet high. The peak is close to the extremity of the headland and dominates the end of the cape from most directions of approach. It may, however, merge with the higher elevations back of the secondary headland or be shut out by them when the peak and higher elevations are on range.

(327.001) **Caution** - Unexploded ordnance has been brought forth within fishing nets at a location approximately 6.5 miles north of Cape Cheerful in the vicinity of 54°06.5'N., 166°38.0'W. The unexploded ordnance are potentially hazardous and mariners are advised against anchoring, dredging, or trawling in this area due to their presence.

(328) **Table Top Mountain**, 2,710 feet high, is the highest summit back of Cape Cheerful, but there are several peaks to the east of it approaching this elevation. The west slope of this mountain descends to the deep valley that extends inland from Reese Bay. The mountain has a wide flat top.

(329) The bluffs about Cape Cheerful present a rugged and almost vertical appearance and rise to 1,000 feet. They are of horizontal strata and have a distinct reddish hue. Large slides of loose rock at the waterline can be seen along the cape. The area outside the base of the bluffs that is at or near the high-water line is very rocky and strewn with boulders. Foul ground extends several hundred yards off the extremity of the secondary headland and its northeast side. Depths of over 20 fathoms are found 0.5 mile off Cape Cheerful.

(330) The currents apparently meet in the vicinity of Cape Cheerful, the flood setting northwest from Unalga Pass and northeast from Point Kadin, creating eddies that set

toward the shore. In rough weather the seas are apparently accentuated in the vicinity of the cape, and it is therefore advisable to give it a wide berth under such conditions.

(331) **Reese Bay**, a cove between Cape Cheerful and Cape Wislow, is about 1 mile wide at the head, which consists of a low, narrow strip of sand with some marsh grass. It indents the shoreline about 1 mile but appears larger because of the pronounced valley or mountain gap that extends inland from the coarse sand beach at the head of the cove. It is a long flat, covered with grass, partly filled by **McLees Lake** and flanked by the side slopes of ridges that terminate at each cape. **Wislow Island** is in the middle of Reese Bay and, although rocky, appears regularly rounded in shape. It is 121 feet high, and the top is grass covered. Wislow Island stands out prominently against the low background and is a good landmark during low visibility. Anchorage in 14 fathoms may be found 0.5 mile northeast from Wislow Island, with some shelter from southeast weather. There are depths of 2 to 3 fathoms south of Wislow Island but no shelter in north weather, and the shape of the bay apparently concentrates the effect of any north swell so that it breaks well off the shore at the head of the bay.

(332) The channel west of Wislow Island is blocked by a detached, rocky shoal, marked by kelp, with a depth of 1¼ fathoms, lying 350 yards west from the south end of Wislow Island.

(333) **Cape Wislow**, 2.5 miles west of Cape Cheerful, is dominated by **Mount Marshall Reese**, 2,545 feet high. This peak is at the north end of the long ridge that parallels the low valley that extends inland from Reese Bay. The land slopes gradually and evenly from Mount Marshall Reese to the end of Cape Wislow where it terminates in a bluff about 600 feet high.

(334) Southwest of Cape Wislow, about 1 and 3 miles, respectively, are two remarkable rocky cliffs about 2,000 feet high. They appear as equilateral triangles from the northwest. A small triangular bluff, 560 feet high, is between them. Several large waterfalls emerge from the gullies between these bluffs; the most prominent of the waterfalls is about 1.7 miles west of Cape Wislow. Emerging from a V-shaped gully, the water makes a vertical drop of 139 feet to the high-water line. Being a spray of white foamy water, it is visible against the dark rocky cliff for some distance and makes a good landmark when viewed from the northeast.

(335) **Irishmans Hat**, a square tower rock 85 feet high, is about 0.2 mile offshore from the foot of the west cliff 3 miles southwest of Cape Wislow. This rock can seldom be identified from any direction except north, where it shows clear of the land. Irishmans Hat is surrounded by a kelp-covered reef.

(336) **Driftwood Bay**, just west of Irishmans Hat and about 6 miles west from Cape Cheerful, is an open bight, with a sand and gravel beach at its head. The lowland inshore from the bay is a large, swampy valley covered with marsh grass. The lowland to the south, separating the mountainous mass of Makushin Volcano from the

highland in the vicinity of Mount Marshall Reese, often can be recognized from offshore when the mountains are in clouds.

(337) Anchorage with some shelter from southwest and southeast weather can be found in 11 fathoms 0.5 mile from the west shore, with Point Tebenkof bearing about 275°. The depths shoal rapidly towards the head of the bay, and depths of 3 fathoms and less are found 600 yards offshore near the southeast part of the bay.

(338) **Point Tebenkof**, the west point of Driftwood Bay, is probably the most readily identifiable of any of the points along this stretch of coast, especially from the southwest. The point terminates in a grassy bluff 800 to 1,000 feet high that overlooks the points to the southwest.

(339) From Point Tebenkof the land rises gradually and evenly to a flat-topped peak or ridge 3,505 feet high, 2.8 miles inland. From the southwest this ridge is seen on the skyline as a straight line slightly inclined to the horizon and terminating at the inshore end in a smoothly rounded peak that is a spur from the higher land about Makushin Volcano.

(340) **Red Cinder Dome**, 1,874 feet high, is 1.1 miles south of Point Tebenkof and to the east of the ridge. This crater peak shows over the ridge to the west as a flat-topped hump appearing as a part of this ridge. It is a useful landmark because it is often clear when all other peaks are obscured. It can be identified readily from northeast as it shows clear over the lower land at the head of Driftwood Bay, while all other points and landmarks merge with the higher land in the background.

(341) Point Tebenkof should be given a berth of at least 0.5 mile. Two rocks awash at high water are 200 yards offshore about 0.4 mile west of the point, and a 2¼-fathoms shoal, marked by heavy kelp, is 375 yards offshore, outside of the rocks awash.

(342) A large slide 1.3 miles west of Point Tebenkof may be identified under certain conditions of light. The bare place has the shape of an enormous keyhole, about 600 feet high.

(343) **Bishop Point** is a level tablelike projection, 254 feet high, about 3 miles southwest from Point Tebenkof. It terminates in a pinnacle 102 feet high. A deep gorge extends 3.5 miles south from the point. Cascades are visible in summer high up on the walls of this gorge.

(344) Temporary anchorage in south weather may be found 0.4 mile from shore in about 16 fathoms 1 mile east-northeast from Bishop Point or 0.5 mile west-southwest from it.

(345) Two large waterfalls, one of which is divided into two cascades about 100 feet high, are 1.6 miles southwest from Bishop Point and are visible to the north and northeast.

(346) **Koriga Point**, 5 miles southwest of Point Tebenkof, is about 140 feet high and is difficult to distinguish except from the southwest. There are a number of rocky islets close to shore east and west of the point. Deep water, 40 fathoms, is found within 0.3 mile of the point.

- (347) A round hill, 320 feet high, is about 0.8 mile southwest of Koriga Point and can be identified from the southwest when it is clear of Point Tebenkof but is difficult to distinguish when seen against the higher land.
- (348) The shore southwest of Koriga Point is composed of rocky bluffs 100 to 300 feet high. A small cove with a sandy beach, 1.8 miles southwest of the point, has depths of less than 5 fathoms, and the east part of the cove is obstructed by rocks and kelp.
- (349) **Point Kadin**, 3 miles southwest of Koriga Point, is an inconspicuous, rounding section of the northwest coast of Unalaska Island. A group of rocks 18 feet high are 250 yards off the cape. About 0.4 mile southwest is another group of rocks 7 feet high, 350 yards offshore from a waterfall about 60 feet high, visible only from the north. Extending northwest and west more than 0.5 mile from these rocks is a rocky bank with depths from $5\frac{1}{4}$ to 8 fathoms, while depths of 11 fathoms are found about 1 mile west. Tide rips occur in this vicinity, and in heavy weather the seas are perceptibly heavier. It is recommended that Point Kadin be given a wide berth, especially in bad weather.
- (350) **Makushin Volcano**, 6,680 feet high, is a flat-topped snow-covered mass with several jagged peaks of about the same elevation surrounding it. It can easily be identified when not covered by clouds. The westernmost of these jagged peaks is particularly sharp and distinct and has an elevation of 5,242 feet. A large glacier covers the entire top of the peak and extends down into the large valleys at its base. Faint clouds of vapor steam from the northeast end of the snow field may be visible.
- (351) **Cape Kovrizhka**, 5 miles southwest of Point Kadin, is very prominent and easily distinguished by the dome-shaped rocky hill, 233 feet high, that forms its westernmost extremity. Numerous rocks are found around this cape, and it should be given a berth of 1 mile. Under certain combinations of wind and current comparatively heavy tide rips occur in the vicinity of the cape.
- (352) **Round Top**, about 1 mile inland at Cape Kovrizhka, is a massive, round-topped peak, 2,452 feet high, separated from the peaks surrounding Makushin Volcano and higher than any of the nearby peaks. It is a useful landmark.
- (353) On the north side of Cape Kovrizhka is a small open bay that affords a temporary anchorage during moderate southeast weather. Differences from normal magnetic variation of as much as 3° have been observed at the cape.
- (354) **Makushin Bay**, indenting the west side of Unalaska Island, is 2.5 miles wide at the entrance and extends in an east direction for 5 miles to the entrance of Anderson, Cannery and Portage Bays.
- (355) **Makushin Point**, on the north side of the entrance to Makushin Bay, rises to 762 feet and is grass covered. It is made prominent by a number of small knolls scattered over its top. Just north of the point there is a low valley that extends from Makushin Bay to Volcano Bay.
- (356) The abandoned village of **Makushin** is on the east side of Makushin Point. Water is obtainable from a stream nearby.
- (357) The north side of the entrance to Makushin Bay is marked by **Rock Islet**, 104 feet high, 0.5 mile southwest of Makushin Point, with several rocks between it and the point. There are no known dangers if the south shore is given a clearance of at least 0.3 mile. An abrupt shoal, with least depth of 16 fathoms, is 1.2 miles southwest from Rock Islet.
- (358) A prevailing current sets in a north direction off Makushin Bay. The combined effect of the currents, including tidal currents, and winds causes a very noticeable choppy sea with attending tide rips across the entrance of the bay.
- (359) Vessels have anchored in 15 fathoms, mud bottom, about 0.3 mile off the beach in the cove east of Makushin Point with **Priest Rock**, 80 feet high just south of the abandoned village, bearing 230° . This anchorage is good for west and north weather, but with south weather considerable swell makes in, and in east weather, it becomes quite rough.
- (360) **Humpback Bay**, on the northeast side of Makushin Bay, offers good anchorage for large vessels in all but west weather. Enter the bay from the southwest on a course of 055° , keeping Cathedral Rocks about 600 yards to starboard. Anchorage can be had in 25 to 47 fathoms, mud bottom.
- (361) **Anderson Bay**, the south arm of Makushin Bay, affords several good anchorages of moderate size and at least one anchorage for one or more larger ships. A gravel spit, forming **Tarasof Point**, on the west side of the entrance, is a distinctive feature. The bay extends about 6 miles in a southeast direction and terminates in two arms, **Naginak Cove** on the west and **Udamak Cove** on the east, with wedge-shaped **Iksiak Point** between them. Four well-rounded, grass-covered islands are in the east half of the bay. These islands are well apart from one another; **Peter Island**, the northernmost, is near **Anderson Point**, the east entrance point of the bay, and the southernmost is well inside the entrance to Udamak Cove.
- (362) Anchorage in Anderson Bay is in 20 fathoms, mud bottom, in a bight between the second island from the north and the main shore. The anchorage in Naginak Cove is in a mud bottom north of the narrow pass formed by two opposing points. The pass is about 1.2 miles from Iksiak Point and is obstructed by a dangerous $1\frac{1}{2}$ -fathom shoal in midchannel. Anchorage in Udamak Cove is east

Volcano Bay to Skan Point

- (355) **Volcano Bay**, immediately south and east of Cape Kovrizhka, is small and open to the west and south, forming a fair anchorage for east weather. However, strong winds are to be expected, and with winds shifting to the south and west the bay becomes quite rough and dangerous for small craft.

of the fourth island in 22 fathoms, mud bottom, on a ridge that extends from the middle of the island to the main east shore.

(365) **Cannery Bay**, 1 mile to the east of Anderson Bay, extends about 3 miles in a southeast and east direction. Near the head and on the south side of the bay is an abandoned wharf and cannery. The only anchorage in the bay is at the east end, about 0.4 mile northeast of the abandoned cannery in 15 to 17 fathoms, soft bottom.

(366) **Portage Bay** extends about 4 miles in an east direction from **Cannery Point**. Two shoals, with least depths of $5\frac{3}{4}$ and $6\frac{1}{2}$ fathoms, are almost in midentrance. Indifferent anchorage for small vessels may be had in 19 fathoms, sticky bottom, midway between the north shore and the $1\frac{1}{2}$ -fathom shoal and rocks near the head of the bay.

(367) A trail to Unalaska begins at the prominent valley about 1 mile from the head and on the north side of Portage Bay. The trip to Unalaska takes about 8 hours.

(368) **Cape Starichkof**, forming the south entrance point to Makushin Bay, is marked by an off-lying rock 27 feet high. Numerous rocks, covered and awash, are found along the shore in this vicinity but are not known to extend more than 0.3 mile from the beach. The mountains rise abruptly from the beach in this vicinity to 1,600 feet.

(369) Two miles south of Cape Starichkof is a deep narrow valley, trending east. Convenient anchorage in southeast weather can be found 0.5 mile from shore off this valley in about 20 fathoms, with the center of the valley bearing about 110° and a conspicuous small 4-foot rock, 150 yards off the shore at the south edge of the valley, bearing about 150° . Launches can find more shelter by anchoring closer to shore. A small bank with least depth of $6\frac{1}{4}$ fathoms is 450 yards west of the rock previously mentioned.

(370) **Skan Bay**, on the west side of Unalaska Island, has its northeast entrance point at the ledge 2 miles south of Cape Starichkof. It is 2 miles wide at the entrance and extends about 4 miles in a southeast direction.

(371) A bank, with a least depth of $3\frac{3}{4}$ fathoms, is in the bay entrance, 1.4 miles 205° from the point on the northeast side and 0.8 mile north of the southwest entrance point.

(372) The two arms at the head of Skan Bay are separated by **Skan Point**, a high headland. The east arm is too deep for convenient anchorage. The entrance to the south arm is about 0.4 mile wide and choked with heavy kelp but has a least depth of about 5 fathoms in midchannel. This arm extends over 1 mile to the south, has depths over 30 fathoms and provides good shelter from all directions, but the depth is too great in that the length of anchor cable required would not allow sufficient swinging room.

(373) The survey ship used an anchorage just inside the southwest entrance point of Skan Bay, a little less than 0.5 mile from shore in 15 fathoms, where some shelter from west weather was found.

(374)

Spray Cape to Cape Aspid

(375) **Spray Cape**, about 3 miles west of the southwest entrance point of Skan Bay, is conspicuous from the north. A small islet, about 80 feet high, is close to shore off its northwest side, and rocks covered at high water extend southwest from this point.

(376) The shore between Skan Bay and Spray Cape is fringed with pinnacle rocks and islets, and a bank, covered $6\frac{3}{4}$ fathoms at its outer edge, extends more than 0.5 mile offshore. In 2004, a visible wreck was reported about 0.4 mile offshore in $53^\circ38'04''N$, $167^\circ07'30''W$.

(377) From Spray Cape the shore trends south for 3.5 miles to the entrance of Pumicestone Bay. It is high and steep, fringed by rocks. An anchorage with good shelter in southeast weather can be found 0.4 mile from shore at the entrance to Pumicestone Bay in 20 fathoms off a small bight.

(378) **Pumicestone Bay**, on the northwest side of the long west extension of Unalaska Island, is 1.5 miles wide at the entrance but narrows rapidly to less than 0.5 mile. The bay extends about 7 miles in an east direction with an abrupt S-turn to the north and east about 4 miles from the entrance. The turn is partially blocked by a small flat-topped island about 30 yards in extent and 36 feet high, leaving a clear channel 300 yards wide.

(379) The north shore of Pumicestone Bay is formed by low, grass-covered hills. The shore is extremely rocky and rugged, the bluffs having a general elevation of 50 feet. The south shore is almost vertical and is characterized by many slides. The bay is divided by the turn into an outer and an inner bay. The inner bay is almost surrounded by high, precipitous mountains, except at the head where the mountains recede from the shore, leaving a narrow, flat grassland some 200 to 400 yards in width.

(380) Two large streams flow into the bay, one on the northeast and the other at the south side of the head of the bay. At the turn of Pumicestone Bay is a strip of shingle beach on the east side, backed by a narrow strip of grassland, that extends to the high bluffs in back of it. A conspicuous waterfall about 800 feet high is at the south end of the beach.

(381) The outer bay is very deep. The water shoals gradually from over 40 fathoms at the entrance to less than 30 fathoms at the turn. There is little shoal water suitable for anchorage and no protection from west weather.

(382) At the head, the inner bay widens, forming a basin 0.5 mile in diameter where good anchorage may be found in 20 fathoms or less. The southeast part of this basin shoals abruptly from 10 fathoms to less than 1 fathom.

(383) **Kashega Point**, on the south side of the entrance to Pumicestone Bay, is 1,447 feet high, and deep water is found close to its north shore.

(384) About 1.5 miles south of Kashega Point is a bold rocky island about 80 feet high, 600 yards from shore.

McIver Bight, about 1 mile in diameter, indents the shore east of this island. Good anchorage can be found in the center of the bay in about 10 fathoms with the island bearing west. The bay is exposed to the west and northwest, but small boats can find some shelter from west weather by anchoring closer to shore. The southeast part of the bay has depths of 2 to 4 fathoms.

- (385) **Kashega Bay** is on the northwest side of the long west extension of Unalaska Island and about 25 miles from Umnak Pass. At the southwest side of the entrance is **Buck Island**, low and grassy. About 1.5 miles northwest of Buck Island is a narrow rocky ledge that extends northwest about 0.4 mile on which are the two conspicuous **Kashega Pinnacles**. The outer one is about 95 feet high, the inner one about 35 feet high. These pinnacles are the most conspicuous landmarks in approaching the bay. About 0.3 mile northwest of the higher pinnacle is a small rock 5 feet high.

- (386) The bay has a navigable entrance 0.5 mile wide and is about 1.5 miles long in a southeast direction. **Kashega**, a small village at the southeast end, has a school, church, sheep-ranch buildings, and a few houses. The village shows seaward through a small angle and then is not visible until arriving well inside the bay. Neither a post office nor supplies are available. The anchorage in the bay is exposed to the northwest, and the holding bottom is reported none too good. In proceeding to the anchorage, favor the north shore to avoid a kelp-marked 2¼-fathom shoal 250 yards from the south shore and 0.5 mile northwest of the village church; anchor in 6 fathoms with the church bearing about 165°.

- (387) The valley at the head of Kashega Bay leads to Kuliliak Bay on the Pacific Ocean side of Unalaska Island. It is about 4 miles long and 1 mile wide and extends in an east-west direction. The floor of this valley is covered with freshwater lagoons that are fed by small streams. The sides of the valley are bounded by high hills entirely covered with grass. The hills to the north are rolling, while to the south they are steep with a jagged skyline. The streams that empty from the lagoons into Kashega Bay are shallow at their mouths. Local residents of Kashega village report that during heavy northwest weather the tide backs up into the lagoons. The shores of the lagoons are mostly rocky with very few stretches of sand beach.

- (388) Just west of Kashega Bay is **Buck Bight**. It is clear, except near the head. The bight is open to the north.

- (389) **Sedanka Point**, 175 feet high, is the west extremity of the ridge bordering the south side of Kashega Bay. A conspicuous rocky pinnacle, 43 feet high, is 1.5 miles northwest of the point of the cape, with a smaller pinnacle 200 yards to the southeast. A long ledge extends toward the pinnacles from the point, and a conspicuous flat-topped islet, 105 feet high, is 0.3 mile off the point.

- (390) **Kismaliuk Bay** is an irregular-shaped bay that extends roughly southeast for 2 miles, then branching into two arms. The arms are separated by a low broad point from which a chain of bare rocky islets extend about

0.5 mile in a northwest direction. The outer islet is 20 feet high.

- (391) The north arm is of little importance and affords little protection from northwest weather. The depth shoals gradually from 17 fathoms at the entrance.

- (392) The south arm, protected by the chain of islets, affords excellent protection. The entrance channel is clear and about 500 yards wide, with a midchannel depth of 11 fathoms. The water shoals gradually to the head of the arm.

- (393) **Alimuda Bay** is the long bay immediately west of Kismaliuk Bay and separated from it by **Manning Point**, a bold, blunt, precipitous point of land from which an exposed rock ledge makes out some 400 yards in a northwest direction. The bay extends about 3.5 miles southeast, with a width at the entrance of over 1.5 miles.

- (394) The water shoals gradually from 20 fathoms at the entrance to the gravel beach at the head. About 1 mile inside the entrance a low, flat reef, with several exposed rocks, makes out some 300 yards from a point on the east shore. About 1 mile farther inside, shoal water that extends some 600 yards off the same shore has a least depth of 1½ fathoms. A bar, covered 4¾ fathoms, extends southwest across the bay about 0.7 mile from the head. Between this bar and the head of the bay, a depth of 8 fathoms is found, where small vessels can anchor. As this bar is exposed to all north and west weather, large swells rolling over it, often breaking there, reform to pile up in breakers at the head of the bay. This bay affords no real protection for any but small boats and then only in the extreme southeast bend behind a small reef making out from the southeast shore.

- (395) **Wedge Point**, a bold narrow ridge having remarkable serrations, separates Alimuda and Aspid Bays. **Aspid Bay** extends about 2.2 miles in a south direction and affords little protection from north and northwest weather. The depth at the entrance is about 15 fathoms; from there the water shoals gradually to the head of the bay. The bottom is good for anchoring in 9 to 10 fathoms.

- (396) **Cape Aspid**, on the north side of Unalaska Island about 15 miles from its west extremity at Umnak Pass, has a conical hilltop, 901 feet high, near its outer end. The shape of the hill, terminating in bluffs at the shore, is unlike any other land in the vicinity, as all the adjoining hills are flat topped with comparatively gentle slopes. The cape is a useful landmark from all directions except north where the hill merges with the higher land to the south. A ledge extends about 400 yards offshore, terminating in an islet about 24 feet high.

- (397) The wide bight southwest of Cape Aspid affords shelter in east and south weather in 12 to 15 fathoms, 0.4 mile from shore. A 4¾-fathom spot, marked by kelp, is 0.6 mile northeast of Ram Point and about 0.4 mile from shore.

- (398) At some distance off the coast, between Capes Aspid and Spray, the currents vary in intensity from little or nothing off Spray Cape to about 1 knot off Cape Aspid. The current generally sets east, the flood being stronger

than the ebb. Farther inshore, at Cape Aspid, the currents are stronger and small tide rips appear at the turn of the current. These rips extend as far east as Sedanka Point.

(399)

Ram Point to Chernofski Harbor

(400) **Ram Point**, 2.7 miles southwest of Cape Aspid, is a prominent wedge-shaped rock 240 feet high. Ledges, bare at low water, extend 0.2 mile offshore from the point. To the west of the point there is a stretch of low land over which the masts of vessels anchored in Chernofski Harbor are visible from offshore.

(401) **Chernofski Point**, the east entrance point of Chernofski Harbor, is the extremity of a narrow peninsula composed of several hills, the highest being 315 feet. The seaward face of the peninsula is rugged and broken, and there are rocks that extend seaward on the line of the ridge. A deep, wide cleft across the middle of this peninsula may be identified when bearing south of southeast.

(402) Several small detached banks, covered 10 to 12 fathoms, surrounded by deeper water are to the north of Chernofski Point.

(403) **Chernofski Harbor** is a small, land-locked harbor that in its inner part affords complete shelter from swell and from winds except williwaws. Depths are suitable for anchorage; bottom is mud. With heavy south and southeast winds the harbor experiences a strong sweep from the valleys at the head. The entrance between Chernofski Point and **West Point** is through a narrow canal formed by low promontories, about 4 miles southwest of Cape Aspid.

(404) The entrance to Chernofski Harbor is difficult as there are no conspicuous landmarks. From the entrance, the northeast tangent of Umnak Island (Cape Idak) bears 309°. Wedge-shaped Ram Point, about 1 mile east of Chernofski Point, may help to identify the locality. A shoal with a least depth of 5½ fathoms is almost in the middle of the entrance, about 900 yards southwest of Chernofski Point. A midchannel course should be followed into the harbor because of the projecting ledges that extend on both sides. Several buildings associated with ranching operations exist within the sight of Mailboat Cove. Anchorage can be had in the middle of **Mutton Cove** in 10 to 12 fathoms, mud bottom.

(404.001) **Caution** - Unexploded ordnance has been reported along the bottom of Mutton Cove. The unexploded ordnance are potentially hazardous and mariners are advised against anchoring, dredging, or trawling within Mutton Cove due to their presence.

(405) A large ruined pier is on the northeast side of the cove; a smaller ruined pier is on the southwest side.

(406) Water can be obtained from a stream in the south part of the bay. The head of the bay, at the southeast end, is shallow and can be used only by small boats.

(407) The north coast of Unalaska Island west of Chernofski Harbor is described in connection with Umnak Pass.

(408)

Sedanka Island to Kayak Cape

(409)

Sedanka Island, close to the east end of Unalaska Island on the Pacific side and separated from the latter island by narrow, deep Udagak Strait, appears as a part of Unalaska Island. The island is mountainous and covered with tundra. There are numerous peaks, separated by deep valleys, running northwest, but none of the peaks are conspicuous from east. The highest peak, 2,130 feet, is in the southwest part of the island. The outer coast is broken by bays and coves separated by bold, rocky headlands.

(410)

Cape Sedanka, the east point of the island, terminates in a knoll 375 feet high. Rocks and islets fringe the shore, but deep water is found at a distance of 400 yards. The coast on the southeast side of the cape is unusually steep and reaches an elevation of 1,269 feet.

(411)

Egg Island is 0.6 mile in diameter, 541 feet high and about 1.5 miles northeast from Cape Sedanka. It is a grassy island with a bluff rocky shore, and has numerous rocks and islets within 200 yards of the shore, but beyond this distance deep water is found all around the island.

(412)

Old Man Rocks, a group of four, two of which are prominent, are 0.9 mile northwest of Egg Island. The two conspicuous rocks are 100 and 39 feet high. The group is surrounded by deep water at a distance of 200 yards.

(413)

Sedanka Pass separates Egg Island and Old Man Rocks from Sedanka Island. It is about 1.5 miles wide and has depths of 30 to 40 fathoms. The Sedanka Island shore should be given a berth of 0.5 mile. Strong currents with rips are experienced occasionally around Cape Sedanka and just south of Old Man Rocks.

(414)

The Signals are three rocks off the east coast of Sedanka Island. **Outer Signal**, 30 feet high, is 3.2 miles south of Egg Island and has a small rock, 10 feet high, 0.3 mile southeast of it. Deep water is found close to these rocks. **Inner Signal** is 3 miles south of Cape Sedanka and 0.8 mile off the nearest Sedanka Island shore; it is 126 feet high and is surrounded by a shoal and reef area 0.4 mile in diameter. A bar, covered 7 to 8 fathoms, reaches from this area to the nearest point of Sedanka Island. The passage between the Inner and Outer Signals is clear.

(415)

About 15 miles southeast of Egg Island, after gradual shoaling from the 100-fathom curve to about 45 fathoms, the water deepens to over 60 fathoms, forming an underwater basin about 6 miles wide that leads northwest into Beaver Inlet, furnishing an excellent pathway for vessels equipped with echo sounding apparatus. A crescent-shaped bank of rock formation within the basin of deep water and 2 miles east of Egg Island has general depths of 12 to 14 fathoms and a least depth of 9 fathoms on the west part of the bank. The 50-fathom curve surrounding the bank approximates a circle about 1.5 miles in diameter.

(416)

When navigating on soundings in thick weather this bank and the characteristic deep water afford an opportunity to check a vessel's position. The navigator

in finding his way on soundings to the bank must guard against the mischance of nearing Egg Island; the shoaling of the depths in doing so may mislead him in assuming that he is approaching the bank. A definite knowledge from soundings taken regularly along the course from seaward is necessary to avoid this error.

(417) From Cape Sedanka the shore on the Pacific side trends southwest for 3 miles, then turns southeast for 1 mile to a precipitous point, enclosing a small bight where temporary anchorage in west weather can be found. The bottom of fine gray sand slopes gradually from the sand beach at the head of the bight to the 20-fathom curve 1 mile offshore. To enter the bight, pass midway between Outer Signal and Egg Island.

(418) On the southeast side of Sedanka Island, east of Udagak Strait, are three bays separated by bold headlands; the largest bay is 4 miles northeast of the entrance to Udagak Strait and extends 2 miles inland in a northwest direction. Good anchorage may be found 0.5 mile from the head of the bay in 7 fathoms. This bay is protected from all except southeast weather. The two other bays that are nearer Udagak Strait afford protection from the north and west.

(419) The south end of Sedanka Island is a double point. On the east prong is a conspicuous sharp pinnacle rising about 100 feet from a flat ledge.

(420) **Udagak Strait**, between Sedanka and Unalaska Islands, provides a direct passage from the Pacific Ocean to Beaver Inlet. Foul ground extends 300 yards from the west shore of the strait at the entrance, but a midchannel course clears this ground. The narrows at the halfway point in Udagak Strait have a width of 0.25 mile, and the channel is slightly over 0.1 mile wide in a depth over 10 fathoms.

(421) The current velocity is about 2 knots on the flood and about 1 knot on the ebb. At the south entrance of the strait and through the narrows the flood sets from the Pacific. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(422) The strait has good water throughout. However, in the narrows, which run east and west, the channel turns around a reef on the south side of the east end and then in a reverse turn passes around a rocky shoal on the north side at the west end. The reef is off the northeast side of a broad gravel spit that forms the south side of the narrows. The reef is marked by kelp and rocks awash at three points. One or more of the rocks are generally visible. The rocky shoal has a least depth of $3\frac{1}{4}$ fathoms and extends 200 yards from the south side of a pointed, gravel spit which forms the west end of the north side of the narrows. The currents in the narrows necessitate caution as to their sheering effect on a vessel swinging to avoid the dangers. Anchorage in the south entrance of the strait is uncomfortable because of the current.

(423) **Udagak Bay**, an indentation in the west shore of Udagak Strait, affords anchorage in 12 to 19 fathoms, sand and mud bottom, about 0.3 to 0.4 mile from the head of the bay. Small boats may anchor in 6 to 10 fathoms, mud bottom, farther toward the head. The bay affords good protection in any weather.

(424) Light tide rips were frequently observed in the area off the mouth of Udagak Bay, sometimes they extended well into the bay. These rips usually occurred when the wind was contrary to the current. Numerous swirls were also encountered in the same area at all times when the currents were more than 1 knot.

(425) **Beaver Inlet** has its entrance between Brundage Head and Cape Sedanka and extends 17 miles southwest into the east end of Unalaska Island. It has an average width of about 3 miles in its outer reaches, narrowing to about 1.6 miles near its head. The deep water in the bay extends east between Unalga and Egg Islands, making access to the inlet comparatively easy for a vessel equipped with echo sounding apparatus.

(426) Currents in Beaver Inlet are negligible and in the entrance between Egg and Unalga Islands will not ordinarily exceed 2 knots.

(427)

Local magnetic disturbance

(428) Differences of as much as 4° from the normal variation have been observed on Round Island and as much as 3° on the north shore of Erskine Bay.

(429) From Cape Sedanka, the southeast entrance point of Beaver Inlet, the shore trends northwest for 1.6 miles to a point marked by a small natural arch and having a chain of rocky islets that extend north about 200 yards. Just west of this point is an open bight, 1 mile wide and 0.4 mile long, which furnishes convenient temporary anchorage in south weather, well out of any swell. Anchor in the middle of the bight about 0.3 mile from shore, with Old Man Rocks showing between the rocky islets off the point to the east, in about 16 fathoms. Smaller boats can move farther into lesser depths near the west end of the bight.

(430) **Sisek Cove**, about 4 miles southwest from Old Man Rocks, is too deep for anchorage.

(431) **Udamat Bay** makes into Sedanka Island from Beaver Inlet 5.5 miles southwest from Old Man Rocks and just west of **Biorka**, a small native settlement having a conspicuous church. The bay is 1 mile wide to a point 0.8 mile from its head where it narrows to 0.3 mile. A low valley extends southeast from the head of the bay to the outer coast. About 1.4 miles south of the east entrance point, a reef makes out 200 yards from the east shore. With this exception the shores are clear, and a depth of 20 fathoms will be found within 250 yards or less of the shore. If necessary to anchor in the bay, the best places are at the head of the bay or just north of the reef, mentioned above, in a small bight indenting the east shore, but there will be scant swinging room. A small rocky patch, covered 15 to 25 fathoms, is 0.4 mile northwest from the

same reef and may offer anchorage with more swinging room.

(432) **Strait Bay**, about 8 miles southwest from Old Man Rocks, is 1.1 miles long, tapering from 1 mile wide at its entrance to 0.4 mile wide near the head. The bay is clear except for a 5½-fathom spot in the center. Anchorage may be had at the head of the bay in 20 fathoms about 250 yards from shore. A valley extends south and east from its head, and during a blow the wind is funneled into the bay through this valley.

(433) **Amugul Bay** makes south from Beaver Inlet about 3 miles southwest of the entrance to Udagak Strait. **Round Island**, 136 feet high, marks the east side of Amugul Bay entrance. The bay affords fair anchorage for medium-sized craft in 22 fathoms, mud bottom, 0.2 mile from the head of the west bight. The south arm affords excellent anchorage for small craft in 10 fathoms, mud bottom, 0.1 mile from the head.

(434) At the head of Beaver Inlet are four small bays; named in order, following the south shore around to the north shore, they are: **Tanaskan Bay**, **Final Bay**, **Kisselen Bay** and **Erskine Bay**. Temporary anchorage only can be found near the heads of these bays for medium-sized craft. The small bight on the south side of Kisselen Bay affords excellent anchorage for small craft in 5 fathoms, mud bottom, 0.1 mile from the head. In approaching this anchorage, care should be taken to avoid a reef, which uncovers 1 foot, 160 yards south of the south island of a group of four. In Final Bay are heavy williwaws and a strong draw.

(435) **Dushkot Island** is along the north shore of Beaver Inlet near the head.

(436) **Uniktali Bay** makes into the north shore of Beaver Inlet about 15 miles above its entrance. This bay is nearly 3 miles long in a west direction and 0.3 mile wide at its narrowest part near its head. An anchorage, practically landlocked but limited to medium-sized vessels, may be found in 20 fathoms, muddy bottom, 0.5 mile from the head of Uniktali Bay. In entering, keep to midbay as far as the narrows, then favor the south shore to avoid a 6-fathom shoal that is 260 yards off the north shore.

(437) **Small Bay**, east of Uniktali Bay, affords good anchorage in 10 fathoms, 0.3 mile from the head.

(438) **Ugadaga Bay** is an indentation in the north shore of Beaver Inlet 8 miles above the entrance. From the head of Ugadaga Bay a trail leads to Unalaska. Fair anchorage may be found 0.4 mile from the head of the bay in 20 fathoms, even bottom.

(439) **Agamgik Bay**, indenting the north shore of Beaver Inlet, 5.5 miles southwest of its entrance, offers anchorage in good holding ground with fair shelter, except in severe southeast weather. The bay is 1.2 miles wide at the entrance. Opposite a small rocky peninsula jutting out from the west side about 1.4 miles from the west entrance point, the width is reduced to 0.4 mile. The anchorage is in this narrow portion in 16 to 20 fathoms. The bay is comparatively free from williwaws.

(440) **Eagle Rock**, a large, flat-topped pinnacle 75 feet high, is 125 yards off the rounded point on the east side of the entrance to Agamgik Bay. Off the west point of the entrance, covered rocks and rocks awash extend from 0.1 to 0.3 mile into the entrance. A rock, 6 feet high, is outside of this rocky area and 600 yards east of the point.

(441) The north shore of Beaver Inlet extends east from the east entrance point of Agamgik Bay for almost 3 miles to the west entrance point of Deep Bay, where it turns sharply to the north and northwest for 1.2 miles, forming the west shore of Deep Bay, which has been described earlier with Unalga Pass. About halfway between the two bays is a conspicuous waterfall, 350 feet high, with a pinnacle rock 40 feet high just to the west of its base.

(442) The gap between the mountains on either side of the south part of Udagak Strait stands out in a measure, from a southeast direction, against a background of mountains on the west side of the north end of the strait. The 1.5-mile stretch of shore forming the south entrance of the strait on the Unalaska Island side is at the base of a very steep side of a ridge, the summit of which is 1,920 feet high.

(443) Mountain ridges just west of Udagak Strait are normal to the trend of the outer coast, generally ending in deeply eroded cliffs. The mountains appear in confusion and can be identified only by a close study of the chart.

(444) With the exception of Outer Signal, Inner Signal, the reef off Reef Point, and the rocks and ledges close to shore, the south coasts of Sedanka Island and Unalaska Island, as far west as Eagle Point, are free from outlying dangers.

(445) Between Udagak Strait and Kayak Cape the valleys between the headlands have been partially filled with debris, forming a series of bights with shingle beaches at their heads. Behind these beaches are grassy flats and, in most cases, lagoons. The headlands between the bights protrude from the generally high mountain mass. The valleys, with the exception of one that leads through a mountain pass to the head of one of the bays of Beaver Inlet, are in the form of amphitheaters. Numerous rocks and ledges are within 50 to 100 yards from the shores and occasionally as far as 200 to 350 yards. The waters along the shoreline are generally foul with covered and bare boulders.

(446) **Hive Bay**, about 5 miles southwest of Udagak Strait, is the largest of these bights, its two arms affording good protection from north weather. The west arm of the bay affords good anchorage in 8 to 10 fathoms with generally good holding ground. A rock that uncovers 3 feet is on the west side of the entrance to the east arm of Hive Bay. The headland between the two arms is recessive and undistinguished. The headland west of Hive Bay is deeply eroded. It has sharp ridges and three closely spaced summits of nearly equal elevation, with successively lower spurs toward the point. The cliffs are marked by narrow dark strata rising toward the point. The west side of this headland has a very conspicuous boulder slide.

(447) The bight just west of Hive Bay has a short stretch of shingle beach, behind which is a valley leading inland

over gentle slopes to a mountain pass with an estimated elevation of 400 feet. Beyond the pass is Tanaskan Bay, an arm of Beaver Inlet. The headland forming the west side of this bight has a reddish cliff, particularly noticeable from the southwest.

- (448) **Staraya Bay**, north of Kayak Cape, is divided into two parts by a bold promontory on which the remnants of volcanic craters are easily seen. Near the outer end of the headland forming the east side of the north arm of the bay is a natural rock bridge arching from the cliff and footing in the shallow water near the shore. This span is about 50 feet, and the height under the arch is about the same. Ledges extend about 200 yards offshore from the outer end of this headland. The west arm of Staraya Bay is a bight that has a shingle beach of unusual length and height, 20 to 25 feet, and a large lagoon behind the beach. In the center of the mouth of this bight is a shoal area with a 1-fathom rock.

- (449) **Kayak Cape** is the first prominent point west of Udagak Strait. It is lower than points to the west, bold at the extremity, and its narrow ridge is marked by several prominent humps, 1,000 to 1,400 feet high. Both sides of the cape display a conspicuous black stratum about 400 feet high at the point of the cape. These strata may be seen when the overcast is not too low.

(450)

Protection Bay to Eagle Point

- (451) From Kayak Cape west the shoreline trends to the southwest and is deeply indented by several large bays, affording various degrees of protection. Only two of these, Usof Bay and Blueberry Bay, are considered to give adequate protection from all kinds of weather. Raven Bay is landlocked at the head and gives excellent protection for small craft.

