Greenland Pilot

Sailing Directions for East Greenland

Updated to Danish Chart Corrections No 26/2020

Geodatastyrelsen

Greenland Pilot

Sailing Directions
for
East Greenland

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Cover photo Qaqqartivakajik (Sømandsfjeldet) at Tasiilaq (Colourbox)

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Preface

Greenland Pilot - Sailing Directions for East Greenland describes the east coast of Greenland from Nunap Isua (Kap Farvel) to Kap Morris Jesup and is prepared by the Danish Geodata Agency on the basis of data obtained from surveying vessels, government institutions, commercial vessels and persons with local knowledge.
This edition is based on the second edition of Den Grønlandske Lods, 2. del, Østgrønland, 2008.
The collection of accurate information about the East Greenlandic coastline is very difficult, and in this text, some descriptions are cursory. All positions and altitudes given in the text are approximate, and are derived from a range of data collection methods. They are intended to provide the mariner with a link between the book and the relevant charts.
Danish Geodata Agency would welcome further details and/or information on possible errors in this text. However, the Danish Geodata Agency hopes that this new edition may be helpful in the navigation of East Greenland.
Details of lights, radio beacons, beacons, etc. are not included. Instead, the Danish List of Lights and the nautical charts on which the lights and beacons are shown should be consulted.
This book is divided into 11 regional descriptions from south to north, each of which is divided into three sub-sections:

x.1 Navigation of the area
x.2 Approaches and access to waterways (fjords), towns, villages, etc.
x.3 Harbours and anchorages

In this publikaton Greenlandic place names are written with new Greenlandic orthography. On the charts covering the East Greenlandic waters, place names are written in old Greenlandic orthography.
The difference between new / old orthography can be found in the publication ”The Greenland Pilot - Explanations of the place names” that can be read and downloaded from www.gst.dk, and here is a list with an English translation / explanation of occurring Greenlandic place names.
Corrections to this publication will be published in Danish Chart Corrections on www.gst.dk.
Further details and/or information on possible errors in this text are welcome and should be submitted to:

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This edition of the **Greenland Pilot** - **Sailing Directions for East Greenland** has undergone a thorough edit in 2015 and has since been continuously updated, most recently to Danish Chart Corrections 26/2020

Danish Geodata Agency
1st July 2020

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Danish Geodata Agency's products

Charts and publications and their maintenance

Official Danish charts and publications covering Danish, Greenland and Faroese waters are issued by Danish Geodata Agency, Charts and publications can be obtained via Rosendahls, e-mail: distribution@rosendahls.dk, http://www.kobsokort.dk/.

Publishing

GST publishes charts covering Danish, Greenlandic and Faroese waters.
The following publications are published in Danish and English, and can be downloaded free of charge at GST's homepage:

- Kort 1 - INT 1 (symbols, abbreviations and terms used on charts)
- Behind the Nautical Chart (surveying, reliability and use)
- Danish Chart Corrections
- Greenland Pilot - General Information about East Greenland
- Greenland Pilot - Sailing Directions for East Greenland
- Greenland Pilot - Explanation of the place names.

The following publications are published in Danish only, and can be downloaded for free at GST's homepage:

- Catalogue of nautical publications with index maps of the charts
- Sailing Directions concerning Danish, Greenlandic and Faroese waters.

Updated information on all Danish harbours and bridges can be accessed on www.danske-havnelods.dk.
Updated information on all Greenland harbours (towns, settlements and stations) can be accessed on www.gronlandskehavnelods.dk.

Updating

GST publishes Danish Chart Corrections weekly, describing in Danish and English the corrections necessary for the maintenance of charts and publications. Danish Chart Corrections can be accessed on www.gst.dk. Danish Notices to Mariners provide information of significance to navigation, including information of preliminary and temporary character. Part of this information may be of importance to charts and publications and should be added as amendments or remarks.

Users of Danish Chart Corrections with internet access can download the publication free of charge to their own PC or print corrections from the GST website. The digital issue of Danish Chart Corrections is published every Wednesday and can be obtained at the GST website. Notifications of errors and omissions on charts and nautical publications are appreciated and should be submitted to :

Danish Geodata Agency, Lindholm Brygge 31, Nørresundby, Denmark,
E-mail: sfo@gst.dk.

Units and terminology used in this publication

Heights and depths are given in metres, distances in metres (m) or nautical miles (M).
1 nautical mile is 1852 metres.
Temperatures are set to Celsius (º C).
Courses, directions and bearings are indicated true in degrees clockwise from 000º to 359º.
Light sectors indicated are seen from the sea, and the limits are described clockwise. Light sector means the angle at which the light is visible.
The nominal ranges of the lights are given in nautical miles and in clear weather, which corresponds to a visibility during day at 10 nautical miles.
All latitude and longitude markings, bearings and distances are approximate, since the entries are intended to provide guidance in a comparison between the book and charts. The length is calculated from Greenwich meridian.
Current and tidal stream is described by the direction towards which they flow. The speed of the current is indicated in knots.
Winds are described by the direction from which they blow.
Symbols, abbreviations and terms used on charts and in books in accordance with INT 1.

Abbreviations used in Greenland Pilot:

Directions:

N	North	S	South
NNE	North northeast	SSW	South southwest
NE	Northeast	SW	Southwest
ENE	East northeast	WSW	West southwest
E	East	W	West
ESE	East southeast	WNW	West northwest
SE	Southeast	NW	Northwest
SSE	South southeast	NNW	North northwest

Units:

hPa	hectopascal	m	meter

km	kilometer	m/sec	meter per second
kn	knot(s)	UTC	Universal Time Coordinated
M	nautical mile(s)	ºC	degree Celsius

DMI	Danish Meteorological Institute
EfS	Efterretninger for Søfarende (Danish Notices to Mariners)
GP	Greenland Pilot

Glossary

Danish / English

Danish	English	Danish	English
Banke	Bank	Løb, løbet	Channel
Bjerg(-e)	Mountain(-s)	Nor	Cove
Bredning	Broad	Nord	North
Bræ	Glacier	Nordre	Northern
Bugt	Bay	Nunatak	Nunatak
Dal	Valley	Næs	Point
Dyb	Trench	Odde	Point
Ejland	Island	Pynt	Point
Elv	Stream	Rende	Trench
Fjeld(-e)	Mountain(-s)	Skær	Rock(-s)
Fjord	Fjord	Store	Great
Flak	Shoal	Strand	Beach
Gletscher	Glacier	Strøm	Current, stream
Grund	Shoal	Sund	Sound
Halvø	Peninsula	Syd	South
Hav	Sea	Sø	Lake
Havn	Harbour, port	Søndre	Southern
Holm	Islet	Tange	Narrow point
Høj	Hill	Varde	Cairn
Is	Ice	Vest	West
Isfjord	Ice fjord	Vester, Vestre	Western
Kap	Cape	Vig	Cove
Klippe	Cliff, rock	Ø, øer, øerne	Island, islands
Kyst	Coast	Øst	East
Lille	Little	Øster, Østre	Eastern

Greenlandic place names

Generally about Greenlandic place names

Most Greenlandic place names are a description of the nature or appearance of the location in question rather than an actual name for the place. The same individual place names can therefore be found in virtually all inhabited areas along the Greenland coasts, and they are often so close together that it can be difficult sometimes to distinguish between places with the same name and explain which of them is being referred to in the given case.
On the other hand, Greenlandic place names can sometimes provide information about the appearance and uniqueness of the named location, and can thereby help one to orient oneself when off a part of the extensive coast of Greenland, of which one may have no prior personal knowledge. In order to exploit the aid to navigation that may result from the Greenlandic place names included in the charts, see the publication ”Greenland Pilot - Explanation of the place names”.

Changes to place names

It must be expected that during a transitional period, GP uses place names spelled in both the old and new Greenlandic orthography. Any Danish name will be provided in brackets, e.g. Nuuk (Godthåb) or a Greenlandic place name may be added, e.g. Orsiivik (Polaroil).
Furthermore, it must be expected that the new charts of areas that are not currently covered by the charts will contain new names that are not found in GP. It is also likely that GP will contain place names that do not appear on the charts.
In the coming years, place names will be officially changed from Danish to Greenlandic for e.g. large fjords, coastal or land areas along the coasts of Greenland. Kronprins Christian Land will become Nuna Kronprins Christian, and Kejser Franz Josef Fjord will become Kangerluk Kejser Franz Josef.

