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**SECTOR 11 — CHART INFORMATION**

# SECTOR 11

## SVALBARD ARCHIPELAGO (SPITSBERGEN)

**Plan.**—This sector describes the Svalbard Archipelago, the name given to all territory between the parallels of 74°N and 81°N, and between the meridians of 10°E and 35°E. It comprises the main group of islands consisting of Spitsbergen (Vestspitsbergen), Nordaustlandet, Barentsoya, Edgeoya, Prins Karls Forland, and numerous smaller islets, and the outlying islands of Kvitoya, Kong Karls Land, Hopen, and Bjornoya.

### General Remarks

**11.1 Winds—Weather.**—Data on wind direction and velocity show that gales tend to be somewhat less frequent from N of latitude 70°N.

Winds in Bjornoya are very variable; there is little diurnal variation.

The ground W of Bjornoya is less foggy than Bjornoya itself, and in the area around the island there is a rapid increase in fog frequency from W to E. In July, 40 percent of observations report fog to the NE of the island.

Fog can be expected when the wind changes to E after a spell of SW winds while pressure remains high. Fog has been known to persist over the island for as long as 19 days.

The coasts of Svalbard are subject to squalls which develop suddenly, even from a calm, and falling snow may rapidly obliterate landmarks. Downslope winds from the glacier are a common feature.

Fog is rather frequent at Edgeoya and Nordaustlandet and is more frequent on the E coast of the island than on the W coast of Spitsbergen.

The light conditions on Svalbard are very special, as in polar regions in general, and are rather different from those we are used to in lower latitudes. The further N one moves to the polar circle, the longer the periods when the sun stays above the horizon day and night in summer (midnight sun), and below the horizon in winter (polar night).

The table shows when the "perpetual day" and "perpetual night" begin and end for the latitudes covered by Svalbard. These periods increase by about 6 weeks from 74° to 81°N, corresponding to 6 days for each degree of latitude one travels N, which again means about 2 hours, 26 minutes for every nautical mile.

### Bjornoya

**11.2 Bjornoya** (74°27'N., 19°04'E.), the S island of Svalbard, lies with its S extremity about 250 miles NNW of Nordkapp, the N point of Norway and about 140 miles SSE of Vestspitsbergen. The island is triangular in shape, with the apex pointing S; its length from N to S is about 10 miles and its greatest width is about 8 miles.

The S and E part of the island are mountainous; the N part is a stony and barren plateau. The coasts of the island are characterized by high and almost vertical cliffs. Many of the steep cliffs are fringed with beaches on which landing can be effected in fine weather, but few of the beaches afford access to the interior of the island.

Bjornoya is often entirely or partly obscured by mist, but Miseryfjellet, a mountain on the E coast, is frequently visible when the lower parts of the island are hidden. In fine weather, the mountain may be seen for a distance of up to 40 miles.

A Norwegian government meteorological and radio station is situated at the N end of the island and is marked by three high radio masts. A radiobeacon is located near the meteorological station. A consol beacon transmits about 2 miles SSE of the radiobeacon.

**Ice.**—Bjornoya is usually affected by ice from late December to late March. In a heavy ice year, however, it may be effected as early as late October and as late as early May. In a light season, it is effected by ice for at least a few weeks in winter. Small icebergs are sometimes found in the vicinity of Bjornoya from May to October.

**Tides—Currents.**—The current runs around Bjornoya at an unusual rate and in certain places raises a tremendous sea, which is quite dangerous to small craft. The sea is especially heavy around the S end of the island, between Sylen and the entrance to Sorhamn, where the current attains a rate of about 3 knots. Tide rip around the island are experienced far out to sea.

On the rising tide, the current runs N on the E and W coasts and W on the N coast. After the occurrence of HW, the rate of the current decreases, and there may be slack water for as long as 0.5 hour. On the falling tide, the current runs S on the E and W coasts and E on the N coast.

**Anchorage.**—There are no sheltered harbors in Bjornoya and vessels surprised by the weather are forced to find shelter on the lee side of the island and to anchor close in under the cliffs, behind the points, or in the bays.

Latitude	Midnight Sun			Polar Night			Latitude
	From	To	No. of Days	From	To	No. of Days	
74°N	May 3	Aug. 9	99	Nov. 10	Feb. 1	84	74°N
75°N	Apr. 30	Aug. 12	105	Nov. 6	Feb. 5	92	75°N
76°N	Apr. 27	Aug. 15	111	Nov. 3	Feb. 8	98	76°N
77°N	Apr. 24	Aug. 18	117	Oct. 31	Feb. 11	92	77°N

Latitude	Midnight Sun			Polar Night			Latitude
	From	To	No. of Days	From	To	No. of Days	
78°N	Apr. 21	Aug. 21	123	Oct. 28	Feb. 14	110	78°N
79°N	Apr. 21	Aug. 21	123	Oct. 28	Feb. 14	110	79°N
80°N	Apr. 15	Aug. 27	135	Oct. 22	Feb. 20	122	80°N
81°N	Apr. 12	Aug. 30	141	Oct. 19	Feb. 23	128	81°N

In good weather, anchorage may be obtained anywhere around the island. Anchorage within a distance of 2 miles offshore may be obtained, in depths of 15 to 36m, most places being sand bottom.

**Spitsbergen Bank** (75°00'N., 21°00'E.), defined by the 183m curve, lies with its outer edges at least 25 miles S and W of Bjornoya,; then the bank extends N, NE, and E of the island. Though the bank is not completely surveyed except in the vicinity of the island, depths of 22m and 18m have been obtained 43 miles N of the island. Depths of less than 37m are frequent around these two soundings. Abnormal magnetic variations have been reported on the bank in the vicinity of Bjornoya.

### East Coast of Bjornoya

**11.3 Kapp Bull** (74°21'N., 19°05'E.), the S extremity of Bjornoya, is a steep headland, 373m high, close off which lie three islets. The coast on either side of Kapp Bull is steep-to; however, there are no harbor or landing places and strong squalls frequently occur close inshore. Small boats are cautioned when proceeding along the coast during spring and early summer, when ice is melting, for landslides and falling rocks are almost continuous. Kapp Kolthoff, lies 0.75 mile ENE of Kapp Bull and Alkeholmen, an islet, lies between them.

Sorhamna, a small bay, lies 1.5 miles NNE of Kapp Kolthoff. The E side of the bay is protected by a steep and narrow islet. The depths in the middle of the bay are about 14.6m and greater, shoaling to less than 9.1m at its head. Anchorage in the bay may be obtained as convenient, but the holding ground is not good. At the head of the bay is a small beach where landing is possible; however, it was reported that the height of the cliffs prevented access to the interior.

**Roedvika** (74°24'N., 19°13'E.), a small open bay, lies 2 miles NNE of Sorhamna. During W winds, this bay affords the most secure anchorage on the E side of Bjornoya. A depth of 11m is found in the middle of the bay.

Miserygrunnen, a dangerous rocky shoal which is often hard to distinguish, lies close offshore SE of the S summit of Miseryfjellet. Great care should be taken when approaching Roedvika from the N. Evensenbukta, a small bay, lies 3.5 miles NNE of Roedvika. There is a landing place in the bay, but there is no suitable anchorage due to rocks and strong tidal currents.

**Austervag**, (74°30'N., 19°12'E.), a small cove, lies about 2 miles NNW of Evensenbukta. Two beacons stand close within the head of the cove; when in line, bearing 218°, they indicate the approach to Austervag. Small vessels with local knowledge can obtain anchorage during S or W winds. Vessels are cautioned, should the wind change to NW, a heavy sea soon

sets in and vessels must leave. Two radio masts stand 0.5 mile SE of the leading beacons.

### North Coast of Bjornoya

**11.4** The N coast of Bjornoya affords the best landing places and is comparatively free from off-lying dangers. **Nordkapp** (74°31'N., 19°07'E.) forms the N extremity of the island. Herwighamn is an indentation in the coast and lies about 2 miles WSW of Nordkapp. A small stone pier, with a depth of 4m alongside, is located at Herwighamn. Gravodden, a promontory, lies 0.75 mile W of Herwighamn. A meteorological and radio station stands 0.3 mile SSE of Gravodden. A number of lighted radio and consol masts stand near the station and up to 2 miles E of the station. Herwighamn affords anchorage to small vessels, in a depth of 10.9m.

**Nordhamn** (74°31'N., 18°59'E.) is an open bay entered between Gravodden and Kapp Kjellstrom, the extremity of a small promontory 1 mile W. Emmaholmane, a chain of islets, extends 0.3 mile N from a position close W of Kapp Kjellstorm. The islets are very prominent and cannot be mistaken for other islets on the N coast.

The shore at the head of Nordhamn is low and flat, with a small projection which divides the head into two bays. Anchorage, during offshore winds, is obtainable off these bays according to draft. A vessel anchored, in 15m, nearly 0.5 mile NW of **Gravodden Kobbekukta** (74°31'N., 18°54'E.), an open bay, lies between Kapp Kjellstorm and Taggodden, a point about 2 miles WSW.

Anchorage may be obtained in offshore winds 0.25 mile off the head of the bay, in a charted depth of 9m. In the E part of the bay, the shores slope evenly down to the sea; landing with access to the interior is possible, but in the W part the cliffs are unscalable.

### West Coast of Bjornoya

**11.5** From Taggodden, the coast curves SW and S for about 2 miles to **Kapp Duner** (74°29'N., 18°46'E.), which is the NW point of a forked promontory forming the W extremity of Bjornoya. Grytvika, on the NE side of Kapp Duner, affords anchorage to small craft with local knowledge during E or S winds. Teltvika, close SE of Kapp Duner, is a small cove from which landing and access to the interior are possible.

**Lunekevika** (74°28'N., 18°47'E.), a bay about 0.5 mile wide at its entrance, lies on the S side of the Kapp Duner promontory; landing can be effected on a short sandy beach, which affords access to the interior of the island. The bay affords anchorage for vessels with local knowledge.

Vernevagen, a bay, lies with Kapp Elizabeth, its S entrance point, about 2 miles SSE of Kapp Duner. The entrance to the bay is obstructed on its N and S sides by extensive shoals. Close N of Kapp Elizabeth is a landing place. A cairn of stones stands about 0.3 mile ESE of Kapp Elizabeth.

Kapp Ruth projects from the coast about 3 miles SSE of Kapp Elizabeth; midway between the two is Kapp Hanna, near which a beacon stands. Kapp Maria lies about 1 mile SE of Kapp Ruth; on its N side a group of islets lies close inshore.