- (452) **Protection Bay**, just west of Kayak Cape, extends about 2 miles inland. There is a slight hook to the west at the head of the bay, giving some protection for small craft from the south. Rocks extend 500 yards southeast off the point of the hook. This bay has the least shelter of any in the vicinity, but its depth is more convenient for anchoring.

- (453) **Cape Yanaliuk**, about 4 miles southwest of Kayak Cape, is easily identified by the mushroom-shaped rock just off the point. Altogether there are two small rock islets just off this point. The cape is narrow and precipitous except for a short distance on the southwest side, which is a grass-covered slope, topped and flanked at each end by rock cliffs. The cape has a markedly jagged appearance. A small bight on the east side of the cape extends 1 mile inland but affords no protection in bad weather.

- (454) **Three Island Bay**, west of Cape Yanaliuk, extends inland for about 5 miles in a north-northwest direction; it affords fair protection for small craft in any weather in 8 to 15 fathoms at the head of the bay, behind three small islands that give the bay its name. Deep water carries through to the head of the bay between the islands.

Care must be exercised not to anchor too close to the rocks north of the east island, nor to the shoal water at the north end of the bay. Swinging room is restricted for vessels exceeding 100 feet in length, and the area affords only fair anchorage and protection for small craft. It is subject to violent williwaws, and in south weather a rather heavy swell from outside makes it uncomfortable. **Foam Cove**, 1 mile above the west entrance point, provides fair temporary anchorage near the mouth of a stream which shows conspicuously from the bay entrance.

- (455) **Blueberry Bay**, the next bay west of Three Island Bay, extends inland in a northwest direction for about 3 miles. A fairly sharp turn to the north for about 1 mile makes the head of the bay landlocked and affords good shelter. The upper half of Blueberry Bay has a rugged shoreline characterized by narrow gravel and boulder beaches, or rocky shoreline with smooth rock slopes. Anchorage may be had in 15 to 20 fathoms in the middle of Blueberry Bay about 0.5 mile below the head in good holding bottom. The swinging room is entirely adequate for small craft and should suffice for ships of moderate size. Being entirely landlocked, there is almost entire freedom from swell. Winds are generally more moderate than in nearby localities and, as far as is known, never blow across the bay. Water is available.

- (456) **Whalebone Cape** is characterized by a bare, rocky, 2,000-foot peak that appears as a series of broken rust-colored cliffs from offshore. At the base of the mountain is a gray rockslide about 300 feet high. The foot of the slide extends to the high water line. The shore around the point of the cape is very rugged and broken and dangerous for boat landings because of numerous rock islets, rocks awash and covered rocks close inshore.

- (457) **Usof Bay**, just west of Whalebone Cape, extends inland about 8 miles in a north-northwest direction and affords good anchorage at the head in 20 fathoms, sand bottom. The width of the bay narrows to 0.5 mile about 5 miles from the entrance and a slight turn to the north for about 1 mile makes the head of the bay landlocked. The general depth of the bay is over 60 fathoms. A small hanging glacier shows at the head of the bay over the west side of the narrows as seen from the entrance.

- (458) Good anchorage for small craft is found in **Johnson Cove**, at the mouth of a canyon on the west side about 5 miles in from the entrance, in 7 to 10 fathoms, mud bottom. The south arm of Johnson Cove should be avoided as it is shallow and filled with rocks. To the north of the canyon is a conspicuous cascade.

- (459) The shoreline of Usof Bay is rocky and precipitous except at the heads of several coves or bights that occur at irregular intervals. Thick, long grass covers the flats and ascends the mountains, in some cases covering the slopes as high as 2,000 feet. There are numerous rock islets offshore at short distances and irregular intervals. Kelp is general along the rocky shoreline. A strong west set of the current was noticed on the rising tide off the west side of the entrance to Usof Bay in 1939. This condition was noted by the survey party because it was generally taken

for granted that the set is to the east on a rising tide. There is not sufficient proof that this condition exists on every rising tide.

(460) **Cape Prominence**, the west entrance point of Usof Bay, is marked by a tall cylindrical pinnacle connected at its base with the main point; it shows conspicuously from south-southwest. A flat ledge makes off 200 to 300 yards and may be mistaken for the ledges off Reef Point.

(461) Another cylindrical rock is about 700 yards north on the east side of the cape. It is not so noticeable but is an aid in identifying Cape Prominence. Breakers extend for about 500 yards off the cape.

(462) **Open Bay** is the bight between Cape Prominence and Reef Point. It has anchorage for large or small vessels in 20 to 5 fathoms with good holding ground and sufficient swinging room. It affords limited protection from the southwest and east but none from the south and southeast.

(463) **Reef Point** is easily identified by a conspicuous cathedral rock, 240 feet high, just off the south extremity. A ledge, just a few feet above high water, extends 0.5 mile off the point. No dangers were noted outside of this ledge. All of this ledge is not above high water; the depth is 5 fathoms between the outer end and inner parts. The outer end is a reef which is continually awash, because of the ocean swell, at all stages of the tide, but may actually be 2 feet above low water.

(464) **Raven Bay**, on the west side of Reef Point, is entered on either side of **Ogangan Island** and extends 3.5 miles inland. The island, 1,180 feet high and 2 miles long by 0.5 mile wide, has its longer axis paralleling the west shore of the bay; the passage between is 0.2 to 0.4 mile wide and has depths of 9 to 15 fathoms.

(465) East of Ogangan Island, the bay narrows from a width of 2 miles at the entrance to 0.3 mile at the north end of the island; depths are 25 to 40 fathoms. Northeast of the island, **Crow Arm**, narrow and stocking shaped, extends 1 mile to the north; the arm is too deep for the restricted swinging room and is subject to considerate swell during south weather.

(466) The west arm of Raven Bay narrows to 250 yards 0.6 mile north of Ogangan Island and continues north for another mile; excellent anchorage for small boats may be had in 3 fathoms just south of the prominent islet at the head of the arm. The sandflats at the extreme head are suitable for beaching small craft.

(467) The small cove west of the middle part of the narrows affords anchorage for small boats in 3 to 5 fathoms, but the swinging room is restricted by the reef on the west side. At the head of the cove are abandoned saltery buildings.

(468) A rock that uncovers is 400 yards south of the cove and slightly to the east of midchannel; the best water is west of the rock. Just south of the entrance to the narrows, a 4¾-fathom rocky shoal can be avoided by favoring the shore on either side.

(469) **Eagle Bay**, 3 miles west of Raven Bay, is about 1.3 miles wide at its entrance and extends 2.5 miles in

a north direction; it is characterized by a particularly rugged and precipitous shoreline. High rocky cliffs rise directly from the high waterline in most parts of the bay, and even where cliffs do not exist, the rise is very steep and broken. The very rugged country surrounding Eagle Bay causes violent williwaws in northwest, north and east weather. **Snipe Point**, which divides the bay into two arms, is very rugged at its south tip and quite rough and weathered on the top.

(470) The east side of the entrance to the bay is marked by **Spire Rock**, a very sharp pinnacle, 100 feet high and about 100 yards offshore. On the west side of the entrance **Label Reef**, awash at high water, extends about 400 yards offshore from the east side of Eagle Point. This reef is plainly visible at any stage of the tide because of breakers.

(471) Each arm of Eagle Bay is about 1 mile long, and both extend in a northeast direction. The northernmost arm is only 0.4 mile wide at its widest point and has numerous islands near its head. The islands are flat, grass covered on top, with steep rocky sides rising directly from the water, and are used as nesting places by many birds in the summer months. The arm is navigable as far as these islands.

(472) The east arm of Eagle Bay is about 0.5 mile wide for half of its length and affords good shelter in all but extreme south weather about 0.3 mile inside the entrance.

(473) Good anchorage may be had in Eagle Bay, but the south swell is often uncomfortable. Anchorage with protection from all weather is available below the island in the north arm, but swinging room is limited. Depths of 11 fathoms extend into both arms of the bay; however, broken bottom with a 3¼-fathom spot extends from Snipe Point almost halfway across the entrance to the north arm.

(474) A portage at the head of Eagle Bay leads to Pumicestone Bay on the north side of the island.

(475) **Eagle Point** is the prominent headland between Eagle and Kuliliak Bays. The point is very rugged at its south end and is distinguished by two prominent mountain peaks. The south peak, at the extreme south end of the point, is 1,340 feet high; when viewed from the south, it appears conical in shape with a very sharp top, but from the east or west it appears flat on top, with a sharp rock peak at the south end of the flat portion. The north peak, about 1 mile northeast from the south one, is 1,520 feet high and appears pyramidal in shape from all directions, with a bare rock top. The blunt south face of the cape is much weathered, with high rock cliffs, numerous slides and many pinnacle rocks along the shore.

(476) A shoal, with 14 fathoms 0.4 mile from shore, makes out to south from the most south tip of Eagle Point. Passing vessels are advised to stay at least 0.5 mile off the cape in order to keep outside the 20-fathom curve.

(477) Appreciable tidal current was noted for a distance of 1 mile off Eagle Point. The flood sets west and the ebb east. With an appreciable swell running against this current, high, sharp, broken seas, with curling tops resembling tide rips, were noted off the point.

(478)

Kuliliak Bay to Serpent Point

(479) **Kuliliak Bay** indents the southeast coast of Unalaska Island immediately to the west of Eagle Point. The bay is divided by a narrow ridge of land into two parts, forming an outer bay and a well-protected inner bay. The end of this narrow ridge of land, **Repetition Point**, is the east point of the entrance to the inner bay.

(480) A chain of low, black rocks extends 325 yards offshore in a southwest direction from the southwest corner of Eagle Point and marks the east side of the entrance to outer Kuliliak Bay. A shoal, covered 18 fathoms, 0.8 mile from shore, extends southwest from the outer rock of this group.

(481) Outer Kuliliak Bay is open to the south. The shores are characterized by rock cliffs, except at the head of the deep bight which forms the northeast part of the outer bay. At the head of this bight is a sand beach and a valley passes north of Eagle Point into Eagle Bay. Anchorage in 13 to 14 fathoms may be had at the opening of the bight, with some protection in southeast weather and good protection in north and northwest weather.

(482) A reef, with the outer part of it awash at half-tide, makes out from the center of the north shore of outer Kuliliak Bay, and a shoal covered 8 fathoms extends 330 yards south from the reef. Otherwise the bottom of the outer bay is very even, decreasing in depth very gradually from 30 fathoms at the entrance to 12 fathoms at an average distance of about 200 yards off the north shore.

(483) Inner Kuliliak Bay affords good shelter east of Nest Rock in 7 fathoms in all weather. The entrance is about 500 yards wide between the cliffs 200 feet high on the west side and on the steep tip of Repetition Point on the east side.

(484) **Dome Rock**, the outer rock of a conspicuous group that extends 120 yards southwest from Repetition Point, is a good landmark on the east side of the entrance to the inner bay; the rock is about 30 feet wide and 5 feet high.

(485) Along the west shore of the entrance to inner Kuliliak Bay, flat reefs, rocks awash, covered rocks and heavy kelp form a fringe some 200 yards wide. In this area is a large black rock, part of which rises to a sharp point 10 feet above high water, 75 yards out from the base of the shore cliff. About 160 yards northeast from this large, black rock and 180 yards offshore is **Perch Rock**, a small, black rock about 1 foot high and surrounded by kelp.

(486) **Trava Point** is a small, flat, grassy point on the south side of inner Kuliliak Bay and 0.5 mile northeast of the entrance. **Nest Rock** is a small, grass-covered rock island, 15 feet high and 0.9 mile northeast of the entrance. **Williwaw Point** is a low, sandy point 0.3 mile beyond Nest Rock. A cascade is 0.5 mile inland from the head of the bay.

(487) The west shore of the inner bay is a curving, pebble beach fronting a low, grassy bluff. A low, wide valley, through which fog often drifts and winds always draw in

north and west weather, extends across Unalaska Island to Kashega Bay. The west and northwest shores of the inner bay, east of Nest Rock, are lined with low reefs, rocks awash and covered, and heavy kelp for a distance of 100 to 300 yards offshore. A rock, awash at half tide and surrounded by kelp, is 300 yards off the north shore directly north of the entrance. A fringe of heavy kelp, 50 yards wide, lines the south shore from the entrance to Trava Point.

(488) Proceeding to sheltered anchorage inside the inner bay, the controlling depth is 4½ fathoms after passing the entrance. A channel with this depth is close to the southeast shore of the bay and just outside a heavy fringe of kelp along the northwest shore of Repetition Point. On the north side of this channel the water shoals very gradually to the opposite side of the bay. Northeast of Trava Point the water deepens and the bottom is flat.

(489) In north and west weather violent williwaws occur in the head of inner Kuliliak Bay, above Williwaw Point. In south weather short seas, almost breaking across the entrance, make it difficult to enter.

(490) West of Kuliliak Bay the country is less rugged; the peaks are lower and are separated by wide valleys. In the spring and early summer the snow disappears from all the peaks to the west, while in the area east of Kuliliak Bay many peaks remain snow covered throughout the summer.

(491) From Kuliliak Bay the shore trends southwest for 11 miles to Lance Point. Rocky ledges extend some distance off the intervening points.

(492) **Lance Point**, 12 miles southwest of Eagle Point, is 465 feet high and has the appearance of a low tongue projecting from the higher land north of it. **Huddle Rocks**, four small islands, the largest 170 feet high, are about 1 mile southwest of the point.

(493) About 5 miles west of Lance Point is a small bight that affords shelter for small craft in all but southeast weather. Many rough rocky ledges extend from the shore between Lance Point and this small bight, at the head of which is a broad sand beach divided into two parts by a small rocky point. Three streams flow through the low, grassy valley behind the beach. An islet, 70 feet high, is southeast of the low point that forms the south side of the bight; rocks awash are 300 yards northeast of the islet. A chain of small rocky islets extends across the entrance to the bight, and a broad, flat reef that uncovers 1 foot is northwest of these islets.

(494)

Local magnetic disturbance

(495) Differences of as much as 6° from the normal variation have been observed at Cape Aiak and as much as 3° on Huddle Rocks and at Lance Point.

(496) **Cape Aiak**, on the south coast of Unalaska Island, 8 miles southwest of Lance Point or about 15 miles from Konets Head, is 1,820 feet high and from the northeast at a distance appears like a flat-topped island with a massive

horn or pinnacle on the south slope. Breakers extend 300 yards south from the south end of the point.

(497) Between Cape Aiak and Konets Head, the flood current sets west toward Umnak Pass and increases in velocity as the pass is approached. It is strongest near the shore. The ebb is weaker than the flood.

(498) **Surveyor Bay**, on the west side of Cape Aiak, is 4 miles wide and 2 miles to its head. About 2 miles northwest of Cape Aiak, the **Gargoyle Islands**, a group of fantastically eroded pinnacles about 250 feet high, make out 0.4 mile from a point on the north shore and divide the bay into two bights. A reef, awash at high water, connects the islands to the shore.

(499) A shoal, which has a least depth of 3 fathoms and breaks in heavy weather, is 0.3 mile south from the southwest extremity of the islands; another 3-fathom shoal is 0.6 mile west of the same point and 0.5 mile south of a reef-fringed islet close to shore.

(500) Small-boat anchorage with some shelter from southeast can be found in 5 fathoms 250 yards from the shore in the cove northwest of the Gargoyle Islands. In using the anchorage, care must be taken to avoid a covered rock 400 yards from shore that breaks in moderate weather. The anchorage is not recommended but is the best available shelter between Kuliliak Bay and Umnak Pass.

(501) The west bight of Surveyor Bay has low sand dunes along its north shore; the west shore is fringed with ledges, one of which extends 700 yards off. A $4\frac{3}{4}$ -fathom rocky patch, 1.5 miles north-northeast from Serpent Point, is about in the center of the bight.

(502) **Serpent Point**, on the west side of the entrance to Surveyor Bay, is a low narrow point projecting southeast. Anchorage with good shelter except from the south and southeast can be found 0.8 mile north of the point and 0.5 mile from the west shore of the bay in 15 fathoms. An 8-fathom shoal is 0.5 mile south of the point.

(503)

Cape Izigan to Umnak Pass

(504) About 1.8 miles west of Serpent Point, a chain of grassy islets projects south from **Cape Izigan** and terminates in **South Rock**, 23 feet high; this is the southernmost land feature of Unalaska Island. South Rock is 6 miles southwest of Cape Aiak and 9 miles southeast of Konets Head, the west end of Unalaska Island. Depths of 20 fathoms are found 300 yards off the south side of the rock.

(505) **Tiderip Point**, 6 miles northwest from South Rock, is marked by a round hill 397 feet high. A chain of rocks, one 25 feet high, extends 0.5 mile south from the point.

(506) **Konets Head**, the west extremity of Unalaska Island, is marked by a conspicuous knoll 127 feet high.

(507) **Lone Peak**, about 3.5 miles northeast of Konets Head, is the top of a long narrow ridge, 1,847 feet high, running roughly parallel to the coast. From northeast and

southwest the peak appears like a sharp cone and forms a useful landmark.

(508) The shore between Tiderip Point and Konets Head is fringed by reefs and ledges that extend almost 0.5 mile offshore. Ledges extend about 300 yards west from Konets Head but deep water is found 400 yards west of the ledges. A bank, with a least depth of 8 fathoms surrounded by much deeper water, is 1.8 miles west from Konets Head. Heavy tide rips occur on this bank on the ebb.

(509) About 1.5 miles south of Konets Head is **Emerald Island**, a flat-topped, grassy island 0.3 mile in diameter and 204 feet high. The island is fringed by reefs, and a rock that uncovers 3 feet is 700 yards southeast of it. Another group of rocks, the highest 8 feet, is 0.5 mile to the north of the island. Rocks extend 350 yards off the west side of the island.

(510) By using the channel between Emerald Island and Konets Head the tide rips to the south of Emerald Island can be avoided. The narrowest part of the channel is at the northwest end, where it is less than 0.4 mile in width. The shores bordering the pass are broken with many projecting ledges, but these can be distinguished easily.

(511) Irregular bottom with depths of $6\frac{1}{2}$ to 12 fathoms extends 3.5 miles south of Emerald Island. Tide rips that have the appearance of breakers occur on these spots on the ebb; with a strong ebb and an opposing breeze they attain considerable size. It is advisable to avoid this area.

(512) **Polivnoi Rock**, 17 feet high and 100 yards in diameter, is 5 miles southwest from Konets Head; a breaker is 300 yards southwest of the rock. Sea lions are often seen in the vicinity. In heavy weather, seas wash over the rock. An 8-fathom rocky shoal, marked by heavy tide tips, is 1.2 miles 065° from the rock.

(513) A convenient anchorage in south weather can be found about 1 mile northeast of Konets Head in about 20 fathoms. In approaching this anchorage on the ebb, allowance should be made for the current. The flood is not felt immediately north of Konets Head.

(514) A small bank, with a least depth of $5\frac{1}{4}$ fathoms, is about 0.5 mile from shore, 2 miles northeast from Konets Head. Northeast of the bank, the shore is steep-to and is exposed to the strong current of Umnak Pass.

(515) **Boulder Bay**, 5 miles northeast from Konets Head, is a small bay with a kelp patch in the middle of its entrance. Two small shacks are in a cove on the east shore.

(516) **No Name Cove**, 3 miles northeast of Boulder Bay and on the west side of **Ranchers Point**, is a small bay about 0.5 mile wide and 0.5 mile to its head. A small indentation on its west side furnishes good shelter for small craft except in severe north weather.

(517) **Station Bay**, on the east side of Ranchers Point, is divided into two arms. The east arm is about 0.3 mile wide and 1.5 miles long in a southeast direction. Near the entrance to this arm is a conspicuous column rock about 94 feet high. **Peacock Point**, separating Station Bay from the unnamed bight to the east, has broken ledges and rocks that extend 700 yards northwest. The west arm of

the bay is about 0.5 mile wide and almost 1 mile long in a south direction.

(518) Chernofski Harbor, 2 miles east of Station Bay, was described earlier in this chapter.

(519) **Umnak Pass**, separating Unalaska Island from Umnak Island, is about 3 miles wide and about 10.5 miles long in a northeast and southwest direction from the vicinity of Polivnoi Rock to that of Pustoi Island. For description of the shore, see various headings previously described in connection with Unalaska Island and those following in connection with Umnak Island.

(520)

Currents

(521) The current in Umnak Pass is similar to that in Unimak Pass. At times of tropic tides the current may set in a flood direction for as much as 18 hours. The current velocity is 3.5 knots on the flood and sets northeast and 2.5 knots on the ebb and sets southwest. Velocities of 4.5 knots have been observed.

(522) The current velocity is 2 knots on the ebb and 3.5 knots on the flood between Konets Head and Emerald Island. Velocities of 4.5 knots have been observed. The flood current causes a set almost at right angles to the course when navigating Umnak Pass.

(523) The current velocity is 2.5 knots near Polivnoi Rock.

(524) See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Umnak Pass. Links to a user guide for this service can be found in chapter 1 of this book.

(525) The effect of the current in Umnak Pass is felt in a diminishing degree as far as Cape Idak and Cape Aspid on the north side, and on the south side it is felt about 10 miles to the south of Polivnoi Rock.

(526) On the ebb, very pronounced tide rips occur on the south sides of the shoaler banks in Umnak Pass and in the south approach. These tide rips are different from the tide rips encountered in Akutan Pass and Unalga Pass. In smooth weather they look like a line of breakers and may attain a considerable height. In moderate or stormy weather they merge with the seas, increasing their roughness to a considerable extent.

(527) On the flood, light confused tide rips occur in the vicinity of Ship Rock and on the banks to the northeast of it, while the pass, with its countercurrents, resembles a broad, shallow river, the effect being caused by several lanes of currents and countercurrents. Off the points along the Umnak Island shore, tide rips are dangerous for skiffs and small launches, especially between Otter Point and Kettle Cape.

(528) From the south, navigation is more difficult, as Polivnoi Rock is low and Kettle Cape is not easily distinguishable against the higher background. With a heavy, south swell and a strong ebb it might even be found dangerous to attempt the pass because of heavy

tide rips. The passage north of Emerald Island might be found preferable under such circumstances.

(529) In the approach to the pass the soundings are confusing as there are numerous banks with depths of 6 to 10 fathoms at distances of 4 to 6 miles from Emerald Island and Polivnoi Rock.

(530)

Routes

(531) The following courses through Umnak Pass will avoid the worst of the tide rips: From a position 1 mile east of Ship Rock make good course **217°** for 5 miles to a position abeam of the rocks north of Emerald Island. After passing Konets Head look out for a strong set from the passage north of Emerald Island. Tide rips will be seen on the 8-fathom bank, 2 miles west of Konets Head, if the current is ebbing. Thence proceed on a course **205°**, with Ship Rock astern, for 3.5 miles, to position abeam of Polivnoi Rock, 1.5 miles distant. If bound southwest, the 6-fathom spot 2.5 miles **195°** from Polivnoi Rock can be avoided by continuing course **205°** beyond it.

(532)

Umnak Island

(533) **Umnak Island**, third largest of the Aleutian Islands, is about 65 miles by 15 miles in extreme length and breadth. On the island are reindeer, foxes and a few head of horses and cattle. Mount Vsevidof, a volcano 6,920 feet high, is the summit of the island. It is situated southwest of the center of the island, near the west shore, with no other mountains southwest from it. Several prominent buildings and antennas are on **High Hill**, on the west end of the island.

(533.001) **Caution**

(533.002) A former 1947 Ordnance Disposal Area containing unexploded ordnance is located approximately 12 miles north of Reese Bay, Unalaska Island, near location 54°11'N., 166°41'W. Unexploded ordnance has been brought forth within fishing nets at a location approximately 6.5 miles north of Cape Cheerful near location 54°06.5'N., 166°38.0'W. The unexploded ordnance are potentially hazardous and mariners are advised against anchoring, dredging, or trawling in this area due to their presence.

(534)

Tulik Volcano to Cape Idak

(535) **Tulik Volcano**, an enormous crater 7 miles across, is situated in the north part of Umnak Island. Dense smoke may be visible from various parts of the crater.

(536) **Mount Tulik** is a conical peak 4,111 feet high on the southeast rim of the crater; another very sharp peak, 3,519 feet high, is on the opposite side of the rim.

(537) **Kettle Cape**, on the southeast side of Umnak Island and at the south entrance to Umnak Pass, is a jagged rocky ridge about 490 feet high that from certain directions resembles a kettle. It is the first prominent point west

of Umnak Pass. The point is more conspicuous than its height or the configuration of the shore would indicate, as low land surrounds it.

- (538) Kettle Cape is fringed by rocks; the outer ones to the southeast are about 0.2 mile offshore and are visible only at about low water. A large area of shoal water, 1.5 miles southeast of Kettle Cape, has a least found depth of 1¾ fathoms. This area breaks heavily in moderate south weather. It is marked by kelp but the kelp is difficult to see except in flat calm weather. Depths of 10 to 14 fathoms are found between this shoal and Kettle Cape. Some shelter can be found east of Kettle Cape from west and north weather.

- (539) The shore northeast from Kettle Cape is composed of sections of sand beach backed by low earth bluffs and gulleys from whence it rises gradually to the rim of the enormous crater of Tulik Volcano that occupies the whole north part of Umnak Island. Outside the high water line are several shoals and reefs.

- (540) Two miles northeast from Kettle Cape and extending several miles northeast, the shore is fringed by rocks that extend 500 yards offshore, and comparatively shoal water, less than 10 fathoms, extends 1.3 miles offshore. Heavy tide rips, dangerous for small boats, occur in this area.

- (541) **Black Rock**, a flat rocky ledge 10 feet high, is 7.6 miles northeast of Kettle Cape and 0.5 mile from shore. Depths of 12 to 20 fathoms are found 0.5 mile south and east of this rock.

- (542) About 2.7 miles northeast from Black Rock is a point with a rocky ledge that extends about 350 yards northeast; a landing can be made behind the ledge.

- (543) **Otter Point** is 12 miles northeast of Kettle Cape. The intervening shoreline is featureless, and Otter Point, when abreast of it, is only recognizable from the change in direction of the shoreline that turns to the north. From the northeast, a knoll 275 feet high, rising above a comparatively flat area just west of Otter Point, stands out conspicuously.

- (544) **Ship Rock**, 1 mile southeast of Otter Point, is one of the most conspicuous landmarks in the vicinity. It is an island about 500 yards long and 200 yards wide with a sharp inaccessible peak 424 feet high at its south end. At its north end is a lower peak ending in an abrupt bluff, giving the island its distinctive shape, but from northeast and southwest only the single higher peak is visible. The channel between Ship Rock and Umnak Island has depths of over 20 fathoms, but because of strong currents and tide rips it should be avoided.

- (545) A bank covered 9 fathoms, on which swirls and tide rips occur, extends almost 0.5 mile east of the island, with deep water beyond.

- (546) **Pustoi Island** is flat and grassy, 68 feet high and about 500 yards in diameter. It is 0.9 mile northeast of Otter Point. The channel between Pustoi Island and Otter Point has a depth of 8 fathoms. Deep water is close off the east end of the island.

- (547) From Otter Point, the shore trends north for 2 miles, then north-northwest for 1 mile, then northeast for 2 miles forming broad **Otter Bight**. Good anchorage can be found with shelter from south, west and north, in 8 to 20 fathoms. The adjoining beach is suitable for landing except in heavy north weather.

- (548) A vessel could remain in Otter Bight in moderate southeast weather but not in severe storms. In approaching the anchorage, the depths shoal rapidly from 20 to 10 fathoms about when Pustoi Island comes on range with Ship Rock. Depths of 10 fathoms are found 1 mile from shore, but depths of not less than about 6 fathoms will be found 600 yards from shore.

- (549) A reef extends 400 yards from shore at a point 3 miles north of Otter Point. One mile north of the reef, high land begins and extends north to Cape Idak.

- (550) The shore northeast of Otter Bight to Cape Idak is composed of steep bluffs, with several rocky islets close to shore. It has no hidden dangers except very close to the land, and the shore can be skirted at a distance of 0.5 mile.

- (551) **Cape Idak**, the northeast point of Umnak Island, is the north end of a long, flat ridge about 1,570 feet high, sloping gradually to the north. From the east this point appears as the north end of the island as the land to the west is low, but Cape Tanak extends about 2.7 miles farther north.

(552)

Cape Tanak to Fire Island

- (553) Between Cape Idak and Cape Tanak is a flat bight. The shore of the bight is regular and lined with sand, while inland the terrain is low and grassy except in the region about 1.5 miles west of Cape Idak, where a mountain slope terminates in bluffs near the beach. Depths of 20 to 30 fathoms are about 1 to 2 miles off the shore of the bight with the bottom shoaling gradually toward the beach.

- (554) **Cape Tanak**, about 7 miles west-northwest from Cape Idak, is a low, rounding point with a number of hummocks about 50 feet high. Depths of over 100 fathoms are within 1 mile of Cape Tanak, though two narrow ledges with depths less than 100 fathoms extend into much greater depths and cause tide rips that may be mistaken for signs of a shoal. Good shelter from south weather can be found east of Cape Tanak.

- (555) The flood currents, which set northeast along either side of Umnak Island, unite in the vicinity of Cape Idak, causing tide rips. The ebb divides in the vicinity of Cape Tanak.

- (556) **Ashishik Point** is a narrow point about 3 miles west of Cape Tanak. It is low and from offshore blends with the higher land in back of it. The point extends almost as far north as Cape Tanak, and it should be given a berth of more than 0.5 mile. Landing can be made on this point except in north weather, and there is a good supply of water nearby.

(557) The bight between Cape Tanak and Ashishik Point furnishes good anchorage in south weather. Since the prevailing winds in summer are southwest there are frequently long intervals when this bight is comparatively smooth.

(558) From Ashishik Point the coast of Umnak Island trends southwest. **Boiling Pinnacles**, with least depth of 3½ fathoms, are about 3 miles west of Ashishik Point, with the outer end of the point in range with the outer end of Cape Tanak. The shoal is about 1.5 miles from the shore of Reindeer Point. Deep water is found outside of this shoal. It is marked by kelp, and tide rips occur to the north of it. With the exception of this shoal, no indications of dangers have been found along the west coast of Umnak Island as far south as Cape Kigushimkada, and vessels in general may approach 1 mile off the shore.

(559) **Reindeer Point** is 3 miles west of Ashishik Point.

(560) **Cape Chagak**, about 6 miles west-southwest of Ashishik Point, is not conspicuous. On the north side of the cape there is a bold bluff rising about 200 feet. Southwest of Cape Chagak the beach is about 3 miles in length and generally sandy.

(561) **Aguliuk Point** is 5 miles southwest of Cape Chagak and 4.5 miles northeast of Cape Aslik. Northeast of the point, for about 2 miles, the coast is broken and irregular with bluffs, sand beaches, lava outcrops and off-lying rocks, the farthest of the latter being within 125 yards of the high waterline. Rocks are off the lava outcrops forming the foot of Aguliuk Point, and a long, narrow edge of rocks, 100 feet high, extends breakwaterlike for 225 yards into the sea on the south side of the point. A sand beach, beginning at this edge, extends southeast for about 3 miles to Cape Aslik. Back of this beach, for about 3 miles, the terrain is a regular and fairly consistent slope.

(562)

Local magnetic disturbance

(563) Differences from normal variations of as much as 4° have been observed at Aguliuk Point.

(564) **Bogoslof Island** (53°56'N., 168°02'W.) is in the Bering Sea about 22 miles north of Cape Tanak. It is of recent volcanic formation, and eruptions have completely changed the topographic features several times. Accordingly to existing records, eruptions have occurred in 1796, 1883, 1906, 1910 and 1923-27, but it is probable that there have been other eruptions of which there are no records. It now consists of one main island and a rocky islet known as Fire Island. Bogoslof Island forms a useful landfall on a course west from Cape Cheerful.

(565) Bogoslof Island is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the entire island. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

(566) The 500-fathom curve around Bogoslof Island approximates a circle about 5 miles in diameter.

(567) The main island, once known as **Castle Island** because of a castle-shaped rock on it, is about 1 mile long and 0.5 mile wide and extends in a northwest and

southeast direction. The south end terminates in a low, black sandspit which is now the haul-out place of a large number of sea lions. This point was found to shift its position during the season of 1935. On the northwest part of the island is the volcano crater of recent time from which steam emits occasionally, and adjoining the crater is a pond that is 4 feet below high water; the crater is 141 feet high. The rocky portion of the island is the home of thousands of birds.

(568) **Castle Rock** on the southwest part of the main island no longer resembles a castle. Its outline is ragged and consists of two main pinnacles, 333 feet high.

(569) **Fire Island**, 225 feet high, is 440 yards northwest of the main island and practically connected with it by a rocky ledge that uncovers. It is a steep, rocky island, 220 yards long and 100 yards wide, and has three distinct summits, the middle one being square and resembling a castle. This summit is lower than the adjoining ones. A small islet, 190 feet high, adjoins Fire Island.

(570) Fair-weather anchorage can be had on the northeast side of the island, offshore in 20 fathoms, sandy bottom, and on the northwest side of the island, 800 yards offshore, in 10 fathoms.

(571) A current is often reported setting east in this vicinity; it is variously reported to set toward Cape Cheerful and toward Umnak Pass, with a velocity of 0.1 to 0.4 knot. It is inferred that with a barometric depression near Unimak Pass it sets toward Cape Cheerful, but with a depression in the Pacific Ocean south of Unalaska Island it sets toward Umnak Pass. Vessels coming from west often made Point Kadin ahead instead of to starboard. Maximum northwest currents of 1.3 knots were found on the northeast side of the island. There were also indications of a stronger east current on the north side of the island. A 1-knot current, setting continuously north for 21 hours, was observed at a location 0.5 mile west of Bogoslof Island.

(572)

Cape Aslik to Cape Ilmalianuk

(573) The shore of **Cape Aslik** is the face of an old lava flow. It is very precipitous and irregular, with numerous covered rocks that extend well offshore. Heavy kelp fringes the south side of the cape. The cape is prominent, with vertical cliffs 60 to 150 feet high. Back of the cape, about 2 miles inland, is a conspicuous, conical hill, 865 feet high. This hill is of a dark red color, with a distinct hole in the slope on its southwest side. Farther inland, about 6 miles east of Cape Aslik, a distinctive peak rises to 3,310 feet. It is very ragged with deep slopes and a shoulder 600 feet lower than the summit that extends about 0.5 mile to the northwest. Between Cape Aslik and Cape Kigunak the shore is a beach of fine black sand. Back of this beach is a large, flat valley bordered by mountain ridges on the north and south and having a lone and prominent mountain in the middle. The valley, which extends to the Pacific Ocean side of Umnak Island,

is a swamp land covered with a heavy growth of grass. A large stream flows through this valley.

- (574) **Cape Kigunak**, about 5 miles south of Cape Aslik, is easily distinguishable and is a very prominent point on approaches from the north. It has a sharp, conical peak, 1,164 feet high, near its outer end. Its shore consists of a steep beach of boulders and broken rocks, with steep grass slopes rising directly behind. Two rocks about 15 feet high, 300 yards off the west part of the cape, and a third rock, same height, on the low-water line show up very conspicuously. Many boulders and rocks and a band of heavy kelp extend about 400 yards offshore around the cape. The bight north of Cape Kigunak affords some protection in south and east weather but is not recommended in heavy weather.

- (575) **Inanudak Bay**, between Capes Kigunak and Ilmalianuk, has depths of 10 to 40 fathoms and affords shelter except from the west and northwest. The shore of the bay is rocky and precipitous except at the heads of the several coves and bights that form part of the bay. Sand and pebble beaches are found at the heads of these coves, and low bluffs, from 5 to 20 feet high, rise abruptly from the beaches. Beyond these bluffs are flat lands or valleys.

- (576) From the westernmost point of Cape Kigunak, the shoreline curves sharply southeast and east and the shore of the bay for about 2 miles is along the foot of a ridge almost straight up from the waterline. At the end of the ridge, and at the head of **Izhiga Cove**, is a sand beach that extends to Cinder Point. The water is shallow along the beach, and several lines of breakers make small-boat landing difficult. Back of the beach, beyond the low bluff bordering it, is a flat valley.

- (577) **Cinder Point** was formed by a lava flow and is about 150 feet high near the shore, except in the middle where there is a slight draw. A cinder cone 564 feet high is near the center of the point.

- (578) **Stepanof Cove**, southeast of Cinder Point, has a sandy beach about 1 mile in length at its head. Shoal water and several lines of breakers make small-boat landing difficult except on the north side of the cove where the water is usually quiet; fresh springs and seepages exist along the beach. A 70-foot pinnacle rock at the south end of the beach is conspicuous from all parts of this cove.

- (579) A low, narrow valley with steep sides extends southeast from the head of Stepanof Cove to the Pacific Ocean side of Umnak Island. The buildings on the south side of the valley are stocked and maintained for land-air rescue work. A road extends from Stepanof Cove to Fort Glenn, about 20 miles to the northeast.

- (580) **Steeple Point**, forming the south side of Stepanof Cove, has a very prominent, tall pinnacle projecting out of the side of its steep bank and numerous large rocks and boulders off its shore. The pinnacle resembles an inverted carrot and is 200 feet above the beach.

- (581) **Hot Springs Cove** has about 1 mile of sand beach at its head with a small stream in the south part. Salmon spawn in a stream about 2 miles back of the beach beneath several small waterfalls. The steam from several small,

hot springs at the head of this stream can be seen from the east side of Inanudak Bay.

- (582) Between Hot Springs Cove and Cemetery Cove to the west are 1.5 miles of rocky shore. Near and west of the center of this shore, shoal water, marked by kelp, extends 0.4 mile offshore to the 10-fathom curve. Above the beach near the center is an overhanging cliff, 1,000 feet high. The beach in **Cemetery Cove** is rocky and bends north toward Broken Point. Water may be obtained from a small cliff stream on the north part of this beach.

- (583) **Broken Point** is not conspicuous. It has a rocky beach with deep water off the point; the 20-fathom curve is about 0.3 mile offshore.

- (584) **Geyser Bight**, west of Broken Point, indents the shoreline about 1.5 miles from a line tangent to Broken Point and Cape Ilmalianuk. Its beach is rounded and about 4 miles in length, with the east half sandy while the west half is rocky and bordered with kelp. There are 3 small rock islets 0.3 mile offshore in the center of the bight and another the same distance off the beach in the east part. Some protection may be found in Geyser Bight in south weather but it is not recommended in heavy weather.

- (585) **Cape Ilmalianuk**, the south entrance point of Inanudak Bay, is about 500 feet high and conspicuous. It has a rounded shore, with a number of rocks and kelp that extend seaward for about 300 yards. A rock, 0.4 mile northwest of the point is conspicuous at low tide. A shoal area that extends 1.5 miles off the cape is 10 fathoms deep 0.5 mile offshore and 20 fathoms about 1 mile farther off. Ships should keep 1.5 miles off the cape.

- (586) Anchorage may be found in any part of Inanudak Bay about 0.4 mile from shore. By shifting, shelter may be had from all directions except the northwest. No anchorage will give protection from severe northwest weather. Good anchorage is available for large ships in 20 fathoms about 1.5 miles from the beaches at the heads of Stepanof Cove and Hot Springs Cove.

- (587) Stepanof Cove affords the best shelter from southeast around to north-northwest. Anchorage may be found in 8 fathoms with Cape Kigunak just open of Cinder Point. When the wind gets around to south or southwest, this cove becomes uncomfortable.

- (588) Hot Springs Cove affords shelter in south and east weather. Cemetery Cove affords shelter except from winds from the northwest quadrant. Anchorage may be found in Izhiga Cove 0.3 mile from shore in 8 to 10 fathoms, but better shelter from north weather can be found in Stepanof Cove.