Examples of East Greenlandic place names used on charts and in publications:

Greenlandic, new orthography	**Greenlandic, old orthography**	**English**
Anoritooq	Anoritôq	Where it is very windy
Ikaasak	Ikâsak	The sound (seaway)
Ikeq	Ikeq	The bay, the broad, the sound
Ikertivaq	Ikertivaq	The big bay
Ikkatteq	Íkáteq	The shallows
Immikkeerteq	Ingmíkêrteq	The island
Immikkeertikajiit Martik	Ingmíkêrtikajît martik	The two bad Islands
Immikkeertikajik	Immikkêrtikajik	The bad Island
Isertoq	Isertoq	The turpid, muddy one
Kangeq	Kangeq	Promontory, cape
Kangerluk, Kangertiva *) Kangertivit *)	Kangerluk, Kangertiva *) Kangertivit *)	Fjord

Kattertooq	Kagtertôq	Where there is much blue ice
Nigertuluk	Nigertuluk	Where it is very windy from the NE
Nuiarteq	Nuiarteq	The one that just emerges - a skerry
Nuna, Nunat, Nunaa *), Nunap *)	Nuna, nunat, nunâ *), nunap *)	Land, lands
Nuuk	Nûk	Foreland, promontory
Qeertaartivit	Qêrtârtivit	The small islands
Qeertartivaq	Qêrtartivaq	The big island
Qeqertaq	Qeqertaq	Island
Qeqertarsuaq	Qeqertarssuaq	Big island
Qeqertat	Qeqertat	Islands
Sarfaq, sarfat	Sarfaq, sarfat	Current, currents
Sarpaq	Sarpaq	The current
Seeraq	Sêraq	The sand
Sermilik	Sermilik	The glacial fjord
Tini	Tini	Low water

***) The use of complex compounds, West- and East Greenland:**
Qaarsup Ikerasaa, Qaersup ikerasâ
Sioqqap Sioraata Ikkannera (Ravns Banke), Qeqertarsuup Ikkannera (Disko Banke), Ikerup Ikkannera
Simiutarsuup Ikkarlui (The skerries at the plug island at the mouth)
Avannaata Imaa (Baffin Bugt), Issittup Imaa (Arktiske Hav), Attup Imaa, Agtup imâ
Iviangiusat Imaat, Iviangiussat imât
Allumersat Sioraata Iterna (Danas Dyb)
Nuup Kangerlua, Nûp kangerdlua (Godthåbsfjord)
Ammassaliip Kangertiva (Ammassalik Fjord), Kangertivit Anginersaat (Storefjord)
Kangerluk Kejser Franz Joseph
Isaarutip Nunaa, Isârutip nunâ (Hollænderø)
Ujuaakajiip Nunaa, Ujuâkajîp nunâ (Danmark Ø), Nunat Dronning Margrethe II
Nunap Isua (Kap Farvel)
Kangerlussuup Umiarsualivia (former Camp Lloyd, Søndre Strømfjord)
Sineriak Lauge Koch (Lauge Koch Kyst)
Immikkeertikajiit Martik (Murray Ø og Reynolds Ø)
Sarfap Qeqertaarsua
Umiarsuaaqqat Talittarfiat
Palasip Qassuserfia (Place where the pastor has fishing net)
Kitaata Sineriaa (West Coast)
Tunup Sineriaa (East Coast)

Ikeq / ikerasak (sound), definition in Greenlandic:
1) **Ikeq** = The continuation of a fjord through the archipelago.
2) **Ikerasak** = Between one or two islands and the mainland, or between two groups of islands or coasts.

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Map

Nunap Isua (Kap Farvel) – Taateraat Kangersuasiat (Kap Herluf Trolle)

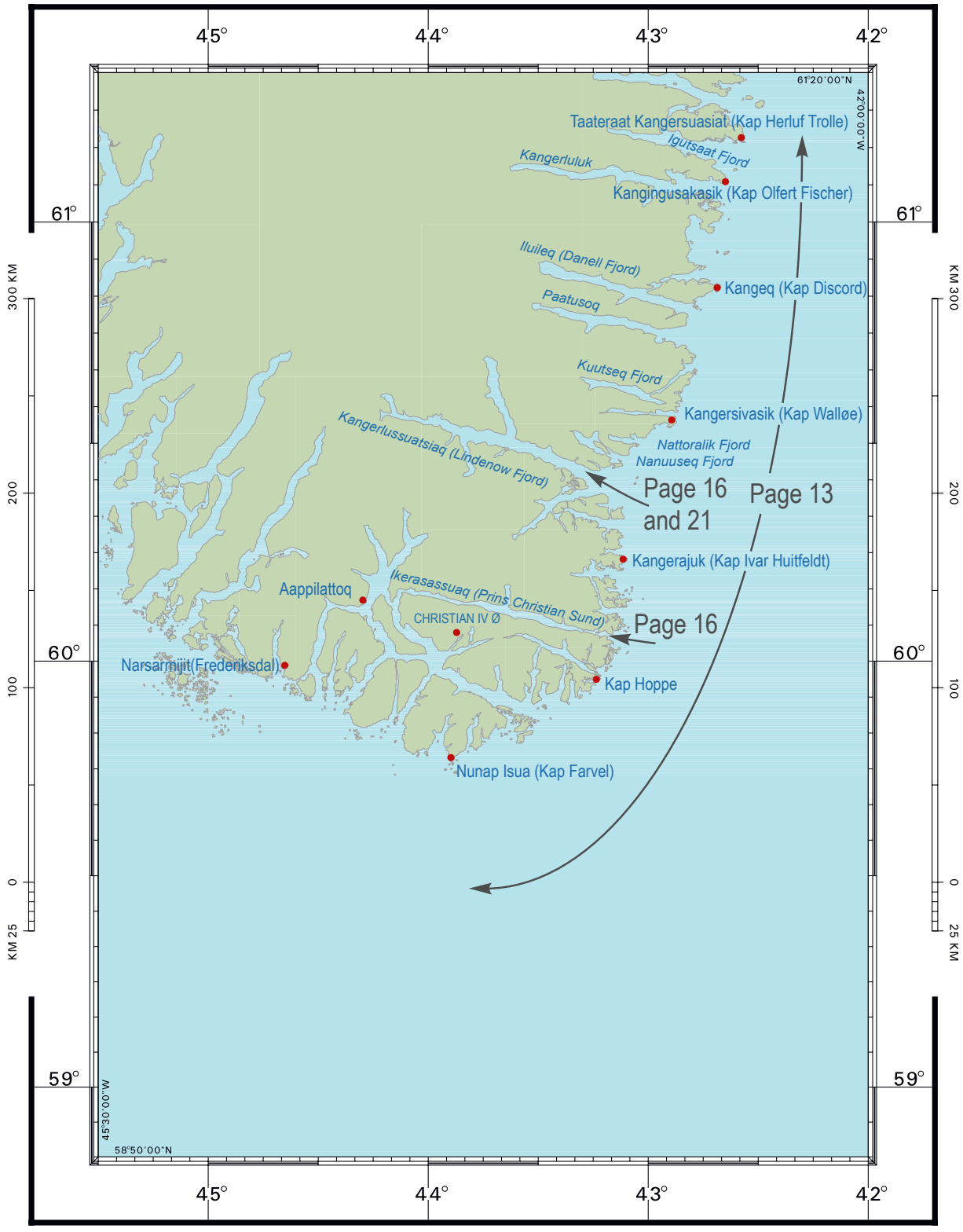

Fig. 1.1

CHAPTER 1

Nunap Isua (Kap Farvel) – Taateraat Kangersuasiat (Kap Herluf Trolle)

Area 59º46'N 043º55'W - 61º11'N 042º34'W, charts 1103, 1100, 1150, 2130, 2100 and 2000.

1.1 Transit of the area

See views of the land between Nunap Isua (Kap Farvel) and Taateraat Kangersuasiat (Kap Herluf Trolle).