**Caution.**—A depth of 2.7m was reported (1994) to lie 1.8 miles WSW of Kapp Ruth.

Landnordingsvika is a bay entered between Kapp Kare and Kapp Harry, about 1 mile to the SE. Shelter is afforded in this bay during E and NE gales, but winds from other directions may raise a heavy sea. Vessels should approach with the middle of the bay bearing about 045°, and then can anchor in depths greater than 9.1m, with Kapp Harry in range about 133°, and in line with the outermost large rock on Skredneset, a point 0.3 mile farther SE.

**Sylen** (74°22'N., 19°02'E.), an awl-shaped pillar of rock, lies about 2 miles SSE of Kapp Kare. Hornvika, an indentation on the S side of Hambergfjellet, lies close SE of Sylen.

The coast on either side of the S extremity of Bjornoya is steep-to and there are no landing places. Small craft should exercise great care along this coast, especially during spring and early summer, when the melting ice causes continuous landslides of rock. The sea raised by tidal currents is especially heavy at the S end of the island, between Sylen and the entrance to Sorhamna on the E coast.

## Spitsbergen

**11.6** Spitsbergen, the largest island in the main group forming Svalbard, is situated about 400 miles N of Norway. A thick sheet of ice covers a large portion of the interior of the island, through it projects numerous sharp peaks. The whole of the W coast of the island is mountainous. The valleys opening towards the coast, at the heads of which is a chain of mountains, are in most cases filled with permanent ice.

When approaching the W coast of the island, considerable reliance may be placed on soundings. Deep submarine valleys penetrate into the fjords, while the coast between them is fronted by banks on which the depths in most cases increase regularly close inshore from 45 to 90m.

Due to the effect of the warm West Spitsbergen Current, most parts of the W coast are usually accessible from late May to early November. However, in a bad ice year, this coast may be affected from mid-October to late July. In a light year, apart from the formation of fast ice in fjords, this coast may remain practically ice-free throughout the winter.

A polar station exists on the NW coast of Spitsbergen. It is owned and manned by Nicolaus Copernicus University of Poland.

## Sorkapp Land

**11.7 Sorkapp Land** (76°50'N., 16°25'E.) is a peninsula, 27 miles long in a N-S direction, at the S end of Spitsbergen. The coast of Sorkapp Land is one of the most exposed in Spits-



*Courtesy of Marek Szymocka*

**Polish Polar Station on Spitsbergen**



*Courtesy of Marek Szymocka*

**Polish Polar Station on Spitsbergen**

bergen, and drift ice may be encountered off it at any time. Sorkappoya, a narrow island, lies off the S coast of Sorkapp Land. Sorkapp, the S extremity of the island, is surmounted by a beacon. A large lagoon is entered from the W side of the island. Flakskjeret is a low islet lying near the outer end of a chain of islets and rocks extending 3.5 miles ESE from the E extremity of Sorkappoya.

Sommerfeldbukta indents the S coast of Spitsbergen for about 4 miles, and lies about 3 miles N of the N extremity of Sorkappoya. Oylandet is a narrow and level tongue of land extending 5 miles SSW and forming the W side of Sommerfeldbukta. A hunter's hut stands on each entrance point to Sommerfeldbukta.

Anchorage is obtainable off the entrance to Sommerfeldbukta, in a depth of about 8m. The depths within the entrance are less than 3m; the inner part of the bay dries.



*Courtesy of Marek Szymocka*

### Northwest Spitsbergen

**Stormbukta** (76°41'N., 16°18'E.), a small bay, lies close N of the W coast of Oyrlandet. Open anchorage is obtainable in the entrance to Stormbukta, but this berth is exposed to heavy E squalls which descend from the mountains, and caution is necessary owing to the dangers on the N side of the approach. Brimingen is a dangerous rock lying 6 miles W of the head of Stormbukta and 2.25 miles offshore. The coast between Stormbukta and **Suffolkpynten** (76°52'N., 15°34'E.) is very foul and should not be approached within 2.5 miles.

Hornsund, lying 19 miles NW of Stormbukta and entered between Suffolkpynten and a point 7.5 miles NNW, extends 10 miles ENE, with two short branches at its head. A bank, with a depth of 29m, has been reported to lie about 6 miles NW of Suffolkpynten. Hornsund is ice-free from July to October and the sound is usually navigable in June and November. The sound of Hornsund is exposed to very severe E squalls which descend from the mountains.

Vessels entering Hornsund should keep in mid-channel, taking care to avoid the dangerous shoal lying about 3 miles W of Suffolkpynten. A rock, which does not cover, lies close E of this shoal. An aero light is exhibited from the vicinity of the NW entrance point to Hornsund. Anchorage may be taken off the SW side of Gashama, a bight on the S side of Hornsund. When entering the bight care is taken to avoid two below-water rocks in its E part.

Han's Glacier (Hansbreen) is a large glacier which descends to the N shore of Hornsund, close E of a small inlet. It is bounded on the E by a sharp ridge, 889m high, extending N from the W entrance of Burgerbukta, with a very steep fall on its E side. Both Han's Glacier and the ridge are prominent from off the entrance to Hornsund.

### Hornsund to Bellsund

**11.8** The coastal area between Hornsund and Bellsund is backed by sharp-pointed and crevassed peaks, a feature of the W coast of Spitsbergen N of Hornsund. Depths of less than 91m will be found from about 6 to 10 miles offshore at



*Courtesy of Marek Szymocka*

### Hornsund



*Courtesy of Marek Szymocka*

### Summer at Hornsund

Torbjornsenfjellet as far N as 77°30'N, so that soundings will give warning of the proximity of danger.

The coast for 2.5 miles NW of Torbjornsenfjellet consists of a high mountain ridge. Werenskioldbreen lies N of this ridge, and a low swampy tract of land extends for 3 miles at the foot of its front. Tonefjellet, on the W side of Werenskioldbreen, is easily identified from seaward.

**Dunoyane** (77°04'N., 15°00'E.), a group of three islets surrounded by several rocks, lies on the outer part of a shallow bank which forms the coast for 5 miles. The inner part of this bank dries. Anchorage, in depths of 5 to 10m, may be obtained 0.3 mile NE of the NW islet. The anchorage is approached from the N; local knowledge is necessary because of the many dangers in the vicinity.

Olsholmen, an islet 5 miles NNW of Kapp Borthen, provides anchorage during E winds between it and the coast, 0.75 mile



*Courtesy of Marek Szymocka*

### Han's Glacier

E, but local knowledge is necessary and care must be taken to avoid several dangers in the vicinity.

From Kapp Borthen, the coast trends in a general N direction to Kapp Lyell, a distance of about 25 miles. A mountain range runs parallel to the coast, about 2 miles inland. The coast in this vicinity is fringed with rocks which extend as far as 1.5 miles offshore. A 13m patch lies 4.5 miles WSW of Kapp Borthen.

## Bellsund

**11.9 Bellsund** (77°3'N., 14°00'E.), an important inlet, is entered between Kapp Lyell and Kapp Martin, which shows a light. It extends about 12 miles E of Midterhukun, the W extremity of a mountainous peninsula known as Midterhukhalvoy. This peninsula divides the inlet into two E branches, Van Mijenfjorden and Van Keulenfjorden. A small S branch of Bellsund, lies on the E side of the peninsula and is known as Recherchefjorden.

The mountains in the vicinity of Bellsund are barren and have many crevasses, particularly the peaks farthest W. On the N side of the sound a plain extends to the foot of Ingeborgfellet, a peak about 7 miles E of Kapp Martin.

**Ice.**—Bellsund is not navigable from December to May. In June and November, the ice is generally navigable; from July to October, the inlet is ice-free.

Recherchefjorden, the S branch of Bellsund, was formerly the chief place of assembly for the whaling fleet. The fjord is well sheltered, though NW winds may send in some sea. Reinodden, a flat projection on the E side of the fjord, has a dangerous spit, on which there are several rocks that extend 0.75 miles NNW offshore. Recherchefjorden is not usually clear of ice until June or July and it freezes early, sometimes in September.

Good anchorage may be obtained, in depths of 33 to 37m, good holding ground, in the SW corner of the fjord. Do not anchor anywhere near the two glaciers in the fjord, as they are fringed with large quantities of floating ice.

**Midterkuken** (77°39'N., 14°46'E.) is a promontory forming the W extremity of Midterhukhalvoy. A cove which lies close SE of Midterkuken affords shelter from N winds. The depths in the cove appear to decrease regularly toward the head, from about 33m at the entrance. Anchorage may be obtained, in a depth of about 15m, with the S extremity of the outer islet, which forms the W entrance point, bearing 292°, distant 0.175 mile, or in a depth of about 9m, about 183m farther inshore.

Van Keulen Fjorden lies on the SE side of Bellsund and is entered between Ahlstrandodden and Forsbladodden, 2.75 miles NNW. The fjord penetrates about 15 miles inland, and is surrounded by flat-topped mountains. Nathorstbreen, a glacier at the head of the fjord, has an extensive moraine on either side of its front. Anchorages in the fjord are found close within the entrance and are indicated on the chart.

## Van Mijenfjorden

**11.10** This fjord is entered by Mariasundet and Akselsundet, two narrow channels at either end of the island Akseloya. On either side and at the head of the fjord are flat-topped mountains, separated by broad flat valleys which are mostly ice-free. Strong winds often blow out of the fjord.

**Mariasundet** (77°41'N., 14°51'E.), the S entrance to the fjord, is about 0.25 mile wide between Maseneset and the island of Mariaoya, off the S end of Akseloya. The least charted depth in the fairway is about 11m. The tidal currents in this passage are very strong, and several dangers, the positions of which are best seen on the chart, lie in the W approach and in the entrance channel close SW of Maseneset.

**Akselsundet** (77°45'N., 14°36'E.), the N entrance to the fjord, is the usually used and is nearly 0.6 mile wide at its narrowest part. The N side of the passage should not be approached within about 0.2 mile; the S side should not be approached within 183m.

The depths are from 16.5 to 51m in mid-channel. Though the tidal currents are weaker than those in Mariasundet, they may attain a velocity of 5 to 6 knots at springs, causing considerable eddies and rip tides. Large vessels or those with low power should pass through Akselsundet at or near slack water. An aero light is shown from the N extremity of Akseloya.

**11.11 Fridtjovhamna** (Frithjofhamn) (77°46'N., 14°39'E.), a cove on the N side of Akselundet, is entered W of Kapp Schollin, from which a spit extends 0.3 mile SSW. When entering the cove, caution is necessary to avoid a bank, with depths of less than 1.5m, which extends 0.2 mile NE and N from the W entrance point. Anchorage is obtainable in the middle of the cove or off its E side, in a charted depth of 16.5m. Local knowledge is necessary when anchoring in this cove.

