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**SECTOR 5 — CHART INFORMATION**

## SECTOR 5

### WEST COAST OF KAMCHATKA—MYS LOPATKA TO MYS UTKOLOKSKIY

**Plan.**—The coasts described in this sector comprise the E side of the Sea of Okhotsk, which consists of the W coast of Kamchatka, and Zaliv Shelikhova, including Penzhinskaya Guba and Gizhiginskaya Guba. The arrangement of the sector is from S to N.

#### General Remarks

**5.1 Winds—Weather.**—The climate of Zaliv Shelikhova is severe. The warmest month of the year is August, with a mean monthly temperature of 11°C. Frost begins to occur early in September and rivers are frozen from the middle of October to the end of May. January and February, with a mean monthly temperature of -24°C, are the coldest months.

Fog occurs in all seasons of the year, but mainly in spring and summer. It is infrequent in the autumn and rare in the winter. It is mainly associated with winds from between the SE and SW.

Strong NE winds prevail in winter from October to the end of April. During the winter, winds backing to the W are accompanied by clear, cold days, but those winds from between the NE and NNE are accompanied by blizzards. In May, the wind drops and alternates with calm days. In summer, the prevailing winds are SW in the S part of the gulf and S in the N part of the gulf. The strongest winds occur towards the end of September and in October and November.

In winter, the winds are mainly offshore, and in summer mainly onshore, on the W coast of Kamchatka. The winter monsoon is only defined from December to March, when the winds are predominantly E or NE. The winds of the summer monsoon, W to SW, are most predominant in June and July.

Between May and the first part of August, heavy fog along the coast from Mys Lopatka to Mys Utkolokskiy is frequent, though it rarely occurs after the end of August. Easterly winds often clear the coast from fog, which may still persist at sea.

**Ice.**—The central part of Zaliv Shelikhova does not freeze. Fast ice begins to form along the shores in November and, increasing its width steadily, merges into ice fields, with a maximum thickness of 1.5m, extending 25 to 35 miles seaward by the middle of April. In average years, drift ice appears in December and all ice clears in early July. Strong NE winds during the spring and summer can help to clear the bay.

In the open sea off Rechka Kikchik, fast ice and drift ice usually appear in December and clear in April.

At Mys Khayryuzova fast ice begins to form in most years in November, some years not forming at all. Drift ice appears in November and the sea is covered with ice up to 0.6m thick in December. The ice begins to break up in April and finally clears in May.

On the W coast of Kamchatka, ice begins to form by the middle or end of November, and eventually attains a thickness of 0.9 to 1.2m, fringing the coast to a distance of 20 to 30 miles offshore in the N part. The ice begins to break up around the end of April, and is carried away by the S current toward the

Kuril Islands, in the vicinity of which this ice, already broken, remains through May and part of June, but is seldom present after the end of June.

**Tides—Currents.**—In Zaliv Shelikhova the tides are diurnal at springs, but otherwise are semidiurnal and irregular. The tidal range is 7.9m at the entrance and increases gradually to about 11.3m at the head of the gulf.

The current sets NE and divides at Mys Taygonos, with the W branch flowing counterclockwise along the shores of Gizhiginskaya Guba. The rate is not more than 0.2 to 0.5 knot.

Tidal currents generally set parallel to the shores and there is hardly any lateral drift, but the currents are strong and form eddies and countercurrents. In the S part of the gulf, the rate is 2.7 to 3 knots, and less on the E shore. In The Gorlo, tidal currents attain a rate of 4.7 to 5 knots, less on the E side, and 6 to 7 knots in the vicinity of the islands near The Gorlo. In the N part of the gulf, velocities may reach 3 to 3.5 knots.

There is practically no period of SW at the turn of the currents.

#### Mys Lopatka to Mys Utkolokskiy

**5.2 Mys Lopatka (50°52'N., 156°40'E.), the S point of Kamchatka, is described in Sector 3.** The coast from Mys Lopatka to Mys Utkolokskiy, about 425 miles N, is backed by a broad belt of tundra extending to the W slope of Sredinnyy Khrebet, the central mountain range that trends more or less parallel to the coast from 60 to 70 miles inland.

Since the coast in those regions where the coast is low lacks distinctive features, a number of beacons surmounted by various topmarks have been erected to facilitate navigation. These beacons are not maintained and some of them may be partly or totally destroyed.

The best time of the year for navigation in these waters is the month of April and the first half of May. Navigation in clear weather presents no difficulties. The peaks of mountains, which are discernible from considerable distances, form good landmarks and the distance offshore may be checked by soundings.

In fog, vessels approaching the low section of coast between **Reka Ozerneya** (51°30'N., 156°30'E.) and **Mys Khayryuzova** (57°05'N., 156°32'E.) should anchor in depths of 12.8 to 14.6m and wait for the fog to clear. Due to the irregularity of the bottom off the coast between Mys Lopatka and Reka Ozerneya, especially in the S part, vessels should not approach this coast unless they are certain of their positions.

**Anchorage.**—This coast affords no sheltered anchorages for vessels other than small craft with local knowledge, which can find protection in the mouths of the rivers.

**Caution.**—Vessels should exercise great care in approaching this coast during the fishing season, which lasts from May to August or September, a period through which a considerable number of fishing vessels remain anchored along this coast in depths of 11 to 14.6m, at a distance of 1 to 1.5

miles offshore. These vessels neither carry anchor lights nor sound fog signals.

Fishing nets, the outer ends of which are usually marked by small buoys or floats displaying small red flags, extend up to 3 miles offshore abreast fisheries, which are numerous along this coast. It is inadvisable to approach this coast after dark or in fog.

Rivers and rivulets, which are numerous along this coast, rarely flow directly into the sea, being obstructed by the strip of gravel thrown up by the heavy surf. They flow inside this gravel strip, sometimes for several miles, until they find an outlet to the sea. The entrances into the rivers are usually fronted by sand bars, often nearly dry. The entrances and the bars are subject to frequent shifts.

**5.3** The coast between Mys Lopatka and Mys Kambal'nyy, about 14 miles N, is low and sandy. A ledge, covered with kelp, about 5 miles NNE of Mys Lopatka, extends 1 mile offshore.

**Mys Kambal'nyy** (51°06'N., 156°42'E.) is the SW extremity of a peninsular projection, backed by the slope of Gora Moshkovskaya, 503m high. Two detached hills are located N and S of Gora Moshkovskaya. The S hill rises to a height of 174m near the extremity of the cape. All three elevations are cone-shaped and conspicuous from the W.

Ostrov Kambal'nyy, a barren islet, 37m high, lies about 0.3 mile SW of Mys Kambal'nyy. Reefs, marked by kelp, extend about 0.5 mile NW and SE of the islet. The SW side is reported to be steep-to.

**Tides—Currents.**—Tidal currents in the vicinity of Mys Kambal'nyy attain a velocity of 2 to 2.5 knots at springs and 1 to 1.5 knots at neaps. The flood current sets N and NNE and the ebb sets S and SSW.

Zaliv Kambal'nyy is entered between Mys Kambal'nyy and Mys Sivuchiy, about 13 miles NNW. The latter point is a blunt, mountainous cape, rising steeply from the sea. Two pillar rocks, the seaward one the larger but the lower of the two, lie a short distance off the extremity of the cape. Reka Kambal'naya discharges between two gravel spits about 4 miles N of Mys Kambal'nyy. The buildings of a fishery stand on the beach about 0.8 mile S of the river mouth.

The approximate HW interval at Zaliv Kambal'nyy is about 6 hours. The spring rise is about 2.1m, while the neap rise is 0.9 to 1.5m.

**Caution.**—A 9m patch lies about 6.5 miles NW of Mys Sivuchiy.

**Sopka Kambal'naya** (Gora Kambal'naya) (51°18'N., 156°53'E.) the southernmost of the volcanoes of Kamchatka, is conspicuous on all bearings and appears cone-shaped from the S. Sopka Shirokaya is located about 6 miles WNW of Sopka Kambal'naya.