1.1.1 Landmarks

In the area between Nunap Isua (Kap Farvel) and Taateraat Kangersuasiat (Kap Herluf Trolle), there are no towns or villages, but the Ikerasassuaq (Prins Christian Sund) weather station is located at the E entrance to Ikerasassuaq (Prins Christian Sund).
The region's most S extent is characterised by several large islands that are separated from the mainland by narrow straits. The S tip of the most S of these islands, Itilleq (Eggers Ø), is called Nunap Isua (Kap Farvel). This promontory is 674 m high, and further N, the island features significantly greater peaks that resemble Alpine landscapes. The coast from Nunap Isua (Kap Farvel) to Ikerasassuaq (Prins Christian Sund) features extensive fjords. Of these, Ikeq and Ikerasassuaq (Prins Christian Sund) can be navigated when circumstances permit.
Vessels passing the Nunap Isua (Kap Farvel) region at a distance can find it difficult to identify landmarks in the area. Nunap Isua (Kap Farvel) itself can usually be seen from a distance of 10 M, though rarely further, whereas the mountains further inland can be seen in clear conditions from 55º30'N lat. - 100 M from shore. Closer to shore, the characteristic peaks and points of Itilleq (Eggers Ø) can be seen, including Nunap Isua (Kap Farvel), which appears as a small cliff on the face of the island. An archipelago to the E of Itilleq (Eggers Ø) is easy to see on the approach to the E entrance to Ikeq. Nunap Isua (Kap Farvel) should generally be held at a minimum distance of 5 M, due to shoals in the area. Christian IV Island is located N of Ikeq, with Sangmissoq, Qernertoq and Walkendorff Islands and Kap Hoppe to its SE.
The E entrance to Ikerasassuaq (Prins Christian Sund) is rather foul, and the coast should be held at a minimum of 5 M abeam when navigating to the SE and S of the entrance to the sound. See also Approaches and access to Ikerasassuaq (Prins Christian Sund).
Toqulineq are some islands and a skerry, situated to the N of the entrance to Ikerasassuaq (Prins Christian Sund). The waters NNE of Toqulineq are foul and vessels should keep a

minimum distance of 5 M to the coast. Nunatu is the SE part of the mainland just N of the entrance to Ikerasassuaq (Prins Christian Sund). The peninsula features several freshwater lakes and many inlets on its E end, which is surrounded by islands, of which the most SE is Toqulineq. The clearly distinguishable island Aluk Avalleq is located 4 M N of Toqulineq, fig. 1.2. The waters E of Aluk Avalleq are full of skerries and this island should not be passed closer than 4 M.

NW of Aluk Avalleq is the somewhat larger island Aluk Tunorleq. This island has several deep incisions on its E and N sides, and the bay of Aluup Tunua to the N of the island features land ice, which in several falls steeply into to the sea and overhangs the steep cliffs. The hinterland here is high, barren and filled with glaciers. Aluk Tunorleq is the most easily identifiable island and reaches a height of 525 m.

Kangerajuk (Kap Ivar Huitfeldt), 60º15'N 043º04'W is a steep, pyramid-shaped, 400 m headland. Its appearance is characteristically dark with oblique, yellow layers, while the mountains S of Kangerajuk (Kap Ivar Huitfeldt) are said to have a copper-like colour.

Kanajoorartuut is an island 6 M N of Kangerajuk (Kap Ivar Huitfeldt). It has two peaks, and N of the island, the waters are foul 2 M out from the coast. The island is adjacent to a narrow channel separated from Kissarsiitilik (Dronning Louise Ø), which is close to the W of Kanajoorartuut.

Kissarsiitilik (Dronning Louise Ø) has three peaks, of which the W-most is the highest and reaches a height of 781 m, while the mainland beyond the island reaches altitudes of 1200-1500 m. To the island's S is the narrow Kanajoorartuut Kangerluat, which separates it from the mainland.

Sallia is an island 670 m high, just to the E of the Nanuuseq peninsula, and forms the N side of the E extent of Kangerlussuatsiaq (Lindenow Fjord). The island also forms the S point of the entrance to Annikitsup Kangerlua (Nanuuseq Fjord). The Seventh Thule Expedition reported observations of numerous rocks around the island, some of which are hardly visible. There are two small islets around 0.5 M N of the island.

Kangersivasik (Kap Walløe) 60º34'N 042º50'W is 310 m high and on the S side of entrance to Kangerluaraq.

Kuutseq is an island that once hosted a settlement, located 8 M NNE of Kangersivasik (Kap Walløe) and just N of the NE tip of the 6 M long peninsula Ingerlaarsiutit.

Qasinngortoq is a promontory of 355 m, located 7.5 M N of Kuutseq, and forms the S entrance point to Iluileq (Danell Fjord).

Kangeq (Kap Discord) 60º53'N 042º40'W has an altitude of 442 m and constitutes the E tip of a very large island, Iluileq, which stretches 10 M E-W, just to the N of Iluileq (Danell Fjord). The island is characterized by steep cliffs up to 830 m in its S reaches (Halsbåndet), slopes toward the E and has a steep, dome-shaped peak at the W end.

Ivimmiut is an island located closely to the SE of Iluileq.

Uummannarsuaq 60º58'N 042º38'W is a 188 m high island, located 5 M N of Kangeq (Kap Discord). Another, unnamed island is located 1 M W of Uummannarsuaq. A few skerries are found close to the NE of the island, and a skerried area extends 2.5 M towards the WSW from Uummannarsuaq. A shoal with a depth of 18 m is found 28 M towards 079° from Kangeq (Kap Discord), and another shoal of 17 m depth has been reported about 8 M E of Kangeq (Kap Discord). Nuuk is the S tip of a small, unnamed cove 1.5 M N of the NE

entrance to the Kangerluk fjord.
Saqqap Nuua 61º01'N 042º40'W is located 1.5 M N of Nuuk and is considered to be the only place in this area where it is possible to haul vessels up onto the beach. The mountains here are strongly magnetic.
Qeqertatsiaq is an island close to the coast, 3 M N of Nuuk. It is located at the entrance to an unnamed bay, and forms the S end of the entrance to Kangerluluk fjord.
Kangingusakasik (Kap Olfert Fischer) 61º05'N 042º39'W is the SE tip of a steep, 500 m high promontory that separates Kangerluluk from a similar but shorter inlet called Igutsaat Fjord. The 1,264 m high Kangerluluk Mountains are located on the W end of the peninsula.
Uummannaarsuk is a prominent island whose W face rises steeply from the sea. The island is located in the S end of the entrance to Igutsaat Fjord, 2 M NNE of Kangingusakasik (Kap Olfert Fischer).
Taateraat Kangersuasiat (Kap Herluf Trolle) 61º11'N 042º34'W is 600 m high and constitutes the N point at the entrance to Igutsaat Fjord. It is a steep promontory with some islands and skerries at its S face.

1.1.2 Depths

Between Nunap Isua (Kap Farvel) and Kangerlussuatsiaq (Lindenow Fjord), the 200 m depth contour is between 15 and 20 M from shore, but between Kangerlussuatsiaq (Lindenow Fjord) and Taateraat Kangersuasiat (Kap Herluf Trolle), it is only 10 M from the coastline. Beyond 200 m depth contour, the bottom falls sharply away, and is clear and without islands or skerries, aside from the previously mentioned 18 m deep shoal at 60º56'N 041º42'W.

1.1.3 Ice

Pack ice can be found in this region throughout the year, but the ice is usually at its minimum in the months of September, October, November and December. In May and June, the band of ice can be 10 to 40 M wide and the East Greenlandic Current pushes the ice around Nunap Isua (Kap Farvel). Icebergs have been encountered as far from land as 240 M SE of Nunap Isua (Kap Farvel). See also the section on ice conditions in Kangerlussuatsiaq (Lindenow Fjord).

1.1.4 Recording stations

In the waters ESE of Nunap Isua (Kap Farvel), between 58º46,0'N 038º28,4'W and 59º36,4'N 041º46,2'W, a number of underwater recording stations have been deployed. These instruments are unmarked. For more detail, see Danish Notices to Mariners, number 40/983 2005.
In the waters E of Ikerasassuaq (Prins Christian Sund), between 60°04,208'N 042°49,527'W and 59°55,647'N 041°26,029'W, a number of underwater recording stations with least depth 50 m have been deployed. These instruments are unmarked.
For more detail, see Danish Notices to Mariners, number NM-774-18.

1.2 Approaches and navigation in waterways (fjords), towns and settlements etc.

There are no towns or villages in the area between Nunap Isua (Kap Farvel) and Taateraat Kangersuasiat (Kap Herluf Trolle). Only the weather station at the E entrance to Ikerasassuaq (Prins Christian Sund) is regularly called on.

1.2.1 Ikeq 59º53'N 043º25'W

1.2.1.1 Landmarks

An archipelago with the main islands Avallersuaq and Sanningasoq is located of E Itilleq (Eggers Ø); this archipelago is easily recognizable on the E approach to Ikeq.

1.2.1.2 Approach

On the approach to Ikeq, it is important to keep to the E and N of the aforementioned archipelago. Chart 1103 provides the best information on this area, but navigators are reminded that these waters have not yet been adequately surveyed. There is a foul area to the S side of the small island located 2.8 M E of the N end of the island Sanningasoq. Vessels usually keep to the E and N of this unnamed island and in the centre of the channel until abeam of Qernertup Kangia between the islands of Qernertoq and Sammisoq. From here, keep to the N side of Ikeq, somewhat closer to Sammisoq than to Itilleq (Eggers Ø), in the deep channel that is free from submerged dangers.