Between Maseneset and Blixodden, 16 miles ENE, the S shore of Van Mijenfjorden is steep-to, with the exception of a small bank. On this bank, there is a depth of 2m, which extends 0.5 mile offshore abreast Bromelldalen, a valley 1.5 miles W of Blixodden. Conwentzodden, 5 miles ENE of Blixodden, is the extremity of a large projection forming part of an old moraine. A spit, on which the depths are less than 9m, extends nearly 1.5 miles NW from Conwentzodden.

Between Kapp Schollin and Svartodden, which shows a light and lies 5.5 miles ENE, the N coast of Van Mijenfjorden rises steeply to the summit of Kolfjellet. A camp lies at the foot of this mountain. Dom Miguelodden, a cape, shows a light and lies 10 miles ENE of Svartodden. Svensksundhamna, entered between Dom Miguelodden and Langneset, 2 miles ENE, offers anchorage to small vessels with local knowledge. Kapp Amsterdam, which shows a light, lies 7.5 miles ENE of Langneset.

**Sveabukta** (77°52'N., 16°45'E.), an inlet at the NE corner of the fjord, is entered between Kapp Amsterdam and Ottoneset and extends 2.5 miles N to Barryneset. Sveagruva, a former coal mining settlement with a jetty, is situated close NW of Barryneset. The channel from Van Mijenfjorden to an anchorage close S of Sveagruva carries a least depth of 4m. The first leg is marked by leading beacons, which in line bear about 016°. Local knowledge is required for the remainder of the channel. The channel continues N along two more legs, which are marked by lighted beacons. Although facilities at the settlement had been improved, including the construction of an export quay and storage area at Kapp Amsterdam; no mining is presently taking place.

## Bellsund to Isfjorden

**11.12** Between Kapp Martin and Kapp Linne, 21 miles N, the coast is fronted with dangers. Lights are shown from these inlets. Kapp Bjorset, which lies 6.5 miles N of Lagneset, and Stabbane, 6 miles farther N, are inlets which show lights.

There are no reported harbors of refuge in this section of the coast. From a position off the entrance to Bellsund, a mountain range may be seen stretching N from Ingeborgfjellet until hidden by another range extending NNW from Ytterdalssata. The coastal plain is widest abreast Ytterdalssata.

**Kapp Linne** (78°04'N., 13°37'E.), which shows a light, forms the S entrance point of Isfjorden. A radio station, located about 0.2 mile SE of the light, is also a Norwegian government meteorological station. Randvika, a cove on the E side of Kapp Linne, affords anchorage in S and SE winds, in a depth of about 9m, with two beacons at the head of the cove in line bearing about 150° and Kapp Linne light bearing 260°. Large vessels may anchor farther offshore, in depths of about 15m, 137m E of the line of the anchorage beacons, with Kapp Linne bearing about 233°.

Festningen, which shows a light, lies 5 miles NE of Kapp Linne. Festningen is fringed by shoals extending 0.5 mile offshore; the outer edge is marked by a buoy.

## Isfjorden

**11.13 Isfjorden** (78°18'N., 15°00'E.), the largest fjord in Spitsbergen, is entered between Kapp Linne and Daudmannsodden, 12 miles NW. From its entrance, it stretches 55 miles NE to the head of Billefjorden, and numerous bays and fjords lead off each side. From June to November, the approach to the fjord is ice-free, with the exception that the tidal currents may sometimes cause the entrance to be barred by loose pack ice. This is most likely in early June, but in bad years it may happen in July or even later.

The fjord is ice-free from July through October inclusive. In June and November, the W part of the fjord is also ice-free, the inner part containing ice that is generally navigable. From December through May, it is unnavigable.



*Courtesy of Marek Szymocka*

## Isfjorden

### Southeast Side of Isfjorden

**11.14 Gronfjorden** (78°03'N., 14°11'E.) is entered between Festningen and Heerodden, which shows a light, and is marked by a buoy on its edge. There are two small glaciers at the head of the fjord and mountains stand on both sides of the fjord.

**Barentsburg** (78°04'N., 14°14'E.) ([World Port Index No. 20560](#)) is an extensive Russian coal mine settlement located on the E shore of Gronfjorden, about 2 miles S of Heerodden. A pipeline is laid across the fjord from a position 0.5 mile S of Barentsburg in a WSW direction. The landing place of the pipeline on the W side is marked by lights. There are two piers abreast the settlement, each of which has depths of 8 to 9m alongside and is capable of accommodating large coal vessels.

One of the piers is used exclusively for loading coal. A pipeline is laid across the fjord from a position 0.5 mile S of Barentsburg in a WSW direction. The landing place of the pipeline on the W side is marked by lights.

Finneset is a small projection 3.5 miles S of Heerodden, on which are some buildings and two conspicuous radio masts. A light is shown at the SW point of Finneset. Three leading lights are shown from a position 0.75 mile NNE of the light at Finneset; in line bearing 146° they lead through the middle of the entrance to Gronfjorden to a position 0.25 mile W of Barentsburg. Small vessels with local knowledge may anchor on either side of Finneset. There is also a possible anchorage, in depths of about 46m, at the head of the fjord.

Between Heerodden and Kapp Laila, 8 miles E, the low coast is fringed by a shore bank. It has been reported that 2 miles E of Heerodden the bank extends farther N than charted. Hollendardalen, a wide ice-free valley, breaks the coast 3 miles E of Heerodden and extends S and SE.

**11.15 Colesbukta** (78°08'N., 14°57'E.), is entered between Kapp Laila and a point 2.5 miles NE. The bay extends 2.5 miles in a SE direction. Both entrance points, the SW side of the bay, and its head are fringed with shoals. It was reported that the shoal fringing Kapp Laila extends farther N than



charted. The depths in the bay are suitable for anchorage, but it is open to the NW.

Grumantbyen, a former coal mining settlement, lies at the mouth of Grumantdalen, a valley about 4 miles NE of the entrance to Colesbukta. The valley contains one of the most important coal mines in Spitsbergen. Abreast Grumantbyen, the depths increase so rapidly offshore that vessels can only obtain anchorage very close inshore. There is a pier for loading coal by conveyor. Two mooring buoys are located close inshore in the vicinity of the coal pier.

**Vestpynten** (78°15'N., 15°27'E.), the SW entrance point of Adventfjorden, lies about 9 miles NE of Colesbukta. A light is shown from the point.

## Adventfjorden

**11.16 Adventfjorden** (78°15'N., 15°37'E.) is entered between Vestpynten and Revneset, a point 3 miles to the NE. A shoal bank fringes Revneset for about 0.5 mile offshore, its outer edge being marked by a buoy. About 1.75 mile within Vestpynten, on the SW side of the fjord is Adventpynten, a salient point which is low, sandy, and inconspicuous. The point shows a light. A low tract of land lies between the two above points; about 2 miles farther SE is Longyearbyen.

The wide valley of Adventdalen extends SE from the head of the fjord, with Adventelva flowing through it. The area off the mouth of the river is gradually silting up, but the edge of the shoal water is very steep-to and anchorage is afforded only in great depths. Moskushamn, a former mining camp, stands 3 miles SE of Revneset. Anchorage off the pier is exposed except during E winds.

*Courtesy of Marek Szymocka*

## Barentsberg



*Courtesy of Marek Szymocka*

## Grumantbyen



*Courtesy of Marek Szymocka*

## Longyearbyen

**Longyearbyen** (78°14'N., 15°39'E.) ([World Port Index No. 20570](#)), a coal mining settlement, lies near the head of Adventfjorden, on its SW shore. A coast radio station, from which a radiobeacon transmits, is located at Longyearbyen.

There are two piers extending NNE from abreast the settlement. The E and larger pier is 170m long; it has a berthing face, 45m long, with depths of 8.2 to 9m alongside. A mooring buoy is located near the head of this pier.

Large vessels can anchor 0.25 mile N of the piers, in a depth of 47m, thick mud. The depths are considerable until close off the head of the larger pier.

## Revneset to Gasodden

**11.17** Between Revneset and Deltanaset, 5 miles NE, the coast is formed by a plateau, similar to that SW of Adventfjorden, above which can be seen the summit of Konussen. Hatten, a rocky mound, which resembles a hat, lies 2.5 miles ENE of Deltanaset. An aero light is shown from the NW side of Deltanaset.

**Sassenfjorden** (78°23'N., 16°30'E.) is entered between Diabasodden and Gasodden, 6 miles NNE, and extends 8 miles ESE to Bjonapynten. Sassendalen, a wide ice-free valley, extends over 16 miles SE from the head of Sassenfjorden, with numerous valleys on its SW side.

Gasoyane, a group of four islets, lies about 1 mile W of Gasodden. The passage between the islets and Gasodden is foul and should not be attempted without local knowledge. A light is shown from the NW end of the islet. Gipsvika, an open bay 2.25 miles wide, is entered 2 miles SE of Gasodden. Ministergrunnen, with a depth of 5m, lies 3.75 miles SE of Gasodden and Medfjordgrunnen, with a depth of 15m, lies 1 mile farther SSE. Two other patches, with depths of 13m and 16m, lie 0.8 mile NW and 0.6 mile S, respectively of Ministergrunnen.

Templefjella (Temple Range) is flat-topped and rises precipitously from the sea in cliffs resembling tiers of cones arranged one upon another, a peculiar formation which is common in Svalbad. Templet, at the NW end, rises to an elevation of 667m. Sindballefjellet, at the NE end, 737m high, is covered by an ice cap, which appears permanent, as there are no signs of avalanches.



*Courtesy of Marek Szymocka*

### Templefjella (Temple Range)

**Templefjorden** (78°24'N., 17°00'E.), the NE continuation of Sassenfjorden, extends for about 8 miles from Bjonapynten. Its shores are comparatively steep. There are no outlying dangers. The head of the fjord is fringed by glaciers.

Bjonahamna, a cove on the NE side of Bjonapynten, affords anchorage, in about 31m, in its middle part, but the cove should not be used when broken ice may block its entrance. Care must be taken to avoid the shoal patches in the N part of the cove.

## Billefjorden

**11.18 Billefjorden** (78°34'N., 16°28'E.) forms the NNE continuation of Isfjorden and extends inland for more than 15 miles. It is entered between Gasodden and Rundodden. Lights

are shown from Kapp Ekholm, on the E side of the fjord, and Rudmosepynten, at the head of the fjord. The fjord is free from offlying dangers on its W side, but toward the E side, a 6m patch lies about 3 miles N of the Gasoyane islets. Rocks, with depths of 5m and 7m, lie 0.6 mile NW and W, respectively, and an isolated 11m patch lies 1.25 miles NW, of Skvalpeskjer, a patch which lies about 4 miles NE of the Gasoyane islets.