**Reka Ozernaya** (51°30'N., 156°30'E.) flows through a narrow valley and discharges into the sea through a basin included between two curved spits. An obelisk and a part of a mast, marking the graves of the crew of the wrecked Japanese cruiser Niitaka, are situated on a hill, 37m high, a short distance N of the mouth of the river, and form a good landmark. A light with a radiobeacon is shown at the mouth of Reka Ozernaya.

Reka Yavina, nearly 10 miles farther N, may be identified by two posts situated close S of the river mouth, which is fronted by a shallow bar.

**5.4 Reka Golygina** (51°55'N., 156°29'E.) enters the sea after turning N within a narrow strip of land ending in a flat. Reka Opala enters the sea about 3 miles N, but for about the last 10 miles flows S and is separated from the sea by a fairly wide sand and gravel spit, from the extremity of which a flat extends S. The settlement of Opala is situated on the spit about 2 miles N of the mouth of Reka Opala.

**Tides—Currents.**—The MHW interval in the vicinity of Reka Opala and Reka Golygina is 6 hours 50 minutes. The spring rise is about 1.8m, while the neap rise is about 0.9m.

Reka Bol'shaya, the largest river on the W side of Kamchatka, approaches the coast in a general SW direction, then flows SSE for about 10 miles, separated from the sea by a narrow spit of sand and gravel. A drying flat lies at the extremity of the spit. The entrance (52°33'N., 156°18'E.) of Reka Bol'shaya is marked by two range beacons on the mainland abreast the entrance. The entrance can also be identified by a steep sand hillock, with three summits, located near the shoreline immediately N of the entrance. This hillock is fairly conspicuous against the background of clouds or mist that occasionally obscure the inland elevations. A light with a radiobeacon is shown close N of the entrance.

Small vessels up to 500 grt with a draft of not more than 3.5m can enter, but local knowledge is necessary. There is a quay suitable for berthing at Portovyy Punkt Oktyabr'skiy, about 8 miles N of the river entrance.

**Tides—Currents.**—The MHW interval at the mouth of Reka Bol'shaya is 7 hours 50 minutes. The spring rise, which is diurnal, is 3m, and the neap rise, which is semidiurnal, is 0.9 to 1.2m. The flood current in the entrance attains a velocity of 3 to 3.5 knots; the ebb current, a velocity of 4 to 5 knots.

**Pilotage.**—Pilotage is compulsory for vessels entering the river with a draft of over 2m. Request for pilots should be made to the port authority. Vessels approaching the port should maintain a continuous listening watch on an agreed frequency. To assist vessels, the port radio station will transmit on request, RDF bearings on 418 kHz. In conditions of reduced visibility the coast radar station on request, will provide radar pilotage.

**Anchorage.**—Anchorage can be obtained in a depth of 9m, fine sand, good holding ground, about 1.2 miles offshore abreast the river entrance.

**Mys Levashova** (52°48'N., 156°10'E.) is marked by a fairly conspicuous angular bluff. The W side of this bluff faces the sea, and the S side recedes inland almost at right angles to the coast. Mys Levashova forms no projection, but is called a point because the angular bluff has the appearance of a headland from seaward. A sandy beach, about 1 mile in length, extends SSE from Mys Levashova to the low spit extending to the mouth of Reka Bol'shaya.

Rechka Utku (Utra), about 22 miles N of Mys Levashova, has flat coasts in its vicinity, and there is a heavy surf even in calm weather.

**Rechka Kikhchik** (53°28'N., 156°01'E.) enters the sea after flowing N for about 2 miles, separated from the sea by a

narrow strip of land on which there is a fishery. A light is shown from a structure close S of the entrance.

**Anchorage.**—Anchorage may be obtained by vessels with local knowledge about 0.5 mile offshore in a depth of 8m. From the anchorage a mountain, with a saddle-shaped summit, 18 miles inland, bears 090°.

**Reka Vorovskaya** (Reka Bol'shaya Vorovskaya) (54°13'N., 155°50'E.) forms near its mouth a shallow lagoon about 0.4 mile wide and about 20 miles long. It is separated from the sea by a narrow sand and gravel spit on which there is a continuous chain of fisheries and storehouses. The entrance to the lagoon is narrow and the bar is subject to change. Small local craft can enter at HW.

**Anchorage.**—Anchorage can be taken in 11 to 16m, about 1 mile offshore, in the entrance of the lagoon.

**5.5 Reka Kolpakova** (Kompakova) (54°40'N., 155°40'E.) changes its course to a N direction near the coastline, and forms a lagoon 8 miles long, separated from the sea by a spit of sand and gravel. A canning factory, No. 42, on the spit, is fairly conspicuous about 6 miles S of the entrance.

Detached 11m patches lie 11 and 15 miles NW of the entrance.

**Reka Krutogorovaya** (55°02'N., 155°36'E.) flows for the last 3.5 miles in a N direction, being separated from the sea by a spit of sand and gravel. A cannery marks the bend of the stream, and the buildings of factory No. 16 are situated about 2 miles farther S. A light and a radiobeacon are situated in the vicinity of the mouth of Reka Krutogorovaya.

A precipitous sand cliff, on the coast about 1.5 miles N of the mouth of Reka Krutogorovaya, recedes inland at nearly right angles, and is fairly conspicuous from seaward. Several houses are situated in a slight depression of this cliff.

**Anchorage.**—Anchorage can be taken in a depth of 10m, about 1.5 miles offshore, with the chimney of factory No. 16 bearing 089°.

The coast between the mouth of Reka Krutogorovaya and that of Reka Oblukovina, about 13 miles N, is fronted with a low slender islet of sand and gravel, separated from the coast by a rather narrow channel. The entrances at the N and S ends of the islet are inconspicuous.

**Reka Icha** (55°42'N., 155°39'E.) enters the sea after flowing 6 miles N inside a 22 mile long narrow strip of sand and gravel. A fishery of considerable size, about 2.5 miles S of the N end of a lagoon, is situated in the vicinity of a coastal sandy precipice that recedes sharply inland.

**Gora Sopochnaya** (56°02'N., 156°01'E.), a detached cone-shaped mountain, is a conspicuous landmark about 12 miles ESE of the mouth of Reka Sopochnaya. Beacons have been established near a fish cannery, about 2 miles S of the mouth of Reka Sopochnaya.

The coast from Reka Sopochnaya to Reka Moroshechnaya, about 45 miles NNE, is low and backed by a chain of mountains parallel to the coast and about 7 miles inland. **Gora Moroshechnaya** (56°48'N., 156°18'E.), the highest of the above-mentioned chain, has a conical peak and is a good landmark. It is 442m high and lies 5 miles E of the mouth of the Reka Moroshechnaya.

A bank extends from the mouth of Reka Moroshechnaya, the depths 2 miles offshore being only 5.9 to 6.4m.

**5.6 Mys Khayryuzova** (Mys Khariuzov) (57°05'N., 156°32'E.), the cliffy extremity of a peninsula, has a reef, dry in parts, extending about 1 mile NNE of it. Gora Konus, a conspicuous cone-shaped mountain, rises about 16 miles E of the cape.

Ostrovok Ptichiy, an islet about 4.5 miles NNE of Mys Khayryuzova, rises to a height of 104m near its central part. A radiobeacon is situated on the islet. Above and below-water rocks extend 0.5 mile N and 1 mile S of the islet. The channel between the islet and the cape has not been surveyed and unknown dangers are likely to exist in it.

A detached rock lies about 5 miles NW of Ostrovok Ptichiy.

The area E of Mys Khayryuzova and Ostrovok Ptichiy is shoal, and vessels should not proceed S of the parallel of the N end of Ostrovok Ptichiy.

**Anchorage.**—Anchorage may be obtained 1.5 miles NNW of Mys Khayryuzova in a depth of 11m.

A submarine cable lands 8 miles ENE of Mys Khayryuzova.