1.2.2 Ikerasassuaq (Prins Christian Sund) E approach 60º04'N 043º02'W

1.2.2.1 Landmarks

When approaching from E, the landscape N of the entrance is easily identifiable by a large, sloped, white surface (a glacier) and the very jagged, high mountains to the S of the entrance. Other good points for orientation on the approach are the easily identifiable, dark brown island Aluk Avalleq, 6 M to the N, and the red-brown, glacially polished islands to its S. See fig. 1.2. Vessels can hold a course of 260º towards the masts of the radio station, which are located at the top of the hills on the S side of the strait. Depths on this approach are not less than 100 m.

Since the S-going current can become quite strong and the S areas of the entrance to Ikerasassuaq (Prins Christian Sund) are skerried, vessels should not stray too far to the S on their approach. However, even with a low swell, surf can usually be seen on the rocks towards the inlet's S side, and at the entrance, the current can create deep eddies.

1.2.3 Kangerlussuatsiaq (Lindenow Fjord) 60º27'N 043º14'W

The mouth of Kangerlussuatsiaq (Lindenow Fjord) is located between a 192 m high unnamed island that is 1.75 M NNW of Kissarsiitilik (Dronning Louise Ø) and the SE tip of Nanuuseq peninsula. The fjord stretches 30 M in a WNW direction and narrows from 2 M at the

entrance to 1.5 M in the innermost part. About halfway into the fjord, it branches towards the N and S. The landscape towards the S is partly covered by glacial ice, which reaches down to the sea in some places. There are a number of peaks over 1,000 m to the S, while the landscape toward the N has more regular slopes and jagged peaks. By Illukulik, which is the E point at the entrance to Nørrearm, the highest peaks reach 1,000 m, while further to the W, Apostelens Tommelfinger reaches 2,267 m.
At the entrance to Kangerlussuatsiaq (Lindenow Fjord), 4 M NE of Kanajoorartuut, there is a small rocky island, Sneglen, around which the waters are foul out to 1.5 M.

1.2.3.1 Ice conditions in Kangerlussuatsiaq (Lindenow Fjord)

A strong outgoing current and frequent storms tend to keep the outer part of Kangerlussuatsiaq (Lindenow Fjord) free of winter ice, but when the wind and currents bring pack ice toward the shore, the fjord can become filled with drift ice. The arrival of the pack ice after the autumnal ice-free period varies somewhat from year to year. Observations made over a 16-year period have revealed January 25th as the average arrival date, with pack ice present through mid-July. The width of the ice band outside of the fjord varies from 10 to 40 M, with the greatest width observed in May. When the ice recedes in July, shore leads can form between the shore and ice, but the pressure of the ice against the coast usually makes navigation here impossible for ordinary vessels.

1.2.4 Annikitsup Kangerlua (Nanuuseq Fjord) 60º29’N 043º05’W

The entrance to Annikitsup Kangerlua (Nanuuseq Fjord) is between Sallia and Annikitsoq, 1.5 M to the N. The fjord stretches 8 M to the NW with varying depths, but no known dangerous shoals. Close to the mouth of the fjord, to the N of Sallia, are two rocky islands. The larger 2 M long, 700 m high, steep rocky island of Nanuuseq is found in the middle of the fjord. A 0.5 M wide channel runs S of the island, while the N channel is only 225 m wide at its narrowest point. A cove is found NW of Nanuuseq, where it is possible to anchor in 35-40 m of water. See also the section below on Torgilsbu. From Torgilsbu, a valley provides easy overland passage to Kangerluaraq. Annikitsup Kangerlua (Nanuuseq Fjord) was used for landing of seaplanes during the Seventh Thule Expedition, indicating that the fjord is well protected from swell and that, at that time, the ice provided no obstacles. The wind usually blows along the fjord, facilitating landing and take-off for seaplanes, but there can also be sudden gusts from the mountains.

1.2.4.1 Depths

The depths 6 M E of the mouth of Annikitsup Kangerlua (Nanuuseq Fjord) are around 200 m, but further towards the entrance, the bottom is uneven with a least depth of about 33 m. At the mouth of the fjord, the depths are between 60 and 90 m. The channel S of Nanuuseq has depths between 58 and 270 m, and it is best to pass through the N side of the channel, as a ridge has been reported from the N side of the peninsula Nanuuseq towards the island. The depths of the narrow channel N of the island have not been adequately surveyed, but there is believed to be a minimum depth of 18 m.

1.2.4.2 Wind and weather
Much rain, but little fog, has been reported in the area of Annikitsup Kangerlua (Nanuuseq Fjord), except during the summer months, when a SE wind can drive a thick fog in over the pack ice, while the fjord itself still has clear weather. The prevailing winds blow along the length of the fjord.

1.2.4.3 Ice
In late summer and autumn there can be ice-free periods, but ice should always be expected in this area. The fjord is usually open until late December and remains frozen until the spring. In July, the ice begins to break up and has usually disappeared by late July. Icebergs can be encountered in the fjord, but are not usually a hindrance to passage. In 1939-40, personnel from Torgilsbu reported that, with the exception of a few mid-winter days, the fjord never froze, and that ships would not have encountered any significant ice obstacles during that year.

1.2.4.4 Currents
In the fjord, currents are moderate and related to the tides. The mean spring high water is 2.2 m.

1.2.4.5 Fresh water
A waterfall can be found 1.5 M NE of Torgilsbu. Vessels can anchor 250 m from the coast at a depth of 90 m and can fill their tanks from the waterfall.

1.2.4.6 Manne Havn 60º29’N 043º08’W
The Seventh Thule Expedition described Manne Havn as situated at the S side of the entrance to Annikitsup Kangerlua (Nanuuseq Fjord). A stone cairn can be found on the E side of the harbour indicates its location, and the approach can be made from the middle of the channel. Vessels should be able to anchor here in 12-16 m of water. Some skerries are found on the E side, close to the shore.

1.2.4.7 Sandvigen
Sandvigen is 5 M W of the mouth of Annikitsup Kangerlua (Nanuuseq Fjord), and is a small open bay on the S side of the fjord. The seabed slopes gently from the shoreline for about 225 m, after which the depth suddenly increases to 270 m. In this bay, it should be possible to anchor in 15-25 m of water.

1.2.4.8 Torgilsbu 60º33’N 043º13’W
Place of a former meteorological station. The approach to Torgilsbu, which is located in Annikitsup Kangerlua (Nanuuseq Fjord), is easiest from the SE or E. Vessels keep close to Kangersivasik (Kap Walløe) or the hills by Brystfjeldet 760 m on the N side of the Nattoralik Fjord until they are 6 M from land, after which they can proceed toward the mouth of Annikitsup Kangerlua (Nanuuseq Fjord). When nearing the coast, mariners should take care not to come too far to the S, as the small rocky island SSE of Sallia is surrounded by skerries. With the mouth of the fjord at a bearing of 270º and a distance of 5 M, vessels can

proceed toward the inlet. At a distance of 2 M, two small islets can be seen in the mouth of the fjord just N of Sallia. Nanuuseq island can not be seen before the mouth of the fjord has been cleared. Vessels should keep N of the two small rocky islands and thence S of Nanuuseq, having kept closer to the island than to the fjord's S side. When the NW corner of Nanuuseq has been passed at a distance of 0.25 M, vessels should keep a course of 350º towards Torgilsbu station, where there is a good anchorage in a 35 m deep mud bottom, 0.15 M 280 m across from the station building.

1.2.5 Nattoralik Fjord 60º31'N 043º00'W

The entrance is located 3.5 M NE of Sallia, and the fjord cuts 4 M into the landscape to the W. The peninsula between Annikitsup Kangerlua (Nanuuseq Fjord) and Nattoralik Fjord is called Annikitsoq.

1.2.6 Kangerluaraq 60º35'N 042º50'W

is a narrow inlet that extends 11 M to the W, and whose mouth is located just N of Kangersivasik (Kap Walløe). The mouth of the fjord is 1 M wide, but there is a shoal 0.3 M E of the N tip of the peninsula of Kangersivasik (Kap Walløe). The mountains on both sides of the fjord increase in height towards its W end where there are high peaks and glaciers.

1.2.6.1 Depths

The mouth of the fjord is deep - at over 400 m.
Grydevig is a small bay on the N side of Kangerluaraq, 3.5 M inside the mouth of the fjord. The bay is very deep with an underwater ridge that does not hinder navigation, but keeps icebergs outside the bay. There is a station house close to Grydevig.

1.2.6.2 Ice

Until mid-July, icebergs can be expected outside the fjord, and large icebergs can sometimes block the entrance.