- (589) **Kshaliuk Point to Cape Kigushimkada**

- (590) Between Cape Ilmalianuk and Cape Kigushimkada, for nearly 13 miles, there are no known dangers to navigation; ships are advised to keep 1 mile offshore in order to hold a depth of 25 fathoms or more. Kelp extends from 200 to 300 yards off the rocky areas.

(591) The currents off the coast between Cape Ilmalianuk and Cape Kigushimkada are estimated to be from 2 to 3 knots, the strongest being opposite Kshaliuk Point. The current sets northeast on the flood and southwest on the ebb.

(592) The weather along this coast may change after passing Derby Point. When foggy, wet, windy weather prevails southwest of the point, good or comparatively clear weather may be encountered to the northeast and vice versa.

(593) Between Cape Ilmalianuk and Derby Point, for about 10 miles, the coast extends in a general southwest direction. A practically straight sand beach about 3 miles in length begins on the southwest side of Cape Ilmalianuk.

(594) **Kshaliuk Point** is a rounded, prominent point at the southwest end of the beach. This point has grassy bluffs about 400 feet high, except on its north side, which is practically straight up and down with prominent horizontal layers of stratified rock. Southwest of the point, the land back of the shore is low, the beach consisting of short stretches of sand, rock and lava formation. The most conspicuous lava flow is at Twinlava Point, about 4 miles southwest of Kshaliuk Point.

(595) South of Kshaliuk Point, between it and Mount Vsevidof, are three sharp prominent peaks about 2,000 feet high and about 0.5 mile apart. Less than 1 mile from the peak nearest the shore is another prominent peak of about the same elevation. It has a broad, rounded base, rising almost from the shore and has two points on the top; a low saddle connects the points.

(596) **Derby Point**, about 1.5 miles southwest of Twinlava Point and 3 miles north of Cape Kigushimkada, has cliffs and rock outcroppings along its shore. The steep sides of the point are grass covered above the cliffs, but the top is bare and strewn with cinders and small lava boulders. The rounded hill on the point resembles the crown of a derby hat when viewed from seaward, the rocky shoreline forming the brim of the hat. This point is a conspicuous feature of this coast and also serves as a line of demarcation for different weather conditions.

(597)

Local magnetic disturbance

(598) Differences from normal variation of as much as 4° have been observed at Derby Point.

(599) The coast between Derby Point and Cape Kigushimkada has a south direction and consists of a bold, rocky cliff at the base of Mount Vsevidof.

(600) **Mount Vsevidof** is an extinct volcano 6,920 feet high and the highest peak on Umnak Island. It is about halfway between Inanudak Bay and Nikolski Bay and approximately 40 miles southwest of Cape Idak.

(601) The upper reaches of this mountain are usually covered with snow the year round. The west side slopes gradually to the shore between Twinlava Point and the north end of the large open bight south of Cape Kigushimkada.

(602) The peak appears conical from the northwest with a slightly flattened top, but the large crater so plainly visible from the Pacific side of Umnak Island does not show at all. The two small glaciers on the north side of the extinct volcano are not prominent from offshore, but the valley that extends inland on this same side has many bare cinder patches and lava outcrops visible from offshore. This valley goes back toward the large, jagged, saw-toothed mountain range, 6,510 feet high, to the northeast of Mount Vsevidof.

(603) **Cape Kigushimkada** is the north point to a large open bight. This cape, at the base of Mount Vsevidof, is the outer end of a lava flow that forms a rugged, rounded headland having precipitous, rocky bluffs, 80 to 90 feet high, with numerous jagged indentations. Many rocks and pinnacles are adjacent to the shore of this cape. The shelf on top of the cape is covered with many lava outcrops, cinder beds and fissures and rises gradually inland to form part of the west slope of Mount Vsevidof.

(604) On the southeast side of Cape Kigushimkada is a bold headland, prominent from seaward. A broad sand beach, about 1.5 miles south of this headland extends for about 2.5 miles south-southwest. Behind the beach is a broad, grassy valley with three prominent streams, the two northernmost carrying the drainage from the south slopes of Mount Vsevidof.

(605) At the south end of the sand beach is a rocky headland with outlying ledges that are partially awash at high water. A rocky islet is about 0.6 mile west of the headland. About 0.5 mile south of this islet is a covered rock that breaks in heavy weather, and another islet is about 1 mile north of Okee Bay. From the headland the shore runs in a southwest direction and is very irregular, with numerous indentations.

(606) From Cape Kigushimkada to the southwest end of Umnak Island, the land is rolling, with numerous rounded hills. The bottom along the shoreline of both Umnak Island and Ananiuliak Island is very uneven and has some dangers to navigation.

(607)

Okee Bay to Adugak Island

(608) **Okee Bay** is a small, shallow cove on the east side of a small peninsula on the north side of Okee Point. This bay affords some shelter for small craft and has a sand beach where landings can be made in most any weather. Another small, shallow inlet is on the west side of the small peninsula.

(609) **Okee Point** is a headland on the north side of the entrance to Nikolski Bay. It has steep, rocky bluffs back of the high water line and rocky ledges extend offshore.

(610) **Anangula (Ananiuliak) Island**, on the north side of Nikolski Bay and off Okee Point, is a kite-shaped island about 1.4 miles in length and 301 feet high near the center. Bare rock ledges extend 50 to 60 yards from the grass line on the shore of the west side of the island. Passage between this island and Umnak Island through Seaweed

Pass is not advisable as there are no natural ranges that can be recommended. During the summer, kelp may extend across the passage.

- (611) **Nikolski Bay**, between Anangula Island and Cape Starr, is about 12 miles south of Mount Vsevidof. It is about 4.5 miles wide and 3 miles long and is open from the west to the north-northwest. The shore of the bay consists mostly of gravel and rock beaches. It is fringed to varying distances offshore by reefs, large boulders and kelp. Many of these reefs actually are above high water but are covered by the heavy swell except on very calm days. The area bordering the reefs along the shore is foul, with numerous covered rocks. It should not be approached too closely.

- (612) The bay is surrounded by rolling hills that are covered with a thick mat of grass and frequent marshy areas. **High Hill**, 712 feet high, is near and north of the center of the bay and is a prominent landmark in approaching anchorage. It is cone shaped but flat topped, and the sides, except inland, are steep, rocky and rugged.

- (613) Except on very calm days there are few places where safe landings can be made. It is reported by the natives that in the winter when heavy northwesterners are blowing, it may be impossible to land even in Nikolski in Mueller Cove. Landing is possible in most any weather in River Cove in the mouth of Sheep Creek.

- (614) The currents are strong, especially around Anangula Island, but are not dangerous, as they generally run parallel to the shoreline.

- (615) Anchorage with protection from west and north weather is found in the north end of Nikolski Bay behind Anangula Island in 10 to 25 fathoms with good holding ground. A good anchorage in east weather is off **Kelp Point** in 10 to 20 fathoms.

- (616) **Eider Rock**, about 1 mile northwest of High Hill, is a small island reef 600 yards offshore in the northeast portion of Nikolski Bay.

- (617) The head of Nikolski Bay south of Kelp Point is a rectangular-shaped bight with a large, rocky ledge along the shore at its head. The two coves in this bight are **River Cove** at the northeast corner and Mueller Cove in the south. The large rocky ledge separating the two coves is almost covered at high water.

- (618) **Sheep Creek** is the largest stream in the vicinity and empties into River Cove. The creek extends northeast into a broad, marshy valley dotted with numerous ponds.

- (619) **Mueller Cove**, the inner anchorage of Nikolski Bay, is the cove in which the village of Nikolski is situated. Only very small fishing boats attempt to enter this cove because of the constricted entrance caused by the reef in midchannel. With any kind of weather from the west or north, seas break across the entrance.

- (620) **Rudisell Reef**, at the entrance to Mueller Cove, is practically covered at high water, and in heavy weather the seas break over its narrow outer ledge of rocks that are about 4 feet above high water. This ledge, however, serves as an excellent natural breakwater and protects the

beach at the head of Mueller Cove except when heavy northwesterners are blowing up the bay.

- (621) A rock covered $\frac{3}{4}$ fathom is 0.1 mile west of Rudisell Reef and in the entrance to the channel into Mueller Cove. The location of this rock nearly always can be determined by the breaker over it. At high water, in west weather, it may break very heavily and cause a dangerous surge across the channel toward Rudisell Reef.

- (622) **Nikolski** is one of the most frequented places west of Unalaska. A good shingle beach is in front of the village. The store and the church are painted white and are the most prominent buildings in the village. The church has two crosses, one of which is on the belfry tower. This tower is the most conspicuous point in the village. The store carries a few supplies but is stocked only during the trapping season. Mail is delivered by airplane. The ranch buildings of the Harris Livestock Co. are about 0.3 mile southwest of the village. The buildings of the company consist of living quarters, barns, and storehouses. The largest of these buildings is a landmark looming prominently on the skyline from the anchorage off Kelp Point. The wool-storage building, painted red, also makes a conspicuous landmark.

- (623) **Cape Starr**, about 3 miles to the west of Nikolski, is a bold headland with steep rocky bluffs, 150 to 350 feet high, backed by rolling, grass-covered hills. The shoreline is bordered by rough, irregular, rocky ledges and reefs, numerous rocks and extensive kelp beds. Several small islets, reefs and rocks awash are from 0.5 to 3 miles off Cape Starr.

- (624) South of Cape Starr is a wide, flat beach of fine white sand, back of which are low, grass-covered, sandy bluffs. Inland a broad valley that extends across the island bends northeast to the chain of lagoons south of Nikolski. The remainder of the Bering Sea coast of Umnak Island is mostly rocky and rugged. Southwest and west from the beach are numerous jagged, rocky projections and rock pinnacles. The area outside the high water line is filled with rocks, small ledges and patches of kelp. The most prominent and highest place on the southwest end of Umnak Island is **Elbow Hill**, 442 feet high, about 4 miles southwest of Cape Starr. It is grass covered and prominent from seaward. **Idaliuk Point** is 2.4 miles west of Elbow Hill.

- (625) **Pancake Rock**, about 2.5 miles west of Cape Starr, is a 22-foot islet that sometimes has, from a distance, the appearance of a flat pancake on the surface of the water. This islet is the east end of a low, flat, rocky reef about 500 yards in length.

- (626) Several reefs and rocky islets are southeast of Pancake Rock. The farthest from the shore of Umnak Island is a rocky islet, surrounded by ledges and rocks awash, about 1 mile southeast of Pancake Rock and 1.5 miles offshore from Cape Starr.

- (627) **Adugak Island**, about 7 miles west of Cape Starr and 4 miles off Idaliuk Point, is 160 feet high.

- (628) Adugak Island is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around

the entire island. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

(629)

Cape Sagak to Thumb Point

(630) **Cape Sagak**, the southwest end of Umnak Island, is long and generally low with rolling grass-covered hills and short stretches of sand beaches.

(631) The passage between Cape Sagak and the northeast point of Samalga Island is dangerous. Foul ground and extremely heavy tide rips extend between the two points of land and for a considerable distance north and south. There are impenetrable patches of kelp, and the current goes through at a very high velocity, probably 7 knots.

(632) Vessels drawing more than 4 feet should avoid this passage. Boats of less draft may go through only during periods of slack water and in fair weather. Such craft should clear Cape Sagak by 0.25 mile on a course **160°**.

(633) **Samalga Island**, the long and narrow island about 2 miles southwest of Cape Sagak, is 4 miles long and 0.5 mile wide at its widest part. The high water line is strewn with rocks and small boulders, and occasional stretches of sand beach are found around the island. Back of the shore the terrain rises abruptly in the form of grassy slopes. The interior is flat and entirely covered with grass. Foxes and sea lions are the only wild life on Samalga Island. It is not inhabited, except for 1 month during the winter when the trappers come to get fox pelts.

(634) The entire island is fringed with a rocky ledge that uncovers and extends from 100 yards to 0.5 mile offshore. On the southwest end of the island this ledge becomes an extensive reef stretching west-southwest along the prolonged axis of the island for nearly 2 miles. In heavy weather there are breakers for a considerable distance over this area.

(635) Landings can be made at various places except in heavy weather when the island is almost surrounded with breakers. The best landing is in a small bight just north of a cabin on the north side of the north end of the island. Vessels may anchor in 10 to 15 fathoms on the bank that extends **160°** from the middle of Samalga Island or in not less than 15 fathoms, north of the southwest end of the island. There is no protection in either of these anchorages.

(636) The currents are treacherous in the vicinity of Samalga Island.

(637) The southeast coast of Umnak Island should be navigated with great caution. Southwest of Vsevidof Island, fog appears to be more prevalent than to the north. With west and southwest weather the fog drifts across the low, southwest part of Umnak Island while the high mountains northwest of Mount Vsevidof form a barrier that may cause clear weather in their lee when all the area southwest of Vsevidof Islands is in fog.

(638) West of Samalga Island currents of about 4 knots have been observed setting north when the tide at Dutch Harbor is rising and south when it is falling.

(639) Currents are weak over the bank inside the 100-fathom curve south of Umnak Island.

(640) Northeast from Cape Sagak, the Pacific side of Umnak Island is fringed with rocky ledges and kelp beds. The shallow bight 11 miles from the cape has a sandy beach above the ledges and is backed by low, grassy bluffs about 100 yards inland. A chain of three lagoons is in the low valley that extends north from the bight to the village of Nikolski. On the northeast side of the bight is a bold headland with steep rock bluffs rising to 561 feet.

(641) **Driftwood Bay**, about 40 miles southwest of Konets Head, Unalaska Island, is on the southeast coast of Umnak Island opposite Nikolski. The bay is between Cape Udak and Black Cape. It is about 3.5 miles across the entrance and is divided into two arms by a headland about 435 feet high. Water may be obtained in either arm.

(642) The west arm is clear of dangers and shoals gradually. From its head a trail leads across the island to the village of Nikolski. Good anchorage may be found in 15 fathoms. In southwest weather some shelter may be obtained in the lee of Cape Udak. In south or southeast weather, there is no good anchorage, but in an emergency small boats might find some shelter in the east arm.

(643) The east arm, **Traders Cove**, is more or less foul and should not be entered without local knowledge. Small boats could be hauled out on the sandy beach in the northeast corner of this arm. In this corner is a shack in which fuel and food supplies are kept for sheepherders.

(644) **Cape Udak**, on the west side of Driftwood Bay, appears as a flat plateau about 600 feet high and about 1.2 miles across its seaward face. All sides of the cape are precipitous, rocky cliffs.

(645) **Black Cape**, about 392 feet high, is on the east side of Driftwood Bay. The cape slopes gently down to the water's edge and has a group of rocky islets, about 135 feet high, 175 yards offshore.

(646) **Lookout Point** is 4 miles northeast of Black Cape. From Lookout Point for 6 miles to the point opposite Kigul Island, the shore of Umnak Island trends east-northeast. Numerous rocky islets extend offshore for 1.5 miles. In addition to these visible objects, numerous kelp patches mark depths of 2 to 5 fathoms. The outermost of these is south of Kigul Island and has a depth of $4\frac{1}{2}$ fathoms.

(647) **Amos Bay** is 8 miles northeast of Black Cape and about 3 miles north of Vsevidof Island. It is about 0.7 mile wide and 1 mile long in a north-south direction. The west side of the bay is bordered by reefs that extend about 400 yards offshore, and the head is shoal. Anchorage with shelter from northeast to west can be found 0.3 mile west of the east entrance point, in 7 fathoms.

(648) To approach this anchorage, from a position 0.8 mile west of Vsevidof Island steer **000°** for 3.5 miles, passing 0.4 mile west of a rocky islet that is about 1 mile south of the east entrance point. Favor the east shore of the bay to avoid the reefs bordering the west shore. A trail leads from the head of the bay to Nikolski on the west coast.

On the east side of the bay is a cabin in which food and fuel are kept for sheepherders.

(649) **Vsevidof Island**, 280 feet high and about 1 mile across, is the largest of the group of islands on the southeast side of Umnak Island and is southeast of Mount Vsevidof. A small bay indents the south shore of Vsevidof Island. Covered rocks at the entrance prevent anything larger than a small launch from entering and then only when no surf is running. Rocks extend southeast 0.4 mile from the southeast point of the island, terminating in a rocky islet about 30 feet high. Depths of more than 20 fathoms are 0.3 mile east of these rocks.

(650) **Ogchul Island**, 1.7 miles east of Vsevidof Island, is about 0.3 mile across, 180 feet high, and is surrounded by deep water. The island is flat topped. The channel between the two islands has depths of 35 fathoms or more.

(651) Ogchul Island is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the entire island that also encompasses Vsevidof Island. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

(652) **Kigul Island**, 3.5 miles north of Vsevidof Island and about 2 miles east of Amos Bay, is the largest of the inshore islands. It is about 0.5 mile in diameter and 219 feet high. The island is 0.5 mile off the coast of Umnak Island, and the channel in the passage between the island and the coast is restricted by shoals to a width of about 150 yards. North of Kigul Island, anchorage with shelter from south and west winds can be found in about 12 fathoms. Anchorage with shelter from east winds can be found west of the island in 7 fathoms. The approach to this anchorage is difficult without local knowledge.

(653) **Lone Rock**, 1.5 miles northeast from Kigul Island and 42 feet high, is the northernmost of the group of rocks and islets in this vicinity.

(654) **Russian Bay**, near the middle of the Pacific Ocean side of Umnak Island, is about 1 mile wide and 2 miles long. A rocky ledge, 16 feet high, is about 1 mile east of the south entrance point. This ledge should be given a wide berth to the southwest to avoid a rock that uncovers 425 yards southwest of the ledge. The point on the northeast side of the entrance should also be given a wide berth to avoid the foul area that extends southwest of the point for about 0.3 mile. At the head of Russian Bay is a sandy beach where a stream of considerable size flows into the bay. This bay offers protection from north weather in 10 fathoms, sandy bottom. In southeast weather the bay is not recommended except in an emergency.

(655) **The Pillars** are a pair of pinnacle rocks, the larger 130 feet high, about 3 miles off the shore of Umnak Island and 15 miles northeast from Vsevidof Island. These rocks stand out prominently from all directions and may be seen many miles on clear days. From the north and south they have the appearance of a single pinnacle. From the east both rocks are visible. A rock awash at high water is about 175 yards east of The Pillars. Depths of more than 14 fathoms can be carried to within 0.3 mile all around these rocks.

(656) **Thumb Point**, about 3 miles west of The Pillars, is a long, narrow point, on the tip of which are three large pinnacles. Two of these, about 150 feet high, are on the beach. The third, 121 feet high, is about 150 yards offshore. From distances less than 5 miles these three pinnacles are very distinct; though several others of like size are in the vicinity, these cannot be mistaken, there being no other group of three.

(657) The broad bight between Thumb Point and Kettle Cape is fringed by off-lying ledges. Two valleys lead across Umnak Island toward Inanudak Bay from the head of this bight.

(658)

Islands of Four Mountains

(659) **Islands of Four Mountains** are a group of five treeless, volcanic islands west of Umnak Island. Their names are Uliaga, Kagamil, Chuginadak, Carlisle and Herbert. The group is about 16 miles from Samalga Island and about 18 by 25 miles in extent.

(660) These islands are high and snowcapped, with some snow remaining throughout the year. Clouds obscure the peaks most of the time. Frequently in the summer, while low fog banks are over the adjacent waters, the peaks stand clear above and are visible away from the fog banks. Fog is often in patches that may be avoided by passing around one of the islands or by moving out of the sweep of wind through a pass. The winds play about the islands with all the vagaries common to williwaws and may sometimes be avoided by making a move of 1 mile or so.

(661) Navigation among the islands is beset by frequent fogs, strong and treacherous currents and tide rips that may be dangerous for small craft. Because of the frequent fogs and strong currents it is emphasized that navigation is safe only by frequent sounding and constant reference to the chart. All waters are clear for large ships beyond about 1 mile from the shores and for small craft beyond 0.25 mile except where obstructions are charted. It is not safe to attempt passage inside any of the off-lying rocks.

(662) In **Samalga Pass**, between Samalga Island and the Four Mountains Group, the waters are deep and 15 miles in width; however, a good berth must be given the shoals that extend southwest from Samalga Island.

(663) A bank, with a minimum depth of 13 fathoms, is about 5.5 miles south of Concord Point, Chuginadak Island. Apparently it is the high spot of a large shoal area rather than a pinnacle.

(664) Among the group, the passes are probably all clear, though they have not been swept with wire drags.

(665) It is strongly recommended that a vessel proceeding along the north side of the Aleutian Islands avoid anchorage in the Four Mountains Group in bad weather. With a heavy sea running in the Bering Sea, dangerous tide rips will be encountered among the islands, and any lee afforded by indentations on the islands' shores is offset by the sudden shifting of the wind that may necessitate

shifting anchorage during thick fog through narrow passes subject to strong tide rips.

- (666) **Uliaga Pass**, between Uliaga and Kagamil Islands, has 9 fathoms across almost its entire width, and a midchannel course clears all known dangers. In the middle of the pass is a light growth of kelp; it is towed under and difficult to see except during the periods of slack water.

- (667) **Kagamil Pass**, between Kagamil and Chuginadak Islands, is wide and clear; no obstructions northwest of Corwin Rock. The least depth in the pass is 7 fathoms 1.2 miles north of Chuginadak Island.

- (668) In **Carlisle Pass**, between Chuginadak and Carlisle Islands, a midchannel course will carry 28 to 32 fathoms in the shoalest part. The depths increase quickly to 80 and 90 fathoms at both ends of the narrowest part of the pass. On either side of midchannel the water shoals rapidly toward land, but no danger exists until about 550 yards from the shoreline. The currents in this channel are strong, and the rips and swirls are of moderate intensity. Small boats should avoid the center of the pass to clear the worst of these.

- (669) **Chuginadak Pass**, between Chuginadak and Herbert Islands, is about 3 miles wide, with depths of more than 100 fathoms.

- (670) Between Herbert Island and Yunaska Island, to the west of the Four Mountains Group, the passage is 14 miles wide and very deep.

(671)

Currents

- (672) Currents observations among the Islands of Four Mountains have not been sufficiently detailed to serve as a basis for precise predictions. The best index to the times of flood and ebb appears to be the information for a location 1 mile east of Yunaska Island is available from the Tidal Current prediction service at *tidesandcurrents.noaa.gov*. Links to a user guide for this service can be found in chapter 1 of this book. Flood sets generally north and ebb south. The duration of slack is usually very short.

- (673) Among the islands the water swirls and counters in a highly confused manner, so that rips and eddies may be encountered almost at random. Rips in some cases indicate bottom configurations, but often not. Particularly in bights along the shores, currents counter to those outside may be anticipated.

- (674) Strong tidal currents set through all the passes. Velocities exceeding 4 knots have been noted, and it is probable that they reach 5 and 6 knots at times. Heavy tide rips may be anticipated except at slack water. In Uliaga Pass and in Carlisle Pass, the flood sets northeast. Between Herbert Island and Chuginadak Island flood is to the northwest. In Kagamil Pass the currents are confused, and the flood appears to enter the passage from the east, passing to the northwest to mingle with the flood current from Carlisle Pass, and thence turns north along the west side of Kagamil Island. South of Chuginadak Island considerable differences in the direction and strength of

the current over short distances may be noticed. Heavy rips, except in calm weather and at slack water, are about 1.5 miles Southeast of Concord Point, the southeast point of Chuginadak Island. Current boils have been noted as far as 7 miles offshore. Inshore, the set appears to be to the east most of the time. Offshore, about the 500- to 1,000-fathom curves, it seems to be principally to the west.

(675)

Anchorage

- (676) Anchorages in the group of Four Mountains Islands are few and inadequate. The principal one is in Applegate Cove, a bight on the north shore of Chuginadak Island. Protection from north weather may be found in South Cove on the opposite side of this island from Applegate Cove. About 3.5 miles to the east of South Cove is another anchorage, of small extent but offering excellent protection from the north. An anchorage giving protection from southwest to northwest weather is available in the bight at the northeast corner of Chuginadak Island, about 0.9 mile south of Corwin Rock.

- (677) A fair anchorage for medium-sized craft is in a cove on the north side of Kagamil Island. Another anchorage is in a bight on the south side of the extreme east end of Kagamil Island.

- (678) No other anchorages about these islands can be recommended and none around Carlisle and Herbert Islands. Small craft may find bights here and there where the depths and swinging room are suitable for anchoring, but the prevalence of strong currents, heavy seas, and bad wind conditions make them unsafe. The bottom in and around this group of islands, where it is not rocky, is essentially cinders and volcanic ash mixed with sand and gravel.

- (679) **Uliaga Island**, the northernmost and smallest of the Four Mountains Group, consists of one central mountain cone with a few prominent spurs. On the slopes are several spire like rocks. The crest of the peak, 2,915 feet high, has two points, one sharp and the other flat, larger, and slightly lower. The northwest side of the mountain is very steep and is greatly eroded. A serrated ridge protrudes from the south side of the mountain, and the south one of three peaks on this ridge is a good landmark.

- (680) The cove on the north end of the island is filled with kelp and affords poor protection for small boats. The east side of this cove is a cape, formed by a rough, lava outcrop, with a sharp, narrow ridge leading down to it. The west side of the cove is a wall of rock 340 feet high. The largest stream is on the west side of the island. A sharp, needle like pinnacle with two points, the higher 65 feet, is less than 0.5 mile from the northwest shore and about 1.1 miles north of the westernmost point of the island. This point is comparatively long and consists of a narrow ribbon of lava that extends into the sea from one of the mountain ridges. On the south slope of this ridge and about 0.8 mile east of the west point of the island is a sharp spur, 956 feet high.

- (681) A rock, which uncovers 3 feet, is about 0.2 mile from the east shore of the island and well outside the thick kelp line. The best landing site on the island is on the east side about 0.5 mile from the southeast corner. This landing is on a boulder beach behind a barrier of kelp and near a trapper's cabin, which is occupied during some winters. A prominent scar is in the low, grass bluff bordering the shore in this vicinity. The small cove south of the landing is marked by a 40-foot pinnacle rock at the south end of a boulder beach.
- (682) **Kagamil Island**, between Uliaga and Chuginadak Islands, has a large mountain in the center of its south half. The mountain is 2,930 feet high and has a circular crater on its northwest side. Its upper slopes are steep and rocky, while those nearing the base make a somewhat abrupt change to large, gently sloping or flat areas of grass or tundra that generally terminate in bluffs. Near the southeast end of the island a number of fumaroles emit vapor near the tops of the cliffs, and at the south end is a strong steam jet in the cliff a few feet above the sea.
- (683) The hills in the north part of the island culminate in a 1,640-foot peak that is close to the north shore. The two largest valleys are on the east side of the island; the northernmost is quite flat, with some grass-covered bluffs, and is drained by two small streams. What is probably the best camp site on the island is in the valley at the head of **North Cove**, the largest of the coves on the north shore. This valley, circular in shape and the smallest on the island, has one permanent stream. North Cove has the only sand beach on the island.
- (684) **Candlestick Point**, on the west side of North Cove, has striking topographic features in a long, thin wall of rock with a 75-foot arch to form the point proper, and a group of 10 tall pinnacles close by. The wall of rock is 315 feet high and juts out north into the sea. The pinnacles, the tallest being 156 feet, are grouped slightly offshore about the outer end of the wall. The northwest point of the island is a detached spur, 591 feet high, with a conspicuous smooth, red cliff, about 0.3 mile west of Candlestick Point.
- (685) From the red cliff the coastline trends south. High cliffs with a series of gray pinnacles border the shore. South of these cliffs, the only valley on the west side of the island begins at the head of a small cove. This valley is narrow, about 2 miles in length, and is drained by the largest stream on the island. A small lake is reported to exist in this valley. To the south, the cliffs along the shore rise almost vertically from the sea 300 to 500 feet, with no talus or ledge at the waterline. The cliffs at the southeast end of the island are broken in many places by caves. The shore around the south end of the island is of very rough lava and boulders, the lava being most prominent at the southwest corner of the island.
- (686) A fair anchorage for medium-sized craft in 10 fathoms, rocky bottom, is on the north shore of Kagamil Island in North Cove. It is subject, however, to violent williwaws. Water may be found in the cove. Entrance is from due north of the center of the cove and well clear of the vicinity of the pinnacles on the west side. Another anchorage may be found in 16 fathoms in a bight just south of the east end of the island. The bottom is reported to be coarse, black sand and fine gravel. This bight is marked by a high ridge, which extends from the mountains, and a Tablelike headland. There are a stream and a cabin in the bight. Williwaws may be encountered here, and the currents are troublesome; nevertheless good shelter from west weather may be had.
- (687) **Chuginadak Island**, the largest of the Four Mountains Group, consists of two mountain masses divided by a low, wind-swept valley across a narrow neck of land. The low area of the valley has rolling grassland interspersed with areas of lava flow, cinder patches and conical cinder hills.
- (688) The east part of the island is an area of rugged terrain formed by a group of eroded volcanic peaks, the highest being 3,840 feet. Numerous valleys and ridges descend to the rocky bluffs bordering the shore. The peaks, almost constantly hidden by clouds, are covered with snow nearly the year round. The lower levels have a vegetation of thick grass, while the higher altitudes are of barren rocks and lava ash. Many prominent waterfalls may be seen around this part of the island. In about the middle of the east coast are several areas where steam escapes from the top of the shoreline cliffs. On the south side, **Concord Point**, the southeast end of Chuginadak Island, is a high headland of rolling, grassy hills. Immediately to the northwest of this headland, **Black Peak**, the remnant of a large crater, the west rim of which is a distinctive black crag, is a conspicuous landmark from the southeast and southwest. It is 1,525 feet high and is usually visible when the higher peaks inland are hidden by clouds.
- (689) The coastline of the east part of the island is indented by many coves and bights. Extensive kelp beds are found in the shoal areas and numerous large boulders and off-lying rocks along the shore. **Corwin Rock**, 56 feet high, stands prominently at the extremity of a submerged reef making out from the northeast shore of the island. The outer limits of Corwin Rock are within about 0.7 mile from the nearest point of Chuginadak Island. Although this rock appears as a single island, it consists of two small islets, separated by a small, narrow strait. On the southwest side of Corwin Rock the kelp extends well out toward the shore of the island. Currents, swirls and tide rips indicate foul waters, and no passage exists between the rock and the island.
- (690) The west part of Chuginadak Island consists of a tall, symmetrical cone, known as **Mount Cleveland**, 5,675 feet high. The sides of this volcano are streaked by a series of lava flows, with intervening, grassy patches on the slopes, most of these patches being on the south side. Because of the heat of its active crater, Mount Cleveland loses its snow more rapidly than the other high peaks. A wisp of smoke or vapor issues most of the time from the small crater in the top of Mount Cleveland; a dim glow may be seen at night. An unusual condition consisting of a clear patch of sky in the lee of the volcano has been

observed when all other places were heavily overcast. No waterfalls are on this part of the island, and there may be water only after a rainfall, as the entire cone is apparently so porous that no stream of water from the melting snow reaches the shore. The coastline is more regular than around the east part of the island, and the kelp beds bordering the shores are less extensive. A few rocks awash are found close inshore along most of the beaches and cliffs.

(691) There are no good places to land on the island in unfavorable weather. However, in moderate weather landings may be made in some of the smaller coves indenting the point on the northeast side of Applegate Cove. It is generally possible to land on the south side of the island in South Cove. The landing is on the east side of the cove, at the end of the sand beach or on the adjacent, rocky shore. The best place for a small boat to obtain water is in a small cove about 1 mile east of this landing, near a waterfall with a peculiar white deposit at the top. This deposit can be seen 20 miles offshore on clear days. A small boat can pass inside the 140-foot pinnacle near this waterfall.

(692) No houses are on the island, but a large shallow cave is in the face of the cliff at the head of South Cove. With the exception of Corwin Rock no dangers are very far offshore, the farthest being about 500 yards. Rocks awash and others bare at low water extend about 350 yards from the shore of the southeast side of Concord Point. A $1\frac{3}{4}$ -fathom spot is 0.3 mile off the south end of the point. The kelp around the island is not always visible because of the strong currents.

(693) The anchorages in **Applegate Cove**, the largest bight on the north shore of Chuginadak Island, and in **South Cove** on the opposite side of the narrow neck of land have a most unfavorable weather condition. The fog hangs frequently over them when the two main parts of the island are comparatively clear.

(694) Applegate Cove affords protection from all weather except from the northwest to northeast. However, winds of great intensity are almost constantly encountered. The valley across the narrow neck in the center of the island acts as a draw, causing the winds to be of much greater intensity than would be normally expected. Wind forces double those prevailing outside may be encountered in stormy weather. Bottom is of dark-colored sand and mud, but rocky patches may be found. The bottom holds fairly well in moderate weather, but dragging may be expected during severe blows. Anchorage may be found in the center of the cove in 14 to 20 fathoms. Small craft should anchor well into the cove in 7 to 9 fathoms, from 600 to 800 yards offshore opposite the central part of the sand beach. Both the wind and fog may be avoided to some slight extent by anchoring near the west part of the cove, opposite a prominent, dark, rocky outcrop in the bluff.

(695) An anchorage with good protection from the northwest to southwest is available in a bight about 0.9 mile south of Corwin Rock in about 14 fathoms, rocky bottom.

(696) Protection from north weather may be found in South Cove, the large cove on the south side of the valley between the two mountain masses. Conditions regarding fog and wind correspond exactly with those of Applegate Cove. South Cove is smaller and has a shoal in the west part. The bottom is rocky and anchors may be fouled. The best anchorage is in 9 fathoms northeast from the shoal, and it can be approached from the southeast to southwest bearing in mind the shoal in the west part. The nearest source of water is on the exposed coast, about 1.5 miles east, where small boats may obtain it in favorable weather.

(697) A small anchorage in a bight about 3.5 miles east of South Cove and 3 miles northwest of Concord Point gives excellent protection from north winds. Because of the shielding effect of high cliffs, it may be free from fog when South Cove is not. Several waterfalls mark this bight. Anchorage is in 15 fathoms, with rocky bottom and very limited swinging room.

(698) **Carlisle Island**, about 1.2 miles northwest of Chuginadak Island, is a mountain consisting of a single, extinct volcanic cone 5,283 feet high. The island is somewhat circular in shape, with a diameter of about 4 miles. The upper part of the mountain is snow covered. Below the snow line, the slopes are dark lava, while below 1,500 feet they are covered with grass or tundra. The lower slopes flatten out and generally terminate in rocky cliffs or steep bluffs. On the west and north sides are numerous seepages on the face of the bluffs. The westernmost point of the island is an almost flat, oblong plateau 1,000 by 1,400 yards, with an average elevation of about 160 feet. The only stream on the island that may be flowing continuously is on the southeast side about 1 mile south of a shack.

(699) The most prominent features along the shore are: on the northeast side of the island, a small peninsula 0.4 mile long, formed by a lava-flow jutting out northeast into the sea; on the southeast side, a knoll forming a rocky point; on the south, a peculiar, dragon-shaped, rock dike protruding in the shape of a curving ridge and headland at the extremity forming **Dragon Point**; and off the northwest point, a rock having the appearance of a partly submerged ship when viewed from the east. Also a low, offshore rock is in this vicinity.

(700) **Herbert Island**, the southwesternmost of the Four Mountains Island, is separated from Chuginadak Island by 3-mile wide Chuginadak Pass. The mountain on the island may be likened to a truncated cone, the truncated section being the rim of a crater about 1 mile in diameter. The rim is lower on the north side, and from well offshore to the north the inside of the crater is partly visible. The highest part of the island, 4,235 feet, is the south rim of the crater. The north side of Herbert Island appears fairly flat when approached from the east or west. The north side of the mountain is deeply eroded and the most abrupt. The south and west sides of the island are marked by yellow scars on the cliffs. The island is tundra and grass covered,

with snow from fall to early summer. The lower slopes are regular and in places gentle.

(701) Along the west part of the north side of the island is a low bluff, less than 50 feet high, which gives way on the east side to high, sheer bluffs of from 200 to 400 feet. Under these high bluffs, the shoreline is mainly a boulder beach, 10 to 20 yards wide, with kelp offshore. On the flat part of the north end, however, the beach is fairly wide, and reefs, with many rocks awash, extend well offshore, as well as beds of heavy kelp for some distance outside the reef and foul area line.

(702) East of the northernmost point of the island is a shallow bight that may be used for anchorage in calm weather, though it has a boulder bottom and in south weather is subject to heavy seas coming from the south around the northeast corner of the island. Strong currents tend to form tide rips with any sea that might be running. A cabin, at the northwest end of the bight, is occupied at frequent intervals by fox trappers.

(703) On the west side of the island, near the southwest corner, is a cup-shaped valley, apparently the eroded remains of a crater. The shore at the foot of this valley is a boulder beach with moderate slopes behind it. Northwest of the valley, and about 0.5 mile offshore, is a 60-foot rock that stands out very prominently from both north and south. A small rock is about halfway between it and the shore.

(704) The south shore of the island consists of narrow beaches at the foot of cliffs of varying heights. All offshore rocks are within 200 yards of this shore except off the southeast corner of the island, where a prominent pinnacle rock 135 feet high is about 0.3 mile off the beach. The passage inside this rock is not clear because of a rock awash and another pinnacle 2 feet high. Back of the pinnacle rock is a distinctive reddish headland.

(705)

Yunaska Island to Andreanof Islands

(706) Yunaska, Amukta and Chagulak Islands are a group of islands west-southwest of the Islands of Four Mountains. Yunaska, the nearest, is about 14 miles from Herbert Island, while Chagulak and Amukta Islands are about 3 miles apart and about 10 and 14 miles, respectively, to the west of Yunaska. The pass between Herbert and Yunaska Islands and the pass to the west of the latter are deep and clear of dangers. Navigation about these islands requires caution and frequent soundings during poor visibility.

(707)

Currents

(708) Current observations taken 1 mile east of Yunaska Island indicate velocities of about 2 knots. The greatest velocity observed was nearly 4 knots. The flood sets north and the ebb south. (See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this

book. The velocity of the current changes very rapidly around the times of slack water, and the current frequently runs near its maximum flood or ebb velocity for 4 or more hours. Strong currents and dangerous tide rips are reported in the vicinity of Amukta and Chagulak Islands. In a small gale and during spring tides, the tide rips are built up by an opposing swell. A strong ebb against a small swell is reported to cause 10-foot rips in a dead calm. Currents opposing the swell and a little wind may bring about such seas and rips that small vessels are forced to proceed slowly.

(709) **Yunaska Island** is a treeless volcanic island, divided into two parts by a generally flat valley, with gentle slopes from the bluff back of the shoreline to the base of the mountains. The island is mostly grass covered below 1,000 feet, especially in the lower flats where the grass is extremely thick and matted. Weather conditions are similar to those of the Islands of Four Mountains. Yunaska is a wildlife refuge; it has been stocked with blue foxes that are now quite plentiful and tame. Two cabins are on the island. In general, the landing facilities are poor, and there are not many sources of drinking water.

(710) A large crater, about 2 miles in its greatest diameter, is in the east part of the island. The highest point of the crater's rim, 1,968 feet, is found on the northwest side. This point appears as a lone peak from some directions. The crater is surrounded by various conical and ridgelike hills, interspersed with small craters and lava flows. Within the large crater is a small peak, 1,804 feet high, which has its own small crater. Eruptions in this part of the island have been known to occur. A prominent lava flow extends from the southwest rim for about 1 mile to the south; it does not reach the shore. The cliffs along the south shore of this part of the island are honeycombed with caves and marked with many bridges and arches.

(711) Near the northeast shore of Yunaska Island is a prominent saddle-shaped peak, 1,051 to 1,066 feet high. A bold promontory, 747 feet high, adjacent to the shore, is at the end of a ridge leading northwest from the saddle-shaped peak. To the west of this ridge and north of the crater is a broad, smooth valley. The surface is composed of porous ash covered with a moderate growth of grass. The entire area is well drained by a few narrow ditches 4 to 6 feet deep. Through the middle of the valley is a long lava flow, about 20 feet high and very rough. The lava flow extends north-northeast to the shore where it spreads along the water's edge and where, under favorable conditions, landing might be made. A good supply of drinking water can be obtained from an underground stream about 150 yards east of and behind the westernmost corner of the lava flow. The stream flows below and around the boulders of the old beach.