**Caution.**—A 3m patch, position approximate, was reported (1956) to lie about 26 miles W of Mys Khayryuzova. A 7.3m patch, existence doubtful, lies about 24 miles W of the same cape. A depth of 9.1m was reported (1963) to lie 56°57'N; 154°32'E; an approximate position 66 miles WSW of Mys Khayryuzova.

**5.7 Poluostrov Utkolokskiy**, a mountainous promontory, rises from the low land at its inner end to elevations of over 518m at its seaward end. **Mys Yuzhnyy** (57°44'N., 156°47'E.) and **Mys Utkolokskiy**, respectively, are its SW and NE extremities.

Mys Yuzhnyy is steep and rocky, decreasing in height towards its extremity. A reef, which dries at LW, extends about 2 miles S of the cape. A chain of rocks, above and below-water, extends about 1.7 miles S of the cape.

**Anchorage.**—The bight SE of Mys Yuzhnyy is the only anchorage on the W coast of Kamchatka offering protection from the W winds and the heavy swell. The anchorage is protected by the cape and the chain of rocks extending S from it. Anchorage can be taken, with local knowledge, in 10m, about 2 miles E of the extremity of the reef.

Mys Zubchatyy, about 6 miles NE of Mys Yuzhnyy, is a steep-to peninsular projection, and rises sheerly from the sea to a 384m high jagged summit.

**Mys Utkolokskiy** (57°54'N., 157°04'E.), conspicuous and easily identified, rises vertically to a sugar-loaf elevation, 381m high, backed by another similar type elevation, 438m high, close SW. A drying reef extends about 0.5 mile NE of the cape. A pillar rock, in the middle of the reef, is conspicuous.

**Tides—Currents.**—The flood currents, flowing into Zaliv Shelikhova from the Sea of Okhotsk, attain a velocity of 3 to 3.5 knots at springs off Poluostrov Utkolokskiy, causing tide rips and eddies, particularly off the projecting capes.

The tidal currents force the cold water at the bottom to rise to the surface. This cold water may reduce the surface temperature to as much as 8°C below the normal air temperature in the vicinity, causing the fog prevailing through

May, June, and July. Fog is rare beginning in the first half of August, and with strong W or SW winds, fog does not occur here.

### Zaliv Shelikhova (Penzhinskiy Zaliv)

**5.8** Zaliv Shelikhova, forming the NE end of the Sea of Okhotsk, is entered between Mys Utkolokskiy and Mys Tolstoy, about 96 miles NW. Penzhinskaya Guba and Gizhiginskaya Guba occupy the NE and N parts, respectively, of Zaliv Shelikhova.

Navigation in the spacious Zaliv Shelikhova presents no difficulties on a clear day and the shores of the gulf afford numerous landmarks. In foggy weather, which prevails here during the spring and summer, vessels approaching the shore should be guided by continual soundings. Vessels favoring the W side of the entrance should navigate in depths of not less than 100m, which are 3 to 4 miles E of Ostrova Yamskiye. It has been observed that when dense fog envelops Ostrova Yamskiye, the fog is lighter N of this group of islands.

**Tides—Currents.**—The tidal currents, which attain at Ostrova Yamskiye a velocity of up to 5 knots, should be taken into account. The phase of the tide and the direction of the current should be determined on the basis of the HW interval at Zaliv Udacha, the bight close N of Mys Tolstoy.

Vessels favoring the E side of the entrance should navigate in depths not less than 55m. The tidal currents here flow along the coast.

**5.9 East side of Zaliv Shelikhova.**—Bukhta Kavacha lies between Mys Utkolokskiy and Mys Omgon (58°01'N., 157°41'E.). An above-water rock, position doubtful, lies about 8 miles E of Mys Utkolokskiy. A drying ledge, in the S part of the bay, extends in an ENE direction for over 2.2 miles, and about 0.7 mile offshore. Foul ground extends about 1 mile W of Mys Promezhutochnyy, on the E side of the bay.

Mys Omgon, the NW extremity of a rocky peninsula, has two similar mountains near its extremity. The seaward and higher of the two mountains rises to a height of 354m. On the seaward side of this mountain is a pointed, 122m high hill, with a pillar rock under its foot. From a distance, Mys Omgon has the appearance of an islet with two peaks.

Foul ground extends about 0.3 mile N and W of Mys Omgon. A cliffy islet, about 4 miles SSW of Mys Omgon, lies about 0.8 mile offshore, connected with the coast by a drying reef and surrounded by scattered rocks.

Mys Babushkina, about 2 miles E of Mys Omgon, is formed by a huge pointed cliff, which is steep on all sides. From a distance the cape is conspicuous on E and W bearings, and has the appearance of a detached pointed rock lying a short distance offshore. From the N it is inconspicuous.

**Tides—Currents.**—The flood current flows in a NE and ENE direction, and the ebb in a reverse direction, in the vicinity of Mys Omgon, attaining a velocity of 2 to 2.5 knots.

Fogs, due to colder water coming to the surface, are frequent off Mys Omgon, especially in May, June, and July.

**Caution.**—Banka Mineola, with a least depth of 5.5m, is charted about 6.5 miles NE of Mys Babushkina. The position is approximate.

A detached patch, with a least depth of 2.6m, lies about 10 miles NE of Mys Babushkina.

**Reka Tigil'** (58°02'N., 158°13'E.), which is over 260 miles long, enters the sea 14 miles E of Mys Babushkina. Drying shoals extend 1 mile from both sides of the entrance. Vessels wishing to enter must obtain a pilot.

**Mys Kamyatyan** (Mys Kamatan) (58°18'N., 158°44'E.), 34 miles NE of Mys Babushkina, is a slight projection formed by two hills, the SW hill about 259m high, and the NE hill about 207m high. The cape is rendered somewhat conspicuous by the light color of its precipices facing the sea.

**Reka Voyampolka** (Vayam-Palka) (58°31'N., 159°10'E.) enters the sea 19 miles NE of Mys Kamyatyan and is rendered conspicuous by the elevated N bank, which terminates in a high cape marked by landslides, and contrasts sharply with the S bank of the river. A small settlement is situated on the S bank, near the mouth of the river.

**Anchorage.**—Anchorage can be taken, with local knowledge, in a depth of 9m, about 2.5 miles W of the mouth of Reka Voyampolka. Care should be taken to avoid the 3.7m shoal, about 1.5 miles NW of the river entrance.

**5.10 Gora Urginskaya** (58°44'N., 159°36'E.), a flat-topped mountain, 223m high, lying 18 miles NE of Reka Voyampolka, dominates other elevations in the vicinity, and, having the appearance of a trapezoid from seaward, forms an excellent landmark from the offing.

Mys Kakhtaninskiy (Kokhtaninskiy), about 7.5 miles farther N, rises to a height of 225m close inland. Ostrovok Chayachiy, a white islet, covered with guano, lies about 0.8 mile W of the headland. A drying reef extends from the islet to the headland, and a drying reef fringes the W side of the islet.

Mys Pyatibratskiy, about 10 miles farther NNE, rises steeply to Gora Pyatibratskaya, 482m high. Reka Palana, about 6 miles NNE of the cape, can be recognized by the buildings of a fish cannery, conspicuous from seaward, near the river mouth.

**Mys Kinkil'skiy** (Kinkil'skoy) (59°20'N., 160°12'E.), 16 miles NE of Reka Palana, is slanted on its seaward side and its flat top is backed by a plateau receding inland. A short drying reef extends NW from the cape, and a similar reef extends a short distance offshore for about 1 mile E of the cape.

Mys Pensepel, a low blunt cape, about 18 miles NE of Mys Kinkil'skiy, is the seaward termination of the valley through which Reka Lesnaya (Lesnoye) flows. Reka Lesnaya forms near the coastline a marshy delta, covered with small shrub and scrub trees. The river enters the sea about 9.5 miles SSW of Mys Pensepel', flowing SSW for the last 6 miles, separated from the sea by a narrow strip of sand and shingle.