1.2.6.3 Wind and weather

Winters in this area are mild and rainy.

1.2.7 Kuutsit Kangerluat (Kuutseq Fjord) 60º42'N 042º46'W

The mouth of the fjord is close to the point of Ingerlaarsiutit, which is the S end of the entrance. The fjord stretches first 6 M to the SW, then towards the WNW for 9 M, with an arm that reaches 2 M toward the ESE.

1.2.8 Paatusoq 60º46'N 042º48'W

Fjord whose mouth is located 5 M N of the Kuutseq islands. The fjord is 1.5 M wide and reaches 20 M to the WNW. The surrounding land is covered by glaciers that reach down to the fjord. At the entrance to the fjord, 3.5 M NNE of the Kuutseq islands, there are two skerries that are dry at low tide.

1.2.9 Iluileq (Danell Fjord) 60º49,5’N 042º47’W

Fjord whose mouth is located near Qasinngortoq, reaches 22 M toward the WNW and is 2 M wide for almost its entire length. The innermost part of the fjord is usually always covered with ice, making it unnavigable. The remainders of an earlier settlement can be found here. The Seventh Thule Expedition has described the fjord as unfavourable for landing seaplanes due to the icy conditions.

1.2.10 Kangerluk 60º57’N 042º43’W

This is a small fjord that reaches 4 M to the NW from the W part of the skerries at Uummannarsuaq.
The fjord is 2 M wide, and the surrounding land is more snow-covered than more S regions. Several glaciers extend into the bay, and in the N part of the fjord, a glacier reaches more than 0.3 M out into the water, forming a promontory of sorts. The mountain range that rises from the ice sheet is significantly higher than the surrounding peaks in this area: these are Graahs Mountains, with heights up to 1,460 m. These steep mountains are free of snow due to their slope, which differentiates them from the surrounding white landscape. Some purple stripes can be seen on their steepest slopes, presumably indicating strata of sandstone. These strata radiate from the peaks down to the ice sheet and are cut off by bowed, horizontal blue-coloured striations that are assumed to be soapstone.

1.2.11 Kangerluluk 61º04’N 042º40’W

The fjord stretches 25 M from its mouth towards the W, and is located between Qeqertatsiaq and Kangingusakasik (Kap Olfert Fischer). The entrance to the fjord is 2.5 M wide, but it narrows gradually to a width of 1 M at its head. A 67 m high island is found in the middle of the fjord, 6 M beyond the entrance. Syenitbugt can be found N of this island, and SW of here, a second bay cuts into the S coast. Graah Mountains are S of this bay, and to the W are the above-mentioned tall mountains that border the fjord. There are several high peaks in the deepest parts of Kangerluluk, the highest of which reaches 1,664 m.

1.2.11.1 Ice

The fjord is often blocked by ice.

1.2.12 Igutsaat Fjord 61º08’N 042º36’W

The fjord stretches 17 M to the WNW from Uummannaarsuk island. For the first 10 M, it is 3 M wide, and then narrows to 0.7 M.

1.2.12.1 Depths

The depths at the mouth of the fjord are between 170-200 m, and the waters are deep 1 M around Uummannaarsuk, whereas there are many small islands close to N coast of the fjord from Taateraat Kangersuasiat (Kap Herluf Trolle) and 4.5 M towards the W.

1.3 Harbours and anchorages

In the area between Nunap Isua (Kap Farvel) and Taateraat Kangersuasiat (Kap Herluf Trolle), there are no towns or villages, and only Ikerasassuaq (Prins Christian Sund) Weather Station, located at the E mouth of the strait, is called on each year.

There are a number of anchorages that have been used in the past, but information on these is scant. As these can be seen as emergency anchorages, the most important for each area are listed in this section. Some information can also be found under the descriptions of the fjords where the anchorages are located.

Anchorages between Nunap Isua (Kap Farvel) and Taateraat Kangersuasiat (Kap Herluf Trolle).

1.3.1 Ikerasassuaq (Prins Christian Sund)

Ikerasassuaq (Prins Christian Sund) Weather Station 60º03'N 043º12'W

1.3.1.1 Approaches

The approach to the E entrance to Ikerasassuaq (Prins Christian Sund) is described in Section 1.2 under Ikerasassuaq (Prins Christian Sund).

1.3.2 Aluk Avalleq

A small harbour can be found on the S side of Aluk Avalleq, but adequate surveys of these waters have not yet been conducted.

A number of good harbour for smaller vessels have been reported in the strait between Aluk Tunorleq and Aluk Avalleq, but the strait and harbours are likely too deep for anchorage.

1.3.3 Aluk Tunorleq

Vessels have successfully anchored in about 26 m of water over a rocky bottom off the SW side of the island. A vessel has reported going through the S part of the strait between Aluk Tunorleq and the mainland, but the waters are foul, and shoals have been reported by the S entrance. The N parts have not been surveyed.

1.3.4 Kissarsiitilik (Dronning Louise Ø)

The Seventh Thule Expedition has reported a number of anchorages NW of Kissarsiitilik (Dronning Louise Ø) that can presumably be used by vessels in the area. In 1932, these waters were ice-free by July 15th, while Kangerlussuatsiaq (Lindenow Fjord) and the waters off the coast still had a great deal of ice.

1.3.5 Kangerlussuatsiaq (Lindenow Fjord)

Kangerlorajik or Mørepollen is a small bay 3.5 M into Kangerlussuatsiaq (Lindenow Fjord) on its N side. An excellent small harbour has been reported here. In 1932, the Norwegian Veslekari Expedition described the bay as 1 M long, 0.25 M wide at its entrance, 200 m wide towards its middle and having a navigable channel of about 100 m. The width is greater in the

deepest part of the bay where the anchorage exists.
Peer Vig is on the N side of Kangerlussuatsiaq (Lindenow Fjord), 7 M into the fjord. The long-since abandoned settlement of Narsaq is found here. However, it has been used in later years as winter quarters for expeditions. A lake can be found NNW of the bay, and a river from this lake leads to a waterfall in the deepest part of the bay. Peer Vig is said to be a well-protected and ice-free harbour when it can be accessed, but there can be a strong swell during E winds. In 1932 and 1933, the harbour was used by the schooners ”Nordstjernen” and ”Th.Stauning”, the latter of which had a draft around 4.0 m.

1.3.6 Sallia
There are two small islands in the channel between Sallia and Nanuuseq Peninsula that can provide lee to motor boats, but the channel has not been adequately surveyed for use by larger vessels.

1.3.7 Annikitsup Kangerlua (Nanuuseq Fjord)
The following anchorages in Annikitsup Kangerlua (Nanuuseq Fjord) are described in conjunction with the fjord in Section 1.2: Manne Havn, Sandvigen and Torgilsbu.

1.3.8 Nattoralik Fjord
The depths in Nattoralik Fjord are unknown, and it is not known whether there are suitable anchorages here.

1.3.9 Kangerluaraq
The small bay of Grydevig is located in Kangerluaraq. For more information, see the description of Kangerluaraq in Section 1.2.

1.3.10 Kuutsit Kangerluat (Kuutseq Fjord)
A small bay in the NW part of the entrance to Kuutsit Kangerluat (Kuutseq Fjord) has been reported to have a protected anchorage with a depth of about 40 m.

1.3.11 Paatusoq
The depths in the fjord and the presence of suitable anchorages are unknown. See Section 1.2 on Paatusoq.

1.3.12 Iluileq (Danell Fjord)
The depths in the fjord are unknown, and it is assumed that no suitable anchorages are found here. See the description of Iluileq (Danell Fjord) in Section 1.2.

1.3.13 Iluileq

Hansa Harbour is a small cove on the SE side of Iluileq. The cove is surrounded by tall mountains, and is named after a ship that sank here in 1870.

1.3.14 Kangerluk

The depths in Kangerluk are unknown, and it is not known whether suitable anchorages exist here.

1.3.15 Kangerluluk

The depths in Kangerluk are unknown, and it is not known whether suitable anchorages exist here.

1.3.16 Igutsaat Fjord

The depths at the entrance to Igutsaat Fjord are between 170 and 200 m, but the depths further into the fjord are unknown, and there are no known suitable anchorages.

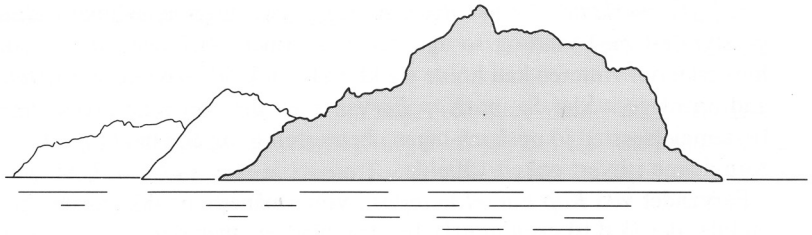

Fig. 1.2 - Aluk Avalleq bearing 270°, distant 3 M.