(712) The northeast shore of Yunaska Island is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the rookery which encompasses East Cove. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

(713) Along the east and north coast of this part of the island the shore is bordered, in general, by steep rocky cliffs that can be scaled in several places. The most important break in the cliffs is at the foot of the lava flow. **East Cove** is a broad indentation on the extreme east end of the island. Landing sites are found in East Cove and at the head of a bight north of East Cove where some water can be had.

(714) The central valley of the island is composed of flats occasionally broken by hills and knolls and is covered with tundra. No dependable permanent source of drinking water has been found in this valley.

(715) On the west part of the island is the highest peak, 3,119 feet. It is an apparently lifeless volcano, somewhat eroded, with remnants of craters on its side and about its base. From the west, the island appears as having grass-covered hills, with high bluffs on the north and south rising abruptly toward the summit of the two-pointed peak. The points stand out, particularly from the west, when they are not covered by clouds, which is seldom.

(716) A low bluff extends along most of the west coastline. North and south of it much higher bluffs begin and rise 300 to 600 feet in places. A 300-foot bluff, beginning about 1 mile from the northwest corner of the island, extends south for about 0.5 mile. A black sand beach, about 40 yards wide and 600 yards long, is at the foot of the south half of this bluff.

(717) With the exception of this short stretch of sand beach, the west shore is rugged and has many reefs and rocks awash offshore. Many lava points extend outward from the general bluffline. The kelp is thick and extends from 50 to 200 yards outside the rocks. On the north and south ends of this shore, where the bluffline is higher, the beachline becomes a narrow boulder shelf at the foot of the bluff, and boulders extend out into the water for some distance. A large reef extends offshore for over 300 yards from the southwest point of the island. On the east side of the bold southernmost point of the island, for a short distance the cliffs drop immediately into the water without even a shelf at their foot. Several large offshore rocks exist in this locality. A large pinnacle, about 200 feet high, is about 150 yards offshore and about 1.2 miles northeast from this point of the island.

(718) The shoreline around the island is rugged and has many off-lying rocks and pinnacles. Heavy kelp extends several hundred yards offshore, except off the sand beach in the middle of the south shore of the island and a few other places where there is deep water off vertical, lava cliffs. Heavy tide rips and strong currents are encountered off the points, especially those at the northeast and southwest ends of the island. All around the island the bottom breaks off fairly sharp, becoming more even as the 30-fathom curve is approached. Passing ships are advised to keep outside this curve.

(719) Dangerous shoals extend off the east shore of the island in the vicinity of an off-lying rock and on the south side of the island in South Anchorage.

(720) Ships should not approach within 1.5 miles of the island's shore except with extreme caution. Small craft

may consider themselves safe at distances beyond 0.3 mile from shore, except where charted obstructions exist. A pinnacle rock 91 feet high is off the southeast shore.

(721) Around Yunaska Island are three or four fair anchorages. **South Anchorage**, the largest bight on the south side of the island, affords protection from north as well as west weather, and to some extent also from the northeast, in 13 to 15 fathoms with even bottom of rocks and cinders. The off-lying reef and low rocks in the west part of the bight must be avoided, as well as the shoal in the east part. A safe entrance may be made by heading for the middle of the long, conspicuous black cinder bluff along the head of the bight on a course **000°**. A tall shaft of rock, leaning slightly, is on the steep slope at the west end off the bight.

(722)

Local magnetic disturbance

(723) Differences from the normal variation of as much as 3° have been observed at South Anchorage.

(724) **East Cove**, indenting the east side of the island, affords fair anchorage in emergency situations, for one ship, in about 10 fathoms with good holding ground of cinders and mud. The cove is small, with a dangerous off-lying ledge and rocks on the south side and with troublesome currents. It affords fairly good protection from west weather; however, it is subject to violent williwaws during west storms, making it inadvisable to anchor there. Heavy swells reach this anchorage during southwest storms. Launches may find good protection inside the kelp behind the rock reef in the south side of the cove.

(725) Protection may be found by small craft in a small but pronounced cove near the middle of the west shore of Yunaska Island, in 52°36'N., in about 3 fathoms, with a bottom of boulders. A narrow channel, about 100 yards wide, leads through the heavy kelp to the head of the cove.

(726)

Anchorage

(727) The best anchorage in emergency situations from south weather is found in a small cove on the north shore of the island in 170°41.5'W., in about 16 fathoms, with rock and mud bottom. A 6-fathom depth is at the east end of the cove. About 0.5 mile to the west is a smaller cove, where launches may find good protection from south weather in 3 fathoms, sandy bottom. A cabin is at the top of the high black bluff at the head of this cove.

(728) **Crater Anchorage**, a bight on the west side of the island, affords fair anchorage with some protection from east and south weather in 18 to 20 fathoms, cinder bottom. The bight is marked by a curved black bluff on its east side, the remnant of a crater. Rocks, covered 7 feet, are encountered a very short distance inside 15 fathoms in 170°46'W., which constitute a serious danger in this anchorage.

(729) **Chagulak Island** is a steep, volcanic mountain having a sharp peak, 3,750 feet high. Its rugged slopes, mainly a series of sharp, steep-descending rocky ridges

marked by numerous pinnacles, terminate generally in rocky cliffs at or near the shore. It is uninhabited and has no good landing places. The island is steep-to on all sides and soundings give little indication of danger. It should be given a clearance of at least 1 mile. The cove on the west side formed by the southwest point offers some protection and a possible landing for small craft during southeast weather; its approach, however, is endangered by violent tide rips.

(730) Great caution should be exercised during thick weather while navigating in the vicinity of Chagulak Island. Very strong currents make it impracticable to use soundings as a guide in thick weather. The 200-fathom curve is dangerously close in places, barring the use of depth curves for rounding the island. There are no recommended ship anchorages near Chagulak. The island is small, steep-to, and affords no protection. The two principal exceptions to the general steepness of the slopes of the ridges are at the southwest and southeast points of the island.

(731) The southwest point is a peninsula formed by a comparatively long and flat, grass-covered ridge some 300 feet high, and the upward continuation of the ridge toward the mountain summit, which has a comparatively regular and moderate slope. By reason of its low elevation, the peninsula is generally not fog- or cloud-covered during the prevailing low visibility. A slight, rounded rise near the shoulder of the ridge at the northwest extremity of the peninsula, and another on the south side of the peninsula, are distinctive as they alone project above the smooth appearing tabletop of the ridge. On the south face of the peninsula below the second rounded rise is a small white scar in the shore bluff.

(732) The southeast point is the extremity of a moderately descending grass-covered ridge projecting seaward to form a peninsula. The rounded northeast end of the island above the rocky cliffs along the shore is grass covered and also has a fairly moderate slope.

(733) On the north part of Chagulak Island, about halfway in distance and elevation along the ridge between the summit and northernmost point, is a pronounced saddle. On the north end of this saddle is a summit, with a pinnacle, 1,905 feet high. A second smaller and lower pinnacle is just to the north. From these pinnacles the ridge slopes in a general convex form to the north point of the island. On the next prominent descending ridge to the east, is a rounded thumblike protrusion, 1,120 feet high, that is visible along the line of the northeast tangent of the island. A similar thumb, 1,495 feet high, is on the west descending ridge that forms the south boundary of a deep valley on the west side of the island. It is seen along the line of the southwest tangent of the island and particularly well when snow is in the locality, as the steep sides of the feature itself are generally bare.

(734) Chagulak Island is a nesting place for whalebirds and small gulls which fly in great numbers around the island within a radius of a few miles and in foggy weather may indicate the proximity of the island.

(735) The shore is either of large boulders, vertical cliffs or outcropping rock. There are several off-lying features. Off the northwest side are two prominent rock ledges; the inshore ledge is 55 feet high. Off the east side is a small rocky islet, steep and roughly rounded in outline at the top and 150 feet high. About 0.6 mile to the north of the rocky islet and farther offshore is a very dangerous detached ledge, it shows 18 feet above the surface and seas sweep over it in moderate weather. Several rocky islets are off the south shore, and there is a low, rocky ledge off the southwest point.

(736) On the south shore is a prominent, smooth, narrow slide of snow and sediment that may be distinguished well out at sea.

(737) On the west side is a 225-foot pinnacle rock. A beach landing may be made on the south side of the pinnacle. About 400 yards north of the pinnacle is a 20-foot dike that extends about 20 yards outside the high water line. Many rocks, awash and covered, are off the point 250 yards north of the dike.

(738) The north shore is very rugged, with precipitous rocky bluffs. In general, the kelp near the shores is thickest along the west shore.

(739) A submerged pinnacle having only 2 fathoms over it is just within the 100-fathom curve, 0.5 mile northwest from the southwest point. In this vicinity are strong, erratic currents and heavy tide rips.

(740) The small, rocky islet close to the south side of the peninsula at the southwest point affords some protection for making a landing on the island. The cove on the north side of the peninsula affords anchorage for small craft in south and east weather.

(741) **Chagulak Pass** is clear except for the 2-fathom shoal mentioned in the description of Chagulak Island. It is about 3 miles wide, but passage should be attempted only with local knowledge or during very clear weather. The flood current sets northwest and the ebb southeast. The current is probably in excess of 3 knots. Tide rips were noted through the entire pass.

(742) **Amukta Island** has a volcanic mountain cone with a crater at the summit. The highest point of the rim of the crater is 3,463 feet at its west end. On its south end is an appreciable depression of the rim. The mountain is closest to the north shore of the island, where its slopes descend directly to the shore. The base of the mountain cone proper is at about the 1,000-foot level, and to the east and west the lower slopes reform into spurs, hills and ridges.

(743) Near the northeast shore a prominent cinder hill 1,486 feet high rises at the side of the cone.

(744) A group of fingerlike pinnacles mark approximately the flattened, 1,000-foot level that appears as a ridge bordering the east shore. This apparent ridge descends to the south and is linked with the prominent ridge forming the peninsula at the southeast end of the island; a low saddle is between them. Rising on the slopes of the mountain halfway between its summit and the southeast peninsula is a group of reddish knolls. A spur projecting

from the mountain toward the northwest shore is marked by two summits, the inner and higher one being a conical peak 1,036 feet high.

(745) A ridge of varying elevation borders practically the entire west coast and terminates in the peninsula forming the southwest end of the island. On this ridge are some distinctive summits, and a decided break occurs about halfway along the west shore. The east slopes of the south part of this ridge border the large cove indenting the south side of the island and the adjacent low lava fields.

(746) A very distinctive feature on the island is a massive rectangular outcrop of rock, crowning one of the summits of the peninsula ridge at the southeast end. This 615-foot-high block-shaped landmark is the highest part of the ridge. Another massive outcrop of rock, peaked in shape, appears on the summit to the north. These remarkable features are dark, in contrast to the grassy surface of the remaining part of the ridge, and may sometimes be recognized well to seaward against the 3-mile distant mountain background of the island.

(747) Amukta Island is generally covered with lava and cinders and is black in general appearance. However, some grassy areas are on the ridges along the west side of the island, in the area to the south of the cone, and on the ridge forming the southeast peninsula.

(748) During low visibility the southwest peninsula of the island may be recognized by a 130-foot rock detached from the headland at its south extremity; it appears as a pointed shaft of rock when viewed from the northwest and the southeast sectors. Against a shore background, the rock is not discernible at a distance.

(749) **High Rock**, off the deep cove indenting the south side of Amukta Island, is a prominent landmark. It appears as a columnar monument rising 68 feet from a rocky ledge base. The top of the column is a smooth, truncated surface facing seaward and with favorable light has a light-gray appearance, making it partly discernible from offshore against the island background.

(750) The easternmost point of Amukta Island is formed by a projecting ledge, and directly off the ledge is a rocky islet; the inshore side rises vertically to 65 feet. In this locality the shore rises abruptly in steps and thence to a jagged, ascending ridge. A prominent rock pinnacle on the ridge about 200 feet above the water level is about 300 yards from the point.

(751) The northeast shore of Amukta Island bordering Chagulak Pass is in general composed of lava bluffs or large boulder beaches. Along this shore are many detached rocks. A good landing place is in the small bight about 1 mile southeast from the northernmost point of the island. A temporary small-boat anchorage and landing may be found in the small and deeply indented bight around the east side of the northernmost point.

(752) The west shore of the island is composed of high bluffs meeting the slopes of the nearby ridges.

(753) A trapper's cabin is on the shore of the bight on the south side of the island; some water is available in this locality.

(754) Almost the entire coast of Amukta Island is fringed with detached rocks and ledges of various description. Off the south coast of the island an area of broken bottom extends from the southwest peninsula for over 1.5 miles in a southeast direction; High Rock is in and near the middle of this area. The section between High Rock and the peninsula is extremely foul, and passage across it should not be attempted. The outlying section has a depth of 3½ fathoms about 0.5 mile southeast of High Rock.

(755) An area of broken bottom also extends in a west direction from the southwest peninsula for about 0.8 mile, in which a 2½-fathom depth was found 0.3 mile west from the south end of the peninsula.

(756) Along the west shore abrupt changes in depth occur within the 20-fathom curve, which approximately parallels the shore at a distance of about 0.5 mile.

(757) From the middle section of the northwest shore an area of irregular bottom extends 0.8 mile to the 20-fathom curve; thence there is an abrupt deepening of several fathoms to seaward.

(758) From the northernmost point, an area of broken bottom with shallow depths less than 5 fathoms extends for about 0.6 mile in a northwest direction. Off each of the several points along the northeast shore are small detached shoals of 1½ to 3 fathoms. Along the east shore broken bottom is within the 20-fathom curve that is 0.8 mile from the shore near the middle of this section. From the southeast peninsula of the island, a shallow area with depths less than 8 fathoms extends in a south direction for about 0.4 mile.

(759) As in the case of Chagulak Island no satisfactory anchorages are found in the vicinity of Amukta Island. During storms, the gales draw around its entire coastline to the lee side, causing violent gusts of wind successively from opposite directions along the shore. Also, no section of the coast is free of strong currents, tide rips and seas that sweep around the island. The bottom, generally of gravel, affords only fair holding ground.

(760) **Anchorage**

(761) The best anchorage for southwest weather is in 18 to 20 fathoms, gravel bottom, about 1 mile east of the northernmost point of Amukta Island, off the cove in that locality. Attention is called to the detached 1- to 2-fathom shoals off the several points close to this anchorage. The strength of the current here is less than elsewhere along the northeast coast.

(762) In southeast weather anchor in 18 to 20 fathoms, gravel bottom, about 0.8 mile west of the northernmost point, or in 18 to 20 fathoms off the middle of the cove about 2 miles southeast from the northernmost point. In coming to anchor at the latter location, a strong northeast current may set the vessel toward the foul areas that extend from the point of the north end of the cove, and a range on the slope of the shore ridge should be selected and held in order to avoid this.

(763) In northwest weather anchor in **Traders Cove**, in 24 fathoms about 0.8 mile east from the southeast point of the island. Care must be taken to avoid the dangerous shoals just within the 20-fathom curve.

(764) **Local magnetic disturbance**

(765) Differences of as much as 6° from normal variation have been observed in Traders Cove.

(766) Overnight anchorage is not recommended in the large cove on the south side of Amukta Island. Strong winds from the southeast may make up suddenly and the approach and anchorage are bordered by dangers.

(767) A remarkable bottom configuration has been noted in the area to the east of High Rock. With a general depth of some 35 fathoms 1 mile off the south side of the island, the depth may increase rapidly to 70 fathoms as the shore is approached. There is a considerable basin of about 50 fathoms, about 0.8 mile in length from east to west, this depth being found about 200 yards northeast from High Rock. The 3½-fathom shoal in this vicinity is on the southwest rim of this basin.

(768) **Currents**

(769) As in all other parts of the Aleutian Islands, currents around Chagulak and Amukta Islands are strong and somewhat erratic in their nature. The general flood direction is to the north and the ebb to the south. Tide rips make up swiftly and furiously at times. While the channel between the two islands is clear, tide rips give the impression of heavy seas in shoal water. On the flood, the current seems to divide on the south side of Amukta Island near the 3½-fathom shoal previously mentioned where the seas are very confused. The currents rejoin near the north point of the island, and the reverse action seems to take place on the ebb.

(770) Similarly, the strongest currents along Chagulak Island are found near the southwest point of the island, the current dividing somewhere near the center of the south shore and rejoining on the north side of the island. The strong currents are particularly noticeable at times along the east side of this island where the general north trend of the current is unobstructed.

(771) The currents vary considerably in velocity, and they probably often exceed 3.5 knots.

(772) Tide rips are conspicuous off all points, their violence being somewhat in the following order: Strongest along the west part of Chagulak Island and in the pass between the two islands, around the southwest point of Amukta Island and near the 2½-fathom shoal, around the north point of Amukta Island, around the southeast point of Amukta Island and around the southeast point of Chagulak Island.

(773) **<Deleted Chart Header>**

(774) **Andreanof Islands** extend in a 310-mile chain from Amukta Pass to Amchitka Pass.

(775) **Amukta Pass to Segum Pass**

(776) **Amukta Pass**, often called the **Seventy-second Pass**, is a 35-mile-wide clear passage between Amukta and Segum Islands; depths are from 55 to 300 fathoms. Both islands may be seen across the full width of the pass in fair weather; their shores should be given a clearance of not less than 1 mile.

(777) **Segum Island** is rocky and cinder covered, has numerous lava flows and is steep-to on all sides. It has, however, several good landing places and an abundant water supply. Irregular mountain masses are on both the east and west ends of the island, and a saddle is in the east central section. The formation is volcanic, and the peaks are rocky, extinct craters.

(778) The mountains on the west end are higher; **Pyre Peak**, 3,458 feet, in the west central part, is the highest on the island. The highest peak on the east end is a jagged pinnacle on a small crater within a larger crater and is 2,768 feet high. The mountains on the west end of the island are more ragged. The north coast is low rock and grass bluffs. The other coasts are steep and high, with the peaks close to the coast. The two good anchorages are Finch Cove on the north and Lava Cove on the south. Numerous pinnacles are close to shore; the most prominent are those off the northwest point, the highest 98 feet.

(779) The precipitous east end of the island, except for a small peninsula, is at the base of a volcanic mountain having a crater within a crater, 0.5 mile in diameter, at its summit. The summit has a confusing appearance; a pronounced rise along the north rim of the main crater is 1,930 feet high and appears as a sharp peak when viewed endwise. Also a pronounced rise is along the north rim of the inner crater, which is 1,934 feet high. The south rim of the inner crater merges with that of the main crater and is 1,820 feet high.

(780) Relatively shoal-water areas extend off all the principal points of Segum Island and are usually marked by breakers in bad weather. Kelp grows profusely in most of these areas.

(781) **Currents**

(782) Currents around Segum Island are strong and very erratic. As around Amukta and Chagulak Islands, the general flood direction is north, with the ebb south. On the flood, the current seems to divide somewhere near Turf Point and to rejoin near Finch Point on the north. The reverse appears to take place on the ebb.

(783) Tide rips are severe off many points; they make up suddenly and furiously and are dangerous to small craft. Passage through the rips by small boats should not be attempted unless the operator is familiar with the danger. The worst rips are found along the west end, with lesser ones off Moundhill Point and Finch Point. These are all conspicuous, and while they seem to indicate shallow

water by their whiteness, they make in deep water and so are no menace to navigation for the larger ship.

(784) Strong currents and tide rips occur around the east end of the island.

(785) On the south end of the east coast is **Moundhill Point**, a small, rounded peninsula that forms a very important landmark during the prevailing low visibility. The peninsula is a mound-shaped hill, 465 feet high, and has four small, rounded protuberances at its summit. The easternmost of these is separated from the remainder of the group by an appreciable distance and by an apparent depression in the top. Rounded protuberances also characterize the slopes of the hill. The hill is separated from the mountainous mainland by a draw about 100 feet high at the neck of the peninsula. At the water's edge, the hill slopes descend to form almost vertical cliffs of rock. A fair landing is on the north side of the neck. Fair anchorage for small craft is in the cove on the south side, which is marked by three tall pinnacles near its southwest end.

(786) Several lumps of about 3 fathoms are in the shallow area 0.2 to 0.5 mile east of Moundhill Point. It is advisable to round the cape by at least 1.5 miles.

(787) At the north end of the east coast the land projects to seaward forming prominent **Wharf Point**, which resembles a wharf or pier from a distance. The point has a more or less flat top, 50 feet high, and the bluffs on its three sides are approximately rectangular, forming two distinctive corners at the extremity.

(788) **Finch Cove** is an indentation 2 miles in extent along the northeast side of Segum Island; its north extremity is Finch Point. A long, rocky point formed by a spur divides the cove into two parts. At the head of the cove, north of the dividing point of land, is a 0.8-mile stretch of sand beach providing good landing. The approach to the middle section of this beach is apparently free of rocks, and the depths decrease gradually, making this a favorable site for beaching a vessel in an extreme emergency. The north half of this part of the cove is foul with rocks of various description, among which is a 58-foot elevated, block-shaped rock. Along the shore of the cove east and west of the dividing point of land are stretches of high, prominent cliffs. The west stretch is about 0.3 mile long and 300 feet high, and the east rounding stretch of cliff is about 0.5 mile long and 500 feet high. To the east of the latter is a deep valley that extends inland. A cone-shaped peak 1,447 feet high is 1.5 miles inland from the cove.

(789) Near the center of Finch Cove, an area of extremely broken bottom with shoal depths of about 4 fathoms extends out from the dividing point for more than 0.3 mile. In the south part of Finch Cove, along the shore east of the dividing point, are heavy kelp beds.

(790) Finch Cove offers good protection in southwest weather. The survey ship EXPLORER remained at anchor in Finch Cove during a storm in 1952, with south winds up to force 12. The ship anchorage is in 14 to 17 fathoms off the center of the north bight. Enter on course **274°**, heading for the 58-foot elevated, block-shaped rock. Anchor on

this bearing (a cross current may be experienced) and on cross bearing **191°** to the left tangent of the dividing point of land. Tidal currents setting northwest and southeast have been observed. The northwest current has a velocity of about 2 knots. The southeast current has a velocity of about 0.5 knot. A 4-fathom spot is 0.3 mile south from this anchorage.

(791)

Local magnetic disturbance

(792) Differences of as much as 7° from normal variation have been observed in Finch Cove.

(793) **Finch Point** is the dividing point between the north and northeast sides of Segum Island. It is formed by a broad, gently sloping ridge, the shore extremities of which break off into cliffs and ledges. Detached rocks of various descriptions lie about the point, and these are particularly numerous at its north extremity. Directly at the north extremity, an 80-foot elevated, massive rock is a prominent landmark when viewed along the line of the northeast tangent. In this direction it appears vertical at the sides, and its irregular top is roughly in the form of a gable. The outermost rock to the north is lime-covered, but it is small and only a few feet high.

(794) At the northernmost part of Segum Island just west of Finch Point a large area of broken bottom extends more than 1 mile offshore. Several lumpy spots of about 8 fathoms are well offshore in this area.

(795) The north shore of Segum Island is irregular; the beaches are principally of lava or boulders, and in general cliffs or grass-covered bluffs are directly back of the beaches. The cliffs are comparatively low. The slopes from the clifftops are covered with a heavy growth of grass and rise gently toward the high interior regions. Numerous gullies break up the terrain and are approximately normal to the general trend of the coast. Several waterfalls are along this coast.

(796) A dangerous 2½-fathom pinnacle rock with surrounding depths of 23 fathoms close-to is about 1 mile off the north shore of Segum Island. The danger is not marked by kelp.

(797) **Saddleridge Point** is the northwesternmost point of Segum Island. The small rise directly inshore from the saddle is a definite summit from all offshore directions but not particularly prominent. A rocky islet 98 feet high, about 0.2 mile northeast from the point, and several smaller intervening rocks obscure the extremity of the point when viewed from the northeast. A narrow cliff 231 feet high, facing seaward and topped by a small grass-covered mound, rises at the inshore end of a long, narrow, projecting ledge 1.7 miles east from Saddleridge Point.

(798) A mound 80 feet high, resembling a haystack, is 3.7 miles northeast from Saddleridge Point. The mound has the appearance of an island but is connected to the shore. A 1-mile stretch of sand and cinder beach extends to the southwest from this vicinity, and there is a waterfall about 0.2 mile northeast from the mound.

- (799) From the north rock off Saddleridge Point, foul ground extends north for 0.2 mile.
- (800) Very favorable anchorage for south weather may be had along the north central section of the coast of Seguam Island 1.5 to 3 miles east of Saddleridge Point. The ship anchorage is 0.5 to 0.6 mile offshore in 16 to 18 fathoms, sand and gravel bottom. In coming from the east care must be taken to avoid the 2½-fathom pinnacle 1 mile offshore; passage between the pinnacle and the shore is not recommended.
- (801) Saddleridge Point is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the point. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)
- (802) **Camel Islet** is about 0.5 mile off the middle of the northwest shore of Seguam Island. It is a massive rock, 53 feet high, and its top from the north or south resembles a camel's hump.
- (803) The northwest coast, from Saddleridge Point to the west end of the island, a stretch of 5.5 miles, is in general a boulder beach directly in front of irregular cliffs ranging from 200 to 600 feet high. In some places the cliffs rise abruptly from the water's edge. The slopes from the tops of the cliffs to the mountainous interior are decidedly steeper than those east of Saddleridge Point; also, the draws and valleys are steeper and occur at less frequent intervals. About 1.2 miles north from the westernmost point of the island, the slope is very steep and the cliffs are especially high. The waterfalls go dry in late summer. Numerous detached rocks are found off this coastal stretch.
- (804) Between the westernmost point of Seguam Island and a high, dome-shaped, detached rock about 1 mile to the north is a deep valley with gentle ascending lower slopes that extend inland 1 or 2 miles.
- (805) Along the west end of Seguam Island very irregular bottom is within the 20-fathom curve, which follows the coast at a distance of about 0.5 mile. A reef is about 0.3 mile off this end, which is marked by a low rock, 4 feet high, discernible for some distance with a quiet sea. A depth of 3¾ fathoms was found 0.2 mile northwest of the reef. Strong currents and tide rips occur in this locality.
- (806) From the west end of the island the coast trends southeast for about 1.5 miles to **Rue Ledge**. This offshore rocky ledge, 36 feet high, is conspicuous when viewed along the southwest tangent of the island. The inshore side of the elevated part of the ledge has vertical corners; from here the top slopes to the offshore end. Halfway between this ledge and Turf Point, 2.6 miles to the east, is an off-lying rocky islet that is marked near its offshore end by a cylindrical pinnacle rounded at the top. A waterfall over the shore cliff is about 0.2 mile northeast from this pinnacle.
- (807) **Turf Point**, the southernmost point of Seguam Island, is a comparatively low, broad, and extensive grass-covered projection terminating in a rounding bluff. The top of the point is flat and then rises gently to the steeper inland slopes, which on either side of the point terminate in bold rocky bluffs, making the point conspicuously low by contrast. A foul area fringes the rounding point. West of Turf Point, the south shore of Seguam Island is high and precipitous. The cliffs are close to the rocky beach and in places overhang it. The bordering mountains are high; grass extends from the cliffs to about 1,100 feet.
- (808) From Turf Point an area of broken bottom extends south for 0.7 mile to the 20-fathom curve, thence abruptly deepening to over 40 fathoms.
- (809) On the south shore about 5 miles northeast from Turf Point is **Lava Point**, a broad, jagged, and comparatively low point forming the terminus of an extensive lava flow. A narrow bight but deep in extent, indents the middle of the extremity of the point. **Lava Cove**, immediately west of Lava Point, extends for 2.5 miles to a rounded gravel point fringed with covered and detached rocks. The gravel point is formed by a short broad spur 196 feet high, projecting from a regular, grass-covered mountain slope that descends to shore cliffs on either side of the point. At the head of Lava Cove is a decided indentation in which are several streams and a 0.8-mile stretch of sand beach. An ocean swell generally makes landing difficult. The remaining shore of the cove is composed mainly of jagged projections of rock or lava cliffs of moderate elevation. Curtains of waterfall at two places about 0.2 mile inland from the east end of the sand beach are visible from the cove. A row of pinnacle projections marks the near-shore ridge, 335 feet high, between Lava Point and the curtains of waterfall.
- (810) From the point at the west end of Lava Cove an area of broken bottom extends southeast for 0.7 mile, with a depth of only 1¾ fathoms 0.4 mile off the southeast side of the point.
- (811) On the south side of Seguam Island, Lava Cove and the next large cove to the west offer good protection in north weather. The anchorage in Lava Cove is in 14 to 17 fathoms, cinder and gravel bottom, off the indentation at the head of the cove. It has little or no current. Enter on the north course heading for the east half of the sand beach at the head. In coming from the west, the broad gravel point at the west end of the cove should be given a wide berth.
- (812) The southeast coast of Seguam Island from a point about 1 mile east of Lava Point for about 4 miles to Moundhill Point is dominated by a chain of three mountain peaks over 2,000 feet high and a very distinctive mountain 1,410 feet high, close to the shore in 172°23'W. The shore slopes of these mountains generally terminate in steep, rocky cliffs, and the coast has a bold appearance. A steep bluff rising to 690 feet marks the promontory near the three high pinnacles in the southeast part of the cove at the east end of this mountainous stretch. The upper reach of this bluff overlooks the draw back of Moundhill Point.
- (813) Off the middle part of this bold coastal stretch is a group of five rocky islets; the outer islet is 55 feet high near its inshore end where it drops almost vertically to form its northwest side. The area between this group of islets and the shore is foul.

(814) The 1,410-foot peak, close to the shore about 1.5 miles west of the group of islets, has a steep and rugged seaward face and a definite peak. With north winds this mountain may be free of clouds while those in the background are covered. A small cave about 5 feet deep with an almost rectangular entrance is at the foot of this mountain near the shore. The cave is prominent when the light illuminates the surrounding yellow portion of the rocky cliff.

(815) About 0.2 mile southwest from the cave, a chain of rocks extend offshore for a distance of about 230 yards. The inshore rock is 110 feet high while the offshore rocks are low in comparison.

(816) An area of broken bottom with shallow depths is within 0.3 mile of the section of the southeast shore of the island 0.6 mile to 1.4 miles from Moundhill Point.

(817) **Seguam Pass** is between Seguam and Amlia Islands. It has been regarded with suspicion, and a sailing vessel has been lost on Agligadak Reefs, on the southwest side. The pass is about 12 miles wide, and it is reported to have strong currents, rips and overfalls but no offshore dangers.

(818) Vessels have reported high breaking seas in Seguam Pass. The bottom is irregular, the currents strong, and tide rips may be encountered at any place but particularly near the shore. The flood current sets to the north-northwest and the ebb to the south-southeast; probable velocity exceeds 4 knots. The pass is not recommended.

(819)

Amlia Island to Chalugas Bay

(820) **Amlia Island**, on the west side of Seguam Pass, is 40 miles long and has a greatest width of about 8 miles. On the island are a few small lakes. A chain of sharp peaks extend the length of the island, but none is especially distinctive. The east end of the island is visible for a considerable distance and is a good landmark in fair weather; it has a straight profile at a moderate elevation and drops to the sea in a precipice. The point should be given a berth of several miles because of the rocks and reefs to the east and south. The unsurveyed areas around the island should be approached with caution.

(821) **Agligadak Reefs** extend about 4 miles from the east extremity of the island.

(822) **Agligadak Island, Tanadak Island and Sagigik Island** are small islets off the E end of Amlia Island.

(823) Agligadak Island is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the entire island that encompasses Tanadak and Sagigik Islands. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

(824) **Sviechnikof Harbor** is on the south shore of Amlia Island about 15 miles from the east point. The entrance is about 0.2 mile wide and is difficult to make out and should be attempted only in clear weather. Sagigik Island, about 9 miles east, and the pyramid peak to the right of the entrance may be recognized. The harbor extends

about 2 miles in a north-northwest direction and has an average width of about 0.3 mile. It can be entered without difficulty, is well sheltered and has good holding ground. Excellent anchorage is available in the north end of the harbor in 10 fathoms, soft bottom. The west side of the entrance should be favored until past the long island and the rocks and reefs on the east side.

(825) **Chalugas Bay**, just west of **Cape Idalug** on the north coast of Amlia Island, is a small harbor reported suitable for small boats only; however, the anchorage for small vessels in 20 to 22 feet is just off the entrance.

(826) The bight on the east side of Cape Idalug offers a lee in south weather for vessels of all sizes. The recommended anchorage for deep-draft vessels is in 9 fathoms, soft bottom, at the entrance to the inner basin.

(827)

Amlia Pass

(828) **Amlia Pass**, a 1-mile-wide strait between Amlia Island and Atka Island, has depths of 5 to 22 fathoms through a narrow 400-yard passage restricted by a reef that extends 1 mile off the Atka Island shore. The pass should be used only by small light-draft vessels at slack water because of the strong and complex currents.

(829) **Mid Reef**, a high part of the reef that extends from Atka Island shore, shows at all times but is awash in extremely heavy weather. Other small areas may occasionally appear at extreme low water.

(830) The shores on both sides of Amlia Pass are steep rock bluffs rising to low hills. Kelp grows along the shores. A ledge extends 100 yards outside the bluff line at **Eddy Point**, the westernmost point on Amlia Island. Deep water is outside this ledge and off the shore at **Swift Point**, Amlia Island. At **Pinnacle Point**, Amlia Island, is a prominent pinnacle on the shore with an 80-foot off-lying pinnacle immediately southeast.

(831)

Currents

(832) A current of 10 knots has been observed in Amlia Pass; when the current is strong large tide rips usually occur. The current floods north and ebbs south. In general, tide rips exist in and outside of the north end of the pass during the flood and in and outside of the south end during the ebb. When the current is running, small tide rips exist over the reef. During strong currents, heavy swirls exist in the pass and its approaches, the greatest intensity being near Eddy Point.

(833) North of Eddy Point the current floods northeast and ebbs southwest, setting a vessel off course just north of the pass. Duration of slack is about 10 minutes; however, there is often a period of 1 to 3 hours when the current is not strong, and there are practically no tide rips.

(834) Heavy tide rips that extend several miles northeast of Amlia Pass have been observed with a moderately heavy swell from the northeast. A pinnacle, covered 4½ fathoms, is 1.5 miles northeast of Eddy Point and 0.6 mile

from the north shore of Amlia Island. There are probably other dangerous pinnacles in this area.

- (835) In approaching Amlia Pass from south or north vessels should stay in the area of charted soundings to avoid reported dangers off the islands. Courses through Amlia Pass should pass 0.5 mile off Pinnacle Point, 200 yards off Swift Point, and 400 yards off Eddy Point to avoid the reef on the west side of the pass. Extreme caution is necessary to avoid the 2½-fathom reef 500 yards west of Swift Point.

(836)

Atka Island to Sergief Bay

- (837) **Atka Island**, separated from Amlia Island by Amlia Pass, is 10 by 50 miles in extent and the largest of the Andreanof group. **Korovin Volcano**, 4,852 feet high, is 3 miles inland from the north end of the island. The formation of the island is volcanic and similar to the other islands of the Aleutian Chain. Many species of birds frequent the island, but the island and adjacent islets are reported to be overrun with rats.

- (838) Several peaks varying in elevation to 3,200 feet extend along the interior of Atka Island. These peaks are seldom visible because of fog, mist and low ceiling. A 1,100-foot-high peak at the west end of the island is frequently clear. Because of the prevalent weather conditions, extreme caution should be exercised in approaching the land. There is considerably less fog and mist during the colder months when the higher peaks show more frequently. Currents are weak, except at the passes east and west of the island.

- (839) There are several anchorages along the south coast of Atka Island, but care should be exercised in approaching the coast because of the numerous rocks and shoals and currents. A rock, 3.5 miles offshore and 18 miles from the west end, is covered ¾ fathom and breaks in moderate seas. Several shoals with least depth of 10 fathoms, as much as 5 miles offshore south of Vasilief and Kobakof Bays, show current boils, slicks and tide rips during calm weather. Other shoals with lesser depths are farther inshore. Fairly strong east-west currents have been observed south of Sagchudak Island to south of Cape Tadluk.

- (840) There is a suitable small-craft anchorage at the east end of Atka Island, 3 miles west of Amlia Pass in 52°06.7'N., 174°09.3'W., in 18 to 20 fathoms, sand and shell bottom, but the swinging room is limited and the water is quite deep. The off-lying islands and rocks give protection from southeast seas, but the anchorage is open to south and southwest weather. To reach the anchorage from 52°05.0'N., 174°08.3'W., make good a course of 000° for 1.7 miles, then change course to 270° for 0.7 mile to anchorage.

- (841) **Vasilief Bay**, on the south side of Atka Island 10 miles west of Amlia Pass, offers anchorage in 25 to 30 fathoms, fine sand with broken shell bottom, at 52°06.0'N., 174°20.0'W. The offshore islands offer some

protection from south seas. This anchorage should be entered from the southeast, keeping 0.5 mile east of the offshore islands. There is a rock awash in 52°02.4'N., 174°21.0'W.

- (842) **Kobakof Bay**, 15 miles west of Amlia Pass, offers excellent anchorage in all but moderate to heavy seas. Anchorage in 25 to 30 fathoms, mud and sand bottom, is available at 52°03.7'N., 174°28.6'W. The northwest arm of the bay offers protection from south seas in 20 to 30 fathoms but is limited in swinging room. In entering the bay from a point midway between **Sagchudak Island** and **Amtagis Island**, steer a midchannel course of 347° until the point of land ahead is 0.7 mile distant, thence a course of 293° to the anchorage. Some fairly strong rotary currents may be encountered along the east side of Sagchudak Island.

- (843) The pass on the north side of Sagchudak Island is generally foul, containing kelp and shoal areas that break in a moderate swell. Only small craft having local knowledge should use this pass.

- (844) **Explorer Bay**, 18 miles west of Amlia Pass, offers a protected anchorage in any weather in 11 to 13 fathoms, fine sand bottom. However, there is limited swinging room, and the entrance is through a narrow channel between dangerous rocks and shoals. In entering from a position at 52°00.0'N., 174°30.4'W., steer a course of 000° until the north end of Sagchudak Island bears 090°, then shape course to 327°, keeping 0.3 mile off the point of land on the west side of the bay, until the southeast point of the west arm of the bay bears 216°, distant 0.5 mile, thence on course 277° for 0.4 mile to the anchorage. This course passes over or just north of an 8-fathom shoal, 0.2 mile south of a 4-fathom shoal, and 0.1 mile north of a 6-fathom shoal. The area outside the channel, on the west side of Sagchudak Island, is very broken with scattered rocks that generally are apparent to the navigator.

- (845) **Beaver Bay**, 23 miles west of Amlia Pass, offers anchorage for small craft in the outer and west arm. Protection from all except southeast seas is available in 15 to 20 fathoms, fine sand with broken shell bottom. Entrance to the anchorage must be made by keeping to the southwest of the small islands in the entrance.

- (846) The small bays between Explorer Bay and Beaver Bay offer some protection for small vessels, but the bottom is generally broken and the lee afforded from onshore winds in negligible.

- (847) **Tillamook Cove**, 30 miles west of Amlia Pass, is of little value as an anchorage because it is open to the sea and has poor holding ground. A more comfortable anchorage is in 13 fathoms just outside the cove. A 40-foot pinnacle rock marks the seaward end of the west side. A shoal extends some distance seaward of the point of land marking the east side of the entrance. The west side of the cove is practically vertical to about 100 feet, then slopes steeply to over 1,000 feet. At the head of the bay is a black sand and volcanic ash beach. The east shore is characterized by rocky ledges; the land rises to about 300 feet from the water to a relatively level shelf before rising

to the mountains farther inland. There is considerable surf with only a slight swell setting into the cove.