**Mys Ostrovnoy** (59°43'N., 161°02'E.) is a steep, rounded cape, formed by the seaward termination of a coastal elevation, 308m high. The W slope of this elevation projects slightly from the coast. A drying rock lies about 5 miles SW of the point, and about 1.3 miles offshore.

A chain of mountains, extending 43 miles NE of Mys Ostrovnoy, has no conspicuous summits except a cone-shaped peak, 564m high, near the N end of the chain. A precipitous rectangular cape, about 24 miles NE of Mys Ostrovnoy, forms the only fairly conspicuous projection along this coast. A

ledge, which dries, extends about 1.8 miles N from the NE end of the cape.

**5.11 Mys Bozhedomova** (60°18'N., 161°53'E.), 44 miles NE of Mys Ostrovnoy, is a cliffy brown cape, conspicuously marked by numerous white patches. A finger-like pillar rock lies near the extremity of the cape. Rocks, which dry, extend about 1 mile SSW of the pillar rock.

Ostrovok Yengalycheva, a barren islet, about 1.7 miles SW of Mys Bozhedomova, is steep on all sides, rising sheerly from the sea at HW, but at LW a foreshore of sand and shingle fringes it on all sides. Above and below-water rocks extend about 0.5 mile SSW of the islet, and a drying reef extends about 0.3 mile NNE. Navigation between Mys Bozhedomova and the islet is not recommended unless the extremities of both reefs are clearly visible.

Bukhta Podkagernaya, a very shallow bight E of Mys Bozhedomova, dries at LWS.

**Tides—Currents.**—The MHW interval at Bukhta Podkagernaya is about 3 hours 15 minutes. The spring tide is diurnal and the spring tidal range is up to 6.7m. The neap tide is semidiurnal and has a range of about 3.3m. Generally, the tides here are irregular.

**Anchorage.**—Anchorage, with local knowledge, can be taken in the roadstead S of Bukhta Podkagernaya in 6.5m, fairly good holding ground of sand and shingle, S of the parallel of Ostrovok Yengalycheva, and with Mys Bozhedomova bearing N.

## Penzhinskaya Guba

**5.12 Penzhinskaya Guba**, entered between Mys Bozhedomova and Mys Taygonos, about 54 miles WNW, has no sheltered anchorages, despite its considerable size and appreciably indented shores. The shores of the gulf are generally high and bluff. The Gorlo, the narrowest part, separates the gulf into two parts.

**Caution.**—Despite swift currents, Penzhinskaya Guba presents no difficulties on a clear day, since throughout the greater part of the bay both shores are visible and afford a sufficient number of landmarks.

In fog, vessels should keep on the NW side of the S half of the gulf and at a safe distance offshore. A sudden decrease in depth from 30 to 35m to 10m is a sign of danger and indicates that the vessel has been set E.

In the N part of the gulf, vessels proceeding toward the head of the gulf should use the passage between Mys Valizhgen and the E end of the shallow area that extends toward this cape from Ostrov Dobrzhanskogo.

**5.13 East side of Penzhinskaya Guba.**—Between Mys Bozhedomova and **Mys Dal'niy** (60°26'N., 161°54'E.), 8 miles N, the coast is high and cliffy, backed by mountains, 450 to 550m high, from 1.5 to 2 miles inland. Rocks, which dry, extend about 0.5 mile NW of Mys Dal'niy.

**Ostrov Konus** (60°34'N., 162°08'E.), conical in shape, is bordered about 0.5 mile W by a group of above and below-water rocks. A similar group lies about 1.5 miles N of the island.

**Gora Bol'shaya** (60°31'N., 162°23'E.) rises about 1.5 miles inland and is conspicuous. From the W, the mountain appears as a detached ridge paralleling the coast and marked by three summits.

**Ostrov Zubchatyy** (60°48'N., 162°45'E.) has a serrated summit. Drying rocks extend about 0.7 mile N, and about 0.3 mile S from the island. Two detached rocks, nearly awash at LW, lie about 4.8 miles W and SSW, respectively, of the S end of the island. The area between these rocks and the island is dangerous to navigation.

Ostrov Rovnyy lies about 16 miles ENE of Ostrov Zubchatyy and is steep-sided. Submerged rocks lie about 1 mile SSW and 0.8 mile WNW, respectively, of the S end of the island.

Rekinninskaya Guba (Rekinskaya Guba), a shallow bay, lies S of **Mys Ugol'nyy** (61°00'N., 163°30'E.). A dangerous ledge, which occasionally dries in places and is otherwise indiscernible, projects nearly 1.8 miles SSW from the extremity of an inconspicuous cape located 1.5 miles SE of Mys Ugol'nyy.

**Tides—Currents.**—Tidal currents attain a velocity of 2.5 to 3 knots in the vicinity of Mys Ugol'nyy.

**5.14 Mys Nottatey** (61°07'N., 163°37'E.), 8 miles NNE of Mys Ugol'nyy, is surrounded on all sides by pillar rocks, some of which are of unusual shape. Drying rocks extend about 0.5 mile SW and W of the cape.

Gora Stolovaya, a table-top mountain, about 1.5 miles inland of Mys Nottatey, rises to a height of about 579m and, exceeding other elevations in the vicinity, is conspicuous.

Gora Golova, a detached rounded coastal mountain, about 1 mile SW of Gora Stolovaya, rises to a height of about 396m and is identified by a knoll-shaped summit, the S side of which is a sheer precipice. Ostrovok Skala, about 7.5 miles NNW of Mys Nottatey, is a very conspicuous barren islet with a pointed summit.



**Gora Golova from ESE, distant 2 miles**

The cliffs bordering Zaliv Mamechinskiy, from about 4 miles NE of Mys Nottatey to Poluostrov Mamechinskiy, are conspicuous for their varied colors, white, yellow, and gray, alternating with black, brown, and red.

**Mys Vodopadnyy** (61°25'N., 163°46'E.), the S extremity of Poluostrov Mamechinskiy, is marked by numerous waterfalls. A rocky spit extends about 1 mile SW from the W side of the cape.

The entire W side of Poluostrov Mamechinskiy, on the E side of The Gorlo, faces the sea with a wall-like formation of forbidding cliffs of great heights, occasionally cut through by gulleys of swift mountain streams. Gora Mamet Bol'shoy, its

highest point, rises about 6 miles NE of Mys Vodopadnyy. The pointed summit of this cone-shaped mountain is very conspicuous from the offing on a clear day.

The coast from Mys Mamet, the NNE extremity of Poluostrov Mamechinskiy to Mys Valizhgen, about 27 miles N, faces the sea with a row of bluffs 91 to 122m high.

**5.15 West side of Penzhinskaya Guba.**—Mys Taygonos (60°34'N., 160°11'E.) is the S extremity of Poluostrov Taygonos, the S part of which is a fairly even plateau facing the sea with sheer cliffs 76 to 91m high. Rocks, which dry, extend a short distance off the cape. The cape is inconspicuous from the S, as it merges with the coastal elevations in the background, but it may be identified by a whitish patch on its cliffs near its extremity.

**Tides—Currents.**—Tidal currents attain a velocity of 3 knots in the vicinity of Mys Taygonos, forcing cold water to the surface, and causing the fogs which are frequent in the vicinity of the cape.

Bukhta Taygonos, about 10 miles NE of Mys Taygonos, has depths of 13m, shingle and mud, in the entrance, shoaling to 5.5m about 0.5 mile within the entrance. The N half of the inlet dries.