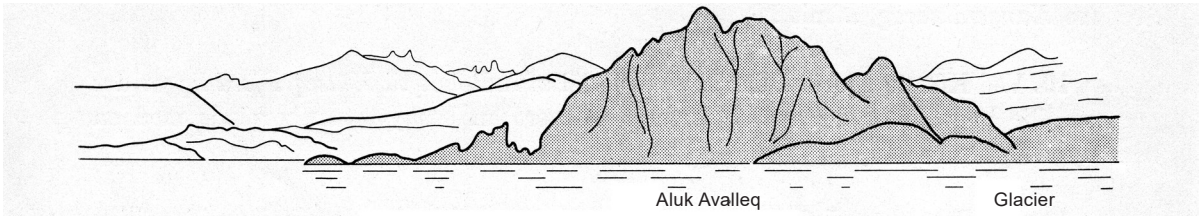

Fig. 1.3 - Aluk Avalleq bearing 255°, distant 8 M.

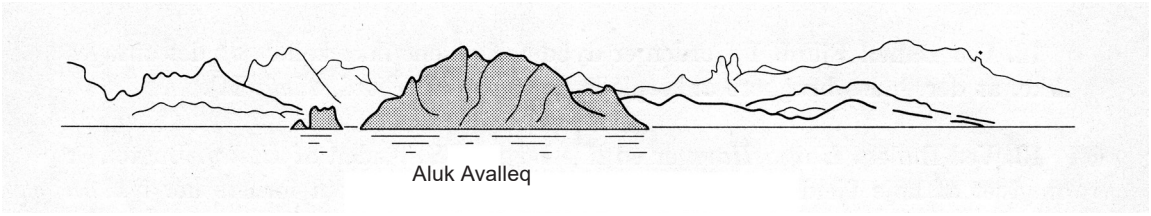

Fig. 1.4 - Aluk Avalleq bearing 235°, distant 18 M.

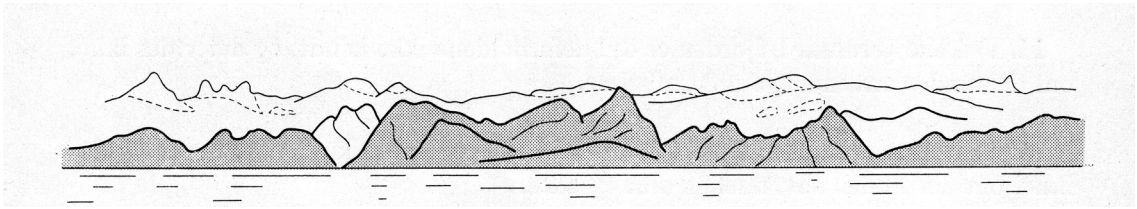

Fig. 1.5 - Kangerajuk (Kap Ivar Huitfeldt) bearing 253°, distant 16 M.

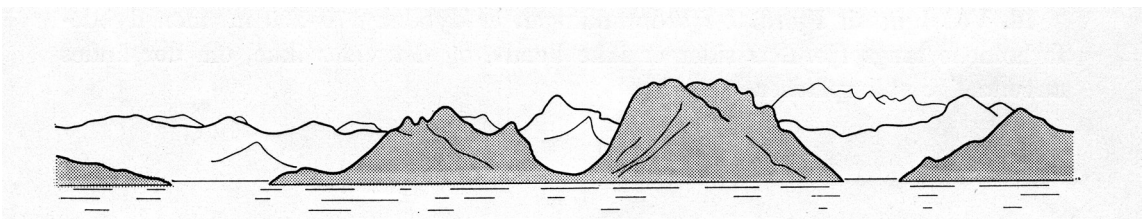

Fig. 1.6 - Kangersivasik (Kap Walløe) bearing 272°, distant 15 M.

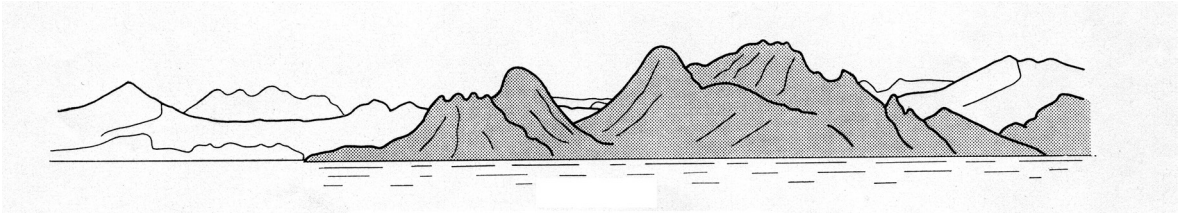

Fig. 1.7 - Kangersivasik (Kap Walløe) bearing 267°, distant 15 M.

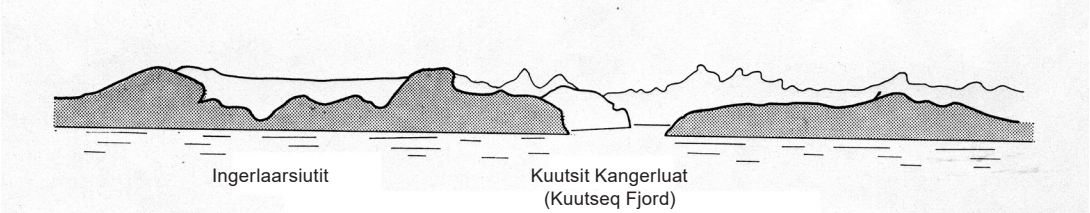

Fig. 1.8 - The entrance of Kuutsit Kangerluat (Kuutseq Fjord) bearing 275°, distant 5 M.

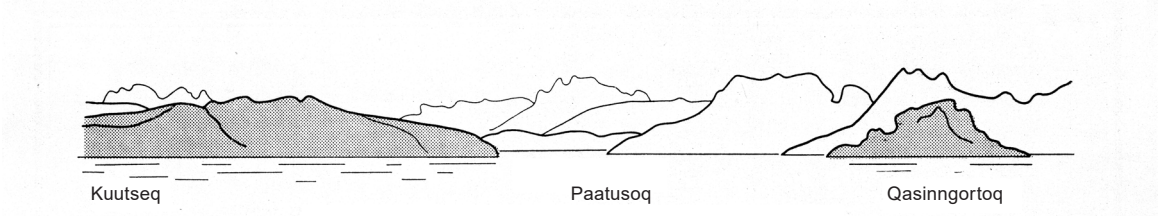

Fig. 1.9 - The entrance of Paatusoq bearing 280°, distant 6 M.

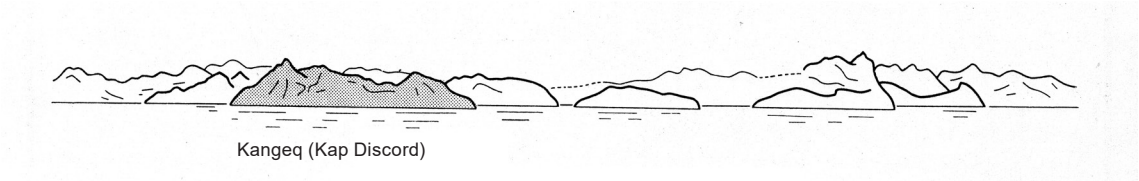

Fig. 1.10 - Kangeq (Kap Discord) bearing 280°, distant 11 M.

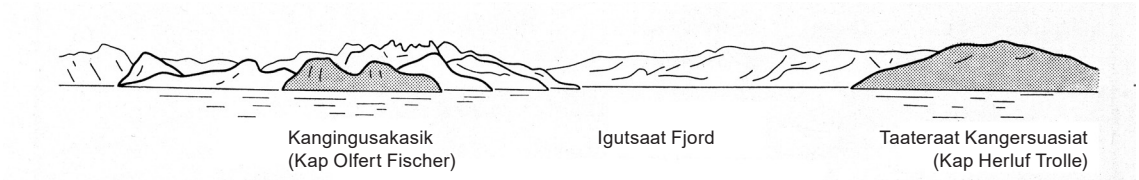

Fig. 1.11 - Kangingusakasik (Kap Olfert Fischer) bearing 265°, distant 11.5 M.