- (848) **Sergief Bay**, 35 miles west of Amlia Pass and 13 miles east of Cape Kigun, is a suitable anchorage except during strong south winds; holding ground is probably poor. The gently sloping beach at the head of the bay is black sand or volcanic ash. In entering the bay from a position in 51°59'N., 175°00'W., hold a course of **000°** until the end of the west entrance point is abeam, then shape course to pass 300 yards off the rock awash in 52°01.6'N., and after passing this rock steer **315°** for the head of the bay.

- (849) Anchorage in 20 fathoms, fine sand bottom, is near the center of the small bight 10 miles east of Cape Kigun, the west end of Atka Island. A point and off-lying reefs offer some protection from west seas. Vessels can also anchor in 17 to 20 fathoms, sand with broken shell bottom, 0.5 mile offshore near the center of a small bight 3 miles east of Cape Kigun.

(850)

Nazan Bay

- (851) **Nazan Bay**, indenting the east coast of Atka Island north of Amlia Pass, provides good anchorage. The greater part of the outer harbor is partially protected, but strong winds draw through the low land between Nazan and Korovin Bays. The bay is subject to heavy swells and is at times unsafe for small boats.

- (852) **Cape Kudugnak**, the north point of Nazan Bay entrance, is a 200-foot rounded, grassy knoll rising abruptly from the shore. The island behind the cape rises uniformly for 2.5 miles to a 2,687-foot mountain. **Uyak Island**, 3.5 miles west-southwest from Cape Kudugnak, is 100 feet high, rounded with grass top and rocky bluffs. Five silver-colored radio masts about 0.2 mile north of the cape are reported to be conspicuous landmarks.

- (853) **Palisades Point**, 3.5 miles west of Cape Kudugnak, has rocky bluffs with a 375-foot plateau that extends inland to the mountains. A 60-foot-high rock is close to shore just west of the south end of the point.

- (854) **Cone Island**, near the west part of Nazan Bay, is 83 feet high; the northernmost of the three islands has three remarkable pinnacles on it.

- (855) **Bolshoi Islands** are a group of grass-covered islands along the south shore of Nazan Bay. The westernmost and largest forms the east side of the inner harbor at Atka. A waterfall on the south shore of the bay, 1.7 miles southeast of Atka, is prominent.

- (856) Anchorage for large vessels is available in the outer harbor west of Palisades Point in 35 to 17 fathoms; vessels can also anchor close to the north shore of the bay east of the point. Anchorage west of Bolshoi Islands in the inner harbor in 6 to 12 fathoms is sheltered but is limited in area to only small vessels. A submerged wreck is in the east side of the harbor in 52°11'59"N., 174°11'18"W.

- (857) The harbor in the west part of the bay will often be clear when there is fog in the entrance.

(858)

Local magnetic disturbance

- (859) Differences of as much as 5° from normal variation have been observed in Nazan Bay.

- (860) Vessels proceeding to anchorage in the west part of Nazan Bay should pass north of Uyak Island taking care to avoid the 5-fathom rock 0.7 mile east of the island. Small vessels continuing to the inner anchorage should pass midway between the highest part of the south islet south of Cone Island and the high-water rocks at the northwest point of Bolshoi Island.

- (861) Trading vessels bound through Amlia Pass use a channel south of the Bolshoi Islands, but this route is not recommended without local knowledge because it is near many covered and uncovered rocks.

- (862) **Atka**, at the west end of Nazan Bay behind Bolshoi Islands, is not visible until after the largest island is passed. Mail is delivered by air from Anchorage. Water is available from a stream near the village. Small boats can be beached on a well-sheltered tide flat behind Bolshoi Islands, 0.4 mile southeast of the village.

(863)

Pilotage, Nazan Bay

- (864) Pilotage, except for certain exempted vessels, is compulsory for all vessels navigating the waters of the State of Alaska.

- (865) Nazan Bay is served by the Alaska Marine Pilots. (See **Pilotage, General** (indexed), chapter 3, for the pilot pickup stations and other details.)

(866)

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- (867) The north coast of Atka Island is indented by numerous small bays. Most of the points are bold headlands rising to sheer 300- to 800-foot knobs or heads, and then rising more gradually to the peaks farther inland. The land area is treeless and is covered with tundra to about 1,000 feet, above which there is little vegetation. Bluffs generally extend into the bays and bights, but as a rule the heads of the bays are low, with sand, gravel or small boulder beaches, back of which valleys carry into the interior. A low pass crosses the island between Nazan Bay and Korovin Bay. Southwest of the pass the island is lower and runs off to the narrow west end.

- (868) A high conical peak is near **Cape Shaw**, the east extremity of Atka Island. The slopes of the Korovin Volcano mountain break off in a rocky escarpment at **North Cape**, the north end of the island.

(869)

Korovin Bay to Wolf Bay

- (870) **Korovin Bay**, on the north side of Atka Island across a low pass from Nazan Bay, is a good anchorage except in heavy west weather. The shores are bold, sheer cliffs bordered by numerous pinnacles, except for the low gravel beach at the head and low land near a lagoon on

the north shore. The entrance points, **Cape Korovin** on the north and **Egg Point** on the south, are bold headlands rising abruptly to mountain ranges. Egg Point terminates in a prominent 135-foot-high pinnacle rock at the shore.

- (871) Korovin Bay has depths of 80 to 10 fathoms to within 0.6 mile of the shore, except for rocks about 2 miles from the east end. The higher of these two rocks bares 2 feet and can be used as a navigational aid. A prominent 100-foot-high pyramidal-shaped pinnacle rock is near the head of the bay about 0.2 mile off the south shore.

(872)

Anchorage

- (873) Anchorage is available in the northeast part of Korovin Bay in 40 to 10 fathoms with gray sand bottom, fair holding ground. The small coves on the south shore provide shelter for very small vessels, but the swinging room is limited. The bay is not sheltered from the southeast or southwest because strong winds howl through the draws and ravines that cut the hogback on Atka Island; caution is necessary to avoid being forced onto the north shore. Oftentimes, when it seems as though the winds coming out of the draws in a southeast direction are the prevailing winds, it will be found that outside the bay the general winds are southwest.

- (874) **Sarana Cove**, indenting the south shore of Korovin Bay 4 miles east of Egg Point, is foul and should not be attempted by any craft without local knowledge. **Martin Harbor**, 6 miles east of Egg Point, is small but offers good protection for small craft in all weather at the head in 11 fathoms with mud and sand bottom.

- (875) **Egg Bay** is separated from Korovin Bay by the rugged cape that terminates in Egg Point. The shores of Egg Bay are mountainous, with humpy, grass-covered slopes. At the head of the bay is **Egg Island**, steep sided, round topped and grass covered.

- (876) **Starichkof Reef** is 1.5 miles west of Egg Point. The easternmost and largest islet is a vertical-sided block of rock 61 feet high. The second most conspicuous rock is a spurlike pinnacle about 0.5 mile northwest of the block-like rock. There are several other rocky islets, as well as a number of reefs or shoals in this area.

- (877) A dangerous 2½-fathom shoal is 0.3 mile north of the islets and 1.6 miles west of Egg Point.

- (878) Two shoals southwest of Starichkof Reef make it inadvisable to enter Egg Bay from the west side of the reef. One shoal, having a least depth of 2¼ fathoms, is 0.5 mile southwest from the west group of islets. The other shoal, having a least depth of 3¾ fathoms, is 0.8 mile southwest from the same islets.

- (879) A 4½-fathom shoal is 0.3 mile offshore on the east side of the bay, 0.8 mile south of the entrance at Egg Point.

- (880) Several other shoals having least depths of 8 to 12 fathoms are near or in the bay. They should be avoided.

- (881) Numerous rocks and reefs border the shores of Egg Bay. The east shore for the first 2 miles south of Egg Point is especially dangerous and should not be approached closer than 0.3 mile.

- (882) A pinnacle rock with a least depth of 3 feet is 250 yards off the northeast shore of Egg Island.

- (883) Approach Egg Bay on a course of **180°** to pass 0.5 mile east of the easternmost islet in Starichkof Reef. When this islet is slightly abaft the beam, change course to **134°**, heading for the left tangent of Egg Island. When 0.5 mile from Egg Island, haul to the left and round the island, keeping approximately in midchannel.

(884)

Anchorage

- (885) Anchorage for medium-draft vessels is found northeast of Egg Island in 20 to 25 fathoms. The bottom is soft, fine, green sand, with rather poor holding ground. The lower end of Egg Bay offers fair protection in both north and south weather. The least swell is found south of Egg Island.

- (886) From Egg Bay to Banner Bay the shoreline is irregular and has several small bights. The bights, as well as the approaches to them, are foul. This area should be avoided.

- (887) **Banner Point**, on the northeast side of the entrance to Banner Bay, is lined by bluffs. Above the bluffs the land slopes upward to a 1,590-foot peak about 1 mile from the outer end of the point. A grass-covered islet, 165 feet high, is 0.3 mile northeast of Banner Point.

- (888) A rock that uncovers is 0.5 mile north of Banner Point; 0.1 mile north of the rock is a 3-fathom shoal; 0.2 mile northwest of the rock is a 5-fathom shoal. Kelp grows on both shoals.

- (889) **Banner Bay** is about 3 miles long and 0.8 mile wide. The trend of the bay is east and west. The shores are bold but free of dangers except for two groups of rocks, 2 and 25 feet high, in the northeast half of the entrance, and for an 8-fathom spot 0.3 mile off the south shore, 1 mile inside the entrance. Anchorage is available 0.6 mile from the head of the bay in 33 fathoms, which is the general depth in this part of the bay. Strong winds pull through this bay and as a rule are diverted to blow in or out of the bay.

- (890) Approaching Banner Bay, a large group of rocks, from which a foul area extends 0.8 mile south, are about 1 mile north of the entrance and 0.6 mile off the shore of Atka Island. The highest of these rocks, 57 feet and grayish in color, serves as an aid in reaching the bay.

- (891) To enter, from a position with the northeast point of Salt Island bearing **290°**, distant 0.5 mile, steer **156°**, heading for the highest bluff (also the highest nob on a ridge of low hills) at the south point of the entrance to Banner Bay. Hold this course until the group of rocks in the entrance to the bay bears 090°, then haul to the port into the bay on midchannel courses.

- (892) **Salt Island**, about 2.5 miles west of Banner Point, is a valuable aid to the navigator in approaching Atka Island. This island is 1.3 miles long in a northeast and southwest direction and about 0.5 mile wide. The highest point of the island, 543 feet, is in the northeast half. All shores are rocky and bold, the northwest shore and

northeast and southwest points being particularly so, with sheer cliffs over most of the shoreline, which is fringed by high pinnacle rocks. These pinnacles are particularly evident when the island is viewed from the southwest or northeast. The island is covered with grass and tundra. A small cabin is near the east end of the south shore.

(893) A group of bare rocks are 0.5 to 1 mile southeast of Salt Island. The highest of these is a light-colored, gray pinnacle of 38 feet. A reef covered with heavy kelp obstructs the passage between Salt Island and these rocks and then continues southeast. A small-boat passage is about 0.3 mile off the shore of Atka Island. It has a least depth of 6 fathoms and scattered kelp over most of the passage. Foul ground extends 300 yards offshore, and heavy kelp may be encountered 0.5 mile off the Atka shore.

(894) A 2-fathom shoal is 1.3 miles south of Salt Island and 1.4 miles west by north from the nearby prominent point of Atka Island.

(895) Several reefs extend offshore from the north side of Salt Island, up to a distance of 0.3 mile.

(896)

Anchorage

(897) Anchorage in 22 to 24 fathoms, sand bottom, is available south of Salt Island, affording protection from north and east weather. Anchor with the trend of the east shore of Salt Island in range and bearing **020°** and the 38-foot pinnacle in the group of rocks off Salt Island bearing **090°**. Small vessels may anchor close inshore. Considerable shelter is afforded by the reef and kelp patch that extend out from Salt Island.

(898) In west weather suitable anchorage is available in 20 fathoms, sand bottom, about 0.5 mile off the east shore of Salt Island, with the 38-foot pinnacle bearing **200°**.

(899) Anchorage for large vessels is available in the bight of Atka Island to the south and southwest of Salt Island, in 20 to 25 fathoms, hard bottom, with protection from east to southwest weather. The approaches to the shores and anchorage are free of dangers except for scattered off-lying rocks that are well within the 20-fathom curve.

(900) **Deep Bay**, about 3 miles south of Salt Island, is about 2 miles long and averages 0.3 mile wide, making into Atka Island shore in a southeast direction. General depths range from 20 to 26 fathoms. From the northwest a long flat ridge can be seen at the south side of the entrance to the bay. The shores are bold but clear of dangers, except for several rocks at the middle of the entrance and adjacent foul ground and rocks 100 to 200 yards off the entrance points. The most prominent rock in the middle of the entrance is 6 feet high. Anchorage in this bay is not suitable for large craft because of insufficient swinging room. Medium-sized craft may anchor in 20 fathoms about 0.5 mile inside the entrance, or in suitable depths at the head of the bay. Bottom in the bay is hard. About 0.5 mile inside the entrance to the bay, a small inner bay makes into the south shore. This small bay is about 0.3 mile long, and depths range from 2 to 5 fathoms.

It is suitable for small craft. To enter Deep Bay, pass 200 to 300 yards west to southwest of the 6-foot rock in the middle of the entrance.

(901) **Island Point**, 4 miles southwest of Salt Island, is an irregular-topped, grassy headland 515 feet high. Because of the low valley between the headland and the main shore, this point may appear as an island to ships approaching from the west. Rocks and reefs fringe Island Point from 200 to 500 yards offshore. A conspicuous rock 22 feet high is 0.2 mile northeast of the point.

(902) The bight in the shoreline between Island Point and Kovurof Point is about 1.5 miles to its head. Three inner bays open into this bight.

(903) **Bluefox Bay** is the open bight that extends for several miles west of Island Point. Two arms extend to the east and the south. A conspicuous, rugged hill 1,495 feet high is west of these arms. The shoreline of Bluefox Bay, especially in the arms, is irregular and broken, with many inshore reefs and pinnacles.

(904) The east arm is open and easy to approach. It offers some protection from east weather. Anchorage is in 16 to 20 fathoms, the bottom irregular and rocky and offering poor holding ground.

(905) A rock awash is at the entrance to the south arm, 0.2 mile west of the east shore. This south arm has a hard bottom and is an indifferent anchorage for shallow-draft craft. A 3½-fathom shoal is in the middle of the entrance to the bay, south of the rock awash. The west shore should be favored in entering the arm.

(906) A small unnamed bay about 2.5 miles west of Bluefox Bay is behind a chain of rocky islets making out from the shore in a northeast direction. The larger and closer inshore islets are flat topped and grass covered; the outer islets are bare, black rock and of lesser height, the outermost being 20 feet high. A number of kelp patches on 3- to 5-fathom shoals are from 0.1 to 0.5 mile offshore northwest of these rocks. The offshore point of these rocks should be given a berth of at least 0.8 mile.

(907) The shoreline between the chain of rock islets and Wall Bay has two indentations or inlets. At the head of these, as well as at the heads of the two first-mentioned arms, are small beaches where pulling boats can land.

(908) The bottom in the area between Bluefox Bay and Wall Bay is irregular and spotted with rocky patches.

(909) **Wall Bay** is on the east side of Kovurof Point. It is a small bay that may be used as an anchorage by medium-draft vessels. This bay is about 1.5 miles long in the north and south direction and about 0.3 mile wide. High hills and bluffs border the west side of the bay, and moderate hills are on the east side. A valley leads off to the south from the head of the bay. In south weather strong winds sweep out from this valley into the bay, making the bay an indifferent anchorage. The point on the east side of the bay appears as a long, broken, sloping ridge terminating in detached rock reefs at the waterline.

(910) A 9-fathom shoal is on the east side of the entrance to the bay, about 0.6 mile east of the Kovurof Point shoreline

and about 0.3 mile north of the rocks on the east side of the bay entrance.

- (911) A small dome-shaped, rocky islet 14 feet high is 0.1 mile off the west shore of the bay about 1 mile south of Kovurof Point. A 3-fathom shoal is 270 yards 115° from the rocky islet; a 2½-fathom shoal is 550 yards 175° from the islet.

- (912) A reef that uncovers 1 foot is in the lower part of the bay 0.1 mile off the east shoreline and 0.5 mile southeast from the islet. A covered reef, marked by kelp, extends 200 yards northwest from the 1-foot reef. Because of these various shoals it is not advisable for vessels to proceed south of the islet.

- (913) Approach Wall Bay on a heading of **180°**, passing the Kovurof Point shoreline at a distance of 0.3 mile. When the rocks on the east side of the entrance are 1 point forward of the port beam, anchor in 17 fathoms, gray sand bottom.

- (914) Small boats can land on the sand beaches at the head of the bay.

(915)

Kovurof Point to Kasatochi Island

- (916) **Kovurof Point** is the most prominent point west of Salt Island along the north shore of Atka Island. It is a double point, both parts of which slope gradually to a common peak 1,320 feet high. This peak is quite prominent on the few days out of the summer when it can be seen. The east point is the more prominent of the two and makes out farther to the north. It is distinguished by four flat-topped pinnacles directly off the point. Two of these pinnacles blend in together from certain directions and only three can be seen. The pinnacles identify this point.

- (917) Between Kovurof and Bechevin Points is a bight 1 mile in depth. Two small inner bays open into this bight, Kovurof Bay and Podsopochni Bay. They are separated by a peak 1,225 feet high, which stands alone. The summit is a sloping ridge as seen from offshore; a sharp peak as seen from the east and west.

- (918) **Kovurof Bay** is suitable as a small-boat refuge. There are numerous islands and rocky islets at its entrance. The passage west of these islands into the head of the bay is free of all dangers, except close alongshore. Anchorage for small craft is available in 4 to 10 fathoms, sand bottom.

- (919) **Podsopochni Bay**, between Bechevin Point and **Podsopochni Point**, has a general depth greater than 10 fathoms and may be used as an emergency anchorage for small- and medium-sized craft in any but north weather. The bay is free of dangers to within 0.3 mile of the shore. Enter the bay midway between the small, grass-covered island, 40 feet high, off Podsopochni Point, and the kelp-marked 6-fathom shoal 0.7 mile northeast of Bechevin Point.

- (920) **Bechevin Point**, 5 miles southwest of Kovurof Point, is also a double point, with a small bight in the

shoreline between. The bluffs at the ends of these points rise to about 250 feet and are brown in color, streaked with gulleys and studded with pinnacles. The east part of the point rises abruptly to a sharp peak of 710 feet; the west part rises to a head of 615 feet and then drops to a saddle before rising to the 1,000-foot-ridge behind.

- (921) North of the west part of Bechevin Point at a distance of 0.7 mile is a rocky 14-foot islet that is the most conspicuous and dangerous menace to navigation in this locality. Matted kelp and submerged reefs make out from the point and surround this rocky islet for some distance. Passage between the islet and the point should not be attempted, except by small craft; a low, flat reef that uncovers 2 feet is 400 yards off the point.

- (922) The deep bight between Bechevin Point and White Point contains two small inside bays. The bay to the east, **Portage Lagoon**, is marked by numerous bare, black, rocky islets at its entrance and by a high, steep-sloped peak directly west of the entrance. This lagoon, which extends from Bechevin Bay across Atka Island almost to the Pacific side of the island, when seen from the northwest, appears as a low pass through Atka Island. Small boats can enter Portage Lagoon as heavy seas do not enter this lagoon because of the string of reefs and islets across the entrance that act as a breakwater. Passages between these reefs are narrow and dangerous, especially in heavy weather, and should not be attempted by strangers. One passage is between the southwesternmost reef and the west shoreline. Several kelp-covered reefs are in this passage. A second passage is east of the grass-topped islets and about midway in the line of reefs. This passage is about 50 yards wide and has covered rocks on both sides.

- (923) **Bechevin Bay**, when approached from the north, is identified by the aforementioned low pass or valley cutting through the mountainous coast of Atka Island to the Pacific. The rocky islet 0.7 mile off Bechevin Point helps to identify the bay. The southwest side of the entrance to the bay is marked by a rugged hill with deeply eroded scars and slides. The base of the hill is fringed with whitish-gray rock along the shore. Farther in, a low, grassy headland is rounded when entering the inner part of the bay.

- (924) Bechevin Bay is about 4 miles long and 1 mile wide. It is fairly open and exposed. Strong, gusty winds drawing through the mountain passes are common. Large ships anchoring in the outer bay will find less wind in the lee of the prominent 1,510-foot hill just southwest of Portage Lagoon. The survey ship frequently anchored 0.5 mile off the shore under this hill in 20 fathoms, with the north tangent of the hill bearing **090°** and the low, grassy headland on the north side of the entrance to the inner bay bearing **250°**. The bottom is even and consists of coarse, dark sand with broken shell.

- (925) The inner bay offers good anchorage to shallow-draft craft. The north side is shoal and has a boulder bottom; it should be avoided. A broad, sandy beach stretches across the head of this bay. Anchorage in 3 to 5 fathoms with

sandy bottom is found off this beach, which is a good landing place for small boats.

- (926) Medium-draft vessels will find anchorage in 11 fathoms at the entrance to the inner bay midway between the south shore and the low, grassy headland on the north side. This grassy headland and the whitish, gray cape beyond should be on range. The bottom is sand and is fair holding ground.

- (927) The peninsula to the north and west of Bechevin Bay consists of two rounding points, White Point and Stripe Point. Between the east and west points is a low valley where there is a lake, the overflow of which empties into the Bering Sea at a waterfall. This waterfall can be distinguished well offshore. To the east, **White Point**, which is the west shore in approaching Bechevin Bay, is identified by light-colored gray bluffs. **Stripe Point** consists of two ridges that rise gradually to a common peak. Conspicuous gray-colored rock slides mark this point with a striped effect that identifies it. Between the two heads at Stripe Point is a light-colored boulder beach.

- (928) **Crescent Bay**, southwest from Stripe Point, is a bight in the shoreline of 1 mile depth. The head of this bight shows a low pass across the island. The shores are rocky except at the west end of the head of the bight which is sand and gravel. Two inner bays are suitable for small craft. One, at the east end of the head of the bay, is 0.5 mile long and 0.2 mile wide with anchorage in 3 fathoms and is open to the west. The other is a small lagoon, at the middle of the head of the bay, suitable only for the smallest launches.

- (929) **Slope Point**, the west side of Crescent Bay, is a grassy sloping ridge, rising gradually to a hill 865 feet high. Several rocky islets 1 to 5 feet high extend from the end of this point.

- (930) **Kigun Bay**, the bight between Slope Point and Cape Kigun, is backed by low hills appearing as a low pass through the island. Depths of 10 to 15 fathoms are in the outer part of the bay, decreasing to about 3 fathoms within 0.2 mile of the shore. The head of the bay is light-colored sand that is evident from seaward. In the east half of the bight, a low point of scattered, rocky islets makes out from the shore; the point is surrounded by kelp. Foul ground is near the shore around most of the bay.

- (931) **Cape Kigun**, the west extremity of Atka Island, is a bold point of brownish cliff with close, alongshore reefs. The ridges making up from the several small points converge on a round-topped peak, about 1,130 feet high, that is prominent in clear weather. It is a single peak 0.6 mile east from the extreme west end of the island.

- (932) **Koniuji Island**, 14 miles northeast from Cape Kigun, is volcanic, and all sides, except the south and southeast, are sheer and precipitous, rising to two sharp summits of 896 feet and 790 feet. The south side of the island, above lower bluffs at the shore, slopes gradually to a ridge about 0.2 mile north and drops off again into a ravine that passes through the island at some elevation. The slope up from the south side is grass covered. The northwest end of the island is a low, flat, rocky point about

200 yards long. About 75 yards off the north shore is a detached rock, 8 feet high, that is distinguishable from certain directions. An extensive kelp patch makes out to the south of the island. Also, in the summer, heavy kelp is found along and well off the west shore. The island is clear of dangers at a distance of 0.5 mile from the shoreline.

- (933) This island is the nesting place of thousands of sea fowl that make their nests among the grass-covered, volcanic boulders that cover many parts of the island.

(934)

Local magnetic disturbance

- (935) Differences of as much as 10° from the normal variation have been observed on Koniuji Island and as much as 7° at a distance of 2 miles in all directions around the island.

- (936) **Kasatochi Island**, 10 miles northwest from Cape Kigun, is an extinct volcanic crater rising to 1,038 feet. The south and southeast sides are grassy slopes; the west and southwest sides are high, rocky bluffs. There is a small islet adjacent to the southwest side. As seen from the south and southwest, the sides are gradual slopes, and the summit (rim of the crater) shows as a ridge with several nobs of varying heights. The north side, as seen from the east and west, appears abrupt and sheer, with the north part of the crater rim showing as a sharp nob. As one proceeds to the north or south of the island, these nobs, being parts of the crater rim, change to ridges.

- (937) The island can be approached by deep-draft vessels to within 1 mile. An exposed anchorage is available in an emergency on the south side in 15 to 20 fathoms, hard bottom. A trapper's cabin is on the slope on this side.

- (938) The north half of Kasatochi Island is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the rookery that encompasses the whole island. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

(939)

Oglodak Island to Tagalak Pass

- (940) **Oglodak Island** is about 4.5 miles southwest of Cape Kigun, the west extremity of Atka Island. It is about 1.3 miles long and 0.7 mile wide and is steep and mountainous. The shores are precipitous and rocky and fringed with off-lying islets and rocks.

- (941) **Atka Pass**, 4 miles wide between Atka Island and Oglodak Island, has depths of 10 fathoms or more to within 0.5 mile of each shore. A shoal with a least depth of 2 fathoms is 0.5 mile north of Oglodak Island; broken ground with depths of 7 to 9 fathoms extends 0.8 mile southeast of the island. There are heavy tide rips and strong currents in the pass. Atka Pass is one of the best passages in the Andreanof Islands between the Bering Sea and the Pacific.

- (942) **Ikiginak Island**, 1 mile west of Oglodak Island, consists of an almost cone-shaped mountain, 872 feet high. The island is 700 yards in diameter with detached

islets at the east and west ends. The shores are steep, rocky, and fringed in places by off-lying rocks.

- (943) The pass between Oglodak Island and Ikiginak Island has rocks that extend from both shores; it is not recommended without local knowledge.

- (944) **Fenimore Rock** is 1.7 miles west of Ikiginak Island and 1.6 miles northeast of the easternmost of the rocky islets that extend east of Tagalak Island. The rock is about 300 yards long and 220 feet high. There are several off-lying rocks covered 2 to 4 fathoms.

- (945) **Fenimore Pass**, west of Fenimore Rock, has depths of 13 to 27 fathoms. Tide rips are found in several parts of the pass, and currents in excess of 4 knots have been observed.

- (946) **Tagalak Island**, about 6 miles west of Ikiginak Island, is mountainous, roughly triangular in shape, and about 3.2 miles long and 2.5 miles wide. From the east point of Tagalak Island, a chain of small rocky islets, fringed by foul ground, extends to the east about 2.7 miles. The highest peak on Tagalak Island is 1,761 feet. The shores in general are steep and rocky with a few small beaches. The shoreline in most places is fringed by detached rocks.

- (947) On the north side of the island chain is a bight that affords temporary anchorage in good weather with fair protection from the south and west in 10 to 15 fathoms, sand bottom; holding ground is fair. Currents are quite strong.

- (948) **Tagalak Pass**, 1 mile wide in its narrowest part between Tagalak Island and Chugul Island, has depths of 5 fathoms or more to within 0.3 mile of the shores. The pass has the strongest tide rips and overfalls encountered in the Andreanof area. The pass is not highly recommended, but if used, midpass courses should be followed.

(949)

Chugui Island to Chugui Pass

- (950) **Chugul Island** is 4.5 miles long from northwest to southeast and 2.5 miles wide from north to south. The highest summit reaches 1,668 feet. There are several small lakes and streams on the island. The coast is generally steep and rocky, but there are indentations with sandy beaches at the heads. **Cape Kagalus** marks the southeast extremity of the island.

- (951) **Igitkin Island**, about 1 mile northwest of Chugul Island, is 5.5 miles long and quite narrow. It is divided into two parts, connected by a low isthmus about 0.3 mile wide. Aside from this isthmus, the island is mountainous and rocky. North of this isthmus is a small cove, Igitkin Bight, and to the south is a somewhat larger indentation, Shelter Cove. The coast of Igitkin Island is in general steep and rocky and fringed with islets and detached rocks.

- (952) **Igitkin Bank**, with depths of 1 to 10 fathoms, extends 2 miles west of **Igitkin Point**, the west extremity of the island.

- (953) **Shelter Cove** is a small cove opening on Igitkin Pass. It is not recommended as an anchorage due to its size and rock bottom and its exposure to draw winds from north and south.

- (954) **Igitkin Bight** probably affords partly sheltered anchorage for small vessels; it is presumably subject to the same draw winds that prevail at Shelter Cove. It is about 0.8 mile long and has an entrance about 0.3 mile wide with black sand bottom. Depths inside range from 6 to 2 fathoms, but there are rocks and foul ground varying distances offshore. The bight is open to the north.

- (955) **Igitkin Pass**, separating Chugul and Igitkin Islands, is clear and deep and perhaps the best pass from the north and east to Kuluk Bay. It is 3.5 miles long and the navigable channel is about 0.5 mile wide at the narrowest point at the west end. A midchannel course of **248°** leads directly into the pass north of Umak Island through which entrance into Kuluk Bay can easily be made. Tide rips have been reported between **Kingfisher Point**, on Igitkin Island, and the northwest point of Tagalak Island, between Kingfisher Point and the east end of Chugul Island, and at the west end of Igitkin Pass. When the current is setting west through Igitkin Pass there is a strong south set near the west end of the pass.

- (956) **Chugul Pass**, between Chugul Island on the east and Anagaksik and Umak Islands on the west, is about 4 miles wide and is deep and clear.

- (957) Next to Atka Pass, Chugul Pass, in combination with Asuksak Pass, is considered the best passage from the Bering Sea to the Pacific between Seguam Pass and Adak Strait. It is the best passage to Kuluk Bay from the southeast. Prominent landmarks that can be used during the approach from south and east are the island of Anagaksik; Cape Azamis, the southeast tip of Little Tanaga; the prominent, two-fingered pinnacle near the southeast end of Chugul; and the conical-shaped island of Ikiginak. From a position 3 miles east of Anagaksik, a course made good of **303°** will pass Cape Ruin, the northeast tip of Umak, at a distance of 1 mile. From this point, making good a course of **263°** will lead down the middle of Asuksak Pass, passing 1.5 miles off Cape Chakik, the west tip of Umak. Throughout Chugul Pass are strong tidal currents. In thick weather, dead reckoning is difficult because of these currents. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Chugul Pass. Links to a user guide for this service can be found in chapter 1 of this book.

(958)

Great Sitkin Island

- (959) **Great Sitkin Island**, about 24 miles west of Atka Island, is about 10 miles long and 8 miles wide. It is volcanic and extremely mountainous; the highest summit, an active volcano, is 5,710 feet. Much of the shore is steep and rocky but with considerable stretches of sandy beach.

It has some off-lying rocks both exposed and covered. Two large indentations are Sand Bay, on the southwest side, and Yoke Bay, on the southeast side.

- (960) **Teapot Rock** is a large teapot-shaped rock about 150 yards off the northeast extremity of Great Sitkin Island.

(961)

Ulak Island to Sand Bay

- (962) **Ulak Island** is about 2.3 miles east of Bugle Point, the east extremity of Great Sitkin Island, and about 2.5 miles north of Igitkin Island. It is a barren rock, about 0.9 mile long, 0.2 mile wide and 675 feet high. Deep water is close to the island on all sides, except the southwest point where rocks extend out 300 yards.

- (963) Yoke Bay, on the southeast coast of Great Sitkin Island, has three arms. The best anchorage of the three is the middle or **West Arm**; it is about 1,500 yards in extent and affords anchorage in about 20 fathoms. The bottom is sticky hard mud, affording good holding ground. Limited anchorage space is available in both **North Arm** and **South Arm**. The bay is subject to williwaws, but their effect is not serious on ships equipped with good ground tackle. Yoke Bay is open to swells from the Pacific Ocean from the southwest, although they are somewhat broken in their approach by nearby islands; it is entirely open in a northeast direction to the Bering Sea.

- (964) **Great Sitkin Pass** is between the south peninsula of Great Sitkin Island and the islands of Igitkin, Tagadak, Kanu and Tanaklak. The pass has depths of 7 fathoms or more. Between **Zaliva Point** and **Passage Point** currents of 2.5 knots have been observed and greater velocities are to be expected. **Yoke Pass** is at the north entrance to Great Sitkin Pass, between Igitkin Bank and Rip Point. Because of tide rips, currents and the frequent changes of course required, Great Sitkin Pass is not recommended, but if used, clear Rip Point by 0.6 mile and Igitkin Point by 1.2 miles to avoid the covered rocks that extend from the points; thence change course to pass 0.2 mile north of Box Island, thence a midchannel course between Tanaklak Island and Great Sitkin Island.

- (965) **Tagadak Island**, about 2 miles southwest of Igitkin Island, is small and roughly triangular in shape. The island is very rugged; the shores are steep and rocky except part of the west side, which has a sandy beach. The coast in most places is fringed with reefs or shoals. It has been reported that Tagadak Island is used as a breeding ground by geese and ducks.

- (966) **Kanu Island**, 1,055 feet high, is about 0.5 mile southwest of Tagadak Island. The island is rocky and mountainous and about 1.5 miles long and 1 mile wide. The shores in general are steep and rocky, except on the west side where there is a sand or gravel landing beach about 0.5 mile long protected by other islands from all except southwest winds. The coasts are mostly fringed with reefs and exposed and covered rocks. A relatively shoal area extends to the north for nearly 0.7 mile. Near the north end of this area is **Box Island**, a small rocky

islet about 40 feet high. A small cove on the east side of Kanu Island might afford some shelter for small craft.

- (967) **Tanaklak Island**, about 1.5 miles west of Kanu Island, is about 1.8 miles long and 0.5 mile wide and is rocky and rugged. The island is one of low relief and rolling hills.

- (968) The channels between Tanaklak Island and Kanu Island and between Tanaklak Island and Asuksak Island are deep and clear.

- (969) **Asuksak Island**, 0.5 mile south of Tanaklak Island, is steep and rocky and consists mainly of one mountain 955 feet high. The island is about 0.7 mile long and about 0.5 mile wide. On the northeast end of the island is a low point with a gravel beach on each side.

- (970) **Aziak Island**, 765 feet high, 0.5 mile west of Tanaklak Island, is about 1 mile long and 0.6 mile wide and is rocky and hilly.

- (971) **Sand Bay**, on the southwest coast of Great Sitkin Island, provides suitable anchorage in 12 to 15 fathoms about 1,000 yards offshore. The bay is protected on the north and east but is subject to heavy seas during a west gale. Strong tidal currents run in the bay.

- (972) In 1964, the outer section of the long pier in **Northeast Cove**, Sand Bay, was reported uprooted and washed ashore; the inshore section was in poor condition.

(973)

Anagaksik Island to Round Cove

- (974) **Anagaksik Island** is about 2 miles east of the east end of Umak Island and on the south side of the entrance to Chugul Pass. The islet is a precipitous rock about 1 mile long, 0.5 mile wide, and 890 feet high. It has a few off-lying rocks, but in most places deep water extends close to the shore.

- (975) **Umak Island**, about 5 miles southwest of Chugul Island, is a mountainous, irregularly shaped island about 6 miles long and 3 miles wide with a deep bight indenting the northeast coast. From this bight a low pass extends to the opposite side of the island. The shores are in general steep and rocky with occasional stretches of sandy beach. The north coast is foul, with many detached rocks, exposed and submerged. A number of islets are off the east coast. The south coast is in general clear, with few off-lying rocks, except toward **Cape Chakik**, the west extremity, where there are stretches of fringing reefs. Birds of many species frequent the island; there are also seals on the island.

- (976) **Umak Bight** is about 2 miles in extent, and its principal arm is about 0.6 mile wide at its entrance. The bight is open on the east to Chugul Pass, and considerable swell from the ocean may be expected in heavy east weather. In all other weather the bight is one of the better anchorages in this area, with depths of 26 fathoms and excellent holding ground of green mud near the head of the bight. Stray winds sweep over the bight from the low pass to the west of Umak Bight. A sand beach is at the head of the bight.

(977) **Asuksak Pass**, separating Umak Island from Kanu and Asuksak Islands, is 1.3 miles wide at its narrowest point and is deep and clear, but the currents are strong between Kanu and Umak Islands. It is inadvisable to attempt the pass in thick weather.

(978) **Umak Pass**, between Umak Island and Little Tanaga Island, is 0.6 mile wide at its narrowest point and 7 miles long with depths of 7½ to over 50 fathoms.

(979) Currents of 3 knots have been observed in the pass and greater velocities probably occur. The changes of current are accompanied by erratic movements and tide rips. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Umak Pass. Links to a user guide for this service can be found in chapter 1 of this book. A rock awash is 0.5 mile southeast of Cape Chakik and 500 yards offshore. In clear weather a midpass course can be taken through the pass. In thick weather the north side should be favored, entering the pass from east, until west of the narrows, then it is best to favor the south side.

(980) **Little Tanaga Island** is about 8 miles long and has a greatest width of about 7 miles. The island is extremely irregular in form. Two long bays, separated by a narrow isthmus, nearly cut it into two parts. The island is very rocky and mountainous; the highest peak is 1,747 feet. The shores in general are steep and rocky, and the coast generally is fringed with reefs, islets and detached rocks. Several streams and small lakes are on the island.

(981) **Scripps Bay**, on the north coast of Little Tanaga Island, is a well-protected anchorage though subject to williwaws. The bottom is coarse sand with pebbles but appears to hold fairly well. A sandy beach intersected by a stream is at the head of the bay. Scripps Bay is subject to fog and reduced visibility; it is frequently thick here when the west and north sections of Kuluk Bay (Adak Island) are clear. In entering the bay, pass 400 yards off the rocky islet 0.3 mile inside the east shore to avoid the 2¼-fathom spot off the west point at the entrance. Anchor in 18 fathoms 750 yards southwest of the islet. Small vessels can anchor in shallow water near the shore.

(982) **Chisak Bay**, on the south coast of Little Tanaga Island, is about 2.5 miles long and 0.8 mile wide. Depths are suitable for anchorage, but only small vessels may find swinging room, which is reduced by numerous small islands. A 3-fathom depth is 0.4 mile southeast and a 2¾-fathom shoal is 0.2 mile east of Chisak Island. The upper end of the bay is clear, but the channel, close west of Chisak Island, leading to it is very narrow. The bay is almost landlocked but is reported to be exposed to swells and seas from the Pacific Ocean. A stream enters at the head of the cove. The shores of Chisak Bay consist of narrow rocky beaches.

(983) **Azamis Cove**, on the south coast of Little Tanaga Island, is about 2 miles long and 1 mile wide at the entrance. Depths are suitable for anchorage, but it is not recommended. The bay provides shelter from the north

and west but is open to seas and swells from the Pacific Ocean.

(984) **Round Cove**, east of Azamis Cove, is about 1 mile in diameter, open to the south and southwest, and moderately subject to heavy seas and ground swells. The depths are not too great; therefore anchorage is not recommended.

(985)

Little Tanaga Strait to Kagalaska Strait

(986) **Little Tanaga Strait**, between Little Tanaga and Kagalaska Islands, is about 7 miles long and at its narrowest point about 1.2 miles wide; however, the navigable channel between Little Tanaga and Silak Islands has a width at one point of less than 0.5 mile. Tidal currents attain a maximum velocity of 5 knots through the pass east of Silak Island, producing swirls and heavy tide rips north and south of the island. The heaviest rips observed were in the middle of the pass about 1 mile north of Silak Island.