**Caution.**—Caution is necessary approaching the cape in fog, as there are depths of 70m less than 1 mile from it.

**5.16 Mys Povorotnyy** (60°43'N., 160°46'E.), 20 miles ENE of Mys Taygonos, is conspicuous due to its reddish cliffs, backed by mountain peaks, about 762m high. Two large pillar rocks are located on a detached drying reef, which lies about 3 miles SE of the cape. It is not advisable to use the channel between the reef and Mys Povorotnyy, as it has not been thoroughly examined. Considerable tide rips and eddies, formed by the strong tidal currents, are observed E of the cape and the reef during the flood, and W of them during the ebb.

Between Mys Nablyudeniy, a hard to identify point lying 20 miles NE of Mys Povorotnyy, and Mys Naklonnyy, about 36 miles further NE, the coastal elevations, which rise to about 610m at the S end of the coast, decrease in height to not more than 122 to 183m near Mys Naklonnyy. The latter point can be identified by its slanting seaward face. The small bays along this coast are silted.

**Ostrov Tretiy** (61°35'N., 162°34'E.) rises to a height of 546m in the W part of the island. The N side of the island is joined to the coast by a drying flat. A reef, resembling a picket fence when dry, extends across this flat.

**Anchorage.**—Anchorage can be taken S of Ostrov Tretiy, but vessels should not anchor within 1.5 miles of the island as the bottom is rocky. Farther out, the bottom is sand and gravel. Vessels with a draft not exceeding 5.5m can anchor about 1 mile NE of the E extremity of the island, with good holding ground, and out of the influence of the tidal currents. Local knowledge is necessary for both anchorages.

**5.17 Mys Yelistratova** (61°31'N., 163°02'E.), the S extremity of Poluostrov Yelistratova, is formed by the seaward termination of a spur of a mountain, 253m high, located about 1.2 miles NE of the extremity of the cape. The W side of the cape is cliffy, but its E side faces the narrows with a grayish-

brown bluff. A saddle-shaped twin summit pillar rock lies close within the S extremity of a drying reef projecting S from Mys Yelistratova.

Ostrov Vtoroy and Ostrov Krainiy, about 1.5 and 2.5 miles S, respectively, of Mys Yelistratova, are foul on all sides. Ostrov Krainiy has precipitous shores, and a drying ledge extends 0.5 mile WSW from its SW end. Fairly even depths of 30 to 35m, rock, are at a distance of 2 to 2.5 miles off the islets.

**Anchorage.**—Anchorage in the vicinity of the islets is untenable due to the swift tidal currents and poor holding ground of rock.

Poluostrov Yelistratova forms the W side of The Gorlo, or narrows, of Penzhinskaya Guba, and is connected to the mainland by a low isthmus. A mountain range, with general elevations of 250 to 450m, trends along the entire seaward side of the peninsula, but attains an elevation of 609m in its S part.

**Mys Sredniy** (61°36'N., 163°15'E.) is the extremity of a small cliffy peninsular projection, 168m high, extending from the E side of Poluostrov Yelistratova.

Mys Opasnyy, about 7 miles NE of Mys Sredniy, is the N of two headlands 2.5 miles apart forming the NE extremity of Poluostrov Yelistratova. The S headland is formed by sheer cliffs of great height. Mys Opasnyy faces the sea with 180 to 215m high precipices rising within to a hill about 300m high. The cape is very prominent.

Rocks, which dry, extend about 1 mile ENE of Mys Opasnyy. A detached group of rocks, drying at half tide, lies about 1.2 miles NNE of the same headland. A patch, with a depth of 1.2m, lies about 3 miles NNE of Mys Opasnyy.

**Caution.**—Tidal currents, attaining a velocity of 5 knots along the NE side of Poluostrov Yelistratova, cause eddies and cross currents in the vicinity of the above-mentioned rocks, and may be a source of great danger. Mys Opasnyy should not be approached within 2 miles.

**5.18 Mys Pupyry'** (62°03'N., 163°12'E.), 22 miles NNW of Mys Opasnyy, is a high, sharp rock, connected to a bluff headland, 234m high, and formed by a spur of a coastal mountain rising about 6 miles SW of the extremity of the peninsula. The point is fringed by rocks and shallow water extends 1 mile offshore.

**Mys Obryvistyy** (62°19'N., 163°21'E.), 16 miles NNE of Mys Pupyry', is formed by the seaward face of a sloping hill rising to a height of 152m about 2 miles inland.

Ostrov Dobrzhanskogo, about 4 miles ENE of Mys Obryvistyy, rises to a height of 271m on the E side of the island. The island, because of its relatively great height, is conspicuous and having the appearance of a hillock when seen from the N entrance of the narrows, forms a useful landmark for vessels navigating in the N part of Penzhinskaya Guba.



**Ostrov Dobrzhanskogo**

An oval-shaped islet, about 46m high, lies 0.7 mile NNE of Ostrov Dobrzhanskogo, and two small flat-topped islets lie off the W end of the island.

**5.19 Head of Penzhinskaya Guba.**—The head of Penzhinskaya Guba, lying N of a line extending between Mys Obryvistyy and Mys Valizhgen, is generally shoal. A shallow area, which is only partly surveyed, occupies the middle part of the gulf between Mys Valizhgen and Ostrov Dobrzhanskogo, and has depths of 1.2 to 2.6m with drying flats in places. Between the E end of this shallow area and Mys Valizhgen, a channel with depths of 8.2 to 13m extends in a general NE-SW direction, widening N and S of Mys Valizhgen.

**Mys Krayniy** (62°26'N., 164°33'E.), about 14 miles NE of Mys Valizhgen, is the S entrance point of the common estuary of Reka Penzhina and Reka Talovka. The coastal cliffs in the vicinity of the cape are about 37 to 46m high. The settlement of Ornochek is situated on the N entrance point of the estuary, about 10 miles NE of Mys Krayniy.

**Anchorage.**—Vessels, with local knowledge, bound for Ornochek and with a draft of up to 5.5m, should, after passing about 2 miles W of Mys Valizhgen, steer a NNE course until Ornochek bears about 067°, then steer for it on this bearing and anchor not more than 1.5 miles SSE of Ornochek, so as to give sufficient berth to a 3.4m shoal about 2.5 miles SSW of the settlement.

### Zaliv Shelikhova (continued)

**5.20 West side of Zaliv Shelikhova.**—Mys Tolstoy (59°10'N., 155°12'E.), the W entrance point of Zaliv Shelikhova, rises to a height of 232m and is dominated by Gora P'yagina, about 8 miles NW, which is a good landmark. Four rocks lie close off the cape, which is steep-to and clear of dangers.

Ostrova Yamskiye, a group of five rocky islands, lies between 2 and 11 miles E of Poluoostrov P'yagina. Ostrov Atykan, the SE inland of the group, is steep-to and lies about 9 miles ENE of Mys Tolstoy. Ostrov Atykan has the aspect of a huge cliff rising sheerly from the sea to a height of 332m near its SW end. The island appears conical on all bearings except those approximately NW and SE.

Ostrovok Baran, about 5 miles W of Ostrov Atykan, rises to a pointed summit, 155m high, and slopes steeply on all sides. The shores of the islet are steep-to, and there are no dangers seaward of the rocks lying close off the NW and SE extremities of the islet.

Ostrovok Khatemal'yu, lying between Ostrovok Baran and the peninsula, is composed of forbidding cliffs rising to a height of 225m, and has the aspect of four pillar rocks close together, disposed in an E-W direction.

Ostrov Matykil', about 5 miles N of Ostrov Atykan, rises to a height of 707m near the middle of the island. Two pillar rocks lie close off the NW end of the island. The shores of Ostrov Matykil' are steep-to and clear of dangers.

Ostrovok Kokontse, about 1 mile WSW of Ostrov Matykil', rises to a height of 91m and has the aspect of an unbroken row of basalt pillar rocks, which are deeply serrated and descend to the sea in terraces.

**Tides—Currents.**—Tidal currents in the area of Ostrova Yamskiye attain at springs a velocity of 4 to 4.5 knots near the coast, about 4 knots in the middle part of the group, and 3 to 3.5 knots along the E side of the group. At neaps, these currents attain respective velocities equal to about 50 percent of those at springs. The period of SW is brief and the change of currents occurs rather abruptly. The flood sets N, the ebb S.