Map

Taateraat Kangersuasiat (Kap Herluf Trolle) – Umiiviip Kiammut Kangera (Kap Poul Løvenørn)

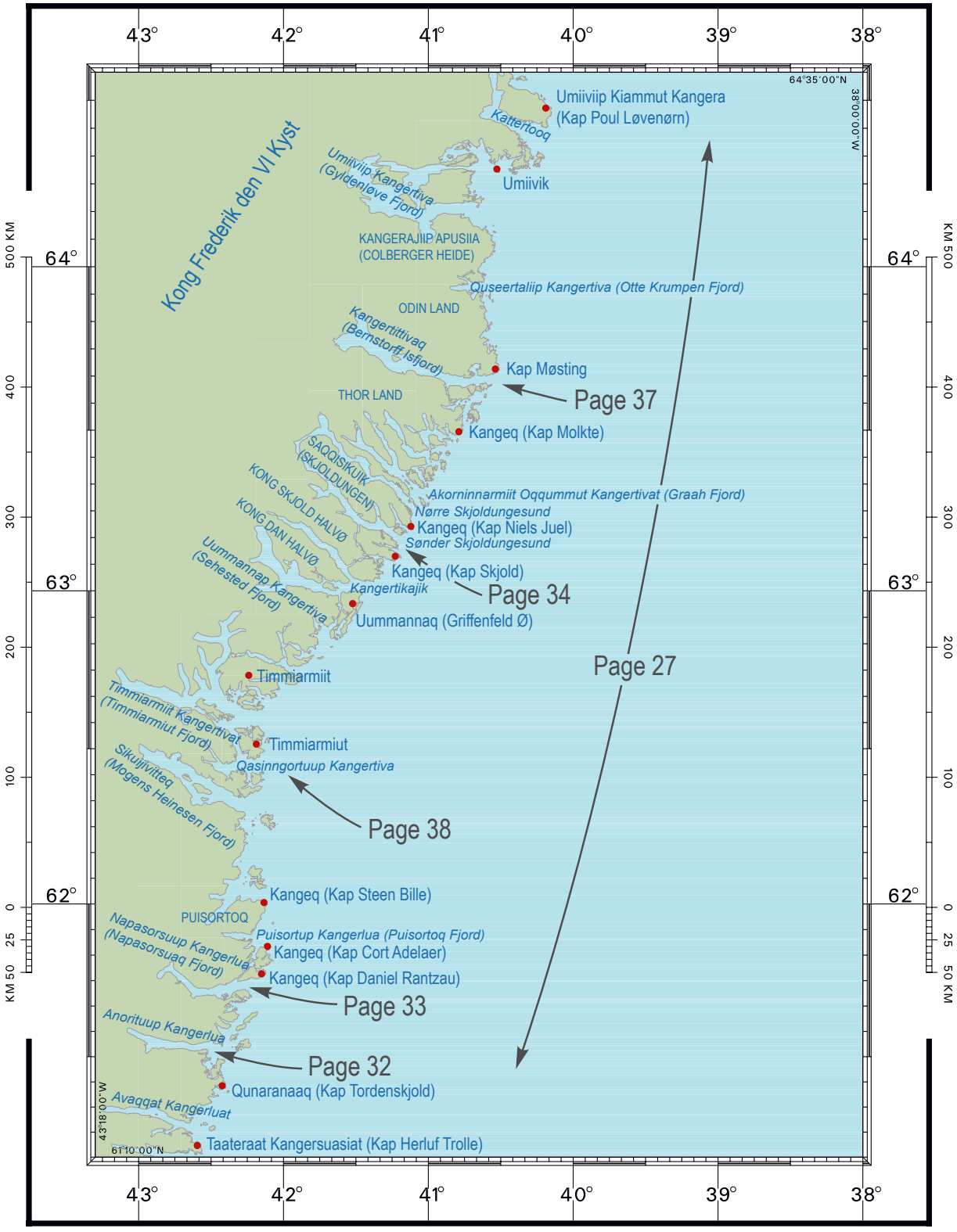

Fig. 2.1

CHAPTER 2

Taateraat Kangersuasiat (Kap Herluf Trolle) – Umiiviip Kiammut Kangera (Kap Poul Løvenørn)

Area 61º11'N 042º34'W – 64º28'N 040º09'W, charts 2200, 2250 and 2000.

2.1 Navigation of the area
2.2 Approaches and access to waterways (fjords), towns, villages, etc.
2.3 Harbours and anchorages (in sheltered waters)

2.1 Navigation of the area

Also see the views of the land between Taateraat Kangersuasiat (Kap Herluf Trolle) and Umiiviip Kiammut Kangera (Kap Poul Løvenørn) at the end of this chapter.

2.1.1 Landmarks

The coastal diagrams cover the area of the former Qulleq Loranstation and Timmiarmiut Weather Station, as well as the Saqqisikuik (Skjoldungen) settlement that was abandoned in 1965.

2.1.2 Depths

Chart 2200 provides a number of depths, but in most places, the coastal waters have not been surveyed. Therefore, it is recommended that vessels undertaking coastal passages in the region covered by this chapter maintain a safe distance of 15 M from the shore, where the bottom is known to be free from dangers.

2.1.3 Ice

In April and May, the polar ice generally reaches its maximum extent from 70º N to Nunap Isua (Kap Farvel), stretching 60 M across the area covered in this chapter.
The ice at this time consists of a narrow area of fast ice along the coast, as well as the polar ice itself, which has a concentration of 8/10 - 10/10. This polar ice begins to recede in late May, and by mid-June is reduced to the area between 70º N and 65º N, in lower concentrations. The ice continues to recede gradually during July and August, and by late August, the area between Tasiilaq and Nunap Isua (Kap Farvel) is generally ice-free, aside from icebergs. Vessels are always advised to contact DMI Ice Service in Narsarsuaq for updates on ice conditions.

2.1.4 Currents

The East Greenland Current sets to the S along the whole of the coast covered in this chapter.

2.1.5 Wind

Strong winds may be experienced in the East Greenland fjords, especially during the winter months. These are likely caused by Foehn winds from the glacial ice further inland.

2.1.6 Description of the coast

2.1.6.1 from Taateraat Kangersuasiat (Kap Herluf Trolle) to Kangeq (Kap Cort Adelaer)

From Taateraat Kangersuasiat (Kap Herluf Trolle), fig. 2.6 the coast stretches to the NW for 4.5 M, to the S entrance by Avaqqat Kangerluat. Several skerries are found close to the E and S of the S end of the mouth of the fjord. A grotto into which the sea flows is found close to the headland. The grotto is reported to be around 30 m in diameter and about 37 m high. In the past, East Greenlanders used the area around this headland as a summer fishing grounds. The Seventh Thule Expedition used the bay just S of the headland for landing seaplanes, where the ice conditions were found to be favourable and the area well protected.

Uummannaarsuk is a 239 m high island, located 4.5 M E of the entrance to Avaqqat Kangerluat. The island is the furthest SE of three small islands, of which the W-most, a small rocky island, is 2 M WNW of Uummannaarsuk. The area around Avaqqat Kangerluat fjord and its entrance are called the Avaqqat area.

The Karrat peninsula fig. 2.7 is just N of the entrance to Avaqqat Kangerluat, and forms the S end of the mouth to a cove that reaches 2 M to the W.

Qunaranaaq (Kap Tordenskjold) 61º24'N 042º22'W, fig. 2.8, is one of the most distinct landmarks along this length of the coast. The cape is 676 m high and has two summits separated by a deep cleft. The inner peak is the highest, with a rounded top that is covered with perpetual ice, while the outer peak is flat and has a black top. There are two small islands 0.5 M SSE of Qunaranaaq (Kap Tordenskjold).

Nuuk is the NE-most point of the Akia peninsula and lies 5 M N of Qunaranaaq (Kap Tordenskjold). This point is the S-most entrance to Anorituup Kangerlua.

The tall, dark island of Qulleq, fig. 2.12, is 3 M NE of the entrance to Anorituup Kangerlua. The island is most prominent when viewed against the backdrop of the surrounding landscape. Viewed from the E, the island has two peaks, of which the N-most is 450 m high and the S-most 400 m high. There is a harbour on the island's SW side.

Between Anorituup Kangerlua and Napasorsuaq Fjord, 12 M to the N, the coast is irregular and features a number of small islands within 5 M from shore. The four largest of these islands are, from S-N, Qulleq, Qipinnguaq, Takisoq and Qeqertarsuaq. The latter three of these islands are found 2 M from the coast and form an archipelago called Qeqertaarsuit. The inlets ashore of the archipelago are called Paatusoq, Isortoq and Ternebugt.

Kangeq (Kap Daniel Rantzau) 61º47'N 042º05'W, fig. 2.19, is a 461 m high distinct promontory on the SE end of a 10 M-long irregular island. The island is separated from the mainland by a narrow strait called Tunua. The harbour of Kusanartoq is located here - see section 2.3, fig. 2.3.