(987) The waters west of Silak Island are foul except for a passage about 0.2 mile wide along the shore of Kagalaska Island, which is recommended only for small boats. Large vessels must pass east of Silak Island. **Rip Rock**, at the southeast end of the strait, covered 1½ fathoms, is marked by breakers in moderate swells.

(988) To pass through the strait from a position 2.8 miles 270° from Cape Chisak, make good a course of 000°, keeping Silak Island a little on the port bow and heading for Tana Point on Little Tanaga Island. Hold the north course until abeam of Silak Island, then change to 330° and pass through the channel. When abeam of Cemetery Point, a course of 000° may be shaped to pass clear of the strait.

(989) **Piper Cove**, on the west side of Little Tanaga Island, about 1.8 miles north of Cape Chisak, is open to the west and southwest but affords temporary anchorage for small vessels.

(990) **Tana Bight**, an indentation on the west coast of Little Tanaga Island about 1 mile north of Tana Point, affords temporary anchorage for medium-sized vessels and fair shelter in south weather. The bottom is rocky and irregular. Currents in the bight are slight and usually flow in a direction opposite to that of the mainstream current through the strait.

(991) **Kagalaska Island**, 8 miles long and 5 miles wide, is extremely rugged and mountainous; the highest peak, 2,331 feet, is in the northwest part. The shores are, in general, steep and rocky except on the west coast, where they have a more gradual slope, becoming steeper inland. The south shore consists of jagged cliffs. The east and north coasts are also steep in many places. The brief stretches of sand or gravel beach are often backed by vertical cliffs. The coasts are generally clear except the south and southeast coasts and part of the north coast, which are fringed by islets and detached rocks. Several lakes and streams are on the island.

(992) **Cabin Cove**, opening into Little Tanaga Strait, is a two-armed bay that indents the east coast of Kagalaska Island for 2.5 miles. **Upper Arm**, 1.5 miles long and 0.5 miles wide, is bordered by steep, sloping hills on all sides; it is free of dangers. Approaching the entrance, the 10-fathom curve makes out from the north shore 200 yards and 100 yards off the low gravel point on the north shore at the entrance. Anchorage can be had in 30 to 40 fathoms in the upper part of the arm. The shores are free of off-lying rocks and shoals. **Lower Arm**, 1 mile long with an entrance width of 800 yards, is smaller than Upper Arm, but most of it is suitable for anchorage. The surrounding terrain, especially at the head, rises in gentler slopes than in Upper Arm, but the summits are over 1,000 feet high. A stream flows into the head of the arm.

(993) **Crater Cove**, on the east shore of Kagalaska Island and 1.7 miles north of Ragged Point, affords temporary anchorage in 30 fathoms, sand and gravel bottom. High bluffs and hills on the nearby shore provide good shelter from north and west winds.

(994) **Quail Bay**, on the south coast of Kagalaska Island, is fringed by steep cliffs to east and west with many rocks along the beach. The bay is deep and clear of dangers to a point about 1.2 miles northwest of Ragged Point. Temporary anchorage for small vessels may be had in 20 fathoms, sand bottom.

(995) **Kagalaska Strait** separates Adak and Kagalaska Islands. Although narrow, it can be navigated by moderate-sized vessels without difficulty at or near slack water. An 8¾-fathom shoal is in midchannel 1.6 miles inside the south entrance. South winds with ebb currents cause heavy tide rips from the south entrance north as far as Adak Bight and are apt to cause a vessel approaching from the south to yaw badly. Because of strong currents, rips and whirlpools are encountered in the narrow parts of the strait except at slack water.

(996) Both north and south entrances are clear, with deep water close to the shores. Care must be taken not to mistake Blind Cove for the north entrance since the former is about 1 mile west of the strait and has a much wider appearance. The shores of the north entrance are bold and precipitous while those of the south entrance are relatively low, with outlying rocks. Navigators not familiar with the area are cautioned against attempting an entrance in any but clear weather.

(997) **Local magnetic disturbance**

(998) Differences of as much as 11° from normal variation have been observed in Kagalaska Strait near the north entrance.

(999) **Ragged Point**, the southeast extremity of Kagalaska Island, is 4.5 miles east of Kagalaska Strait and is an unmistakable landmark for the south approaches to the strait because of its serrated ridge forming the summit of the point. A natural arch in the tip of Ragged Point is noticeable when the point bears 017°.

(1000) **Adak Bight**, about 2 miles from the south entrance to Kagalaska Strait, affords good shelter for vessels up to about 100 feet in length. A 3-fathom shoal, marked with kelp, is 0.3 mile southeast from the north point of the bight. Vessels approaching from the north should clear this shoal 0.3 mile before turning to enter. Either arm of the bight is suitable for anchoring, but the northernmost affords more swinging room. A shoal is just off the point between the two arms. In entering either arm, a vessel should keep in midchannel.

(1001) **Campers Cove**, just north of Adak Bight, is suitable only for small boats because of the narrow, shallow entrance. Relatively small vessels can anchor in about 10 fathoms in the indentation just north of **Campers Point** and thus avoid currents and rips in the strait.

(1002) **Laska Cove**, on the east side of Kagalaska Strait, is deep and well protected. Small vessels usually anchor in the northeast portion of the cove.

(1003)

Adak Island

(1004) **Adak Island**, the most important of the Andreanof Group, is about 30 miles long and 20 miles wide at its widest part. The island is rugged and mountainous and has numerous small bays and indentations. **Mount Moffett**, 3,900 feet high, near the northwest end, is the highest point of the island; it is snow covered the greater part of the year. The island is grass covered on the lower levels; the higher levels have a heavy growth of moss. Small lakes are numerous and there are many small streams.

(1005)

Boot Bay to Clam Lagoon

(1006) **Boot Bay** is on the south coast of Adak Island about 3 miles west of Kagalaska Strait. The inner harbor has depths of 11 to 35 fathoms over bottom varying from rock to mud; the mud bottom is in the deeper water. Seas and swells from the Pacific Ocean are broken up by the islands in the bay; however, the islands offer little protection from south winds. As the land to the north is mountainous there is a probability of williwaws with north winds.

(1007) **Blind Cove**, indenting Adak Island just west of the north entrance to Kagalaska Strait, is suitable for temporary anchorage only; it is exposed to the north and is subject to williwaws from the south. A midchannel course is clear for small vessels to an anchorage in 16 fathoms in the south end of the cove. Caution is necessary to avoid the shoal spots covered 1½ to 6 fathoms off the entrance points.

(1008) **Kuluk Bay**, on the northeast side of Adak Island, is about 4 miles long and 4 miles wide and is one of the best natural harbors in the Aleutians. It is entered between Zeto Point on the north and **Thunder Point** on the south and includes Kuluk Bay proper, Clam Lagoon, Sweeper Cove, Finger Bay and Scabbard Bay. Tidal currents in the bay are weak, and the flow appears to depend mainly upon the winds.

(1009) **Zeto Point** is a prominent butte rising well above the surrounding land and has several jagged pinnacles along its south face. About 1.5 miles northeast of the point is **Head Rock**, which is large and bare.

(1010) **Kuluk Shoal**, consisting of several rocks covered 1¼ to 9 fathoms and marked by kelp, is about 0.8 mile south of Head Rock and 1 mile east of Zeto Point. A lighted bell buoy is about 0.6 mile east of the shoal.

(1011) A 9-fathom shoal with rocky bottom is 0.5 mile 012° from the Head Rock; a 17-fathom bank with rocky bottom is 2 miles 096° from the rock.

(1012) **Clam Lagoon**, 0.5 mile northwest of Zeto Point, can be entered only by small boats. A fixed bridge with an unknown clearance crosses the entrance. In the south part of the lagoon and outside the entrance are mudflats. The ruins of a long pier are 0.5 mile west of the lagoon entrance.

(1013) A **naval restricted area** is in the northwest part of Kuluk Bay beginning at Zeto Point. (See **33 CFR 334.1320**, chapter 2, for limits and regulations.) An **army restrictive area** is within the naval restricted area and has a radius of 1,000 yards from 51°53'05.4"N., 176°33'47.4"W. (See **33 334.1325**, chapter 2, for limits and regulations.)

(1014)

Sweeper Cove to Scabbard Bay

(1015) **Sweeper Cove**, on the southwest side of Kuluk Bay, provides good shelter in 7 to 19 fathoms, gray sand, inside a breakwater that extends from the north side of the entrance. The breakwater is marked by a light on the outer end. The cove is marked by lights and a **253°** lighted range. A fuel tank at the west end of the cove is prominent.

(1016) **Sweeper Cove Entrance Light 5** (51°51'28"N., 176°35'31"W.), 55 feet above the water, is shown from a skeleton tower with a square green daymark on the northwest side of Lucky Point.

(1017) **Gannet Rocks**, on the north side of the entrance to Sweeper Cove, are bare and surrounded by shoal water. A detached shoal, covered 3½ fathoms, and a group of small islets, surrounded by shoals, are between Gannet Rocks and the shore. **Gannet Rocks Light 4** (51°52'01"N., 176°36'32"W.), 45 feet above the water, is shown from a skeleton tower with a triangular red daymark on the south end of the largest rock. Two water tanks, red and blue, are on the high ground at the head of Kuluk Bay about 1.2 miles northwest of Gannet Rocks Light 4.

(1018) **Pit Rock**, the southernmost of the two large rocks on the southeast side of the entrance to Sweeper Cove, is bare and surrounded by foul ground. **Finger Shoal**, 0.4 mile east of Pit Rock, has a rock that uncovers in the detached shoal area. A lighted bell buoy is about 300 yards northeast of the shoal.

(1019) During severe weather, a surge may be experienced inside the cove, making it difficult at times to remain alongside any of the piers. Heavy float fenders should be used, and vessels should be prepared to get underway.

(1020)

Harbor regulations

(1021) Sweeper Cove, a former U.S. naval air station, is administered by the Aleut Enterprise Corporation that can be contacted by telephone 907-592-0185, by FAX 907-592-0184 or by calling ADAK PORT OPERATIONS on 4125 kHz or VHF channel 16.

(1022)

Pilotage, Adak

(1023) Pilotage, except for certain exempted vessels, is compulsory for all vessels navigating the waters of the State of Alaska.

(1024) Aleutian Islands are served by the Alaska Marine Pilots. (See **Pilotage, General** (indexed), chapter 3, for the pilot pickup stations and other details.)

(1025)

Wharves

(1026) **Piers 3 and 5**, on the north side of Sweeper Cove, are used by vessels drawing up to 30 feet. Pier 3 is a 616-foot wood dock without utilities or berthing. A short barge pier is east of Pier 3. Pier 5 is a 725-foot year-round all-purpose concrete dock. Pier 5 has utilities and berthing and is reinforced for crane operation. Pier 10 is a T-head fuel pier at the west end of Sweeper Cove with a least depth of 35 feet alongside. A black tank with a red light on top is inshore of Pier 10.

(1027) A small-boat basin is at the southwest end of the cove. In 1978, most of the piers in the basin were reported to be in poor condition. In 1983, it was reported that the entrance channel to the basin was marked by private buoys, had a depth of 4 feet and had kelp along the south side. In 1984, a submerged obstruction was reported in the northwest end of the basin in about 51°51'06"N., 176°39'14"W.

(1028) **Finger Bay**, on the south side of Kuluk Bay, is about 1 mile long and 1 mile wide and has two narrow arms that extend in south and southwest directions. Both arms are open to the northeast, but no sea penetrates their narrow entrances. In the outer part of the bay depths are generally too deep for suitable anchorage, although temporary anchorage may be found in about 30 fathoms 400 yards southwest of Lucky Point and in 24 fathoms off the entrances to the two arms.

(1029) The southwest arm is narrow but clear in midchannel, with a least depth of 5 fathoms. Submerged pier ruins and pilings extend up to about 180 yards from the north shore between 51°50'04"N., 176°37'14"W and 51°49'53"N., 176°37'36"W. Holding ground near the head of the arm is good. Winds through Finger Bay tend to be very strong because of the high bluffs on each side. Wind direction is along the axis of the piers, and vessels should have little trouble holding alongside. Surge in Finger Bay is at a minimum.

(1030) **Scabbard Bay**, just east of Finger Bay, is open to the north. Anchorage can be had near the entrance in 20 fathoms, gray sand and broken shell bottom. At the south end of the bay is good shelter in 15 to 20 fathoms, brown

mud bottom. Water is obtainable. Midchannel courses will avoid all dangers.

(1031)

Cape Adagdak to Shagak Bay

(1032) **Cape Adagdak**, the northernmost point of Adak Island, is a bold headland 2,072 feet high. From Cape Adagdak, the coast trends southwest and then curves west to form 3-mile-wide Andrew Bay. A 20-foot-high rocky dike separates the head of the bay from freshwater Andrew Lake.

(1033) **Acorn Rock** is 0.2 mile off the north coast of Adak Island, 5.5 miles SW of Cape Adagdak. A shoal covered 1 fathom is 0.4 mile offshore 0.6 mile west of the rock.

(1034) **Cape Moffett**, 8 miles southwest of Cape Adagdak, is a cliff 600 feet high behind which the land rises gradually to Mount Moffett. The cape is the northwest headland of Adak Island and is prominent for entering Adak Strait. **Cape Kiguga**, 2 miles south of Cape Moffett, is the westernmost projection of Adak Island at the north entrance to Adak Strait; it is a very steep eroded slope rising abruptly from the water. The 30-fathom curve extends about 1 mile off Cape Moffett and Cape Kiguga; there are no off-lying dangers.

(1035) **Adak Strait**, between Adak Island and Kanaga Island, is 16 miles long and from 6 to 8 miles wide; depths are from 30 to over 100 fathoms. The only dangers are the rocks and reefs off **Eddy Island** and **Argonne Point** on the east side and **Shoal Point** and **Naga Point** on the west side. Vessels should clear both shores of the strait by not less than 1 mile. Since the current velocity may reach 4 knots, passage in heavy fog without radar is not recommended. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Adak Strait. Links to a user guide for this service can be found in chapter 1 of this book.

(1036) The coast of Adak Island along the east side of Adak Strait is bordered by steep bluffs and rocky cliffs; islands, rocks and reefs are close to shore. Eddy Island, at the north entrance, is prominent. **Whirlpool Rock**, 1 mile east of Eddy Island, is small, flat on top, and awash at extreme high tides; kelp grows close to it. Currents are strong and erratic in this area. **Wedge Point**, a rocky bluff 7.5 miles south of Eddy Island, is prominent. A good anchorage for small vessels in south weather is 0.8 mile east of Wedge Point, 0.3 mile offshore in 17 fathoms, sand bottom. The point 9.5 miles south of Eddy Island resembles the head of a huge gorilla.

(1037) The coast of Kanaga Island along the west side of Adak Strait is fringed by kelp beds, islets and rocks. There are several anchorages that provide protection from west weather. One is in the cove between **Round Head** and **Shoal Point**; another is midway between Shoal Point and Naga Point in 17 fathoms, gray sand bottom. A reef covered 6 fathoms is 1 mile northeast of Naga Point and

0.8 mile offshore; another reef covered 13 fathoms is 0.7 mile east of the point. When the current is ebbing heavy tide rips occur on these reefs in south weather.

(1038) **Cape Chlanak**, on the west side of the south entrance to Adak Strait, is low and rocky. Shallow water marked by kelp is close to the shoreline. Currents are strong, and medium tide rips occur off the point.

(1039) **Shagak Bay**, 3 miles southeast of Cape Kiguga, has depths of 20 fathoms or more, but only 4 feet can be carried through the 400-yard-wide entrance between grass-covered sandspits. A band of very heavy kelp extends across the entrance; the bar is relatively smooth rock. The bay is well protected from swells; the bottom is mud and probably fair holding ground. Violent williwaws and gales are encountered in east and southeast weather. A good weather anchorage is indicated 1 mile northwest of the entrance and 0.7 mile offshore in 17 fathoms, flat sand bottom.

(1040)

Bay of Islands

(1041) **Bay of Islands**, on the northwest side of Adak Island, is protected by the many islands at the entrance; wire-drag depths of 34 feet or more are in the main passages. The bay is about 6 miles in a southeast direction and varies in width from 3 miles at the entrance to less than 1 mile at the southeast end. Although the bay is protected from sea swells, violent and severe gales occur, especially with winds from east and south.

(1042) The approaches to Bay of Islands are clear to within 500 yards of **North Island** on the E and **Careful Point** on the west. Currents are strong near Careful Point. **Cascade Rock**, in about the middle of the entrance, is only 2 feet high and breaks in heavy weather; shoal water surrounds the rock.

(1043) The preferred passage to **Expedition Harbor**, in the southeast part of Bay of Islands, is west of **Green Island** through **The Race** between the west end of **Ringgold Island** and **Plum Island Rocks**, thence through **Ringgold Sound** and **Hell Gate**.

(1044) The Race is dangerous because vessels must pass close to Plum Island Rocks. A speed of 8 to 10 knots is essential for a large single-screw vessel to make the necessary changes in course.

(1045) Hell Gate narrows to about 70 yards and is dangerous for a large vessel in case of strong beam winds or mechanical failure.

(1046) At the east end of Hell Gate, the kelp-covered rocks on the south side and **Eaglet Rocks** on the north narrow side of the channel, makes it particularly difficult for an outgoing vessel because it is necessary to head for Eaglet Rocks and, when the rocks are close at hand, make a sharp turn in order to pass through the deep and narrow part of Hell Gate.

(1047) Expedition Harbor can be reached through **Argonne Channel**, north of Ringgold Island, but this passage is

dangerous because the reefs at the turn north of **Black Island** narrow the channel width to 90 yards.

(1048) Vessels can anchor in the west or east parts of Expedition Harbor. The main part of the harbor, with depths of 30 to 85 fathoms, is too deep for anchorage.

(1049) There are **anchorage areas** in **Unalga Bight**, at the west end, in 16 to 25 fathoms, mud bottom; **Gannet Cove**, at the east end, in 16 to 25 fathoms, mud bottom; and **Beverly Cove**, north of Gannet Cove, in 10 to 18 fathoms.

(1050) An excellent anchorage for small vessels is in **Fisherman Cove**, on the south side of Ringgold Sound, in 10 to 22 fathoms, mud bottom.

(1051) Anchorage can also be had on the south side of North Island in 20 fathoms or more, mud and rock bottom. The area can be reached by passing west of North Island until past **North Rocks**, thence a **110°** course between shoal spots of $3\frac{3}{4}$ fathoms on the north and 4 fathoms on the south to the anchorage.

(1052) Water can be obtained from several waterfalls in the Bay of Islands. The waterfall 0.3 mile southeast of **Vincennes Point** has the most accessible natural water supply in the bay.

(1053)

Three Arm Bay to Hidden Bay

(1054) **Three Arm Bay**, on the west side of Adak Island, has depths of 19 fathoms or more in the outer part, but the depths decrease to less than 5 fathoms in the arms. Most of the covered dangers are within 300 yards of the shore. In south weather small vessels can anchor 0.3 mile east of **Three Sisters Island** in 17 fathoms, sandy bottom. **North Arm**, 0.2 mile wide with steep sides, extends 2 miles inshore to a low draw. A short overland trail leads from the upper end of the arm to the south shore of Unalga Bight in the Bay of Islands. In southwest and west weather, swells from Adak Strait enter North Arm; in east or west weather, winds draw through this arm. Anchorage is suitable only for small craft in good weather. A fair anchorage for small vessels is in **Middle Arm**, 0.5 mile north of **Split Point**, and rock bottom is poor holding ground. **South Arm** is well sheltered, but the holding ground was reported poor in 1973. It is entered from Middle Arm through a 6-fathom passage between the west shore of the small island off Split Point and the shoreline to the west. The passage is foul between Split Point and the island off the point.

(1055) **Lake Point**, the southwesternmost point of Adak Island, is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the rookery which encompasses most of Cape Yakak. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

(1056) **Bay of Waterfalls**, on the south side of Adak Island just east of Adak Strait, is 8 miles long and 5 miles wide at the entrance but narrows to 0.5 mile at the north end.

Depths of 10 fathoms or more are within 0.3 mile of the shore, except for a pinnacle rock, covered $1\frac{1}{2}$ fathoms, 5.5 miles inside the bay at a point 0.5 mile west of **Low Point**. Most of the bay is too deep for anchorage; it is exposed to the seas and swells of the Pacific Ocean and to heavy gusts sweeping through the mountain passes of Adak Island. Vessels can anchor in 16 fathoms within 0.5 mile of the head.

(1057) **Cape Yakak**, on the west side of the entrance to Bay of Waterfalls, is a long, flat tableland, well defined and easily recognized because it has no high peaks on it.

(1058) **Chapel Roads**, the east arm of Bay of Waterfalls, offers anchorage in 20 fathoms, rocky bottom, but is also exposed. **Chapel Cove**, the inner bight of Chapel Roads, affords temporary anchorage in 10 fathoms, hard to soft gray sand bottom. The entrance is narrow, being restricted by **McCulloch Rock**, a pinnacle covered $2\frac{1}{2}$ fathoms, on the north side of the cove. **Pulpit Rocks**, inside the cove, are a ledge of bare rocks.

(1059) **Cataract Bight**, on the east side of Bay of Waterfalls near its head, affords anchorage in 24 fathoms 200 yards off the beach; water can be obtained. A perceptible swell reaches the bight with south winds.

(1060) **Hidden Bay**, 12 miles northeast of Cape Yakak, is a 0.1-mile-wide inlet 1.2 miles long with depths of 10 fathoms or more in midchannel; high hills are on both sides. Small boats will find good shelter in the west arm at the north end of the bay in 11 fathoms, mud bottom. A 6-foot-high rock, 0.6 mile south of the entrance, marks a foul ground area with deep channels on either side; boats should keep well clear of the east entrance point.

(1061)

Kanaga Island

(1062) **Kanaga Island**, across Adak Strait from Adak Island, is roughly right angled and extends 18 miles north and south and 28 miles east and west and has a maximum width of 7 miles. **Kanaga Volcano**, at the north end of the island, is cone shaped, rising directly from the water to 4,416 feet; steam may emit near the summit. In clear weather this excellent landmark is visible from all directions. There are several lesser peaks south of the volcano from which the land slopes down abruptly to rolling tundra-covered hills, 600 to 100 feet high, interspersed with numerous streams and lakes.

(1063) The Bering Sea Aerological Unit stationed at Kanaga Bay found that the Kanaga Volcano could be utilized as a means for forecasting bad weather. The volcano peak is seldom absolutely clear of clouds. During April 1934, it was observed that invariably the day or night before a gale the peak made its appearance, shorn of all clouds and with wisps of steam around the crater. During the summer of 1953, the phenomenon was noted on several occasions, but it is not infallible, as evidenced at other times when bad weather did not follow clear visibility of the peak.

(1064)

Cape Miga to Kanaga Bay

(1065) Most of the north coast of Kanaga Island between **Cape Miga** and Round Head is fringed by kelp beds, islets and rocks. Depths of 100 fathoms reach within 0.5 mile of shore from Cape Miga for 2 miles east, where the shoreline trends southeast for 4 miles to Round Head, and depths of 30 fathoms reach within 1 mile of shore. The water over this relatively shoal area appears much disturbed, and currents are strong and erratic.

(1066) **False Bay** (51°43'N., 177°09'W.), 0.5 mile north of Cape Chlanak, has landing places protected from all but heavy southeast swells on the sand beaches at the head of its two arms. The bay may be used as an emergency anchorage for very small vessels, in 8 fathoms, sand bottom, and affords protection from west and north winds.

(1067) **Kanaga Bay**, on the south coast of Kanaga Island 2 miles west of Cape Chlanak, is 2 miles long and 0.4 mile wide with depths of 10 to 3 fathoms, except for the shallow north part which nearly dries in places. The hazardous entrance channel is only 130 yards wide between reefs plainly marked by kelp.

(1068) The shoreline of Kanaga Bay consists of rocky cliffs or steep grassy bluffs, with a sand beach and low ground at the head. Good anchorage is afforded medium-sized vessels in shallow water, with excellent holding ground of sticky mud mixed with black sand. The anchorage is protected from all winds except southeast, and the bay is apparently not subject to williwaws, the heaviest gusts coming from northeast. With heavy swells from south through southeast, the entrance is impassable, and it should never be attempted without good visibility.

(1069) The wreck of the USS SWALLOW on the west side of the entrance to Kanaga Bay is prominent and appears red in color from offshore. If any appreciable swell is running, the sea breaks on both sides of the entrance channel near the wreck.

(1070) In 1954, the outer part of the dock at the abandoned site, 1.4 miles above the entrance of Kanaga Bay, was in fair condition; small vessels could berth along its face where the depth is 13 feet. The dock has been gutted by fire near the beach end, and buildings along the waterfront have been burned. A prominent radio mast on a hill 175 yards northeast of the inner end of the dock is visible throughout the bay. A cabin is across the bay northwest of the dock.

(1071)

Cape Tusik

(1072) The south coast of Kanaga Island is low, rocky and very broken with numerous offshore rocks and reefs marked by kelp fringing the shore. The coast should be cleared by at least 2 miles to avoid the dangers.

(1073) The waters off **Cape Tusik**, 3 miles west of Kanaga Bay, appear much disturbed with strong currents. A

dangerous shoal extends south-southwest for 2 miles off the prominent headland 2 miles northwest of Cape Tusik. Depths of 16 fathoms are on the outer part, decreasing to much shoaler depths closer inshore.

(1074)

Sentry Rock to Village Reef

(1075) **Sentry Rock**, 9 miles west of Cape Tusik and 1 mile off the south coast of Kanaga Island, is 94 feet high and prominent. Passage between the rock and the shore should not be attempted.

(1076) **Cape Chunu**, the southwest end of Kanaga Island, has grassy bluffs and rocky cliffs 100 to 200 feet high; rolling grassland is in the interior with hills up to 345 feet high. The shoreline is ragged and rocky; rocky reefs and prominent rock islets and pinnacles fringe the shore. **Castle Island**, a small grass-covered rocky islet off **West Chunu Point**, is 165 feet high and prominent from the southeast and northwest. Vessels are cautioned to pass at least 1.5 miles off Cape Chunu to avoid the shoal area of very irregular rocky bottom with depths of 2 to 6 fathoms. The waters for several miles south of the cape are usually much disturbed, indicating strong currents.

(1077) **Kanaga Pass**, between Kanaga Island and Tanaga Island, is 3.8 miles wide at its narrowest part, but it is full of small rock islets, dangerous reefs and strong currents; passage is not recommended except during periods of good visibility and calm seas.

(1078) Foul ground extends into Kanaga Pass for over 1 mile from the west side of Cape Chunu to more than 3 miles off **Western Point**, Kanaga Island, thence over 1.5 miles offshore along the north coast of Kanaga Island. **Eddy Rock**, **Goose Rocks** and **Annoy Rock**, a part of the foul ground, are prominent. A dangerous reef, covered 5 feet to 3 fathoms, is 0.4 mile north of Annoy Rock. The dangerous area from this reef east to Kanaga Island is rocky and very irregular; many underwater pinnacles exist. The kelp that marks the area during the summer is towed under by the current except at slack water and cannot be relied upon to indicate the shoals.

(1079) **Cape Sasmik**, the south end of Tanaga Island on the west side of Kanaga Pass, is a relatively flat grassland with steep grassy bluffs and rock cliffs rising abruptly from the shoreline to 100 feet. Rocky islets and reefs border the coast close inshore. **Herd Rock**, a 20-foot detached black rock on the southwest side of the cape, is conspicuous from the southeast and northwest. The cape should be cleared by at least 1 mile.

(1080) Foul ground extends up to 1 mile off the Tanaga Island shore on the west side of Kanaga Pass, except in the approach to Twin Bays. The bottom is very broken and irregular, and the shoreline is made up of low cliffs.

(1081) A good anchorage in west weather is 3 miles north of Cape Sasmik and 0.8 mile offshore in 18 fathoms, sand bottom; Twin Bay is also a good anchorage.

(1082) **Trunk Point**, 11 miles northeast of Cape Sasmik, shows as a low rounded knoll.

(1083) **Cape Sudak**, the long finger-shaped easternmost point of Tanaga Island on the north side of the north entrance to Kanaga Pass, terminates in a small flat-topped, steep-sided 70-foot-high promontory that appears detached from offshore. A dangerous shoal, with bare rocks, extensive heavy kelp and underwater pinnacles, extends 2 miles northeast from the cape. The waters from the shoal to the 100-fathom curve appear greatly disturbed. The cape should be cleared by over 2 miles.

(1084) Anchorage protected from west and north swells is 1 mile southeast of the end of Cape Sudak in 20 fathoms, flat cinder bottom.

(1085) The current velocity may reach 4 knots in the narrow part of Kanaga Pass. In calm weather, tide rips are visible among the covered reefs between Annoy Rock and Kanaga Island. With a heavy south swell and the current ebbing south, seas break across the entire pass. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Kanaga Pass. Links to a user guide for this service can be found in chapter 1 of this book.

(1086) The recommended routes through Kanaga Pass with depths of 10 fathoms or more are through **Explorer Passage**, between Annoy Rock and **Hazard Point**, Tanaga Island, thence either midchannel between Kanaga Island and Tanaga Island, or the 0.3-mile-wide passage through **The Ditch** between dangerous **Eider Reef**, awash in places at half tide, and Trunk Point, Tanaga Island.

(1087) **Twin Bays**, 5 miles north of Cape Sasmik, is a good small-boat anchorage in west and north weather; larger vessels may anchor just off the entrance. A 75-foot-high distinctive rock resembling a Christmas tree in profile outline, undercut by surf action to balance on a small pedestal, is on the beach at **Christmas Tree Point**, on the west side of the entrance. The shores on both sides of the entrance to the bay are 100-foot-high vertical cliffs with reefs that extend more than 0.1 mile into the bay; the surrounding country is rolling grassland. Foul ground extends 0.7 mile south of Christmas Tree Point.

(1088) A boulder beach, with a very shallow valley beyond, is at the head of the northeast arm of Twin Bays; a sand beach backed by a narrow, deep valley is at the head of the northwest arm. A trapper's cabin is near the beach in the northwest arm, and a stream empties into this arm about 150 yards east of the cabin.

(1089) Small vessels can anchor in Twin Bays in 8 fathoms, flat sand bottom, when the Christmas tree rock bears **242°**. Larger vessels should anchor in 16 fathoms, flat sand bottom, 0.6 mile off the rock when it bears **310°**.

(1090) **Hot Springs Bay**, on the Tanaga shore of Kanaga Pass 12 miles north of Cape Sasmik, is small but offers good protection from west weather. Low bluffs line the south shore with a rise at the head to a high ridge. Warm springs are along the central part of the south shore. The north shore is lined by steep bluffs rising toward the

mountains; a prominent waterfall is 0.3 mile from the head. A good sand beach is at the foot of a low valley; a stream enters the bay at the south end of the beach. Two cabins are just in back of the beach near its north end.

(1091) The only off-lying danger in Hot Springs Bay is **Village Reef**, 600 yards off the south shore 1 mile northwest of Trunk Point. Good anchorage is found in 13 to 17 fathoms, sand bottom; small craft may anchor in shoaler water close to the beach.

(1092)

Bellevue Beach to The Signals

(1093) The north coast of Kanaga Island west of Cape Miga trends south for 7 miles, then southwest for 20 miles to Kanaga Pass. From Cape Miga for 7 miles south to **Bellevue Beach**, the coast is steep-to with off-lying dangers within 0.5 mile of the shore. The 2-mile sand beach is backed by low ground and dunes. Good anchorage is afforded in southeast weather off the beach; avoid the several detached offshore rocks. Landings can be made on the beach.

(1094) The coast between Bellevue Beach and Kanaga Pass is generally rocky and irregular, with a wide band of kelp and rocks parallel to the shore. Most of the points of land are low rocky cliffs; steep grass bluffs between the points rise to the relatively flat and rolling interior. The coast should be given a clearance of 1.5 miles to avoid the dangers.

(1095) **Ship Rock**, 1 mile offshore and 5 miles west of Bellevue Beach, is 49 feet high and resembles a ship; foul ground is between the rocky islet and the shore. Good anchorage in south weather can be had 4.5 miles west of Ship Rock in the cove west of **Cabin Point** in 18 fathoms, smooth sand bottom; approach with caution to avoid the covered rocks and pinnacles off Cabin Point and Pincer Point. A trapper's cabin is on the west side of Cabin Point. A group of pinnacles, covered 7 to 25 feet and marked by kelp, is 0.4 mile off double-ended **Pincer Point**, 5.2 miles west of Ship Rock.

(1096) **Hive Rock**, 7.5 miles west of Ship Rock and 0.4 mile offshore, is an 80-foot-high hive-shaped pinnacle. Heavy kelp is between the rock and the shore. Good anchorage is afforded in south weather 0.6 mile northeast of the rock in 20 fathoms, smooth sand bottom; approach should be made from the north. A rock that uncovers and marked by kelp is 1.3 miles offshore, 8.7 miles west of Ship Rock; foul ground is between the rock and the shore.

(1097) **The Signals**, a prominent 60-foot-high twin-pinnacled rock is 0.3 mile off **Northwest Point**, 10.2 miles west of Ship Rock. **Coolie Hat**, 1.3 miles southeast of Northwest Point, is a prominent 284-foot black cinder hill shaped like the crown of a hat.

(1098)

Bobrof Island

(1099) **Bobrof Island**, 6 miles northeast of Cape Sudak, Tanaga Island, is more than 2 miles long and almost 2

miles wide. The shoreline on all sides except the north is rocky and precipitous, with steep slopes rising abruptly to 2,419-foot **Bobrof Volcano**. The north point of the island, connected by a low grassy area to the base of the volcano, consists of a very prominent flat-topped 402-foot-high cylinder-shaped peak of black lava having bare vertical sides. It appears to be separated from the rest of the island when viewed offshore from the east or west.

- (1100) Currents are strong on all sides of Bobrof Island, and the waters appear disturbed for 1 mile offshore. Dangers are within 0.2 mile of the shore; the 10-fathom curve is less than 0.5 mile offshore. A band of impenetrable kelp parallels the northwest coast to 0.3 mile offshore.

(1101)

Tanaga Island

- (1102) **Tanaga Island**, across Kanaga Pass from Kanaga Island, is irregular in shape with greatest north-south length of 20 miles and east-west width of 23 miles. The north part of the island is high and mountainous, while the south part is low with many streams and small lakes or ponds. The north shore has precipitous rocky cliffs or very steep slopes that rise to the interior mountains. The other shores are rocky cliffs or reefs with numerous along shore pinnacles, except for beaches in Tanaga Bay and a few other places. The south coast and much of the east coast of Tanaga Island is fringed with detached rocks, reefs and foul ground. Extensive kelp patches are in the foul areas. The dangers can be avoided by clearing the coast by over 2 miles.

(1103)

Gage Point to Pillbox Rock

- (1104) The first 12 miles of the north coast of Tanaga Island between Cape Sudak and **Gage Point** are indented with coves that provide anchorage. The 30-fathom curve is 1 mile or less offshore; all dangers are within 0.5 mile of the shore.
- (1105) **Portage Bight**, 5 miles west of Cape Sudak, affords a good weather anchorage in 18 fathoms, sandy bottom.
- (1106) **Rough Bay**, 8 miles west of Cape Sudak, is not recommended as an anchorage because of violent williwaws in south and west weather. A dangerous rock, 0.4 mile northeast of the west entrance point, is awash at low water. A large shoal area, marked by kelp, makes out from the southeast shore to the middle of the bay. A sand beach is at the head and a deep valley extends inland.
- (1107) **Gusty Bay**, 10 miles west of Cape Sudak, affords good anchorage in south weather. The gusty winds frequently encountered do not, as a rule, impair safe anchorage. Two shallow valleys, separated by a bold headland, are at the head of the bay.
- (1108) **Pillbox Rock**, 0.1 mile off the steep-sided, square-faced east entrance point to Gusty Bay, is a 150-foot-high conspicuous dome-shaped pinnacle with grass on top; a

50-foot-high sharp-pointed pinnacle is just north of it. All dangers are within 0.5 mile of the shore. Anchor in the center of the bay with the sharp pinnacle bearing **118°**, in 16 fathoms, sand bottom.

(1109)

Cape Sajaka to South Bay

- (1110) The north coast of Tanaga Island between Gage Point and **Cape Sajaka** is very irregular with many vertical lava cliffs. A large waterfall, 2.5 miles west of **Bumpy Point**, is 348 feet high and pours from the top of a vertical cliff. Dangers are within 0.5 mile of the shore. Currents are strong along this stretch of coast.
- (1111) The two prominent peaks in the interior are connected by a saddle; the east one is about 4,600 feet high and the west, **Tanaga Volcano**, is 5,925 feet high.
- (1112) From Cape Sajaka southeast to Tanaga Bay several shallow valleys with black sand or gravel beaches across them indent the otherwise mountainous interior. **Blackface Point**, 7 miles southeast of Cape Sajaka, is a prominent headland with black rock cliffs near the top of steep grassy bluffs. Dangers are within 0.5 mile of the shore. In good weather vessels may anchor 3 miles northwest of **Cape Agamsik**, 0.8 mile off the sand beach, in 15 fathoms, flat sand bottom.
- (1113) **Tanaga Bay**, on the west side of Tanaga Island, affords protection from all except west weather. The bay is a good anchorage for large and small vessels; depths and places can be selected as desired. The bottom is uniformly fine, black, hard sand with only fair holding qualities in heavy weather. The head of the bay shoals gradually from 2 miles out to a sand beach. The south shore is irregular with reefs and kelp beds. Dangers are within 0.7 mile of the bay shore. Several visible rocks on **Middle Ledge** that extend almost 0.5 mile offshore at the head of the bay are of some assistance when anchoring near the head.
- (1114) **Cable Bay**, a small cove on the north side of Tanaga Bay east of prominent Cape Agamsik, affords protection to small craft in west weather. Water is available at the head of the bay.
- (1115) **Cape Amagalik**, on the south side of the entrance to Tanaga Bay, is low but backed by higher grassy hills. A shoal extends 1.5 miles west of the cape. A dangerous reef, marked with heavy kelp and rocks, is inside the shoal area. Tide rips are severe off the cape. All vessels should clear the cape by at least 4 miles when a moderate swell is running against the current. Small vessels should not attempt passage with a heavy swell running. Seas 12 to 14 feet high have been encountered in the area in moderate weather. A flood current of 3 knots has been observed; larger velocities probably occur. The flood sets north and the ebb south.
- (1116) Tide rips have been observed on the 26-fathom bank 4 miles northwest of Cape Amagalik.

(1117)

Pilotage, Tanaga Bay

(1118) Pilotage, except for certain exempted vessels, is compulsory for all vessels navigating the waters of the State of Alaska.

(1119) Tanaga Bay is served by the Alaska Marine Pilots. (See **Pilotage, General** (indexed), chapter 3, for the pilot pickup stations and other details.)

(1120) A skeleton tower on top of a 145-foot bluff on the south side of Cape Amagalik, and **Harem Rock**, 0.6 mile southwest of the tower, and usually marked by heavy breakers, are prominent.

(1121) **Lash Bay**, 3 miles east by south of Cape Amagalik, is the site of an abandoned World War II military installation. Only small craft should enter the bay, and then with caution under favorable weather conditions. The inshore part of a 600-foot wharf remains at the head of the bay; a depth of 8 feet is off its outer end. Broken piling of the outer section of the wharf is covered and constitutes a real danger. Two diamond-shaped targets set on a hill just west of the wharf form an entrance range on course **002°**. A shoal covered less than 3 fathoms is in the approach on the range line extended; dangerous covered rocks are near both sides of the range line approaching the head. The bay is useful only as a temporary anchorage because of limited swinging room and shoal water.

(1122) **Scarab Rock**, 0.6 mile west-southwest of **Tidgituk Island**, is 50 feet high and prominent.