The tidal currents cause the colder bottom water to rise, making the surface temperature in places around the islands up to 11°C less than the average air temperature in the vicinity. The islands are seldom free of fog, particularly with onshore winds. Offshore winds clear the group to some extent.

Refraction, particularly strong near the time of sunset, occurs in the area of the islands.

Abnormal magnetic variation exists in the area of Ostrova Yamskiye.

**5.21 Mys Yapon** (59°29'N., 154°56'E.), a steep, fairly conspicuous cape, is bordered 1.7 miles SSE by a mountain 704m high, and 1 mile SSW by a mountain 469m high.

**Mys Keytevan** (59°32'N., 154°36'E.), 10 miles WNW of Mys Yapon, is steep-to and clear of dangers. It is rendered conspicuous by Gora Konus, a conspicuous cone-shaped mountain rising about 1 mile S of the extremity of the cape.

Yamskaya Guba is entered between Mys Keytevan and Mys Iretskiy, about 21 miles NNW. The N and S shores of the bay are high at the entrance, but decreasing in height W. They merge into a low shore, which is backed by plains of tundra.

Mys Iretskiy, steep-to and clear of dangers, is formed by the steep cliffy slope of a twin-peaked hill rising to a height of 195m at the elbow of an L-shaped peninsula. From a distance the twin-peaked hill has the appearance of a dark spot on a lighter background of the coast.

**Winds—Weather.**—Winds in Yamskaya Guba ordinarily do not exceed a force of 4 or 5, but occasionally attain a force of 6 or 7. These winds prevail throughout June, July, and the first half of August. Calms prevail throughout the latter half of August and the first half of September. The autumnal NE winds begin in the second part of September, often attaining a force of 11. The NE winds, as a rule, are accompanied by misty weather and precipitation.

It has been observed that a mist enveloping Gora Verkhniy Tolstoy and Gora Nizhniy Tolstoy indicates the approach of NE winds of great force.

Fog in Yamskaya Guba is comparatively rare, but during calms it penetrates into the bay from the area of Ostrova Yamskiye.

**Ice.**—Ice usually appears in Yamskaya Guba in October, and the bay is frozen late in December or early January, and may be up to 1m thick. During exceptionally mild winters, complete freezing does not take place until February. The ice breaks early in June, and the bay is clear of ice by the end of June or the first part of July.

**Tides—Currents.**—The tides, which generally are irregular in Yamskaya Guba, are diurnal at springs, but are semidiurnal at neaps. The maximum tidal range occurs in July, late in November, and early in March, being about 6.4m at springs and about 2.1m at neaps. The tidal range was observed to be about 5.4m in August and 4.5 to 4.8m in the middle of September.

The tidal currents are particularly pronounced in the S part of Yamskaya Guba and in the entrance of Zaliv Perevolochnyy, attaining velocities of 8 to 8.5 knots at springs in July, from 5.5 to 6 knots in August, and 4 to 4.5 knots in September. These currents do not exceed, on the average, 3.5 knots at neaps, and are imperceptible at the anchorage abreast the settlement of Brokhovo, situated about 5 miles NNW of the extremity of Kosa Yamskaya.

**Aspect.**—Gora Sedlo, about 9 miles WSW of Mys Keytevan, is conspicuous, consisting of two peaks separated by a saddle.

Ostrov Buyan, 32m high, about 13 miles WNW of Mys Keytevan, is visible from seaward over Kosa Yamskaya.

Gora Svetlyy Konus, a conspicuous cone-shaped mountain of light color, rises about 18 miles W of Mys Iretskiy and forms the SW end of a detached angular mountain range.

**Anchorage.**—Vessels can anchor in convenient depths of 11 to 31m, but the greater part of the bay has a rocky bottom, poor holding ground. Anchorage in Yamskaya Guba is untenable with NE and SE winds. When these winds begin to blow, vessels should put to sea.

**5.22 Reka Iret'** (59°55'N., 154°29'E.), entering the sea about 2 miles N of Mys Iretskiy, flows S for the last 3.5 miles, separated from the sea by Iretskaya Kosa, a sand and shingle spit. Depths of 10.8m lie 0.2 to 0.3 mile off the S part of Iretskaya Kosa, and there are depths of 2.1m in the entrance.

**Tides—Currents.**—The HW interval at the mouth of Reka Iret' is 4 hours 30 minutes at springs, but otherwise is irregular. The tidal range is 4.5 to 6.4m at springs and 1.5 to 2.1m at neaps. The tidal currents attain a velocity of 5 to 6 knots.

**Anchorage.**—Anchorage can be obtained in convenient depths off the seaward side of Iretskaya Kosa, 0.5 mile N of the extremity of the spit, where the tidal currents are not pronounced.

**Mys Aregichinskiy** (60°30'N., 155°27'E.) lies 47 miles NE of Mys Iretskiy. It is the S end of a rocky headland, terminating in a small tableland, conspicuous from the E, and marked by a cluster of pointed rocks at its extremity.

A partly drying reef extends 0.5 mile S of the extremity of the cape, and is marked by two small pillar rocks rising from its middle part and by two conspicuous pillar rocks on a common base near the extremity of the reef.



**Mys Aregichinskiy**

Mys Seryy, 1.5 miles NE of Mys Aregichinskiy, has gray cliffs contrasting sharply with the prevailing brown color of this coast, and gives to Mys Seryy the appearance of a conspicuous light-colored patch discernible from the offing.

Bukhta Yemlinskaya, the bight W of Mys Aregichinskiy, has high and precipitous shores, and depths of 12.8 to 22m.

**Anchorage.**—Anchorage, sheltered from NE winds, can be obtained in a position a short distance off the N shore of the bight. Vessels approaching this anchorage should proceed with due precautions and should sound continually.

## Gizhiginskaya Guba

**5.23 Gizhiginskaya Guba**, entered between Mys Aregichinskiy and Mys Taygonos, about 140 miles E, has elevated and rocky shores, with few off-lying dangers. The bay has no completely protected anchorages.

**Winds—Weather.**—During the summer, S winds prevail. Northerly winds are frequent and attain their maximum force during the autumn and the first part of the winter. Storms are common during the second half of September, October, and November. Fresh NW winds, interrupted by NE blizzards, prevail from December until the end of March. The season of gentle winds and calms lasts from the middle of April to the end of May.

The mean annual temperature in this vicinity varies between -7° and -5°C. Only five months of the year have a mean temperature above the freezing point. Frost begins to occur by the middle of September, and the month of October has a mean monthly temperature below freezing.

During the navigational season, dense fog occurs frequently in the SE part of the bay. The foggiest months are May and June. During July, the fog often envelops only the elevated parts of the coast, leaving the coastline clear. During August fog is rare, being rather an exception in the N and W parts of the bay.

During fog in the N part of the bay, vessels should make landfall W of **Mys Varkhalamskiy** (61°39'N., 159°34'E.), and then wait off this point until the weather clears.

**Tides—Currents.**—Generally the tides in Gizhiginskaya Guba are irregular. At springs, the tidal range, which is 6.7m at the entrance into the bay, increases to 7.9m at the head of the bay. At neaps, the tidal ranges are marked by inequities of up to 1.5m, the greater range being 2.7 to 3.3m.

The flood current sets N along the shores of the gulf and the ebb current sets S. At springs, the tidal current in the vicinity of Mys Taygonos attain a velocity of 2 to 2.5 knots, and moderate to 1.5 knots or less along the W shore of the bay. At the head of the bay the tidal currents are weak and irregular.

The constant current that sets along the Sea of Okhotsk in a counterclockwise direction flows in Gizhiginskaya Guba accelerating or retarding the tidal currents.