Skansbukta, a bay close within the W entrance point of Billefjorden, is about 1 mile wide at its entrance and extends about 1 mile NNW. The general depths in the bay decrease regularly, over a muddy bottom, from 42 to 18m. Small vessels may anchor close to the head of the bay, in depths of 15 to 18m. The bay affords excellent anchorage, the best in Isfjorden; it may be obtained anywhere in the bay. When entering the bay, vessels are requested to keep to the middle until depths of about 29m are reached.

**Mimerbukta** (78°39'N., 16°25'E.) lies about 9 miles NNE of Skansbukta. The bay is 1.5 miles wide at its entrance and extends 1.5 miles W. A mud flat fills the inner part of the bay, extending 1 mile from the shore. A shallow spit extends 0.2 mile S from the NE entrance point and usually excludes ice from the bay.

Pyramiden, a Russian coal mining settlement, lies at the head of the bay. A small wooden jetty, close within the entrance point, is suitable only for lighters. A depth of about 20m is reported about 0.1 mile off its head. Good anchorage for small craft is obtainable, with local knowledge, close off the settlement.

Petuniabukta lies close NNE of Mimerbukta and forms part of the head of Billefjorden. The bay is about 2 miles wide at the entrance and extends about 3 miles to the N. Though the depths in the bay are suitable for anchorage, conditions are dependent on the movement of local ice.

Adolfbukta, a bay, is entered between Rudmosepynten, which shows a light, and Kapp Napier. It lies close SE of Petuniabukta. The shores of the bay are steep-to and depths are deep. Small vessels can anchor between Kapp Napier and the reef E of it, but this position may be dangerous because of ice from the large glacier at the head of the bay.

**11.19 Nordfjorden** (78°30'N., 15°00'E.) is entered between Bohemanneset, which shows a light, and Kapp Thorsden, 6.5 miles WSW of Rundodden. It is 9.5 miles wide at its entrance and extends 11 miles N to Kapp Waern, with general depths of 73 to over 183m. Kapp Waern is the extremity of a peninsula separating Ekmanfjorden and Dicksonfjorden.

Ekmanfjorden is entered between Kapp Waern and Sveanaset, a point about 5 miles WSW. The fjord extends about 10 miles in a N direction. The entrance is free of dangers, except for banks extending about 0.5 mile off the two points. Flinholmen, a small island, lies close off the W side of the fjord. Corahulmen, another small island, lies on the E side near the head of the fjord.

There is a good harbor for small craft on the W side of Flinholmen. To reach this anchorage, a vessel must pass N and W of a drying rock which lies in the N entrance near the W side of Flinholmen. Good anchorage may be obtained, according to draft, E of Corahulmen. Small craft may anchor in the basin on the bank SE of the island, approaching from SW, but caution is necessary.

**Dicksonfjorden** (78°42'N., 15°20'E.) is entered between Kapp Woern (Kapp Waern) and Kapp Wyk (Kapp Wijk), 2.5 miles ENE. The fjord trends about 4 miles NE and 12 miles N, where the head is filled by drying mud flats for about 2 miles offshore.

The entrance to the fjord and the channel N are constricted by shoals, the positions of which can best be seen on the chart. Accumulations of drift-ice in the narrow entrance may make it impossible to leave the fjord for weeks at a time.

**Kapp Nathorst** (78°47'N., 15°25'E.) projects from the E side of Dicksonfjorden, 4.5 miles from the head of the fjord. A shoal spit extends nearly 1 mile W and NW from the cape, leaving a narrow channel between its edge and the bank fringing the W shore. This channel leads to a large basin in which good anchorage may be obtained, in depths of 20 to 40m, good holding ground. The head of the fjord is filled by drying mud flats which extend about 2 miles offshore.

## Isfjorden to Smeerenbergfjorden

**11.20 Prins Karls Forland** (78°30'N., 11°06'E.) lies off the W coast of Spitsbergen between Daudmannsodden and Kvadehuken, 50 miles NNW, and is separated from it by Forlandsundet, a strait navigable only by vessels drawing 3.5m or less. There are no sheltered anchorages on the W coast of Prins Karls Forland, but N of Forlandsundet anchorage is obtainable in Kongsfjorden. In Krossfjorden, Magdalene-fjorden, and Smeerenburgfjorden, anchorages can also be found.

**Salfjellet** (78°14'N., 12°03'E.), located at the S end of Prins Karls Forland, is saddle-shaped and very distinctive. It lies at the S end of a mountain range, which extends 3 miles NNW.

The mountains of Prins Karls Forland are frequently enveloped in a dense canopy of clouds, which often descend to an elevation as low as 30m and sometimes to sea level.

**Fuglehuken** (78°53'N., 10°30'E.) is the N extremity of Prins Karls Forland. A beacon located on a knoll on the point is reported difficult to see on certain bearings against the background of mountains.

Magnetic disturbances amounting to 4° have been experienced in places off the W coast of Prins Karls Forland. An 8°E was observed in a position about 12 miles W of Kaldneset, a point near the middle of the W coast. Disturbances of greater amounts, up to 11°W in places, have been experienced N of the island.

**11.21 Forlandsundet** (78°30'N., 12°40'E.), with a maximum width of about 10 miles, separates the W coast of Spitsbergen from Prins Karls Forland. Vessels are advised not to use this passage before the middle of May because of ice.

Poolepynten, a steep-to point, is marked by a beacon and lies on the E side of Prins Karls Forland, about 12 miles N of Salfjellet. Between Poolepynten and Dawespynten, a point about 8 miles NW, the coast recedes to form a bight, the S part being known as Brucebukta and the N part as Peterbukta. Brucebukta is free of dangers and affords anchorage, in a depth of about 8m, 2.5 miles NW of Poolepynten.

Murraypynten, a sandy tongue extending 0.5 mile E, lies 11 miles NNW of Dawespynten and is marked by a beacon. An aero light is also located on the point.

**Eidembukta** (78°21'N., 12°45'E.), a bight with a glacier at its head, lies on the E side of Forlandsundet, about 9 miles NNW of Daudmannsodden. Anchorage may be obtained in the N part of the bight; however mariners are cautioned to avoid a 4m shoal located approximately 0.5 mile S of the anchorage.

A chain of islets, rocks, and reefs, about 2 miles offshore, W of the NW entrance point, extends in a SW direction.

St. Jonsfjorden, a fjord with a glacier at its head, lies about 10 miles N of Eidembukta. Other glaciers enter the fjord on either side. The shores of the fjord are steep-to and free from dangers, but in the entrance on the N side is a dangerous detached shoal. Hermansenoya, an island, lies on the N side of the outer entrance. The passage between the island and the mainland is free of dangers on the S side.

**Sarstangen** (78°44'N., 11°29'E.), two narrow banks of sand enclosing a lagoon, extends 2.5 miles WSW from the general line of the coast of Spitsbergen. A beacon stands near the extremity of Murraypynten. A light, with a racon and a radar reflector, stands on the point of Sarstangen. Sarstangen tower beacon stands about 183m E of the light.

Forlandsrevet, a sandy bar connecting Sarstangen and Murraypynten, is about 13 miles within the N entrance to the sound. The chart should be consulted for details regarding the narrow and shallow channel.

## North End of Forlandsundet

**11.22 Forlandsundet** is entered from the N between Fuglehuken and Kvadehuken, a low and salient point about 11 miles ENE. From Fuglehuken, which shows a light, the W coast of Forlandsundet curves SE for about 8 miles to the point of Heemskerckneset. For about 4 miles S of Heemskerckneset, the coast is indented by Ferskvassbukta, a bay, which affords anchorage in depths of 8 to 15m.

From Kvadehuken, which shows an aero light, the steep-to E shore of Forlandsundet trends SE for about 9 miles to the N entrance point of Engelsbukta, which is about 2 miles wide at its entrance and extends about 2 miles SE to a glacier at its head. Engelsbukta has been reported to be one of the best anchorages on the W coast of Spitsbergen, being completely landlocked and free from incursions of polar ice. Within the bay, in its middle, are charted depths of about 61m.

Between the S entrance point of Engelsbukta and Sarstangen, about 7 miles SW, the entire coast is fringed with a shoal bank which, in places, extends about 3 miles offshore. Rocks, with depths between 4 and 7m, lie near the outer edge of this bank.

## Kongsfjorden

**11.23 Kongsfjorden** (78°57'N., 12°00'E.) is entered between Kvadehuken and Kapp Guissez, 7 miles NNE. The fjord extends 13 miles ESE, terminating in a large bay of which the NW side is formed by a peninsula 6 miles SE of Kapp Guissez. The shores of the fjord are free from off-lying dangers, and in most places are steep-to. The fjord is usually ice-free, or almost so, from late May to late November. Kongsbreen, one of the largest glaciers in Svalbard, has a front 6 miles long, which forms the head of Kongsfjorden.

**Brandalpynten** (78°57'N., 11°53'E.), which shows an aero light, lies about 7 miles ESE of Kvadehuken. Kolhamna, the shallow bay between the promontory of Ny-Alesund and Brandalpynten, has depths of less than 5.5m. A rocky patch, with a depth of 2.3m, lies 0.75 mile SSE of Brandalpynten.

**Ny-Alesund** (78°55'N., 11°57'E.) ([World Port Index No. 20580](#)), situated on the promontory on the SE side of Kolhamna, serves as a fishing station.

There are two piers in the harbor. A T-head pier is 130m long and has a berthing face of 24m, with depths of 10m alongside. The other pier has depths alongside of 4.8m. A mooring buoy is situated between the heads of the piers.

Anchorage may be obtained by large vessels, in a depth of 27m, good holding ground, 0.25 mile NNW of the E pier. Take care to avoid a rock, with a depth of 6.4m, lying 0.15 mile NNE of this pier, at the seaward end of a bank extending NW from the shore. Small craft can anchor near the head of Kolhamna. During N and W winds, vessels at anchor may be bothered by drift ice, in which case anchoring in Blomstrandhamna is preferable.

**11.24 Blomstrandhamna** (78°59'N., 12°06'E.), an inlet on the NW side of the peninsula of Blomstrandhalvoya, is entered between Tonsneset and Hansneset, about 1 mile S. Lights are shown from the W side of this inlet. Vessels should keep in mid-channel when entering the inlet. On the N side of the inlet is a small bight, in which vessels may obtain anchorage during N and E winds, in a depth of about 33m, good holding ground.