(1123) **South Bay**, on the south coast of Tanaga Island just west of Cape Sasmik, affords anchorage during north and east weather. A reef that uncovers extends 0.5 mile south from the center of the head of the bay; a shoal with depths of 7 to 2 fathoms continues south for another 0.5 mile. A trapper's cabin is near the mouth of a stream northeast of the reef. Anchor in the east half of the bay, 0.5 mile off the east shore, in 12 fathoms, flat sand bottom.

(1124)

Tanaga Pass to Amchitka Pass

(1125) **Tanaga Pass**, between Tanaga Island and the Delarof Islands, is 13 miles wide at its narrowest part. Depths of 50 fathoms or more can be carried through the pass by keeping 6 miles off Cape Amagalik, Tanaga Island, and 3 miles off the Delarof Islands.

(1126)

Currents

(1127) The direction and velocity of the current is radically affected by the land areas and the banks. It appears that the flood is diverted by the chain of islands---Skagul to Unalga---and the relatively shoal water between them to an east and west direction in moving around this chain. It was observed that south of Skagul Island the flood sets about northeast, east of this island it sets north, and north of the island it sets north to northwest.

(1128) With erratic currents of this nature, dead reckoning cannot be depended on, and the navigator may find his

vessel 1 mile or more off his reckoning after a run of 1 hour.

(1129) During observations made 4.5 miles southwest of Cape Amagalik, the current was rotary, turning clockwise, and followed a definite pattern. A minimum current averaging about 0.8 knot sets north to northeast. As the current turned through east to south the velocity built up rapidly until it reached 3 knots. The velocity decreased to about 2 knots and at time of low water set west-southwest. The current turned northwest, and the velocity increased to a maximum of 3 knots. The current continued northwest to north until the velocity averaged about 0.8 knot. The current then set northwest at a velocity of 2 knots. The current turned through north to northeast and decreased in velocity to a minimum of 0.8 knot.

(1130) On the opposite side of the pass, 4 miles east of Ugidak Island, velocities of over 3 knots were observed.

(1131) Between Kavalga and Ulak Islands, the flood was observed to set to the northwest.

(1132) Tide rips and swirls may be encountered in any part of this area, except well off the land areas in deep water. Generally they will be encountered where a radical change in depth deflects the natural flow of the current or where land masses affect this flow. The ebb appears to produce the heaviest rips, and they are most pronounced during the greatest range of tides. Also, strong winds and heavy seas, opposing the flow of the current, cause large rips.

(1133) Rips and swirls were observed by survey vessels to be particularly heavy to a distance of approximately 4 miles west of Cape Amagalik. This area is dangerous to small craft except in favorable weather and should be avoided by medium-sized craft under adverse conditions of current and sea or swell. Under unfavorable weather conditions, it is advisable to round this cape outside the 50-fathom curve.

(1134) Heavy tide rips have been observed off Cape Sajaka, on the bank between Skagul and Ilak Islands and on the shoal that extends west from Unalga Island.

(1135) See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(1136) The **Delarof Islands**, between Tanaga Pass and Amchitka Pass, are a group of nine islands and several small islets and rocks covering an area of 38 miles north-south and 33 miles east-west.

(1137) **Ilak Island**, the easternmost in the Delarof group, is 188 feet high on a ridge near the northeast shore. The highest bluffs are on the north and east sides. From offshore the island appears tablelike; the top slopes gently from east toward the west shore. The shoreline is broken and surrounded by detached islets, rocks and reefs up to 2 miles west of the island and 0.5 mile on the other sides. **Gramp Rock**, 1.5 miles west of Ilak Island, is the breeding ground for sea lions. The 15-foot-high pinnacle

0.5 mile off the north shore of the island is prominent. Strong currents and tide rips are near the island.

- (1138) **Gramp Rock** is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the entire island. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

- (1139) **Ugidak Island**, the easternmost of a chain of four islands in the central part of the Delarof group, is 75 feet high, small, and rocky. The waters around the island are deep; currents are strong and tide rips, dangerous to small boats, may be encountered.

- (1140) **Skagul Island** and **Ogliuga Island**, 2.5 to 7 miles west of Ugidak Island, are surrounded by numerous rocks, reefs and kelp beds. An emergency landing field and buildings are on Ogliuga Island; a tower near the north shore is prominent.

- (1141) **Skagul Pass**, between Skagul and Ogliuga Islands, is only for small craft. Currents in the pass are very strong, and tide rips develop when sea and current are opposed. Kelp in the pass is towed under when the current is running.

- (1142) A good anchorage from north weather is 1.2 miles south of Skagul Pass in 17 fathoms, sand and gravel bottom.

- (1143) **Tag Islands**, a group of rocky islets 3 miles southwest of Ugidak Island, are the breeding grounds for sea lions; the highest point is 75 feet. Several rocky islets are between these islets and Skagul Island.

- (1144) Tag Islands are a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the islands that also encompasses Skagul Island. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

- (1145) **Kavalga Island**, 10 miles west of Ugidak Island, is 5 miles long with greatest width of 1.5 miles; the highest point is 315 feet. The 1-mile-long prominent headland at the west end of the island is 180 feet high and connected to the mainland by a low gravel beach. Most of the island is covered with tundra. The shores are fringed with prominent rocks and reefs.

- (1146) There are several reefs and rocks, large kelp beds and winding channels 2 to 5 fathoms deep between Ogliuga Island and Kavalga Island. Large numbers of sea otter have been seen in this area. **Ogliuga Pass**, close to Ogliuga Island, is only for small craft.

- (1147) **Sea Otter Pass**, 0.7 mile northeast of Kavalga Island, has depths of 5 fathoms in the 0.4 mile-wide channel. The pass is fringed with heavy kelp and prominent 3-foot-high rocky islets; some kelp grows in the channel. Currents in the pass are moderate.

- (1148) A good anchorage during south gales is 1-mile north of Kavalga Island in 22 fathoms, sand and gravel bottom.

- (1149) A bank with a least depth of 18 fathoms is between Kavalga Island and Unalga Island. Currents in this area are very strong; dangerous tide rips develop when the sea or wind and current are opposed. The waters are extremely dangerous for small boats; under extreme conditions the area may also be dangerous for larger vessels. Vessels

using the pass should clear Kavalga Island and Unalga Island by not less than 2 miles.

- (1150) **Unalga Island**, the westernmost of the central Delarof group, is 240 feet high, grass covered, rimmed with steep bluffs, and flat on top. The shore is fringed by rocks and reefs. Prominent are a 50-foot-high rock 0.5 mile northwest of the island and **Dinkum Rocks**, 0.8 mile southwest of the island.

- (1151) **Gareloi Island**, the northernmost of the Delarof group and 20 miles west of Tanaga Island, is almost circular and about 5 miles in diameter. **Mount Gareloi**, a 5,160-foot active volcanic crater, is near the center at the summit of the island; a smaller peak is south of the summit. The land slopes steeply to the summit, except near the northwest side where the slopes are more gradual. The island consists of lava rock, black lava, eroded lava and ashes; the lower slopes and valleys are covered with grass and tundra in many places. The shores have steep cliffs with rocks and boulders at the base; boulders, pinnacles and rocks awash extend around the shoreline. Heavy kelp surrounds most of the island and extends offshore to 10 fathoms. Depths of 10 fathoms or more are within 0.5 mile of the island.

- (1152) A trapper's hut is on the beach above the north shore of Gareloi Island. In moderate weather the survey ship anchored off the lee shore in the bight on the southeast side, 800 to 1,000 yards offshore, in 25 to 35 fathoms. The current velocity is about 0.5 knot off the southeast shore and sets northeast and southwest.

(1153)

Local magnetic disturbance

- (1154) Differences of as much as 7° from normal variation have been observed on Gareloi Island southeast of Mount Gareloi.

- (1155) **Ulak Island** and **Amatignak Island**, 3 miles apart, are the southernmost of the Delarof group.

- (1156) Ulak Island is irregular in shape, 6 miles long, and over 3 miles wide at the center. There are two high points on the island, one on the ridge near the north shore and the other toward the south part of the island. Numerous rocks and islets border the island; several reefs are close to shore and near the off-lying rocky islets. Strong currents and tide rips have been observed as far as 3 miles southeast of the island. **Pratt Cove**, on the west side of the island, can be used as an emergency anchorage; currents are noticeable and the bottom is rocky. **Patton Cove**, on the south coast, is a good anchorage for north and northwest weather; there is very little current and the bottom is sandy.

- (1157) The southeast shore of **Hasgox Point** on Ulak Island is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the rookery that encompasses all except the north half of the island. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

- (1158) **Tanadak Island**, 1 mile off the west coast of Ulak Island, is low and not prominent. A prominent 30-foot

rock is 0.2 mile northwest of the island. The survey ship used an anchorage 0.7 mile east of the island.

- (1159) **Ulak Pass**, between Ulak and Amatignak Islands, is 3 miles wide and has depths of 35 fathoms or more. The current velocity is over 2 knots in the pass and sets northwest and southeast. A midchannel course should be followed to avoid the rocks and islets near the shores of the islands.

- (1160) **Amatignak Island**, the southernmost of the Aleutian Chain, is within 40 miles of the Seattle-Yokohama composite course. The rugged island is 5 miles long and 3 miles wide; the high tundra-covered hills and bare ridges and mountains of the interior rise to a height of 1,875 feet. The shores are generally steep and fringed with rocks; the west and northwest coasts are steep-to.

- (1161) **Knob Point**, a peninsula with a conspicuous knob-shaped hill, is on the east side of Amatignak Island. **Ulva Cove**, just north of Knob Point, is used as a small-boat anchorage. The survey ship anchored off the entrance in 25 fathoms. Protection is fair from west and southwest gales except when there is a south and southeast swell from the Pacific. A boulder beach is in back of the cove and a trapper's cabin is on the small flat area at the head. A prominent waterfall is 1 mile north of the cove.

- (1162) **Nitrof Point**, a rocky peninsula at the south end of Amatignak Island, is narrow and steep with conspicuous off-lying pinnacles. A rock awash with frequent breakers is 0.5 mile south-southwest of the most south pinnacle rocks. A foul area extends 0.6 mile offshore midway between Nitrof and Knob Points.

- (1163) The west coast of Amatignak Island is very broken with prominent pinnacle rocks, steep cliffs and small coves; rocks awash fringe the shore. A prominent 170-foot dome-shaped pinnacle off the northwest coast makes a good landmark. A small deep cove on the northwest coast affords the best protection for landings on the west side of the island.

- (1164) **Amchitka Pass**, between the Delarof Islands and the Rat Islands, has a least width of 50 miles and depths of 49 to over 1,000 fathoms. The islands on both sides of the pass should be cleared by at least 5 miles. Heavy tide rips have been observed off the east end of Amchitka Island. The pass is dangerous in heavy weather, particularly for small and medium craft; currents appear erratic in direction and velocities may be strong. This may account for reports of very large seas and strong tide rips.

(1165)

Rat Islands

- (1166) The **Rat Islands**, between Amchitka Pass and **Buldir Island**, are a group of six large islands and several smaller ones covering an area of 60 miles north-south and almost 150 miles east-west. Strong williwaws frequently occur on the leeward sides of the north islands during periods of light to moderate breezes on the windward sides. Areas of clear weather are often found on the leeward sides during periods of heavy fog.

(1167)

Semisopchnoi Island to Bowers Ridge

(1168)

Semisopchnoi Island, the northeasternmost of the Rat group, has a north-south length of 9.5 miles and an east-west width of 11 miles. The numerous rugged ridges and peaks, 1,200 to over 4,000 feet high, surround an interior valley with a small lake 300 feet above sea level. Most of the peaks or cones have deep craters and appear flat-topped from offshore. The shore is almost entirely steep cliffs or bluffs fringed with a narrow, rough boulder beach; kelp is alongshore. Dangers are within 400 yards of the shore, but the island should be cleared 1 mile or more. The west current velocity is about 1 knot and the east current about 1.5 knots, but a 3-knot current may be encountered at times. The currents are usually accompanied by tide rips off the points.

(1169)

Sugarloaf Head, at the south end of Semisopchnoi Island, is a rounding, low, irregular, rocky point forming the south base of a 2,870-foot snow-capped conical peak that has a prominent secondary conical crater 1,620 feet high on its south slope. The small bight just east of the head has a section of sloping sand beach that is fronted by several lines of breakers. Two small bights with sloping boulder beaches are about 1 and 2 miles west of the head.

(1170)

The valley drains to the southeast coast of the island between Sugarloaf Head and a jagged ridge with twin pinnacles more than 3,000 feet high to the northeast. East from the lake area, a low pass 600 to 800 feet high leads between steep cliffs to a broad grass-covered valley at the head of a small bight south of **Pochnoi Point**, the east end of the island. The point is broad somewhat flat and terminates in sheer rock cliffs about 300 feet high. A small stretch of sloping sand beach at the head of the bight is the best landing place on the island, but it is fronted by a small sand bar about 25 yards offshore.

(1171)

Petrel Point, the north end of the island, has a prominent waterfall on its northwest tip that makes a sheer drop from the top of the bluff. Two small bights with sloping boulder beaches are about 2 and 4 miles along the shore southeast of Petrel Point.

(1172)

The east shore of Pochnoi Point and the north shore of Petrel Point on Semisopchnoi Island are Steller sea lion rookery sites. There is a 3-mile vessel exclusionary buffer zone around each rookery that encompasses the northeast half of the island. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

(1173)

Northwest of the lake area, the old crater wall rises steeply to a ridge with two prominent cones. **Tuman Point**, at the west end of the island, is faced with steep bluffs. A prominent triangular-shaped face of a 1,200-foot peak that drops steeply to the shore is 1.5 miles east along the north shore of the point. A sloping boulder beach is about 2 miles east of the point. In the broad but slight bight just south of Tuman Point are small stretches of sloping sand beach, but they must be approached through heavy kelp growing on large boulder rocks.

(1174) The best anchorage at Semisopochnoi Island is 1 mile offshore between Tuman Point and Petrel Point in 18 to 22 fathoms, sand and gravel bottom. This is inshore of the strength of the current, the approach is unrestricted, and it is well protected from most directions. Good anchorage is available in the center of the bight south of Pochnoi Point in 15 to 22 fathoms, sand bottom; it is free of tide rips and the current that prevails around the point. A fair anchorage is 1 mile offshore midway between Pochnoi Point and Petrel Point in 27 fathoms, sand bottom; current is about 1.5 knots. Another fair anchorage is 2 miles west of Sugarloaf Head in 25 to 30 fathoms, sand and gravel bottom.

(1175)

Local magnetic disturbance

(1176) Differences of as much as 7° from normal variation have been observed near Sugarloaf Head on Semisopochnoi Island.

(1177) **Petrel Bank**, which extends about 30 miles northeast from Semisopochnoi Island, is 16 to 20 miles wide within the 100 fathom curve. The high point on the ridge, covered 21 fathoms, is 15 miles northeast of the island. A narrow ridge that extends 30 miles northeast of Petrel Bank has ridges of 38 and 48 fathoms. The tidal current on Petrel Bank is rotary, turning clockwise. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Petrel Bank. Links to a user guide for this service can be found in chapter 1 of this book.

(1178)

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(1179) **Bowers Ridge** extends north and west from Petrel Bank in a circular direction for nearly 250 miles. The ridge between the 1,000 fathom curves is 30 to 35 miles wide and contains several well-defined ridges. **Bowers Bank** about midway along the ridge had a least depth of 6 fathoms reported in 1971.

(1180)

Amchitka Island

(1181) **Amchitka Island**, 27 miles southwest of Semisopochnoi Island, has a northwest-southeast length of 34 miles and a greatest width of 4.5 miles. The southeast part is very low, the highest point being 351 feet. The northwest section is hilly and much higher, with peaks rising to 1,200 feet. The high land levels out toward the middle of the island to a low, rolling tundra and flat tableland. Many lakes and ponds are on the south half and a portion of the north half of the island. Most of the coast is fringed with reefs and extensive kelp beds. The shores are generally steep with many off-lying covered rocks, especially on the north shore and the east part of the south shore. Vessels should stay outside the 50-fathom curve, up to 4 miles off the north shore and 7 miles off

the south shore, unless proceeding to anchorage. Weak tidal currents have been observed along the south side of the island.

(1182) In 1986, Amchitka Island and the nearby surrounding waters were closed to the public. The island is a military reservation. (See **50 CFR 36.39**; not carried in this Coast Pilot.)

(1183)

Local magnetic disturbance

(1184) Differences of as much as 5° from the normal variation have been observed on Amchitka Island.

(1185) **South Bight**, 3 miles west of **East Cape**, is an excellent emergency anchorage on the south coast of Amchitka Island, offering shelter during north weather.

(1186) **East Cape** and **Column Rocks** are Steller sea lion rookery sites. There is a 3-mile vessel exclusionary zone around these rookeries that encompass the entire cape including South Bight and surround column Rocks. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

(1187)

Constantine Harbor

(1188) **Constantine Harbor**, on the north side of Amchitka Island 6 miles west of East Cape, provides a fair anchorage. Because there are no prominent features on the island, caution is necessary to avoid mistaking other indentations for Constantine Harbor.

(1189) The south side of Constantine Harbor entrance is foul for 0.5 mile offshore. On the north side a reef, covered less than 2 fathoms in places and marked by heavy kelp, extends almost 1.5 miles east of **Kirilof Point**. The head of the harbor is a sand beach; other shores are rocky bluffs.

(1190)

Currents

(1191) Currents in the entrance to Constantine Harbor are strong and set across the narrow entrance channel. North to northeast gales may force vessels anchored in the harbor out to sea. The harbor is reported free of williwaws.

(1192)

Local magnetic disturbance

(1193) Differences of as much as 5° from the normal variation have been observed in Constantine Harbor.

(1194) The 0.2-mile-wide channel between the reefs at the entrance can be made on course **235°**; depths are 20 to 30 fathoms. Once inside anchorage is available in 6 to 20 fathoms, fair holding ground in sand and shell bottom.

(1195)

Kirilof Bay to Rat Island Pass

(1196) **Kirilof Bay**, on the north side of Amchitka Island 8.5 miles west of East Cape, is suitable only for small boats. Breakers have been reported to run across the entire entrance to the bay.

- (1197) **Chitka Cove**, 24 miles northwest of East Cape, affords good protection from south and west weather. The approach is clear except for a 3-fathom shoal 0.7 mile northwest of **Chitka Point**. Anchor 0.7 mile offshore in 18 to 20 fathoms with good holding ground in sand bottom.
- (1198) Good protection from south winds can be had 0.7 mile offshore 1.5 miles east of **Bird Cape**, the northwest end of the island. The anchorage is midway between a kelp patch off the east side of the cape and a rock awash off the first small point to the east of the cape in 20 to 23 fathoms, sand bottom. Enter on course **170°**, heading for a prominent 50-foot-high pinnacle rock.
- (1199) Protection from north and northeast winds can be had about 1 mile offshore 12 miles along the south coast of Amchitka Island from **Aleut Point**, the west end of the island. The anchorage is midway between two prominent rocks in 17 to 20 fathoms, sand bottom. Enter on a north course.
- (1200) **Oglala Pass**, between Amchitka Island and Hawadax Island, is almost 10 miles wide; depths of 21 to over 30 fathoms can be carried through the middle of the pass. The current is somewhat rotary, turning clockwise. A 4-knot current has been measured in the middle of the pass; greater velocities may be experienced. Currents exceeding 7 knots have been encountered 1.5 miles northwest of Amchitka Island. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area, including Oglala Pass. Links to a user guide for this service can be found in chapter 1 of this book. During moderately heavy south weather, heavy tide rips extend across the pass at maximum ebb and attain heights of 30 to 40 feet under storm conditions. The pass should not be attempted by small vessels during south weather when the current is ebbing strongly.
- (1201) **Little Sitkin Island**, 32.5 miles west of Semisopochnoi Island, has a north-south length of 5.5 miles and an east-west width of the same distance. The interior is extremely rugged and mountainous; only the lower slopes are grass covered. There are two prominent peaks, one 3,897 feet high in the northeast part and the other 1,960 feet high in the south part. Numerous streams are on the island but no lakes or ponds. The coast is generally bold, rocky, and precipitous, with a fringe of kelp 200 to 400 yards wide. A bank with a least depth of 10 fathoms extends about 1 mile off the north shore. No dangers are more than 600 yards from the beach. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.
- (1202) The sloping beach in the bight 1 mile east of **Prokhoda Point**, the south end of the island, is abrupt and composed of large, irregular boulders. Temporary anchorage, protected from west and northwest winds, can be had 0.5 mile offshore 1.5 miles northeast of Prokhoda Point in 22 to 25 fathoms, sand bottom.
- (1203) A good anchorage in southwest weather is 600 yards offshore 2 miles northwest of **Pratt Point**, the east end of the island, in 20 fathoms, sandy bottom.
- (1204) An anchorage protected from south swells in 0.7 to 1 mile offshore just east of **Patterson Point**, the north end of the island, in 20 to 25 fathoms, sand bottom. However, the williwaws off the island reach gale force with only a moderate southwest wind and currents setting around the island cause tide rips.
- (1205) Anchorage in **Williwaw Cove**, just west of Patterson Point, is not recommended. The beach at the head is flat and sandy but bordered by several lines of breakers.
- (1206) The sloping beach at the head of **William Cove**, 2 miles west of Patterson Point, is abrupt and composed of large, irregular boulders. Small steam jets and hot springs are in the valley at the head of the cove.
- (1207) Small craft can anchor in the bight just north of **Sitkin Point**, the west end of the island, but strong williwaws are prevalent in east or northeast weather. A large prominent tan-colored bluff is at the head of the bight.
- (1208) Anchorage protected from the northeast is 0.5 mile offshore in 25 to 30 fathoms, 0.7 mile southeast of a prominent 100-foot islet about 1 mile south of Sitkin Point. The anchorage is fair in moderate northwest and east winds.
- (1209) **Little Sitkin Pass**, between Little Sitkin Island and Davidof Island, is 3 miles wide with depths of 48 fathoms or more in the middle part. Moderately heavy tide rips occur in the pass during the strength of the tidal current.
- (1210) **Rat Island Pass**, between Hawadax Island and the group of islands to the north, is 8 miles wide and has depths of more than 50 fathoms through a 4-mile middle width. Currents in the pass are moderate; some set may be expected opposite Little Sitkin Pass and Khvostof Pass. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.
- (1211) **Hawadax Island to Vulcan Point**
- (1212) **Hawadax Island**, 12 miles northwest of Amchitka Island, is 8 miles long with a greatest width of 2 miles. The interior is rugged and mountainous, and the shores are rocky. Most of the north coast is precipitous and fringed with reefs; small islets and a reef extend 2 miles southeast from **Ayugadak Point**, the east end of the island.
- (1213) Ayugadak Point is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the rookery. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)
- (1214) **Gunners Cove**, about midway along the north side of Hawadax Island, has depths of 1 to 12 fathoms but is

not suitable for anchorage. The bottom is smooth rock and the wind funnels through the cove. A prominent 50-foot cataract is at the head of the cove.

- (1215) Protection for small vessels in west weather is available off the entrance to Gunners Cove in 17 fathoms. Rocks and reefs on both sides of the cove restrict the swinging room. Larger vessels can anchor farther off the cove in 28 fathoms, sand bottom. The anchorage on the southwest coast of Little Sitkin Island offers protection from northeast weather.

- (1216) Fair anchorage during south weather can be had 2 miles east of **Krysi Point**, the west end of Hawadax Island, in 28 fathoms. The slope between the 20- and 30-fathom curves is less abrupt at this anchorage than elsewhere along the north coast; however, the bottom is irregular inside the 20-fathom curve.

- (1217) A good anchorage in north and east weather is 1.2 miles offshore midway along the south coast of Hawadax Island in 17 to 25 fathoms. The anchorage is 0.8 mile northwest of the offshore group of rocky islets, 20 feet high, that is the dominant feature along this coast. Approach the anchorage from the southwest, passing 0.6 mile west of the islets.

- (1218) **Davidof Island**, 7.5 miles north of Hawadax Island, is irregular in shape with a north-south length of 2 miles and a greatest width of 0.7 mile. The high point in the south part is 1,074 feet, and the summit in the north part is 922 feet high. The projecting east point of the island is marked by a prominent cone-shaped grayish-tan summit. An islet and a knife-edged pinnacle are close off the north end of the island.

- (1219) **Khvostof Island**, 1 mile northwest of Davidof Island, is 1.5 miles long and 0.8 mile wide. The interior is rugged and mountainous; the highest peak of 870 feet is in the west part. Prominent twin rock pinnacles are close off the north end of the island, and a low flat rock is 700 yards off the northwest shore. A 1½-fathom shoal is 0.4 mile off the north point of the island.

- (1220) The passage between Davidof Island and Khvostof Island is partially blocked by small and rugged **Pyramid Island**. The openings on either side of Pyramid Island are narrow and foul and have extremely heavy kelp. The blocked passage helps protect **Crater Bay**, northeast of Pyramid Island from southeast to southwest weather. Use of Crater Bay is restricted by a 2½-fathom shoal 0.6 mile north of Pyramid Island. The part of the bay between Pyramid Island and Davidof Island is clear but too deep for anchorage except close under the shore of Davidof Island, where small craft can find excellent protection. Small craft can also anchor, with limited swinging room, close under the northeast shore of Khvostof Island. Large vessels can anchor, free from tidal current, just inside the 30-fathom curve midway between the north end of Khvostof Island and the knife-edged pinnacle off the north end of Davidof Island.

- (1221) **Khvostof Pass**, between Khvostof Island and Segula Island, is deep and clear and may be navigated without difficulty. The pass is subject to heavy tide rips at strength

of spring currents, especially with moderate breezes from any direction.

- (1222) **Segula Island**, 10 miles northwest of Hawadax Island and the most west of the group on the north side of Rat Island Pass, has a north-south length of 4 miles and an east-west width of 3.6 miles. The island is a lone crater-topped mountain, rising to 3,784 feet. A prominent deep fissure is on the south face of the mountain. Just west of the break is a broad, grassy slope that extends to the rocky bluff midway along the south shore.

- (1223) **Iron Point**, on the southeast corner of the island, is a narrow, grass-covered, rock bluff 72 feet high; foul ground, marked by kelp and a breaker, extends 500 yards from the point. **Gula Point**, the northernmost tip of the island, is low, narrow, and grass covered. A distinctive dark, round-topped hill is at the end of the long ridge east of the small cove on the north side of the island, west of Gula Point. The cove entrance is nearly closed by reefs.

- (1224) On the south side of **Zapad Head**, at the northwest corner of the island, a prominent grass-covered slope rises gradually from the gravel beach of a small bight; protected anchorage for small craft is afforded in the bight during moderate northeast to southwest weather.

- (1225) A line of high, steep pinnacles extends west from **Chugul Point**, at the southwest corner of the island. Between Zapad Head and Chugul Point, irregular bottom, marked by heavy kelp, extends 800 yards offshore.

- (1226) **Segula Pass**, between Segula Island and McArthur Reef, is wide, deep, and clear. Courses through the pass should be shaped to clear Segula Island by at least 1 mile and McArthur Reef by at least 2 miles.

- (1227) **McArthur Reef**, 8 miles west of Segula Island and about the same distance east of Kiska Island, is a **menace to navigation**. The reef is about 0.8 mile in diameter, it does not uncover, and it does not break continuously even in a moderate swell at low water. The reef is not readily visible except close aboard and then can be identified only by a small area of slick water surrounding kelp.

- (1228) **McArthur Pass**, between McArthur Reef and Kiska Island, is deep and clear and can be navigated without difficulty.

- (1229) **Krysi Pass**, between Hawadax Island and Sea Lion Rock, has a jagged ridge covered in some places with only 2 to 4 fathoms that extends across it. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area. The pass is not recommended.

- (1230) **Sea Lion Rock**, 9 miles west-northwest of Hawadax Island and 8 miles east-southeast of Tanadak Island, is less than 200 yards in extent and is about 10 feet high. A thick kelp bed around the rock extends 2 miles east and the same distance west.

- (1231) **Sea Lion Pass**, between Sea Lion Rock and Tanadak Island, has depths of more than 20 fathoms over a 2-mile width near the middle. Sea Lion Rock is an uncertain target except in calm weather. Tide rips dangerous to small vessels may occur in the pass during spring tides. Tidal

currents of 4 knots have been observed. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(1232) **Kiska Island** is about 600 miles west of Unalaska Bay and is the most important of the Rat Islands because of its well-sheltered anchorage. It is about 22 miles long and varies in width from 1.5 to 6 miles. The island is very rugged and mountainous, the north end being dominated by **Kiska Volcano**. The crater of the volcano has two tips, the west and slightly higher being 4,004 feet high. Immediately south of the volcano is a low valley about 2 miles wide in which are several salt water lakes. The valley extends nearly across the island from a long, low stretch of shoreline on the west coast, and a narrow draw leads over a low ridge at the head of the valley to a small steep-to sand beach on the east coast.

(1233) Flat-topped, boulder-strewn ridges rise to over 1,000 feet between the lake area and Kiska Harbor. A low, narrow pass cuts across the island from the southwest corner of Kiska Harbor to a small, foul bight on the west coast. South of this pass, sharp, rugged ridges 1,500 to 1,700 feet high extend to the southwest corner of the island. These ridges are precipitous on their west sides but slope gradually on their east sides to the shore of Vega Bay. The valleys and lower slopes of the island are covered with tundra and grass, while the higher parts are generally bare and strewn with boulders, especially the ridges north of Kiska Harbor.

(1234) The shores of Kiska Island are mostly rocky and steep and bordered in many places by covered and uncovered rocks. Kelp fringes most of the island. Kiska Harbor and Vega Bay are the two principal indentations of the coast.

(1235)

Naval Defensive Sea Area and Airspace Reservation

(1236) Under the authority of Executive Orders 8680 of February 14, 1941, and 8729 of April 2, 1941, Kiska Island is a designated Naval Defensive Sea Area and Airspace Reservation. Restrictions imposed under the authority of the above executive orders have been suspended subject to reinstatement without notice at any time that the interests of national defense may require such action.

(1237) **Sirius Point** is a jutting rock ledge at the north tip of Kiska Island, and the coast for more than 2 miles in either direction is formed of irregular, steep rock cliffs and minor points. Deep water extends to within 0.5 mile of the shore. The sharp rocky point at the northeast corner of the island is topped by a grass-covered hill conspicuous from the northwest and southeast.

(1238) In 1965, a volcanic outgrowth was observed making out from shore for a distance of 0.3 mile on the west side of Sirius Point.

(1239) **Pillar Rock**, 118 feet high, is a perpendicular rock of remarkable form 9 miles west of Sirius Point and 6.6 miles from the nearest part of the island. **Sturdevant Rock**, covered about 7 fathoms, is 3 miles 282° from Pillar Rock.

(1240) **Northeast Rocks**, with a high point of 115 feet, and **Haycock Rock**, a lone 113-foot pinnacle 1 mile to the south, are 0.4 mile off the coast east of the volcano. These rocks mark the outer limits of an extensive foul area and are excellent landmarks for visual or radar navigation. Behind Northeast Rocks is a prominent red bluff that is frequently visible when the other parts of the island are obscured by low clouds or fog.

(1241) Between Haycock Rock and Sredni Point, 2.5 miles to the SW, is **Sredni Bight**, an open bight that affords good shelter from northwest weather in 15 to 20 fathoms, sandy bottom, 0.7 to 0.9 mile from the beach. The anchorage may be entered on a course of 285°, heading for the end of the bluff that marks the south side of the small, sandy beach at the head of the bight. Moderate williwaws may be expected, and swells enter the anchorage after a storm in the Bering Sea.

(1242) **Sredni Point** is sharp, sheer, and high. Southwest from the point to Reynard Cove and Salmon Lagoon, the high cliffs are bordered by detached pinnacles, rocks awash and submerged rocks. This section of coast should not be approached closer than 1 mile.

(1243) **Reynard Cove**, 2 miles southwest of Sredni Point, is blocked by a reef that extends nearly the entire width just inside the entrance.

(1244) **Salmon Lagoon**, 2 miles southwest of Reynard Cove and the same distance north of Kiska Harbor, can be entered with a pulling boat at high water, but the channel through the low, sand outer beach is sometimes closed and often shifts position.

(1245) In general, the waters adjacent to the Pacific side of Kiska Island, from Little Kiska Island to Cape St. Stephen, are irregular in depth. Broken bottom, within the 30-fathom curve, extends 1.5 to 2 miles offshore. Submerged pinnacles rise in deep water in Vega Bay, off Sobaka Rock, and off Cape St. Stephen. The several small bays and coves between South Pass and Vega Bay are unsuitable for anchorage.

(1246) **Vega Bay** is a broad indentation between **Bukhti Point** and **Vega Point**. The west part of the bay has irregular bottom, with a 2¼-fathom shoal 1 mile 070° from Vega Point. The rest of the bay is clear except for inshore rocks. In north or west weather, good anchorage can be found in 22 to 30 fathoms, sand bottom, off the entrance to **Gertrude Cove** in the northeast corner of the bay. A pair of gray pinnacles on the shore west of the cove bears 000° from the anchorage. The cove is a good anchorage for small vessels in all except southwest weather.

(1247) **Sobaka Rock** is 1.4 miles 155° from Vega Point. About 2.4 miles due west of the rock is a 2½-fathom shoal. Because of possible set by currents, particular care

is necessary to avoid this shoal in rounding the south end of Kiska Island. Heavy tide rips occur in this area.

- (1248) **Dark Cove**, small and shallow, is on the southwest side of Kiska Island just east of Cape St. Stephen. When the weather is rough outside, small boats have been able to land safely in the northeast corner of the cove. Landing is impracticable with a swell from the south-southwest.

- (1249) **Cape St. Stephen**, the southwesternmost point of Kiska Island, should be passed no closer than 3.5 miles to avoid broken ground in the area of the 8-fathom shoal 1.8 miles 230° from the south tip of the cape. Heavy tide rips occur in this area at strength of current.

- (1250) Cape St. Stephen and **Lief Cove** are Steller sea lion rookery sites. There is a 3-mile vessel exclusionary buffer zone around these rookeries. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

- (1251) From Cape St. Stephen, the shoreline that extends about 15 miles in a northeast direction to Witchcraft Point is in general steep and rocky and indented by several small bights. Deep water extends to within 0.5 to 0.8 mile of the shore for the first 12 miles. Several pinnacle rocks and rocks awash fringe this part of the coast.

- (1252) A prominent line of high rock pinnacles extends 700 yards offshore from **Witchcraft Point** on the northwest side of Kiska Island. South of Witchcraft Point low grass-topped bluffs, interrupted by the valleys of two stream beds, extend 2.7 miles to **Conquer Point**, a sharp and sheer rocky point at the foot of a razorbacked hill about 965 feet high. A $2\frac{3}{4}$ -fathom shoal is about 0.5 mile west-northwest, and two reefs with depths of 4 and 6 fathoms are about 1 mile off the latter point.

- (1253) Temporary anchorage for small boats can be had in the small bight on the south side of the razorback, having due regard for charted dangers. The bight has a sand beach.

- (1254) Anchorage, protected from moderate northeast to southeast breezes and swells, can be found in 25 fathoms, sand bottom, 0.8 mile off the coast 1.1 miles south of Witchcraft Point. The anchorage should be approached on a course of 110° , heading for the small valley about midway between Witchcraft Point and the razorback to the south. In this anchorage Witchcraft Point is on range with Vulcan Point.

- (1255) A low sand and gravel beach, with a prominent grass-topped knoll about midway of its length, extends 2.5 miles northeast from Witchcraft Point. Then begins a rock cliff coast that extends 1 mile north to **Vulcan Point**. Northeast from Vulcan Point to Sirius Point, a distance of 3 miles, the coast is rocky and steep with deep water close to shore.

- (1256) A reef, covered 5 fathoms, extends northwest from Witchcraft Point for 2 miles toward Pillar Rock, then east to a point inshore about 2 miles south of Vulcan Point. Heavy kelp marks the reef in the summer, and extremely large tide rips occur in the area at strength of current, especially during spring tides. It is not advisable to approach the reef closer than the 30-fathom curve. Small craft passing between the reef and Pillar Rock should do

so when the currents are near slack, which periods occur approximately at the same time as in Krysi Pass.

(1257)

Kiska Harbor to Tanadak Pass

- (1258) **Kiska Harbor**, midway along the east shore of Kiska Island, is formed by a small peninsula to the north that terminates at **North Head** and a broad peninsula to the south that is separated from Little Kiska Island by South Pass; **South Head** is the northeast point of the lower peninsula. The harbor proper is roughly circular with a 1.3-mile diameter, although anchoring depths extend an additional 0.5 mile to east. The northeast and south sides are rocky cliffs; the entire west side of the harbor is low and sandy except for several ridges that extend to the water's edge. A low valley opening out at about the middle of the west shore extends well back into Kiska Island. A low ridge parallels the north shore at a distance of about 0.5 mile.

- (1259) Depths do not exceed 17 fathoms inside a line between North and South Heads. The 10-fathom curve is 0.3 to 0.5 mile off the shores. Caution is necessary in anchoring to avoid fouling with the many wrecks and other obstructions in the harbor. The masts of one derelict show above water in 15 fathoms near the center of the harbor, and a $2\frac{3}{4}$ -fathom obstruction is just inside the 10-fathom curve off the west shore.

(1260)

Anchorage

- (1261) Anchorage is recommended in the central part of the harbor in 13 fathoms 0.7 mile 185° from North Head. Shelter from northeast to northwest weather can be found in 15 fathoms 700 yards 150° from the outer end of the main wharf. The bottom is hard sand with fair holding qualities.

- (1262) The shortest **route** to Kiska Harbor from Seattle with the best visibility is via Unimak Pass and the Bering Sea. From San Francisco the shortest distance is via Chugul Pass and Asuksak Pass, 20 miles east of Adak Island, thence north of the Aleutian Islands to Kiska Harbor; however, a direct route through Amchitka Pass and Rat Island Pass is only a few miles farther. Oglala Pass can also be used for the approach from the south. Offshore dangers in the approach to Kiska Harbor are McArthur Reef and the 4-fathom rock 1.3 miles north of Tanadak Island.

- (1263) A ship pier and a small-craft pier are on the north side of Kiska Harbor. The ship pier extends 500 yards out from the shore in a southeast direction. In 1999, it was reported that most of the ship pier was in disrepair and that it was only usable by vessels drawing less than 15 feet. Also, only the shoreward 75 feet of the pier is usable to smaller vessels.

- (1264) **Little Kiska Island**, 0.5 mile east of South Head on Kiska Island, is 3.2 miles long and 1 mile wide. The island is low and rocky, the highest point being 430 feet. The shores are, in general, rocky and often precipitous,

although there is a small stretch of low beach facing on South Pass. The coasts in most places are fringed by covered and uncovered rocks; a group of islets or rocks extend about 700 yards from the west end of the island.

- (1265) Anchorage with fair protection from the north can be found in 20 fathoms, irregular rocky bottom, south of the center of Little Kiska Island. The highest peak, with two knobs at the summit, should bear due north.

- (1266) **South Pass**, between Kiska and Little Kiska Islands, is a narrow approach to Kiska Harbor from the southeast. **Twin Rocks** is a group of small islets on the west side of the south entrance. A 2-fathom rock that breaks in rough weather, 1.2 miles northeast of Twin Rocks, is a danger to vessels approaching the pass from the south.

- (1267) A 100-yard wide channel with a swept depth of 24 feet is between a pinnacle covered 11 feet 230 yards northeast of South Head and the near shore. East of this narrow channel, kelp patches show across South Pass to Little Kiska Island during slack water. Only light-draft vessels with local knowledge should use South Pass.

- (1268) The current velocity is 4 knots in South Pass, the flood setting north and the ebb south. The ebb current is particularly strong south of the pass.