**5.24 West and N sides of Gizhiginskaya Guba.**—Mys Ostrovnoy (60°42'N., 155°54'E.) is the S extremity of a rocky, elevated peninsula, which has the appearance of an island when seen from along the coast. An islet, with a jagged summit, 15m high, lies 0.5 mile S of the cape. Above-water and submerged rocks extend 0.5 mile S of the islet.

Zaliv Ostrovnoy, immediately W of the above peninsula, dries out to about 1.5 miles from its head.

Tumanskiy Reyd, a totally exposed roadstead, is entered N of Mys Dyravy, a cliffy point about 14 miles N of Mys Ostrovnoy. Reka Tumany discharges immediately N of the point. A low sandy beach extends about 3 miles N of the river

mouth to a small detached cliff, the N entrance point of the roadstead.

A drying reef, marked by an above-water rock near its extremity, extends S from the N entrance point of Tumanskiy Reyd. Two above-water rocks lie on the outer end of a drying reef extending SE from Mys Dyravyvy.

Tumannoye (Tumanskoye) settlement is situated near the mouth of Reka Tumana.

The bottom of the roadstead shelves gradually toward the shore, and depths of 7.3 to 9.1m, sand and shingle, have been obtained at a distance of 0.3 to 0.4 mile offshore.

**Anchorage.**—Vessels anchor in adequate depths abreast the midsection of the sandy beach, where the tidal currents are weaker. The holding ground is fairly good, although, local knowledge is necessary.

**Mys Viliginskiy** (61°13'N., 156°40'E.), 38 miles NE of Mys Ostrovnoy, is the extremity of flat-topped peninsular projections, 91 to 122m high. A pillar rock, connected to the cape by a low isthmus, has from a distance the appearance of a detached rock. The cape is clear of dangers.

**Mys Nadezhdy** (61°30'N., 156°43'E.), about 18 miles farther N, is the E extremity of a small, rectangular peninsula with gray cliffs, about 91m high. A reef lies 0.4 mile NE of the point. A mountain, rising to a height of 829m, about 6.5 miles NNE of the peninsula, dominates other elevations nearby and is conspicuous.

**5.25** Zaliv Pestraya Dresva, on the N side of Mys Nadezhdy, has depths of 11m within a confined area in the middle of the entrance, decreasing to depths of 5.5m about 0.4 mile off the N and W shores of the bight.

**Tides—Currents.**—The MHW interval at Zaliv Pestraya Dresva is approximately 5 hours 30 minutes. The tidal range at springs is 7m and is diurnal, but at neaps it is semidiurnal and is 2.4m and 3m.

**Anchorage.**—Small vessels can obtain anchorage sheltered from N and NE winds off the N shore, or sheltered from S and SE winds in the SW part of the bight.

**Mys Gorka** (61°41'N., 157°42'E.) is formed by the spur of a mountain, 568m high. A hill, 247m high, about 1.5 miles N of the cape's extremity, serves with the mountain to make the cape easily identified. A small rocky islet lies close S of the cape.

The coasts between Mys Gorka and Mys Varkhalamskiy, about 64 miles E, are precipitous, jagged, and bordered by rocks, and should not, in general, be approached closer than 2 miles, except at Nayakhanskiy Reyd. Above-water and drying rocks extend to about 1.7 mile SW of **Mys Opasnyy** (61°47'N., 158°31'E.), 32 miles E of Mys Varkhalamskiy.

Guba Nayakhanskaya is entered between **Mys Storozhevoy** (61°50'N., 158°52'E.) and Mys Taynochin, about 15 miles E. Mys Storozhevoy, a precipitous cape, has a detached, pointed pillar rock surrounded by rocks close off its extremity. A rocky ledge extends about 1 mile SSE of a point 2.5 miles W of Mys Storozhevoy.

**Mys Taynochin** (61°49'N., 159°23'E.), 46m high, is bordered about 1 mile SW of Ostrov Taynochin, to which it is connected by a drying ledge. A pointed pillar rock close

offshore, and a rather flat-topped pillar rock farther seaward, lie on this ledge. Rocks are scattered on all sides of the island.

The W and E shores of the bay face the sea with brown precipices, but the N shore is a plateau receding far inland and facing the sea with gray and yellow sand bluffs.

Mys Nayakhanskiy, about 6.5 miles NE of Mys Storozhevoy, rises to a steep hillock, 65m high, in the central part of the cape, which faces the sea with steep precipices, about 34m high. A beacon is situated on Mys Nayakhanskiy. Two masts of a radio station, in line bearing 326°, are situated NW of the cape and are prominent from E or SE.

Reka Nayakhan, entered E of Mys Nayakhanskiy, forms a bay at its entrance, which dries at LW. A broad flat extends 0.5 mile from the entrance. The summer station of Nayakhan settlement, which increases during the fishing season, is situated on the N side of the mouth of the river. Mys Ostrovnoy, on the W side of the entrance, is connected to the coast by a low isthmus of sand and shingle, and has the appearance of an islet from a distance.

**5.26 Nayakhanskiy Reyd** (61°54'N., 159°00'E.) ([World Port Index No. 62560](#)), a roadstead off the mouth of Reka Nayakhan, is exposed to winds from the SW through S to SE, which prevail during the navigational season and render anchorage here uncomfortable. Strong N and NE winds cause a heavy sea. The constant swell makes landing difficult or impossible, but the best place at HW is in a cave under Mys Nayakhanskiy, where a path leads to the settlement of Nayakhan.

Depths of 11m, shingle, lie at a distance of 1.7 miles offshore in the W part of the roadstead, and about 2 miles offshore in the E part of the roadstead. The depths decrease to 5.5m, sand, at a distance of about 0.5 mile offshore in the W part of the roadstead, and 1 mile offshore in the E.

**Tides—Currents.**—Tidal currents in Nayakhanskiy Reyd do not exceed a velocity of 1.5 knots at springs, and 0.8 knot at neaps.

**Mys Rifovyy** (61°45'N., 159°29'E.) is bordered close S by an islet, which is foul to a distance of 0.3 mile. Ostrov Chetyre Pal'sta, a group of rocks on a common drying base, about 2.5 miles WSW of Mys Rifovyy, consists of numerous small rocks and four large ones, the principal of which, a serrated rock islet, lies in the center of the group, and the other three pillar rocks resembling fingers. Fairly even depths of 20 to 26m, rock, have been obtained in the middle of the channel separating Ostrov Chetyre Pal'sta from the mainland, but this channel has not been thoroughly sounded.

Varkhalamskaya Guba, immediately E of Mys Rifovyy, has shores consisting of rather forbidding cliffs, 30 to 45m high, fringed with short reefs and scattered rocks to a short distance offshore.

**5.27 Mys Varkhalamskiy** (61°39'N., 159°34'E.), composed of grayish-brown sheer cliffs, about 61m high, forms the S extremity of Poluostrov Varkhalamskiy, a flat-topped peninsula. Gora Dvukhshopochnaya, rising about 5 miles N of Mys Varkhalamskiy, is the summit of the peninsula. The twin-peaked top is discernible from the W, but not from S. A short drying reef projects S from Mys Varkhalamskiy.

From the S the cape merges with the coast in the background and is inconspicuous, but a slightly projecting cape, about 1.5 miles NW of Mys Varkhalamskiy, has a conspicuous natural tunnel near its extremity that is prominent from the S and forms a useful landmark.

A group of two barren rocks on a common base, surrounded by smaller rocks nearby, lies about 3 miles NW of Mys Varkhalamskiy and about 1.5 miles offshore. Depths of 22m have been obtained about 0.5 mile E of these rocks.

**Tides—Currents.**—The flood current sets W and the ebb E, attaining velocities of 1.5 to 2 knots in the vicinity of Mys Varkhalamskiy.

The coast between Mys Varkhalamskiy and Mys Yekateriny, about 9.5 miles ENE, consists of a plateau, which falls precipitously from a height of 30 to 46m.