Peirsonhamna, a small inlet at the S extremity of Blomstrandhalvoya, is 0.15 mile wide at its entrance, from which it extends 0.15 mile NE. At its head is London, a former settlement used in the marble trade. Anchorage may be obtained 1 mile E of Peirsonhamna, in depths of 35m, mud, about 0.4 mile offshore, and also 0.75 mile farther NE, in a depth of 30m, 0.3 mile offshore. A 9m patch lies about 1.25 miles ENE of Peirsonhamna.

## Krossfjorden

**11.25 Krossfjorden** (79°09'N., 11°46'E.), entered between Kapp Guisnez and Kapp Mitra, 6 miles WNW, extends 8.5 miles NNE to Cadiopynten, the S extremity of Kong Haakons Halvoy, where the fjord divides into Mollerfjorden and Lilliehookfjorden. Mountains enclose the fjord on either side and landing is difficult in most places.

Lilliehookbreen, an immense glacier at the head of Lilliehookfjorden, is a remarkable feature of Krossfjorden.

The large bergs which are frequently calved, many with heights of 12 to 15m, are the only real icebergs calved on the W coast of Spitsbergen. None of these bergs reach the open sea, having such a deep draft they ground on the shore of the fjord, or on the shoals near the entrance.

Mollerfjorden, entered between Kapp Thoulet and the SE extremity of Kong Haakons Halvoy, extends 3.5 miles N, where it divides into Kollerfjorden and Mollerhamna. Two dangerous shoals lie close off the W shore N of the W entrance point. With the exception of these dangers, the outer part of Mollerfjorden is free from shoals, but obstructions lie in the approach to Kollerfjorden and Mollerhamna, where the depths

are very irregular. Kollerfjorden has not been thoroughly examined and should be entered with caution.

Mollerhamna, entered between Regnardneset and Kong Haakons Halvoy, to the W, is fringed on its NE side by a shore bank which extends from about 0.2 to 0.3 mile offshore. Anchorage is obtainable, in depths of 18 to 27m, 0.1 to 0.2 mile off its NE shore, with good holding ground. It is reported that the depths N of the anchorage are less than those charted. A conspicuous boulder on the shore 0.5 mile NW of Regnardneset may be useful as a mark when anchoring.

A hut stands on the shore between the boulder and Regnardneset. Due to the background, it is not easily seen from seaward.

**11.26 Ebeltofhanna** (79°09'N., 11°39'E.), on the NW side of Krossfjorden, is a shallow inlet about 4 miles within the entrance to the fjord. Anchorage may be obtained off Ebeltofhanna, in depths of about 15m, good holding ground, 0.25 mile ENE of Enjalbalstranda, a sand spit.

Caution is necessary as the sand spit may have altered considerably in shape and extent. Anchorage is recommended for use in only early summer, before drift ice sets in from Lilliehookbreen.

**Lilliehookfjorden** (79°15'N., 11°40'E.) is entered between the S end of Kong Haakons Halvoy and the shore abreast Schottfjellet, a peak about 2 miles to the W. The fjord extends 6 miles NNW to Lilliehookbreen and is 1.5 miles wide throughout its length. It is usually ice-free in July, but towards the end of the summer, the ice from Lilliehookbreen may render navigation of the fjord impossible. The shores of the fjord are steep-to and free from dangers.

**Signehamna** (79°16'N., 11°35'E.) is a cove entered between Nilspynten, a point about 4 miles N of Schottfjellet, and Fridtjovneset, about 0.65 mile farther N. The head of the cove is divided by Gunnarpynten, a point about 0.3 mile WNW of Nilspynten.

Anchorage may be obtained midway between Gunnarpynten and Fridtjovneset, in depths of 15 to 18m, but this anchorage should only be used when Lilliehookbreen is not calving.

## Krossfjorden to Smeerenburgfjorden

**11.27** From Kapp Mitra, the N entrance point to Krossfjorden, the coast trends 28 miles N to Magdalenhuken, the S entrance point of Magdalenefjorden. This part of the coast is characterized by a series of glaciers, the deep valleys of which are backed by high mountains. The coastline is fringed with rocks, below-water and awash, which in places extend about 2 miles offshore; it should therefore be given a berth of at least 3 miles where the depths are 28m or greater.

**Kvedfjordbukta** (79°25'N., 10°55'E.) and Rekvedbukta are small indentations in the coast lying, respectively, about 19 and 23.5 miles N of Kapp Mitra. Nothing further is recorded of them and in the approaches below-water rocks make caution necessary.

Hamburgerbukta, a cove about 2 miles S of **Magdalenhuken** (79°34'N., 10°44'E.), extends about 0.5 mile E to the glacier at its head. The entrance is obstructed by a bar, over which the depths vary from 1.8 to 5.5m. The middle of the cove has general depths of 7.3 to 18.3m.

**Magdalenefjorden** (79°34'N., 10°54'E.) entrance lies between Magdalenehuken and Knattodden, about 3 miles NE. The fjord extends about 5 miles E to Waggonwaybreen, the extensive glacier at its head. Surrounding the fjord are high, rugged mountains which rise precipitously, the valleys between the ranges being filled either with snow or glaciers. Calvings are frequent during the summer months. Tidal currents at times attain a rate of 1.5 knots along the S shore of the fjord.

Magdaleneboen, a 6m rocky patch, lies 2.5 miles WSW of Knattodden, in the W approach to Magdalenefjorden. The N extremity of Gravneset, bearing 101° and in line with the middle of Waggonwaybreen, leads into deep water S of Magdaleneboen.

Gravneset, a small peninsula, is fringed on its N side by a group of islets and rocks extending 0.2 mile offshore. Trinityhamna, on the E side of Gravneset, affords anchorage when clear of ice. A stone cairn stands near the head of Trinityhamna.

Anchorage can be obtained, in depths of about 20 to 27m, about 0.5 mile from the S shore in a position off Adambreen. Adambreen lies more than 2 miles W of Gravneset and is the outermost of the three glaciers on that side of the fjord.

**Shannonboen** (79°34'N., 10°56'E.), a rock with a depth of less than 2.0m, lies about 2 miles SE of Knattodden. Fugleholmen, about 2m high, lies about 0.2 mile N of Shannonboen, on a shoal with depths of less than 5.5m, on which lie several dangerous rocks. Another dangerous patch lies 0.4 mile E of Shannonboen, having a rock, awash, close off its SE end, and a rock, with a depth of less than 2m, off its NE end.

## Smeerenburgfjorden

**11.28 Smeerenburgfjorden** (79°43'N., 11°06'E.) is an extensive fjord lying between the NW corner of the mainland of Spitsbergen on the E and two large islands, Danskoya and Amsterdamoya, on the W. It may be entered by Sorgattet, the sound between Danskoya and the mainland; or by Danskegattet, the strait between Danskoya and Amsterdamoya; or by Nordgattet, the N entrance between Amsterdamoya and the mainland. Anchorage is afforded on the E side of the fjord, about 3 miles from the entrance. This anchorage is best seen on the chart.

**Danskoya** (79°41'N., 10°55'E.) lies with Kapp Gurnerd, its SW extremity, about 3 miles N of Knattodden. The above cape and the coast N of it are fronted by many islets and rocks; the outermost danger is two rocks, awash, about 2 miles WNW of the cape. With the exception of Kobbefjorden, this stretch of coast has not been completely surveyed and should be given a wide berth.

Kobbefjorden lies about 3 miles N of Kapp Gurnerd; it is about 1 mile wide at its entrance and recedes E for about 2 miles. An islet lies off the S shore of the fjord, close within the entrance.

**Anchorage.**—Anchorage is afforded N of the islet, in depths of 6.5 to 9.1m, outside the sandbar off the islet. Small vessels able to cross the bar may anchor at the head of the fjord.

**11.29 Amsterdamoya** (79°46'N., 10°49'E.) lies 1 mile N of Danskoya and is separated from it by Danskegattet. Most of the island is mountainous and two high peaks form the summit.

Ytterholmane consists of one large and several smaller islets lying between 0.75 mile and 1.5 miles NW of Bikuben, the W extremity of Amsterdamoya. There is a passage between these islets and the coast of Amsterdamoya. Hakluytodden, the NW extremity of Amsterdamoya, is a bold granite headland.

Danskegattet is entered from the W between Kapp de Geer and Bikuben, which is prominent from seaward. A conspicuous tower-shaped hill rises close SE of Kapp de Geer. This W entrance, which is partly blocked by shoal spits, has depths of 10 to 11m in its middle part. In the E entrance channel, about 0.1 mile wide, the depths are only about 6.9m. Virgoamna, a small bay on the SE side of Danskegattet, affords anchorage, in depths of 22m and 11m, about 0.15 mile E and SE of Ekholmpynten.

**11.30 Nordgattet** (79°45'N., 11°05'E.), the N end of Smeerenburgfjorden, forms the principal approach to the inner part of the fjord. The passage is bound on the W by the NE side of Amsterdamoya and on the E by the coast of the mainland between Fuglepynten and the front of Frambreen, a glacier about 3 miles S. About 1.25 miles S of Fuglepynten, a bay known as Kennedybukta recedes to the front of a glacier which lies between mountain peaks and Frambreen glacier.

**Sorgattet** (79°39'N., 11°00'E.), the S approach to Smeerenburgfjorden is entered between Knattodden and Kapp Gurnerd, 3 miles N, and extends for 3.5 miles NE; with a least width of about 1 mile; it is much encumbered with islets and shoals. Mesteinane, two islets, lie 1 mile N of Knattodden, in the entrance of Sorgattet. They are steep-to on their S and E sides. A beacon marks the E islet. The tidal currents run with great strength through the narrow part of Sorgattet.

Anchorage may be obtained 0.5 mile NE of Moseoya, 0.2 mile offshore, in depths of about 18m. Anchorage is also obtainable 0.75 mile WSW of Danskeneset.

## Smeerenburgfjorden—Inner Part

**11.31** From abreast Smeerenburgodden, the fjord extends about 8 miles SSE to Smeerenburgbreen, a glacier at the E side of its head. South of Danskegattet, the middle approach to the fjord from seaward, foul ground lies off the W shore to a distance of about 0.6 mile. The islet of Albertoya is about 0.4 mile SE of Kapp Pike, the S point at the E end of Danskegattet.

**Slaadbukta** (79°42'N., 11°15'E.), an indentation on the E shore about 1 mile S of Frambreen, recedes to the front of a glacier. About 2 miles SSE of Slaadbukta is a small bay named Marbukta. Anchorage may be obtained 0.4 mile SSE of Smeerenburgodden, in depths of 24 to 33m.

## Spitsbergen—North Coast

**11.32 Fuglefjorden** (79°47'N., 11°28'E.) is entered between Fuglepynten and Drottenneset, 3.25 miles ENE, and extends 3 miles SSE to two glaciers at its head. Fugloya, an island, lies about midway between the entrance points. The depths in Fuglefjorden are very irregular in places and it should be entered with caution.