- (1269) **Tanadak Island**, 2.7 miles east of Little Kiska Island and 8 miles west of Sea Lion Rock, is a small grass-covered plateau; cliffs rise from the water's edge or close behind it. Foul ground extends for more than 0.5 mile from the shores; irregular depths of less than 10 fathoms extend 4 miles southeast of the island.

- (1270) **Tanadak Pass**, between Tanadak and Little Kiska Islands, is 2.5 miles wide but is full of shoals with depths of 2 to 9 fathoms. A 225-yard-wide channel with a least depth of 12 fathoms is 0.6 mile west of a prominent 20-foot rock, the most west of those off Tanadak Island. A current velocity of 2.8 knots has been measured in the pass. Tanadak Pass is not recommended for deep-draft vessels.

(1271)

Caution

- (1272) Heavy seasonal growth of kelp completely fills Tanadak Pass and surrounds Little Kiska Island.

(1273)

Pilotage, Kiska Harbor

- (1274) Pilotage, except for certain exempted vessels, is compulsory for all vessels navigating the waters of the State of Alaska.

- (1275) Kiska Harbor is served by the Alaska Marine Pilots. (See **Pilotage, General** (indexed), chapter 3, for the pilot pickup stations and other details.)

(1276)

Buldor Island to Tahoma Reef

- (1277) **Buldor Island** is an isolated island between Kiska Island and the Semichi Islands. This island forms an excellent landmark for the west Aleutians. The island is about 4 miles long and 2 miles wide, rugged and mountainous. The highest summit, 2,150 feet, is on the

south part of the island. Two lesser summits, 2,013 and 1,768 feet, are on the northeast end. High, steep landslides are along the east end and on the southwest side. The shores, in general, consist of cliffs either rising from the water's edge or backing, narrow rock and sand beaches. The island is a bird refuge.

- (1278) A chain of bold rocks and conspicuous islets extends 1.2 miles northwest from Buldor Island. The outermost of the three islets is 442 feet high, dome shaped, and an excellent landmark. It can often be seen by vessels passing to the north when Buldor Island is obscured by fog or thick weather. Tide rips are generally in evidence along the submerged ridge that extends 1.8 miles northwest from the islet, but no dangerous shoals or reefs are on the ridge.

- (1279) At the east end of the island are several groups of rocks, the farthest being about 0.3 mile offshore. The south coast is foul alongshore and should be approached with caution. Other shores are less rocky. Heavy kelp nearly encircles the island and probably marks all inshore dangers. Vessels passing Buldor Island on any course should stay outside the 50-fathom curve.

- (1280) The southeast to the northwest shore of Buldor Island is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around this rookery that encompasses the entire island. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

- (1281) The anchorage on the northwest side of Buldor Island is the shallow bight formed by the island and the chain of rocks and small islets that extend to the northwest. With the exception of the narrow valley opposite the anchorage, the slopes rise precipitously from the shoreline to the peaks. The sandy beach at the mouth of the valley affords the best landing on the island, and a small stream empties into the bight at this point. Good anchorage, free from strong currents, can be found in 15 fathoms, sand bottom, with the middle of the beach bearing 170° . The anchorage affords adequate protection in fresh southeast to southwest weather but not in severe storms from any direction. Anchorage suitable for moderate east weather can be found in 15 to 20 fathoms 1 mile from shore just south of the chain of rocks and islets.

- (1282) Extending southeast from Buldor Island to Kiska Island is a submerged ridge that is marked by heavy tide rips. **Buldor Reef**, 18 miles along the ridge from Buldor Island, is about 5 miles long and 0.5 mile wide. The dangerous part of the reef includes two areas where breakers can be observed. The east area is estimated to have depths of 2 to 3 fathoms over it. The west area, covered 3 fathoms, is of considerable extent and marked by heavy kelp beds.

- (1283) A depth of $2\frac{1}{2}$ fathoms is about 14.5 miles east-southeast of Buldor Reef in $52^\circ06.5'N$, $176^\circ45.0'E$. Breakers 8 to 10 feet high and seaweed have been sighted in the vicinity of the $2\frac{1}{2}$ -fathom spot. In 1975, soundings of 13 fathoms were recorded within 100 yards of the $2\frac{1}{2}$ -fathom spot. A sonar evaluation indicated that this

area may be a seamount about 300 to 500 yards wide. Mariners are urged to exercise caution in the area.

(1284) In 1981, a 14-fathom spot was reported about 9.4 miles south-southwest of the 2½-fathom spot, in about 51°57'35"N., 176°39'48"E.

(1285) Currents up to 5 knots were encountered in the area of shoals between Kiska and Buldir Islands. The set was to the north or northeast on the flood. Northwest of Buldir Island the set was always north. Currents are believed to be moderate except near shoals or islands.

(1286) **Middle Reef**, a rocky shoal covered 3 fathoms, is 22 miles south of Buldir Island; it is not marked by kelp. Thin kelp extends for 1 mile south of the reef, and from the appearance of the area on the swell, depths of less than 3 fathoms probably exist.

(1287) **Tahoma Reef**, upon which the cutter TAHOMA was lost in 1914, is 33 miles south of Buldir Island. The main reef, which has an east-west length of 1.3 miles, breaks at the east end in a light swell and for its entire length in a moderate swell. Kelp beds extend 1 to 3 miles from all sides of the reef. A current velocity of 1.5 knots was observed in the vicinity of the reef. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(1288)

Near Islands to Ingenstrem Rocks

(1289) The **Near Islands** include the Semichi Islands and Attu and Agattu Islands.

(1290) The **Semichi Islands** are Shemya, Nizki and Alaid. Shemya Island, the easternmost of the group, is about 65 miles west-northwest from Buldir Island. Alaid Island, the westernmost, is about 16 miles east by south from Attu. The group trends west-northwest over a distance of 11.5 miles. The islands have numerous lakes, are covered with tundra and are treeless. The shores are fringed with reefs and rocks, some as far as 1 mile offshore.

(1291) Currents estimated to exceed 1 knot occur east and west of the Semichi Islands and in the passes between them. South currents have been reported in the area between the Semichi Islands and Agattu.

(1292) **Ingenstrem Rocks**, 14 miles southeast from the east end of Shemya Island, is a group of four visible rocks and several others that uncover. The highest and northernmost of the group is 9 feet high. The rocks are in an area about 350 yards in diameter.

(1293) Depths of 3 to 9 fathoms extend 2.2 miles southeast from the 9-foot rock. This reef probably breaks along its entire length during heavy weather. Vessels should not approach the rocks closer than 3 miles on the southeast and 2 miles on the north and west.

(1294)

Shemya Island to Hammerhead Island

(1295) **Shemya Island**, 3.8 miles long and 1.8 miles wide, slopes gradually from the shoreline on the south to a round bluff 250 feet high along the north shore. A 111-foot tall building is at the top of the bluff. An aero radiobeacon is at the west end.

(1296) The shoreline of Shemya Island is generally fringed with reefs except for a few short stretches of sand beach. Rocks, kelp and shoals extend 0.6 mile north of the north point of Shemya. The outermost offshore danger is a 3½-fathom shoal, 0.6 mile off the north shore.

(1297) Several prominent rocky islets, highest 56 feet, are 0.7 mile off the northeast coast of Shemya Island. About 0.3 mile northwest of these islets is a rock covered 3 feet, which breaks much of the time. Foul area extends offshore to within 0.2 mile of the rocky islets. Between the outer end of the foul area and the islets is a channel that may be used by launches.

(1298) The waters for 1.2 miles east and south of the east point of Shemya Island are foul with visible and covered rocks; the area is marked by kelp. Shoals with depths of 9 fathoms or less and marked by kelp in the summer are 4 miles south and south-southeast of the point.

(1299) **Alcan Harbor**, on the northwest side of Shemya Island, is protected on the east and south, somewhat protected on the west, and wide open to north weather. When the seas are running, breakers can be seen along the submerged remains of a former breakwater that extends about 0.4 mile north from the point on the west side of the harbor. A wreck marks the end of the point, and the submerged remains are marked by kelp. Several rocks are visible at low tide up to 100 yards north of the point; mariners are advised to exercise extreme caution in this area. In the middle of the harbor lies a wreck on a reef that is marked by kelp. Depths in the harbor cannot be relied upon because of the frequent changes, and vessels should be extremely careful of the natural and structural hazards. A strong current was observed entering the harbor from the north, move in a clockwise direction around the head of the harbor and exit west past the point.

(1300) **Danger Area – Unexploded Ordnance** – Despite Alcan Harbor having been cleared in 1959, some ordnance, over time, has reportedly been found to have settled back into the area. The Air Force considers the entire harbor area dangerous and likely to contain unexploded ordnance. Extreme caution is advised.

(1301) The south side of Shemya Island is mostly fringed with reefs and rocks that extend as much as 1 mile off, but there are short stretches of sandy beach. **Skoot Cove**, 0.7 mile from the west end of the island, has depths of about 2 fathoms, and small boats may find shelter here when weather conditions prevent landings in Alcan Harbor. It was reported that the submerged remains of a former breakwater extend about 100 yards seaward in a 150° direction from a point (52°43'00"N., 174°04'15"E.) on

the west side of the cove. The cove has been used as a dump and is reported to be filled in north of 52°43'N.

- (1302) **Hammerhead Island**, 55 feet high and 0.5 mile west of Shemya Island, is the southernmost of several small islands surrounded by foul ground near the middle of **Shemya Pass**, which is between Shemya Island and Nizki Island. The controlling depth through the passages on either side of Hammerhead Island is about 13 feet, but the east passage is the preferable of the two. During stormy weather or when swells are running high in the Bering Sea or the Pacific, heavy breakers are likely to be encountered in the passages.

(1303)

Nizki Island to Alaid Island

- (1304) **Nizki Island**, between Alaid and Shemya Islands, is 3 miles long and 1 mile wide and is nearly connected to Alaid by a shifting sandspit. The island with a high point of 165 feet is lower than either Alaid or Shemya. The shoreline is very irregular and is fringed by numerous rocks, reefs and kelp-marked shoals. Narrow channels between the reefs lead to small coves that provide shelter for small boats.

- (1305) During northwest to northeast weather there is good protection in an anchorage 1 to 2 miles south of the narrow passage separating Nizki and Alaid Islands in 10 to 20 fathoms, hard bottom.

- (1306) **Alaid Island** is 3 miles long and about 1 mile wide. The east part is low rolling tundra; the west part is made up of four hills, two of which are over 600 feet high. Most of the shoreline is rocky and fringed with reefs, but there are several bights that might provide anchorage for small boats in an emergency.

- (1307) A dangerous 1-fathom shoal is 0.9 mile west of the west end of Alaid Island. Seas pile up on this shoal, and much of the time it is marked by a breaker. Currents are strong in the vicinity and cause rips when the wind and sea are opposed. The deep channel between this shoal and the shore reefs may be used by launches under favorable conditions, but is not recommended for large vessels.

(1308)

Attu Island

- (1308.001) **Attu Island**, the westernmost of the Aleutians, is 15 by 35 miles in extent and is indented by many bays and long inlets. The terrain is rugged and has practically no large level area. The bays on Attu Island offer a striking similarity. They are apparently formed by submerged valleys between mountain ridges. The heads of the bays are fed by streams that have carried down enough sand to give a good holding ground. The exception to this is Holtz Bay, which is rock and sand. At the head of each bay is a crescent-shaped sand beach with a more or less high bank of sand across the middle. A course down the middle of the bay, with the exception of Massacre Bay, was found to be clear; all that have been investigated show deep water close inshore. Some have rocks along the shore but these

are easily seen. Anchorages are in from 10 to 15 fathoms, sand bottom. The best method is to head into the bay until these depths are reached and anchor. At the heads of most of the bays are barabaras (huts) built by the Aleuts for use during the fur-trapping season.

- (1309) <Deleted Paragraph>

(1310)

Currents

- (1311) Strong currents may be encountered along the north coast of Attu Island, and while variable, the consensus seems to be that they follow strong winds and are noticeably affected by the weather. In calm weather the set is generally southeast.

- (1312) Survey operations in recent years have roughly defined tidal currents crossing the chain here, setting in a general northwest and southeast direction at the flood and ebb, respectively, except as diverted by shoal and land areas. Slacks follow the times of local high and low water except for a lag at times as great as 1 hour.

(1313)

Chirikof Point to Casco Cove

- (1314) **Chirikof Point** is the end of the long peninsula jutting east from Attu Island. This peninsula forms the north side of Massacre Bay and its approaches and the south side of Sarana Bay. It is mountainous and has several deep valleys running approximately north and south across it. Its shores are rock or boulders; it has rocky bluffs on the north shore, and like most of the land areas in the Aleutians, gentler slopes and fewer bluffs along the south shore. **Alexai Point**, midway along the south side of the peninsula, is flat and low with sand beaches in the east and west bights. Foul areas surround this point for 1 mile. The channel to Massacre Bay passes 0.8 mile southwest of this point.

- (1315) As a rule the peaks on Attu Island are clouded in and are of little use to the navigator in making a landfall. Peaks on the peninsula are no exception to this rule. The lower hills and summits on Chirikof Point are frequently clear when the peaks are cloud covered and consequently a landfall here is not as difficult. The end of the point is paralleled by a ridge of varying elevation, more or less crescent shaped, that extends from the southeast to the northeast extremities of the point. The highest part of this ridge is a peak 1,315 feet high, approximately at the center of the point (north and south). The ridge terminates at its northeast end in **Buchanan Point**, a prominent knob and headland 320 feet high. To the south and southeast of the summit, the ridge slopes down to a prominent 755-foot knob-topped hill and then drops still lower to a flat ridge carrying out east to the end of **McCloud Head**.

- (1316) A prominent black islet, 10 feet high, is about 0.5 mile north-northeast of Buchanan Point. Low rock ledges, mostly bare at high water, make out in an east direction from the south part of the point. A fair anchorage in 15 to 25 fathoms, sand bottom, can be had in the bight between

the two extremities of the point with good protection in southwest to northwest weather.

- (1317) A 2-foot-high rocky islet is 2.4 miles east-southeast from McCloud Head. East, south, and southwest of this islet for 0.8 mile are shoal areas of 7 to 10 fathoms. No dangers were found except close in to the islet, but the area should be avoided and the rocky islet approached no closer than 1 mile as the bottom is ragged and currents are strong. A safe channel exists west of this islet and 1 mile east of McCloud Head.

- (1318) Reefs and kelp patches extend off the shoreline between Alexai Point and McCloud Head to a distance of 0.5 mile. Anchorage can be had under this shore inside the 20-fathom curve, having due regard for the charted foul areas. The bottom is hard, however. A prominent waterfall on this shore is about mid-distance between the two points.

- (1319) **Massacre Bay**, on the south side of Attu Island 6 miles west of Chirikof Point, is 4 miles wide between Alexai Point on the east and **Murder Point** on the west and recedes for about 3.5 miles in a north direction. Numerous shoal areas obstruct the bay, but wire-dragged channels lead to the harbors.

(1320)

Caution

- (1321) Earthquake activity in 1975 in the Attu Island area has caused a bottom uplift of 4 to 7 feet at various locations in Massacre Bay. Until more complete information is developed, mariners are advised to exercise extreme caution as depths may vary from those charted and mentioned in the Coast Pilot.

(1322)

Anchorage

- (1323) Anchorage in Massacre Bay can be had in 10 to 20 fathoms; the bottom is volcanic ash and sand with some clay. The bay is protected on the north, east, and west by Attu Island, and in south weather heavy swells are broken up by off-lying reefs.

- (1324) It was reported that the piers at the head of Massacre Bay and in **Pyramid Cove** were in ruins at the surfline, and only the pier in **Navy Cove**, close northeast of Pyramid Cove, was usable in this area. Numerous obstructions were reported to exist in Pyramid Cove and in the rest of the bay. Shallow-draft craft can tie up to dolphins behind the breakwater in the southwest part of **Casco Cove**, which is midway between Pyramid Cove and Murder Point, 2.3 miles to the south.

(1325)

Pilotage, Attu Island

- (1326) Pilotage, except for certain exempted vessels, is compulsory for all vessels navigating the waters of the State of Alaska.

- (1327) The Aleutian Islands are served by the Alaska Marine Pilots. (See **Pilotage, General** (indexed), chapter 3, for the pilot pickup stations and other details.)

(1328)

Sarana Bay to Holtz Bay

(1329)

Sarana Bay is 5 miles west of Chirikof Point and on the opposite side of the peninsula from Massacre Bay. From Buchanan Point to the head of Sarana Bay the shoreline is rocky and precipitous with few valleys of appreciable depth. Mountainous terrain carries abruptly to the water with few off-lying rocks or ledges except at the small points. The south side of the bay and approaches consist of rock bluffs with close inshore rocks and pinnacles. **Square Point**, 3.5 miles west of Buchanan Point, is difficult to identify as none of the numerous points in this locality are prominent; however, the waterfalls on either side of Square Point are fairly prominent.

(1330)

The head of Sarana Bay and also Hodikof Bay are low sand beaches. At **Hodikof Point** rocky bluffs begin again and continue to Holtz Bay. A chain of rocks and reefs, including **Hodikof Island**, makes out about 1.2 miles east from the small point at the north side of the inner bay. North of this chain of reefs is **Hodikof Bay**. A small-boat passage is west of Hodikof Island between Sarana Bay and Hodikof Bay. A low single-pinnacle rock, 4 feet high, is off the approaches to Hodikof Bay about 0.5 mile southeast of Hodikof Point. About 0.7 mile east-northeast of Hodikof Point is an extensive area of irregular bottom with a least depth of 1½ fathoms, which breaks in a heavy swell.

(1331)

Sarana Bay is not recommended as an anchorage except for medium and small craft, as a cable area extends through the middle of the bay and in the position of the only ship anchorage. Smaller craft may anchor north or south of this area depending upon weather conditions or in Hodikof Bay. Also an emergency anchorage may be had along the shore west of Chirikof Point in not less than 15 fathoms, but the bottom is hard and irregular and is subject to considerable current. Hodikof Bay seems to be the best anchorage for medium and small craft in this locality but it should be entered with suitable visibility. Approach on a west course, passing 400 yards south of the 4-foot rock off Hodikof Point. Anchor in the middle of Hodikof Bay in 10 to 12 fathoms, sand bottom. This anchorage is exposed to weather from the north around to the southeast. Southeast to southwest winds blow with considerable force in Sarana Bay, probably augmented in funneling through the passes across the peninsula. Their effect in Hodikof Bay is not known.

(1332)

Kelliher Cove is a small bight 0.5 mile south of **Khlebnikof Point**. Small craft may obtain shelter from weather from south to northwest. The shores are rocky except at the head of the cove, which has a short gravel beach. The bottom is hard.

(1333)

From inner Sarana Bay to Holtz Bay the coast is rocky but with gentle slopes back to the mountains in the interior. East of and close inshore from Khlebnikof Point are off-lying rocky islets, 5 to 15 feet high, that serve as

landmarks when cruising close inshore. **Middle Peak**, 2,000 feet high, is the highest point between Sarana Bay and Holtz Bay but is usually covered by clouds.

- (1334) **Gibson Islands** are on the north side of the entrance to Chichagof Harbor; the largest island is a flat-topped grass-covered island, 104 feet high. The smaller islets at the southeast limits of this group are bare pinnacles. **Cooper Islands**, 0.5 mile west of Gibson Island, may be identified by the sheer pinnacle, 125 feet high, constituting the south half of the middle island.

- (1335) **Kennon Island**, a 92-foot grass-covered island about 0.3 mile long, is at the northwest side of the mouth of Chichagof Harbor. A narrow and shoal channel into the harbor is west of this island. **Middle Rocks** and **Inner Rocks** are low bare rocks 10 to 20 feet high. Middle Rocks are adjacent to and east of Kennon Island; Inner Rocks are adjacent to and south of the island. The main channel is southeast of these rocks.

- (1336) **Pisa Point**, on the south side of the harbor entrance, is a low point ending in a reef. **Pisa Tower** is a prominent leaning pinnacle 44 feet high on the point. A rock that uncovers is 140 yards north of the point.

- (1337) **Chichagof Point**, between Chichagof Harbor and Holtz Bay, is reasonably flat and 300 feet high. The shores are rocky bluffs.

- (1338) **Chichagof Harbor** is small in area and shoal and holding bottom is poor, but it is well sheltered, although southeast to southwest winds appear to funnel through the valleys into the bay with augmented velocity. There is little or no current effect. The bay is about 0.7 mile wide and allows little swinging room except for small craft. About 18 feet at low water can be carried into the head of the harbor where depths are about 6 fathoms. Turns are sharp for medium craft. Fifteen feet is recommended as the maximum draft of vessels entering this harbor because of the concrete anchor clumps that stand 3 to 4 feet above the bottom. The bottom is mostly hard or gravel.

- (1339) The head of Chichagof Harbor is a sand beach divided into two parts by a rocky point. Other shores of the bay are ledge or boulders. The north part of the bay, southwest of Kennon Island, is shoal and is recommended for small craft only. In the central part of the bay is a relatively large area of depths from 15 to 18 feet, with scattered kelp. The channel is north and west of this area. The village of **Attu**, at the head of the bay, has been razed. There is a dock, suitable for small craft, on the southwest side of the bay. Depths at the dock shoal from 10 feet at the outer end to 4 feet 50 yards inshore. A road leads across the island to Massacre Bay.

- (1340) **Range Point** is 400 yards southwest of Inner Rocks. A 2½-fathom spot is 200 yards north of Range Point.

- (1341) **Holtz Bay**, the first bay west of Chichagof Harbor, is the largest and the most spectacular on the north coast of Attu Island. It is a broad-mouthed bay thrusting deeply into the island and having bluff-bordered beaches backed by tundra-covered mountain masses on both sides.

- (1342) The head of the bay is divided into two arms, separated by **Center Point**, a promontory about 500 feet high and having moderate, tundra-covered slopes. At the head of each arm is a broad sandy beach with low valleys beyond cutting back into the interior.

- (1343) Holtz Bay is free from dangers except for inshore reefs. It may be entered on any course provided the shoreline is given a berth of at least 0.5 mile until the inner arms are reached. When 0.5 mile from Center Point and about abeam of a rocky islet off the west shore, take up a midchannel course down either arm. Anchor in 5 to 6 fathoms in **West Arm** and in 6 to 7 fathoms in **East Arm**. Vessels also anchor at the entrance to West Arm in 10 fathoms. The bottom in most of Holtz Bay is a fine gray sand, with shells and some boulders. The holding properties are fair.

- (1344) Holtz Bay offers protection from south and west weather, but strong winds may draw up through the passes, especially in the fall and winter. One vessel reports having had an excellent lee from strong west winds when anchored in 17 fathoms in the central part of the bay about 0.6 mile off Center Point. The bay is wide open to storms from the north and east.

(1345)

Austin Cove to Kresta Point

- (1346) West of Holtz Bay the north coast of Attu Island is precipitous, rugged and fairly straight for 7 miles. A number of reefs and rocks, all less than 0.3 mile from shore, are off this coast. Except for these inshore rocks this stretch of coast is free from dangers.

- (1347) **Austin Cove** is an open bight about midway in this 7-mile stretch of coast. It offers some protection from south weather to small boats anchoring close inshore. A ledge terminating in a rock awash at high tide makes off the west side of the cove. A rock ledge, which projects from the inner part of the cove for 0.3 mile, must be avoided.

- (1348) **Steller Cove** is a wide bight in the coast about 10 miles west of Holtz Bay. Three open coves further indent the coastline of this bight. The shoreline is bluff-lined except for the stretches of sandy beach in the middle and west coves. The only dangers to navigation are the close inshore rocks.

(1349)

Local magnetic disturbance

- (1350) Differences of as much as 4° from the normal variation have been observed in Steller Cove.

- (1351) The westernmost of these coves offers the best anchorage. Some protection from south and west weather may be obtained here. To enter the anchorage, steer **210°**, heading about 200 yards west of a prominent grassy knoll at the head of the cove. Anchor in 8 or 9 fathoms, with a fine gray sand bottom. The holding properties of this anchorage are fair. The anchorage offers no protection, however, from north weather. A current setting east along

the shore may cause a vessel to lay in the trough of the sea and roll excessively.

- (1352) **Red Head**, on the west side of Steller Cove, has a bluff-lined shore with a tableland sloping inland to mountains 1,860 feet high. The upper slopes of these mountains show bare and red and form a distinctive landmark in this region. A shoal area extends north from Red Head, and marked currents swirl around this point. Red Head should be passed at least 1 mile off.

- (1353) The only dangers from Steller Cove to the west end of Attu Island are the inshore reefs. Vessels can follow the coast with safety 1 mile or more offshore.

- (1354) For several miles west of Red Head a low flat strip of land about 0.5 mile wide is between the shoreline and the mountains. Several conspicuous boulders are scattered over this flat. The most conspicuous, a block of rock about 20 feet high in 53°00.8'N., 172°46.4'E., forms an excellent landmark.

- (1355) **Earle Cove**, 7 miles west of Steller Cove, is at the west end of the belt of flatland. At the entrance to this small cove are several rocks, but anchorage for small boats may be had in 10 fathoms 0.2 mile southwest of the larger rock in the cove entrance. Another anchorage in 11 fathoms may be had 0.2 mile south of this same rock. Care should be taken in approaching the anchorage to avoid the kelp and foul ground off the east point of the cove.

- (1356) The shoreline for several miles west of Earle Cove is craggy and precipitous, rising rapidly to peaks over 2,000 feet high. **Kresta Point**, 8 miles northeast of Cape Wrangell, is a prominent bold headland and marks the west end of this section of rugged coastline.

- (1357) West of Kresta Point two small valleys make down to the coast, ending in a stretch of easy-sloping shoreline about 1 mile long. West of these valleys is another region of high mountains and craggy, precipitous shoreline, with a bold headland at its west end. This headland is 5 miles east of Cape Wrangell.

- (1358) Two small coves are southwest of this headland. West, between the coves and Cape Wrangell, the shore is bold and precipitous, with a few islets, rocks and reefs near the shore.

- (1359) The current sets east on the flood and west on the ebb along the north coast of Attu Island near Cape Wrangell. Velocities of 1.5 knots have been observed and may reach 3 knots during spring tides. A current velocity of about 1 knot, 5 miles northeast of Cape Wrangell, sets east-northeast on the flood and south-southwest on the ebb.

(1360)

Cape Wrangell to Theodore Point

- (1361) **Cape Wrangell** is the westernmost extremity of Attu Island. The cape appears as a string of rocky, rugged islets, about 150 feet high, reaching out from a mountainous ridge. This ridge is bold and steep with a summit about 1,800 feet high.

- (1362) On **Peaked Island**, just off the cape, a natural bridge and buttress forms an opening that has the deceptive appearance of a large patch of snow against the dark rocks. This is a distinctive landmark to vessels north and south of the cape.

- (1363) A rock 3 feet high is about 0.3 mile west of Peaked Island. Breakers usually mark this rock.

- (1364) Cape Wrangell should be rounded at 1.5 miles distance. At maximum current the heavy tide rips extend for about 3 miles off the cape.

- (1365) Southeast of Cape Wrangell, inshore currents were observed setting east at times.

- (1366) Cape Wrangell is a Steller sea lion rookery site. There is a 3-mile vessel exclusionary buffer zone around the rookery. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

- (1367) Between Cape Wrangell and Etienne Head, the mountainous coastline is indented by two coves. A shingle beach is at the north end of **Wrangell Cove**, the east of the two. Small boats have made landings on this beach.

- (1368) **Etienne Head** is a moderate-sized headland about 120 feet high. A group of large black rocks and reefs is off the headland.

- (1369) **Etienne Bay** is the first large bay east of Cape Wrangell. It is broad and open and has high mountains on both sides and a long sandy beach at its head. A low valley and a pass run inland from this beach.

- (1370) The bay is clear of dangers to navigation except for the reefs and kelp patches that border the east and west shores. The west shore should be given a berth of at least 0.5 mile. The bottom shoals gradually as the bay is entered. Deep-draft vessels can anchor in 14 fathoms in midbay about 1 mile from the head. The bottom is fine green sand and pebbles and has fair holding properties.

- (1371) A perpendicular-sided table-topped shelf about 500 feet high is on the east shore 1.5 miles from the head of the bay. This makes a good landmark from seaward.

- (1372) Etienne Bay is wide open to south and west storms and because of the lack of protection is not recommended as an anchorage except in north or east weather.

- (1373) **Mikhail Point** marks the southeast approach to Etienne Bay. It is a broad, gently sloping headland with a terrace-sided shoulder near its northwest part.

- (1374) A narrow-mouthed cove cuts into the southeast tip of Mikhail Point. This cove offers good protection to small boats, but the swinging room is very limited.

- (1375) Mikhail Point should be given a berth of at least 0.5 mile by deep-draft vessels.

- (1376) **Abraham Bay**, east of Mikhail Point, is the second major bay east of Cape Wrangell. It is wide mouthed, narrowing to an inner arm at the northeast end. This arm has parallel shores and a short, sandy beach at its head. The mountains surrounding Abraham Bay rise steeply from the shoreline to between 1,500 and 2,000 feet high. The steep, rugged slopes of the inner arm give it a fiord-like appearance.

(1377) An unusually large waterfall on the northwest shore of Abraham Bay, 2.5 miles east of Mikhail Point, is a conspicuous landmark, even to ships offshore.

(1378) A group of rocks and reefs mark the west side of the approach to the inner arm of Abraham Bay. The highest of these, a steep-sided rock 48 feet high, is an excellent landmark for vessels entering the bay. Vessels should steer a course to pass not less than 0.5 mile off this rock, rounding it at that distance and then heading toward the middle of the sand beach at the head of the inner arm. Anchorage is found east of the innermost low flat reef in 13 fathoms, gravel bottom. The holding properties are only fair. This anchorage offers some protection from north and east storms, but is exposed to the west and south. In addition, fierce strong winds often draw through the inner arm when no winds are noticeable off the approaches to the bay.

(1379) The east shore is clear of dangers except for the almost continuous string of reefs close inshore. The greatest dangers are the rocks almost 0.4 mile offshore 1 and 2.5 miles north of Chuniksak Point.

(1380) **Chuniksak Point**, between Abraham Bay and Nevidiskov Bay, is a broad, three-pointed promontory sloping moderately upward and back to two mountain ridges.

(1381) Small-boat landings have been made in the cove just northwest of the easternmost point of Chuniksak Point.

(1382) A current with a west set has been noticed close inshore around this point.

(1383) **Nevidiskov Bay**, on the southeast side of Chuniksak Point, is a fairly open, two-armed bay, surrounded by an irregular terrain of mountain ridges and valleys. Nevidiskov Bay is fairly clear of dangers and may be entered on any course, except that Chuniksak Point should be given a berth of at least 0.5 mile and Theodore Point a berth of at least 1 mile.

(1384) The steep sided, rocky islet, 38 feet high, south of the point separating the two arms of the bay is a landmark for vessels entering the bay.

(1385) At the head of the east arm of Nevidiskov Bay is a flat, sandy beach. Vessels of any draft can anchor off this beach in 15 to 17 fathoms, 0.7 to 1 mile east of the 38-foot islet. The bottom is fine gray sand mixed with small round boulders. It has fair holding properties.

(1386) This bay offers shelter for any draft vessel from northwest through northeast to southeast storms. It is open and exposed, however, to storms from the southwest quadrant.

(1387) Low rocks and reefs fringe most of the east shore of the bay for as much as 0.3 mile offshore. Kelp is found over and around these rocks.

(1388) The west arm of Nevidiskov Bay is constricted and has a rocky, submerged ledge across its inner part.

(1389) **Theodore Point**, between Nevidiskov Bay and Temnac Bay, is a bluff promontory sloping moderately to a knoll-like shoulder and then steeply to the mountain ridge behind. Theodore Point is the southernmost promontory of Attu Island, and the knoll-like shoulder is a

conspicuous landmark for vessels southeast or southwest of the point.

(1390) Reefs and rocks fringe Theodore Point on all sides for about 0.3 mile. Kelp patches cover and surround most of these reefs. A dangerous pinnacle rock, covered 5 feet, is 0.5 mile southwest of the west end of the point.

(1391) Small boats have landed in the cove on the southwest side of Theodore Point.

(1392) West currents were encountered close inshore off Theodore Point during the summer.

(1393) Fog covers the land above the 100- to 200-foot level much of the time in the late spring and summer.

(1394)

Temnac Bay

(1395) **Temnac Bay**, the first bay west of Massacre Bay on the south coast of Attu Island, is about 8 miles wide between Theodore Point on the west and **Krasni Point** on the east and indents the island about 4 miles.

(1396) Coming from the east and Massacre Bay it is best to keep at least 1.5 miles off Krasni Point to clear the reef, which extends 1.2 miles south of the point, and the islands along the shore northwest of the point. A rock that uncovers 4 feet is 700 yards south of the westernmost island. The west shore should be given a berth of 0.8 mile until well into the head of the bay.

(1397) Large vessels can anchor about 1.5 miles from the head of the bay in 20 fathoms, fine gray sand bottom, of fair holding qualities. Smaller vessels can anchor farther in. The anchorage offers some shelter from strong southeast breezes. No williwaws were experienced while survey operations were in progress.

(1398) Temnac Bay is not, in general, recommended for anchorage but it might prove useful in an emergency, and it would be easy to get out of in case of undesirable weather conditions.

(1399)

Agattu Island

(1400) **Agattu Island**, about 22 miles southeast of Attu Island, is the second largest and the southerly island of the Near Islands. This island is roughly triangular in shape with the north shore or base of the triangle trending in a west-southwest direction. The north shore is about 17 miles in length, the south shore 14 miles and the east shore 9 miles in length.

(1401) The island is volcanic in origin and similar in terrain, shoreline, and vegetation to the other islands of the aleutians. Mountain peaks 1,992 feet high are adjacent to the east half of the north shore and 2,080 feet to the southwest. The shoreline is rocky and precipitous and fringed with close-inshore pinnacles. Boulder or pebble beaches are at the heads of most of the bights; frequently the boulders are outside the low water line, which renders landing in small boats, except in a smooth sea, difficult. Water may be boated from streams in most of the bights.

Most of the points rise 50 to 200 feet from the water to headlands and then slope more gradually to the interior.

(1402) The peaks are generally obscured by a low ceiling. For this reason the points are the most suitable features for navigational purposes. **Krugloi Point**, the northeast end of the island; **Cape Sabak**, the southeast end of the island; and **Gillon Point**, the west end of the island, are hills and plateaus sloping to the water's edge or ending in sheer headlands. Gillon Point ends in a low flat-topped headland that appears separated from the island. **Kohl Island**, 156 feet high, is about 2.5 miles west of Cape Sabak and is prominent. Gillon Point should be given a berth of at least 1 mile and Krugloi Point 3 miles.

(1403) Cape Sabak and Gillon Point are Steller sea lion rookery sites. There is a mile vessel exclusionary zone around these rookeries. (See **50 CFR 224.103**, chapter 2, for limits and regulations.)

(1404) **Armeria Point**, 5 miles northeast of Gillon Point, is a sheer double-pointed headland 100 feet high, fringed with high pinnacles and rising to greater elevations a short distance inland. **Patricia Point**, 6 miles west of Krugloi Point, is low and slopes gradually back to the hills inland.

(1405) **Nile Point** on the south side, 2.3 miles east of Gillon Point, is a bold headland. A dangerous breaker is about 0.5 mile off this point. This is one of the few off-lying dangers.

(1406) The hills and plateaus constituting most of the island give the appearance of flat tableland from a distance but in most of the areas are interspersed with numerous valleys.

(1407) It is recommended that medium craft keep outside the 20-fathom curve around the island except when seeking shelter and large craft outside the 40-fathom curve.

(1408) All anchorages about the island are limited as to shelter, but the island is not large, and both medium and large craft can proceed to such anchorages as the prevailing weather requires.

(1409) The currents are weak, and heavy tide rips will not be encountered about this island except in rare cases.

(1410) **Patricia Bight** is the best anchorage off the north shore. Extensive kelp beds make well out from the east side of this bight, and a long reef makes out from about the deepest part in a north direction, ending in a rock that uncovers. This reef is surrounded by extensive kelp beds. Small craft may proceed to an inner anchorage east of this reef and into the deepest part of the bay. A fox farmer's cabin is at the head of this bight.

(1411) No evidence of kelp or dangers has been found in other parts of the bight except very close inshore. Large or medium craft should anchor in 15 to 20 fathoms, sand bottom, 0.5 to 0.8 mile off the west shore and about east of the end of Patricia Point. Shelter is afforded from southeast to southwest. West and east swells and sea make into the bay.

(1412) **Binnacle Bay** is a bight 1 mile southwest of the end of Patricia Point. Kelp beds are off the north part of the east shore. A kelp bed also makes out from the point at the

west side of the deepest part of the bay. The remainder of the area seems to be clear of kelp, and anchorage can be had as needed in 17 to 21 fathoms, hard bottom.

(1413) In **Armeria Bay** no dangers were found outside the kelp area. A 10-fathom bank is 1.5 miles east of Armeria Point. Anchorage may be had 0.5 mile southeast of the bank in 24 to 25 fathoms, hard sand and rocky bottom.

(1414) **West Cove**, a two-armed bight 1.5 miles southwest of Armeria Point, is a fair anchorage for small craft. The bottom is hard, and there is insufficient sea room for medium craft. Enter 200 to 300 yards east of an islet off the west side of the entrance. Anchor in the middle of the bay in 15 fathoms or as desired.

(1415) A bight on the south side of the island, 1.5 miles east of Gillon Point, is free of dangers except for the breaker off the end of Nile Point. Anchorage can be had in 17 fathoms, sand bottom, about 0.5 to 0.7 mile from the shore. The bottom is hard sand, scattered rocks and broken shell. Reefs are close inshore, and a black detached islet is at the west side of the head of the bight.

(1416) **Otkriti Bay**, on the south side of Agattu Island, is the largest bay on the island affording any protection; it is about 1 mile long and 2 miles wide. Two long narrow islands extend west from the east entrance point; the highest point, 83 feet, of the outer island is a good landmark. About 0.6 mile southwest of the outer island is a ½-fathom shoal that breaks in a moderate sea. Anchorage can be had in 20 fathoms, coarse sand and shell bottom, southwest of the bold point between Karab Cove and Otkriti Bay proper. Holding properties are fair, but there is no protection from the south and west.

(1417) **Karab Cove**, the bight on the east side of Otkriti Bay, is small, 1 mile long and 0.5 mile wide, but affords the best protection of any anchorage on the island for vessels less than 125 feet in length; it is open only to the southwest. The anchorage is in the center of the cove in 12 fathoms, sand and gravel bottom; it is not recommended in south or southwest weather.

(1418) **Agattu Roadstead**, on the east side of Agattu Island, is an extensive open bight. Numerous monolithic pinnacles are along the shoreline; **Monolith Point**, which appears black against lighter background, is on the north side of the entrance to **McDonald Cove**. There are no dangers to navigation if the shoreline is given a berth of 0.5 mile. The depth of the roadstead slopes gradually up from about 45 fathoms to 10 or 12 fathoms. The bottom is sand, although there is some rock opposite rocky promontories. Where there is sand it appears to be deep and affords good holding ground. Agattu Roadstead offers little protection from east and but little from north and south, but it is protected from the west, subject, however, to draw winds from that direction. The bight offers suitable anchorage for any type of vessel if weather conditions are favorable.

(1419) A good anchorage is available in this locality off McDonald Cove in 15 to 20 fathoms, sand bottom. Depths seem to be suitable for anchorage alongshore for some distance towards Krugloi Point. Reefs, making out 0.3

to 0.5 mile from shore, extend for 2 miles from Krugloi
Point. ⁽¹⁴²⁰⁾

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⁽¹⁴²¹⁾ The area west of Attu Island was surveyed to 170°E in
1946. **Stalemate Bank**, 55 miles west of Cape Wrangell,
Attu Island, is a large shoal area with a least depth of 18
fathoms.