**5.28 East side of Gizhiginskaya Guba.**—The coast between the SW end of Mys Taygonos (60°34'N., 160°11'E.) (previously described with the W side of Penzhinskaya Guba), and Mys Zubchatyy, about 14 miles N, consists of cliffs 61 to 91m high in the S part. Mys Zubchatyy rises almost vertically from the sea, attaining an elevation of 414m about 1.5 miles inland.



**Mys Zubchatyy**

Vnutrennaya Guba is entered between Mys Zubchatyy and Mys Vnutrenniy, about 11 miles NW. The shores of the bay are backed by mountain chains, 500 to 600m high. The bay has not been completely surveyed, and its shores are fringed by above and below-water rocks, but none apparently more than 1 mile offshore.

Ostrov Telan, a very conspicuous island resembling a castle, lies about 1 mile SSW of Mys Vnutrenniy. A short reef projects from the NW end of the island, and a wide grassy spit projects in the direction of Mys Vnutrenniy.

**Mys Telanskiy** (60°56'N., 159°47'E.), the SW extremity of Poluostrov Telanskiy, rises to a height of 510m and is steep-to.

Sredniy Zaliv, entered about 18 miles N of Mys Telanskiy, is open from the S to WSW. The shores of the bay rise sheerly from the sea to heights of 46 to 61m and merge into an elevated plateau. A narrow strip of sand and shingle fringes the shore.

A drying ledge extends about 0.5 mile W of the E entrance point, and is marked by a large rock, 46m high, close within its extremity. The depths in Sredniy Zaliv decrease to 20m about 1 mile offshore.

**Anchorage.**—Anchorage can be taken in 20 to 25m in Sredniy Zaliv. The bottom is mud, or mud and sand, except in the vicinity of the ledge where it is rocky. Small vessels anchor on the N side of the ledge, which gives some protection from the sea.

Ostrova Khalpili consists of two principal islets and several smaller islets and rocks, lying off the W side of the flat-topped peninsula, which forms the N side of Sredniy Zaliv. The S of the principal islets, about 0.5 mile off the SW end of the peninsula, has steep slopes rising to a sharp-peaked summit, 61m high. A partly drying reef connects the islet to the mainland. The N principal islet, about 2 miles N of the S islet, has a detached group of drying rocks a short distance off its S side.

The inlet, 5 miles farther NE, is about 2.5 miles wide at its entrance. Rocks lie nearly 0.5 mile off either entrance point. The entire inner half of the inlet dries and is encumbered with rocks.

**5.29 Ostrovok Morskaya Matuga** (61°23'N., 159°55'E.), a precipitous flat-topped islet, has the same elevation as the cliffs of the point about 0.5 mile E. The islet is connected to the mainland by a drying reef, marked with rocks and pillar rocks, two of which lie close to the islet. The islet appears to be steep-to on its W side.

Ostrovok Glinyanyy, about 5 miles farther NE, has the shape of an irregular cone, and is clearly visible only when a vessel is near the coast.

Between Ostrovok Glinyanyy and Mys Matugin, about 16 miles NNE, the coast consists of cliffs, 46 to 61m high, the greater part backed by a level plateau extending for several miles inland to the foot of a mountain range.

**Caution.**—Kamen' Opasnyy, a dangerous submerged rock, occasionally awash, lies about 7 miles SW of Mys Matugin and about 4 miles offshore. The area in the vicinity of this rock has not been surveyed.

**5.30 Mys Matugin** (61°41'N., 160°15'E.), a precipitous cape, has the appearance of a sheer seaward termination of a slightly projecting tableland.

Ostrov Rechnaya Matuga, a flat-topped islet with precipitous shores and about 61m high, lies with its W end about 1 mile SW of Mys Matugin. A grotto in the W part of the islet is conspicuous from the N and S. The islet is fringed by a partly drying reef. A detached rocky patch lies about 0.3 mile WSW of the W end of the islet. A drying reef, on which are two large cube-shaped rocks, connects the islet to Mys Matugin.

Bukhta Matuga, the bight S of Mys Matugin, shoals gradually to depths of 5.5m about 0.5 mile offshore. A detached drying rocky patch lies 0.4 mile off the mouth of Rechka Matuga, at the head of the bight.

**Anchorage.**—Anchorage, with local knowledge, can be taken in Bukhta Matuga in 6 to 11m, sheltered from winds of the NE and SE quadrants. Partial protection from NW winds and from the sea can be taken in that part of the bight close SE of the channel separating Ostrov Rechnaya Matuga from the mainland.

**5.31 Head of Gizhiginskaya Guba.**—The head of Gizhiginskaya Guba is entered between Mys Matugin and Mys Yekateriny, about 10 miles W.

**Winds—Weather.**—During the period of good weather throughout the area of Gizhiginskaya Guba, regular breezes prevail in the head of the gulf. The offshore breeze, which attains its greatest force about sunrise, languishes between

0800 and 0900 in the morning to a calm and then is superseded by an onshore breeze. This onshore breeze increases in force until 1600 or 1700, but subsides gradually to a calm and is superseded 2 hours after sunset by an offshore breeze throughout the night.

Southerly winds bring fog into the head of the gulf from the vicinity of Mys Taygonos. Particularly dense and protracted fog prevails here during the spring and the first part of the summer. Fog is rare in the latter part of the summer, and, as a rule, does not occur in the fall. Winds from N, E, and W clear the head of the gulf from fog.

**Ice.**—The river freezes in the middle of October and the entire head of the gulf is covered with ice by the end of November. The ice begins to break in the first part of June, and, as a rule, the head of the gulf is free of ice by the end of the month.

**Tides—Currents.**—At the head of the gulf the MHW interval is about 2 hours 43 minutes at springs. At neaps, the HW interval is irregular and may vary by 1 hour 30 minutes. The tide is diurnal at springs, the tidal range being 7.9m. The flood lasts about 10 hours, and the ebb, about 14 hours. At neaps, the tide is semidiurnal and the tidal range is about 3m.

The flood current flows in a general NNE direction, and the ebb current in a SSW direction, attaining velocities of 2 to 2.5 knots along the W shore, but only 1 to 1.5 knots along the E shore.

**Depths—Limitations.**—Inside the entrance the depths decrease gradually and uniformly. Generally, the W side is somewhat deeper. The bottom is rock in the S section of the

head of the gulf, shingle in the middle section, and either sand, or sand and mud, in the N section.

**Aspect.**—Mys Yekateriny, a flat-topped precipitous cape, is conspicuous on bearings between ENE and NNE, but blends with the coast on other bearings. A large pillar rock, discernible from SW and NE, is located near the extremity of Mys Yekateriny and is connected to the cape by a short, rather low cliffy isthmus. A short drying ledge projects seaward from the pillar rock.

The NW shore of the head of the gulf is precipitous, from 30 to 61m high, and fringed by numerous rocks. The shore adjacent to Reka Gizhiga, at the head of the gulf, is low and consists of a sandy beach backed by marshes extending inland.

The shore between Mys Matugin and Mys Chaybukha, about 8 miles NNE, is a wall-like bluff, 76m high, fringed by rocks. Mys Chaybukha, conspicuous and rising to a height of 95m, is marked by three pillar rocks near its extremity.

Mys Mayachnyy, about 6.5 miles N of Mys Chaybukha, rises to a height of 49m near its extremity.

**Anchorage.**—Sheltered anchorage in depths of not less than 7.3m can be obtained about 2 miles N of Ostrov Rechnaya Matuga, with Mys Matugin bearing 138° and Mys Chaybukha 036°. The bottom here is rock, poor holding ground, and it should be borne in mind that from this position the bottom shelves N and E.

Anchorage in depths of 7.3m off the W shore can be obtained about 6 miles within the entrance, with Mys Chaybukha bearing 088° and the W end of Ostrov Rechnaya Matuga bearing 155°. This anchorage has a better holding ground, but the tidal currents here are stronger and it is exposed to the swell.