**Fair Haven**, (79°49'N., 11°29'E.) a sound lying N of Fuglefjorden, is partly sheltered by cliff islets and shoals. The depths in the sound are irregular and include a number of shoal



**Fugloya**

patches. Cummingoya lies in the E part of the sound, on a detached shoal with depths of less than 5.5m up to 183m offshore. Steggholmen, 0.5 mile SSE of Cummingoya, lies close within the S edge of an extensive bank, having depth of less than 5.5m, and with several rocky patches. Holmiabukta, an inlet, is entered from the SE corner of Fair Haven, 1 mile E of Drottenneset.

Suitable anchorage is reported in the channel between Fuglesangen and Klovingen, close N of Fair Haven. The depths are from 16.5 to 46m, mud, free from hidden dangers, except for a 7m shoal spot that lies about 0.3 mile SW of Klovingen. Drift ice and bergs may be carried in from the N by the wind or the tidal current.

## Raudfjorden

**11.33 Raudfjorden** (79°50'N., 12°00'E.) is entered between Flathukenand Jermaktangen, 4 miles E. The fjord extends 10.5 miles to the S and divides into two branches near its head. The fjord has deep water for the most part and the general depths off the entrance are 15.3m and greater. A shoal spot, with a depth of 3.4m, and a rock, with a depth of 4m, lies about 1 mile WNW and 1.25 miles NNW, respectively, of Jermaktangen. A roc, with a depth of less than 1.8m, lies approximately 1.5 miles W of Jermaktangen.

Between Jermaktangen and Velkomstpynten, the W entrance point of Woodfjorden, a bend on the coast forms a wide bay known as Breibogen, which recedes about 5 miles to its head at the W end. The NE shore of the bay is covered by deep-red limestone. Patches, with depths of 13.8m and 16m, lie within 2 miles seaward of the N extremity of Velkomstpynten. A shoal patch, with a depth of 5.8m, lies about 3 miles NNW of Velkomstpynten.

**Moffen** (80°02'N., 14°30'E.), an island, lies 12 miles NE of Velkomstpynten. It has an extensive bank, with depths from 17m to 102m, which extends more than 20 miles N. Two outlying shoals, with depths of 7m and 9m, lie, respectively, 15 miles NW and 12 miles N of Moffen; however, their exact

positions are not known. A beacon stands at the S extremity of the island. The tidal currents off the island set NW and SE at a rate of about 1 knot. Anchorage may be taken about 0.5 mile SW of the beacon.

## Woodfjorden and Liefdefjorden

**11.34 Woodfjorden** (79°40'N., 13°58'E.) is entered between Velkomstpynten and Grahuken, a point about 8 miles ESE. The fjord indents the coast for about 34 miles to the S. Grahuken, the E entrance point of Woodfjorden, is the N extremity of a mountainous promontory between Woodfjorden and Wijdefjorden. A beacon stands on a rock close N of Grahuken. From Velkomstpynten the W side of Woodfjorden trends about 11 miles S to a small peninsula which forms the N entrance point of Liefdefjorden.

Liefdfjorden is entered between Stasjonsoyane and Rooseneset, 6.5 miles SSW, and extends 13 miles WSW to Monacobreen at its head. The fjord contains numerous groups of islets and rocks, which can best be seen on the chart. Bockfjorden, entered between Roosneset and Kapp Kjeldsen, 6 miles S, extends 3 miles S of the latter point. A shoal, with a depth of 7m, lies 4 miles S; a dangerous shoal, with a depth of 1m, lies 6 miles SSE of Rooseneset.

## Wijdefjorden

**11.35 Wijdefjorden** (79°22'N., 15°37'E.) is entered between Grahuken and Bangenhuk, 14 miles ENE and extends 58 miles SSE to a glacier at its head. The depths in the fjord are deep; however a shoal, the exact position of which is not known, with a depth of 3m, lies about 17 miles SSE of Grahuken. The W side of the fjord is backed by mountain ranges separated by valleys running in a WSW direction. Some of these valleys are long and flat, others short and steep, but most have glaciers at their sides or heads and all are desolate.

Vestfjorden, about 6 miles long, branches SSW from the W shore of Wijdefjorden, about 35 miles within the entrance. It is, in reality, a side valley which is depressed below sea level and appears to be silting up rapidly. The depths in the fjord are somewhat shallow and its head dries for 2 miles offshore.

Anchorage in Wijdefjorden can be obtained on either side of Bratthuken, a small sandy projection on the E side of the fjord, about 11 miles S of Bangenhuk, in depths of 9.1m on the N side of the point and 7.3m on the S side. Anchorage is also reported on the W side of the fjord close N of Krosspynten, and also 14 miles SSE of Kapp Petermann.

**Mosselbukta** (79°53'N., 15°55'E.) is entered between Bangenhuk and the coast 3.5 miles NNE, and extends 3 miles SE. The bay apparently was used as an anchorage during former whaling times, but vessels experienced severe difficulties when they were beset by ice in the bay.

Verlegenhuken, about 13 miles NNE of Bangenhuk, forms the N extremity of Mosselhalvoya, the latter being the seaward end of the great peninsula Ny Friesland which terminates Spitsbergen to the NE and separates Wijdefjorden from Hinlopenstretet. A beacon stands on Verlegenhuken; a dangerous 5m patch lies about 3 miles ENE of the beacon.

## Nordautlandet—North Coast

**11.36 Nordautlandet** (79°50'N., 23°00'E.), the largest island NE of Spitsbergen, is separated from the latter by Hinlopenstretet. The very irregular N coast of the island is broken by interspersed fjords, bays, and rugged peninsulas. Some of the latter being large and salient and in places the offing is encumbered by islands and dangers.

**Langgrunnodden** (80°09'N., 17°46'E.), the NW extremity of Nordautlandet and the NE entrance point of Hinlopenstretet, lies at the NW end of Storsteinhalvoya. From Langgrunnodden to Marmorpynten, 11 miles ENE, the coast consists almost entirely of narrow strips of beach within which are extensive lagoons, most of the water near them being brackish. Lagoya, meaning low island, is separated from the N coast of Storsteinhalvoya by Franklinsundet, known to be foul and having a 10m patch in mid-channel, 3.5 miles WNW of Marmorpynten. Franklinsundet's narrowest width is 3 miles; however, it should be entered with great caution.

**Lady Franklinsundet** (80°09'N., 19°11'E.) is entered between Marmorpynten and the coast of Botniahalvoya, which projects 13 miles NNW to form the E side of the fjord. From its entrance, the fjord penetrates about 9 miles SSE to a glacier at its head. There appear to be several shoals in the fjord and several above-water rocks are visible. At times, the fjord is unapproachable due to ice.

Brennevinsfjorden is entered between Kapp Hansteen and Depotodden, 5 miles ENE, and extends 11 miles SSE. Two shoal patches, with depths of 3m and 7m, lie about 5 miles NNW of Kapp Hansteen. Mariners approaching Brennevinsfjorden are advised to proceed with extreme caution.

Close within Depotodden are steep cliffs, on top of which is an almost snow-free plateau, from which rises Snotoppen, a mountain with a small ice cap on its summit.

The best anchorage in the fjord is reported to be in an inlet at the E corner of the head, which is said to be one of the best sheltered harbors in Nordautlandet. In normal years, the fjord is reported to be ice-free between the end of July and early October.

**11.37 Laponiahalvoya** (80°25'N., 19°50'E.) is a large peninsula which projects about 18 miles N and separates Brenevinsfjorden from the large body of water to the E, known as Nordenskioldbukta. Kapp Rubin, the N extremity of the peninsula, lies about 12 miles NNE of Kapp Hansteen. The NW part of the peninsula is composed of gray granite.

Chermsideoya, a relatively large island, lies off the N end of Laponiahalvoya. The passage between the island and the mainland is narrow and its depths are moderate. About 1 mile E of Chermsideoya are the smaller islands of Castrenoya. In the channel between Chermsideoya and Castrenoya, the depths are greater than 146m, but a vessel has anchored, in about 9.1m, between the E and SE points of Chermsideoya, in a position about 0.5 mile offshore. A 3m shoal patch, the position of which is doubtful, was reported (1989) to lie 1.5 miles SE of South Castrenoya Island.

**Beverlysundet** (80°29'N., 19°52'E.) is entered between Kapp Rubin and a point on the NW side of Chermsideoya, 2 miles ENE. The sound extends 3 miles SSE, then 1.5 miles NE, with a least width of 0.4 mile. A small point, projecting 0.1

mile S from the middle of the S side of Chermsideoya, is fringed with foul ground, which extends nearly 183m offshore. A shoal, located 0.4 mile ESE of this point, with a depth of 1.8m, has passages on either side. Anchorage may be obtained 0.15 mile WNW of the above point.

**11.38 Waldenoya** (80°37'N., 19°46'E.), an island, lies 5.5 miles NNW of Nordkapp, the N extremity of Chermsideoya. The island consists of coarse-grain granite, most of which is flesh color, giving the rock a red hue. The depths around the island are considerable. Heclaskjeret, a dangerous rock, lies 1.5 miles S of the summit of Waldenoya. The rock at times is awash when a heavy sea is running.

Sjuoyane consists of three large islands and four smaller islands, which lie NE of Nordkapp. Rossoya, one of the smaller islands, is the northernmost island in Svalbard.

**Nordenskioldbukta** (80°25'N., 21°10'E.) is entered between Nordkapp and Kapp Platen, 28 miles E. The bay consists of numerous inlets, some of which may be entered without danger and are suitable only for temporary anchorage. They are open to the N and may be filled with heavy ice without warning. Comparatively few soundings have been taken in the bay, but several shoals are known to exist. Fowl ground with many rocks, both below-water and awash, lies S of Scoresbyoya, an island about 15 miles SW of Kapp Platen.

Rijpfjorden, the longest inlet on the N coast of Nordautlandet, is entered between Kapp Loven and Kapp Wrede, 10.5 miles NE, and extends 25 miles S from the latter point. Vindbukta, on the E shore of the fjord, lies 7 miles S of Kapp Wrede. Wordiebukta, entered N of a small projection 20 miles S of Kapp Wrede, is considered to be the safest harbor in Rijpfjorden. No soundings are available.

**11.39 Zorgdragerfjorden** (80°23'N., 22°40'E.), on the NW side of Prins Oscars Land, is entered between Kapp Wrede and Kapp Platen, and extends 12 miles S from the latter point. The head of the fjord is shoal and submerged rocks are reported to lie in the entrance. The fjord should not be used as a refuge and great caution is necessary in entering it. The entrance can be blocked very quickly by ice; the fjord frequently remains full of ice long after the surrounding waters are open.

**Duvefjorden** (80°17'N., 23°30'E.) is entered between the coast under Goodenoughtjellet, 6 miles SE of Kapp Platen, and the N extremity of Glenhalvoya, a peninsula 11 miles farther SE, and extends 18 miles S from its entrance. The W side of the fjord consists of steep headlands which form the E side of Prins Oscars Land. The E shore is lower and more undulating than the W.

Adlersparrefjorden, on the E side of Duvefjorden, extends about 4 miles SE and has three inlets at its head. The N inlet affords refuge to small vessels, but if blocked by ice, the inlet may remain closed for a year. Conwayfjellet, a mountain, rises steeply between the middle and S inlets. Close SW of Adlersparrefjorden is an unnamed bight, about 2 miles wide at the entrance; the E side of Duvefjorden trends about 10 miles S to the head of the fjord. Near the outer end of the E and longer of two promontories which project from the head is the dark and prominent Louise Richardfjellet, with a cairn on its flat summit. Duvebreen, a glacier, enters the fjord about 4 miles E of Louise Richardfjellet.

**11.40 Finn Malmgrenfjorden** (80°17'N., 24°31'E.) is entered between Glenhalvoya and Bergstromodden, the N extremity of a narrow whale-backed peninsula 6 miles in length. The fjord, 4 miles wide at the entrance, extends 7 miles SW. No soundings have been taken in the fjord or in its approaches and great care is necessary when entering. Sealing vessels report that a safe channel passes W of Alpinioya, the islet close NW of Bergstromodden. An islet, whose position is doubtful, lies about 2 miles W of Alpinioya.

**Karl XII Oyane** (80°39'N., 25°03'E.) lies 18 miles N of Bergstromodden. The island has steep sides and a truncated top. In clear weather, the island appears as a large black sail of a boat. Norde Repoya, an island, lies 7 miles N of Glenhalvoya and is 3 miles long in an E-W direction. Sore Repoya lies 2 miles S of Norde Repoya and is about 4 miles long in a N-S direction. No attempt should be made to pass between the latter island and the mainland, as both channels are foul.

**Brochoya** (80°27'N., 26°03'E.), which with Foynoya and Schubeleroya forms a triangular group, lies 14 miles ENE of Bergstromodden and is about 150m high. Foynoya lies about 2 miles E of Brochoya; Schubeleroya lies 1.5 miles S of Brochoya.

**Albertinibukta** (80°16'N., 25°00'E.), a bay, is entered between Bergstromodden and Kapp Bruun, the extremity of a small projection 6.5 miles SE, and extends 6 miles S to a glacier at its head. Between Kapp Bruun and the W end of Leighbreen are a large number of islets lying between 0.5 and 2 miles offshore. Shoals and submerged rocks surround these islets and a berth of at least 3 miles should be given to the coast in their vicinity.

The ice cliffs of Leighbreen extend 10 miles to Kapp Leigh Smith, and then 4 miles S to Kapp Laura, an outcrop of bare rock extending 2 miles E and 3 miles S, forming the E extremity of Nordaustlandet. Storoya, an island, lies 5 miles ENE of Kapp Laura. Foul ground with submerged rocks is charted extending 2 miles S from the E extremity of the island.. The tidal currents between Kapp Laura and Storoya are reported to attain a velocity of about 4 knots; this is probably a very conservative estimate.

## Hinlopenstretet

**11.41 Hinlopenstretet** (79°30'N., 19°20'E.) is entered from the N between Verlegenuken, and **Langgrunnodden** (80°09'N., 17°46'E.). Lagunepynten, 3 miles ESE of Verlegenuken, is a low point from which the coast extends 6.5 miles SSE to Eolusneset. The strait extends about 95 miles SE to Koristkabreen and Kapp Mohn. The narrowest part of the strait lies from 15 to 25 miles within the N entrance where the shores are only 5 miles apart. The strait in many places is encumbered by islands and islets, especially in its S entrance. In October, the whole strait is covered with ice. In July and August, the strait is navigable by most type vessels during normal years. The N part of the strait is affected by strong winds from adjacent ice-covered highlands in summer.

**Sorgfjorden** (79°54'N., 16°50'E.) is entered between Eolusneset and a small projection 1.5 miles ESE. The fjord extends 5 miles S to a glacier at its head. The fjord has not been completely sounded, but in most places both shores may apparently be approached in safety to within 183m.

Heclahamma, a landlocked cove, lies on the S side of Crozierpyten, a narrow promontory on the E shore about 1 mile within the entrance of Sorgfjorden. Anchorage may be obtained in Heclahamma, in depths of 5.5 to 13m, good holding ground. Anchorage is also obtainable under Eolusneset, in depths of 5.5 to 9m.

**Lomfjorden** (79°36'N., 17°54'E.) lies on the W side of Hinlopenstretet and is entered between Isrundingen and Kapp Fanshawe, 6 miles SSE. The fjord extends 17 miles SSW to a glacier at its head. It has been reported anchorage may be taken in a depth of 14m, clay, off the W shore, close S of Valhallfonna.

**11.42 Tommelpynten** (79°33'N., 18°42'E.) lies 7 miles SE of Kapp Fanshawe. Tommeloane, a group of islets, lies between 1 and 2.5 miles offshore abreast of Tommelpynten. A detached islet is charted 3.5 miles N of Tommelpynten; a dangerous rock lies 5 miles E of the point.

Vaigattboge, a wide open bay, lies between Tommelpynten and Kapp Freeden, which projects 2.5 miles NE from the coast 27 miles SSE of Tommelpynten. Numerous glaciers, some of them separated by mountains, form the coast for 19 miles S of Tommelpynten. Between Kapp Freeden and Kapp Weyprecht, 26 miles SE, many glaciers discharge into the strait; there are numerous off-lying islands and islets.

**Wilhelmoya** (79°03'N., 20°24'E.), a large island, lies 3.5 miles SE of Kapp Freeden. The island is high with a round snow top. The island is separated from the mainland by Bjornsundet. Bastianoyane and Ronnbeckoyane, two groups of islets SW of Wilhelmoya, obstruct the S approach to Bjornsundet. Koristkabreen, 5 miles S of Kapp Weyprecht forms the SW entrance point of Hinlopenstretet, and the E extremity of Spitsbergen.

## Hinlopenstreet—East Side

**11.43 Murchisonfjorden** (80°00'N., 18°20'E.), an indentation on the E side of the strait, is entered between Tvillingneset and Sparreneset, 8 miles S, and extends 8 miles E. It is encumbered with islets and its shores are considerably indented. A detached shoal, with a depth of 9m, lies 3 miles WSW of Tvillingneset. When the inner part of the bay is ice-bound, vessels can anchor, in 9m, sand, close within the middle islet of the three outermost ones at the entrance. Otherwise anchorage is afforded close W of Kvalrosshalvoya, a peninsula at the inner end of the S side, or in a cove at the NE end of the bay.

**Wahlenbergfjorden** (79°40'N., 20°00'E.) is the largest fjord in Hinlopenstretet, lying about 35 miles within the N entrance, and extends about 25 miles ENE from the E side of the strait. A shoal, with a depth of 4.5m, was reported (1988) to lie 2.5 miles ESE of the SE extremity of Wahlenbergfjorden. Further shoal patches have been reported (1989) up to 4 miles N of this position. The fjord has a width of about 6 miles at the entrance, with the least width being about 5 miles. Gydenoyane, an island with an islet close SW, lies in the middle of the entrance.

Palanderbukta indents the S shore of Wahlenbergfjorden, 9 miles within its entrance. The inlet is about 5 miles wide at its

entrance and extends about 11 miles SE to its head. Anchorage is available at the head of the inlet, close off the NE shore, in a depth of about 13m.

**Vaigattoyane** (79°20'N., 20°00'E.) is an extensive group of islands and islets which encumber the middle of Hinlopenstretet for a distance of about 15 miles, from 9 miles S of Selanderneiset to 4 miles N of Kapp Freeden. Wahlbergoya, the largest island of the group- is 7 miles long, with its NW extremity 13 miles S of Selanderneiset. Von Otteroya, the next largest island, lies about 2 miles S of Wahlbergoya.

Ulvebukta, an open bay, lies on the S side of Nordaustlandet, 13 miles E of Wahlbergoya. The bay is entered between Torellneset and Giaeverneset, 11 miles E. Anchorage may be obtained close S of Torellnesfjellet, in a depth of 11m, or in the same depth, close off Giaeverneset.

Kapp Mohn, a glacier point which forms the SE entrance point of Hinlopenstretet, lies 36 miles E of Giaeverneset. The point is subject to change due to the movement of the ice cliffs.

### East Coast of Spitsbergen

**11.44 Kikutodden** (76°35'N., 17°00'E.), the SE extremity of Sorkapp Land, is a projection on the coast and lies 6 miles ENE of Sommerfeldbukta. Bettybukta is a slight indentation with low land at its head. It lies 4 miles NNE of Kikutodden. Isbukta, a bay, lies 7 miles NNW of Bettybukta.

Hedgehogfjellet, a steep mountain, rises close to the coast about 10 miles NNE of Isbukta. From abreast this mountain, the E coast of Spitsbergen, trends about 32 miles N to Kvalvagen. A number of glaciers discharge into the sea between Hedgehogfjellet and Kvalvagen. It has been reported Kvalvagen affords good anchorage, but is unreachable at times because of drift ice.

**Storfjorden** (78°00'N., 20°00'E.), entered between Kvalhovden and Kvalpynten, 35 miles E, extends 63 miles N to the entrance of Ginevratnen at its head. The whole of Storfjorden is filled with ice from January to May inclusive, in an average year, but in exceptional years there may be large openings in May. Vessels can usually navigate from July to September. Strong winds and currents may cause rapid changes in the ice in this region.

From Kvalhovden, the coast trends N for nearly 30 miles to Kapp Dufferin; this stretch is broken by the fronts of three glaciers between the coastal peaks. The glaciers are separated by coastal mountains. Agardhbukta, is entered between Kapp Dufferin and Revnosa, 6 miles NE, and extends 4.5 miles NW.

This bay has the reputation of being very foul, though the latest surveys indicate that its middle part is unencumbered. It has been stated that the bay is exposed to drift ice because of violent currents in the vicinity.

The coast continues N for about 25 miles from Revnosa; then for about 8 miles E it is formed by the S side of Negribreen glacier. Kapp Antinori, the SE extremity of the glacier, is the W entrance point of Ginevratnen, which lies at the head of Storfjorden. Anchorage has been reported in Dunerbukta and Mohnbukta, two coves on the coast between Revnosa and Negribreen.

### East Side of Storfjorden

**11.45** North of Kvalpynten, the E coast of Storfjorden has been described as a continuous rocky wall, rising almost directly from the sea to a high plateau. Kapp Lee, the NW point of Edgeoya and the S entrance point of Freemansundet, lies about 40 miles N of Kvalpynten. Between the two points the coast is indented by Diskobukta, a wide bay with a valley at its head.

**Barkhamodden** (78°14'N., 20°41'E.), the SW point of Barentsoya, lies 7 miles NNW of Kapp Lee, with the entrance of Freemansundet being between them. The mountainous coast of Barentsoya continues in a N direction for about 16 miles to Mistakodden, the NW point of the island. Anchorage is available close N of Mistakodden in the position indicated on the chart. A dangerous rock lies about 2 miles WNW of Mistakodden. Anderssonbukta indents the coast between Barkhamodden and Duckwitzbreen, a glacier about 5 miles to the N. Vossebukta, a slight indentation in the coast, lies 5 miles SE of Mistakodden. A rock lies 3 miles SW of Anderssonoyane.

A small unnamed islet and Sylen, a 3.5m patch, lie 3 miles and 5 miles NW, respectively, of Hassensteinbukta. Storfloskjeret, a rock which covers and uncovers, lies 12 miles WNW of this cove. Sletvoldgrunnen, a patch covered by 5m, lies about 9 miles WSW of Kapp Lee, but its exact position is doubtful. Other dangers in Storfjorden can best be seen on the charts.

**Ginevratnen** (78°37'N., 20°20'E.), at the head of Storfjorden, is entered between Mistakodden and Kapp Antinori. The bay extends about 15 miles NE to Heleysundet, the narrow passage connecting it with Olgastretet, and is encumbered by several off-lying islets. The ice in Ginevratnen remains throughout almost the entire year. At times it is clear of ice by the end of August, but new ice begins to form almost at once and the bay is quickly blocked again.

### East Coast of Edgeoya and Barentsoya

**11.46 Edgeoya** (77°45'N., 22°30'E.), the third largest island in Svalbard, lies E of the S part of Spitsbergen. The E coast of the island forms the W side of Olgastrete. The island is about 60 miles long between Negerpynten and Kapp Heuglin, its N extremity. The approach to the SW coast of Edgeoya is one of the most dangerous parts of Svalbard, as the outermost known dangers lie a long way offshore, the tidal currents in this vicinity are very strong, and a number of uncharted dangers are reported to lie off the coast.

Tusenoyane consists of several groups of islets some distance apart and as yet not accurately charted covering a large area S of the SW coast of Edgeoya. The outermost known dangers are the isolated drying rocks Brotskjer and Rumpetrollet, lying approximately 32 miles SW of Negerpynten. Breakers have been reported in this area. A 10m depth has been reported to lie about 12 miles W of this danger. Other dangerous submerged rocks lie between 10 and 12 miles WNW of the islet of Haoya.

Kong Luovigoyane and Menkeoyane are the principal groups of islets in the N part of Tusenoyane. The former, the farthest NW, lies 13 miles W of Negerpynten and has

dangerous reefs rising out of deep water close S; the latter, the farthest NE, is situated 5 miles SSE of that point and is surrounded by rocky patches.

A below-water reef extends 1 mile S of Menkeoyane and a rock, with a depth of less than 2m, lies 2.5 miles SW of the group. A channel leads NW between these dangers towards Buolscheoya, a detached islet midway between Menkeoyane and Kong Ludvigoyane.

About 6 miles S of Kong Ludvigoyane lies Utsira, a low-lying rocky islet; the same distance S of Buolscheoya stands Meinickeoyane, a pair of islands steep-to except on their W side.

**Halvmaneoya** (77°16'N., 23°10'E.), an island, lies with its W extremity about 8 miles E of Negerpynten. The S point of the island is foul to a distance of about 2 miles offshore. Dianahamna, an indentation on the N side of the island, affords anchorage.

**Ryk Yseoyane** (77°47'N., 25°12'E.), a group of islets, lie about 10 miles E of the E extremity of Edgeoya. Seen from a position 10 miles to the E, the group has the appearance of one long low island, with the S extremity sloping gradually into the sea and the N end finishing in an abrupt cliff.

Blafjorden, a large open bay, lies between Kapp Metchers and Kapp Pechuel Losche, 20 miles NW, and extends 7 miles SW of a line joining the entrance points. The NW part of the bay is shallow, with depths of 9m being found about 4 miles offshore. Submerged rocks, the exact position of which are doubtful, are reported to exist between 1 mile and 2 miles E of Kapp Pechuel Losche.

**11.47 Freemansundet** (78°14'N., 21°37'E.), 22 miles in length, has an E to SW direction and a least width of 2.5 miles. It separates Edgeoyne from Barentsoya. The sound was surveyed in 1987; depths of 15m were found in the center but is reported to be too shallow and rocky to admit passage of anything but small craft. The sound is entered from the E between Kapp Heuglin and Kapp Waldburg, 9.5 miles W.

Two islets lie in the middle of the E entrance, 4 miles WNW of Kapp Heuglin. Foul ground extends 2.5 miles N and NW from Kapp Heuglin and it has been reported that the area around Kapp Waldburg is foul.

**Barentsoya** (78°26'N., 21°20'E.) lies close N of Edgeoya and is separated from it by Freemansundet. Heleysundet, another narrow passage, leads between Barentsoya and the mainland to the N. The island is about 25 miles in extent and has glaciers which empty into the sea from each of its four sides.

## Off-lying Islands

**11.48 Hopen** (76°35'N., 25°10'E.), an isolated island, is narrow and 17 miles long in a NNE-SSW direction; it lies about 54 miles SE of Negerpynten, the S extremity of Edgeoya. The island has been described as a tableland, the sides of which are cut up with gullies and which attain an elevation of 365m at Kapp Thor, the S point. Landing is at all times difficult because of the steep coasts and the shallow water close-in. There is usually a heavy swell on all sides of the island.

Hopen Radio station is located 5 miles NNE of Kapp Thor.

In an average year, Hopen is clear of ice from July to October. In a severe season, the island may be ice-free only from mid-August to mid-September. The current sets SW past Hopen at about 2 knots.

**Anchorage.**—The island has no sheltered bays which can serve as harbors. It is so shallow inshore around the entire island, thateven at 200m from the shore, very little sea is required to form breakers, thus making landing difficult for a boat. On the E side of the island, in places, the shallow area can extend up to 0.7 mile or more out from land.

Today, both sides of the island are used as anchorages to avoid storms, or for reloading from fishing vessels to mother ships of up to 20,000 grt.

For those wishing to land, a boat channel should be found into the shore where it appears to be deepest and calmest without breakers over a long period. From experience, it appears to be best to go ashore is on the E side of the island, when vessels go in carefully and anchor in 10 to 15m.

Vessels have anchored, in a depth of 11m, at a distance of 0.5 mile from land off the radio station.

**11.49 Kong Karls Land** (78°50'N., 28°10'E.) consists of a group of three main islands, Svenskoya, Kongsoya, and Abeloya, together with a number of islets. Olgastretet, a channel about 50 miles in width, separates the group from Edgeoya and Barentsoya. Erik Eriksenstretet, a channel entered from the NE, is 35 miles wide and separates the group from Nordaustlandet.

Svenskoya, the W island of Kong Karls Land, lies 50 miles ENE of Barentsoya. In August and September, the coast may, for the most part, be approached by most vessels through navigable ice. Kapp Hammerfest forms the S extremity of the island and is a tapering basalt ridge. The island is moderately free from snow, but N of Kukenthafjaellet, between it and the ridge, there exist a permanent cap of snow and ice. Patches of snow cling constantly to the upper edges of the plateau and the higher slopes of the hills. The lowlands of the island consist mainly of sand and clay washed down by melting snow.

A high, flat-topped cliff extends NE from Kapp Hammerfest and is connected by a yellow sandy beach to Kapp Weissenfels, the E extremity of Svenskoya. This point, projecting about 1 mile ENE, consists of a mass of columnar basalt, with sand dunes in its vicinity. Anchorage has been obtained in a bight on the S side of Kapp Weissenfels, in a depth of 14m, poor holding ground, with some shelter from N winds.

**Kongsoya** (78°54'N., 28°13'E.), about 21 miles long in an E-W direction, is the middle island of Kong Karls Land. The island is separated from Svenskoya by Rivalensundet. The island is comparatively narrow, its greatest width being about 5 miles, and consists of three main parts. The three parts are the W plateau, the high land near the E end, and the low land connecting the two. From the offing SE, it appears as three separate islands; at a greater distance it resembles a group of four islands, because of the dip in the W plateau.

Kapp Altmann is the extremity of a narrow tongue of land which projects about 2 miles S from the S coast of Kongsoya, in a position about 3 miles E of Kapp Andreassen, the W extremity of the island. A dangerous reef extends about 1 mile S from the cape; about 1 mile farther in the same direction is a

rock, awash. A shoal, with a depth of 2.7m, has been reported about 5 miles SE of the cape. It has been reported that anchorage may be obtained close inshore on the E side of Kapp Altmann, in a depth of 12m, fine sand.

Some shelter from N and W winds was obtained, but the holding ground is poor. At times, squalls from the N swept down from the hills with great violence.

**11.50 Antarcticbukta** (78°49'N., 28°03'E.) lies between Kapp Altmann and Kapp Andreassen, 4 miles W. Anchorage is obtainable here, in a depth of 11m, sand, but holding ground is poor. Anchorage has been reported in Andreebukta, the bight between Tommerneset and Nordaustpynten. The depth close inshore in the SW part of the bight is 61m, clay.

**Abeloya** (79°00'N., 30°10'E.) is the smallest and farthest E island of the Kong Karls Land group. The island is reported to be barren and of basaltic formation and is located 6 miles ENE

of Kongsoya. The island is about 3 miles long by 2.5 miles wide.

**Kvitoya** (80°09'N., 32°38'E.) is about 23 miles long in an E-W direction. The island is located at the E extremity of Nord-austlandet; about 45 miles E of Kapp Laura. Kvitoya is almost completely covered by ice; the only ice-free areas are Andreeneset, its SW point, and Kraemerpynten, near the NE end of the island.

The ice cap covering the island is divided into three domes which reflect the topography of the underlying rocks. The island has been described as being glittering white from its summit down to the water's edge, from which it rises in a steep icy wall.

A rock, awash, lies 6 miles SSE of Andreeneset. Another rock, awash, lies 1.5 miles WSW of Andreeneset. A shoal spit extends 2 miles S from a point on the S coast, 9 miles E of Andreeneset.