Kangeq (Kap Cort Adelaer) 61º50'N 042º04'W, fig. 2.20, is a 457 m high and easily identified headland 2.75 M NNE of Kangeq (Kap Daniel Rantzau), on the E-side of the same island. The island of Uummannaarsuk, fig. 2.19, is just E of Kangeq (Kap Cort Adelaer). Viewed from SE, Kangeq (Kap Daniel Rantzau) and Kangeq (Kap Cort Adelaer) are tall and clear, while Qeqertarsuaq island and Inussuit peninsula, 5 M SW of Kangeq (Kap Daniel Rantzau), are relatively low in the landscape. A high, steep slope stretches from Kangeq (Kap Daniel Rantzau) to the W until it meets a glacier. A ravine is found 2 M along the slope from Kangeq (Kap Daniel Rantzau). The entrance to Tunua is located at the end of the slope.

2.1.6.2 From Kangeq (Kap Cort Adelaer) to Timmiarmiut

The peninsula Sermip Nuua is 3.5 M W of the N end of the island on which Kangeq (Kap Cort Adelaer) is the E-most point. A number of small islands are close to the peninsula, and on its S side, a 2 M-deep unnamed cove reaches to the SW. The N entrance to Tunua is E of this cove.

Kangeq (Kap Steen Bille) 62º01'N 042º06'W is a 640 m high promontory with a yellow appearance. It is 12 M N of Kangeq (Kap Cort Adelaer), just N of the Puisortoq glacier.

The coast runs 6 M to the W from Kangeq (Kap Steen Bille), after which a cove reaches 6 M to the SW. From the peninsula that forms the W side of the cove, the coast reaches 17 M towards the NNE to the S entry point to Sikuijivitteq (Mogens Heinesen Fjord). There are four small, unnamed coves on this stretch of the shoreline where the glacial ice reaches the sea.

Qeertartivaq (Otte Rud Øer) are located just N of Kangeq (Kap Steen Bille). The islands are partly ice-covered, but there is reported to be a small length of coastline where landfall is possible. The waters between the islands and the coast remain covered with a 1 m thick layer of winter ice at least through the month of June.

3 M NNW of Qeertartivaq (Otte Rud Øer) N point, Ingeqqajarpik, which Nansen called "Ørnereden" (the eagles' nest), can be found. At this gap in the rocky coastline, there is just enough space to haul a boat ashore. However, there are many skerries in the vicinity. The coast S of this gap is low and monotonous, with few rocks visible among the ice walls that extend into the sea.

The island of Ikermiut is 14 M N of Kangeq (Kap Steen Bille). Between this island and the coast is the archipelago of Maligissat, where evidence of prior settlement has been found.

Qasinngortooq 62°23'N, 042°06'W is a low and narrow but steep point 5 M N of Ikermiut.

Qasinngortuup Immikkoortukajaa, just to the N of Qasinngortooq, is a 558 m high island that appears dark in colour. The passage between Nattoralik and the coast, which is 1 M wide, is called Tunua.

2.1.6.3 From Timmiarmiut to Kangeq (Kap Niels Juel)

Uttorsiutit is a 643 m high island 3 M N of Qasinngortuup Immikkoortukajaa. The entrance to Qasinngortuup Kangertiva is between these two islands.

The 1 M wide channel of Uttorsiutit Tunuat runs W of Uttorsiutit.

Aaluik is a 228 m high island 2.5 M N of Uttorsiutit fig. 2.26. The entrance to Timmiarmiit Kangertivat (Timmiarmiut Fjord) is between these two islands. Timmiarmiit is a large island on the N side of Timmiarmiit Kangertivat (Timmiarmiut Fjord). The island's interior is mountainous, with a highest point of 1,230 m. A village once existed on a plain on its SW

side. A steep cliff nearby the settlement was called Timmiarmiit, and the name was likely extended to the entire region (the island, fjord and small islands in the vicinity). The island's SE point is called Akitsaq.
The four islands of Nikutiimusip Qaqqaraatai (Kamøen), Tupikajik, Uummannaq and Pungoq are located between Timmiarmiit and Uummannaq (Griffenfeld Ø).
Uummannaq (Griffenfeld Ø), 30 M N of Uttorsiutit, is an island of 9 M long from the N-S and 4 M wide from E-W. The island has many recesses and three high peaks, of which the tallest 62º55'N 041º32'W is 690 m high. A settlement once existed at the base of the mountain.
The island of Uippak 865 m is located 2 M N of Uummannaq (Griffenfeld Ø).
The headland of Kangeq (Kap Skjold) 63º06'N 041º12'W is found on the peninsula Kong Skjold Halvø, and marks the S side of the entrance to Sønder Skjoldungesund.
The headland of Kangeq (Kap Niels Juel) 63º12'N 041º06'W, fig. 2.30, is 6 M NE of Kangeq (Kap Skjold) and is on the SE point of Saqqisikuik (Skjoldungen). It is a narrow rocky point with a red-brown colour and a height of 460 m, 2 M inland on the peninsula. This point is a good landmark for the approach to both Sønder Skjoldungesund and Nørre Skjoldungesund.

2.1.6.4 From Kangeq (Kap Niels Juel) to Kap Møsting

Saqqisikuik (Skjoldungen) is an island 27 M long from NW-SE with a maximum breadth of 7 M. It is located to the NW of Pulaqqaviip Ikaasaa (Mørkesund), with Sønder Skjoldungesund directly to its S and Nørre Skjoldungesund to its N. The island reaches up to 460 m in the SE, and up to 1,750 m in the NW.
Puttatip Saarsia (Ingjald Ø) is just to the NE of the island of Imaarsivik, with a 1 M wide channel between them. A number of islands are found in the S end of this channel. There are a few islands NE of Puttatip Saarsia (Ingjald Ø), of which the W-most is called Nappat. N of these islands is the entrance to Ilertakajik fjord.
Oqquata Qaqqartivaa is a larger island with a summit of 715 m. This island is just N of the entrance to Ilertakajik fjord and is surrounded by a number of smaller islands.
Kangeq (Kap Moltke) 63º29'N 040º46'W, fig. 2.31, is the SE-most point of Thor Land. The point is red-brown in colour and is 460 m high.
From Kangeq (Kap Moltke), the coast continues 11 M to the NNE to the entrance to Kangertittivaq (Bernstorff Isfjord) fig. 2.32. A number of islands are found off this stretch of coast, with the largest being Qeertartivaq.
The small, low-lying island of Qimiitaa is 3 M NE of Qeertartivaq. The coast here is less steep, and the mountains behind it more rounded, than areas further to the S.
On the tip of Sattiaatteq, which is the S end of the entrance to Kangertittivaq (Bernstorff Isfjord), one can find the ruins of an old settlement.
Kap Møsting 63º41'N 040º31'W, fig. 2.32 is an easily recognized and prominent headland of 475 m.

2.1.6.5 From Kap Møsting to Kangerajik

From Kap Møsting, the coast extends 15 M to the N to the entrance to Quseertaliip Kangertiva (Otte Krumpen Fjord). The coast here is bare, steep and covered with glaciers that extend through the canyons and valleys and into the sea.
There is a rocky island 0.5 M offshore 4 M N of Kap Møsting, with a number of bays and

inlets to its NW. The N-most of these is Ægir Bugt.
The island of Taateraakajik is close to the coast N of Ægir Bugt.
4 M SE of the Eqaluttusoq promontory 63º52'N 040º36'W, a submerged rock has been reported, but its existence is questionable.
Qeertartivatsiaq is an island 2 M NE of Eqaluttusoq and 2.5 M SE of the entrance to Quseertaliip Kangertiva (Otte Krumpen Fjord).
Pingasikajiit is a prominent, 584 m high headland that reaches to the SE from Kangerajiip Apusiia (Colberger Heide) peninsula. From here, the coast continues 7 M NNE to Kangerajik.

2.1.6.6 From Kangerajik to Umiiviip Kiammut Kangera (Kap Poul Løvenørn)

Kangerajik is a large rounded promontory on the E side of Kangerajiip Apusiia (Colberger Heide) and is covered by a large glacier that extends several M along the coast. There are a few small rocky islets close to the coast 1 M S of Kangerajik and 2-3 M N of Kangerajik.
Upernattivik is a large island whose S side is 2 M N of Kangerajiip Apusiia (Colberger Heide) peninsula.
Pikiitsi is a small, 50 m high island just SE of Upernattivik.
Umiivik is a large bay to the E of Upernattivik and S of the peninsula Fridtjof Nansen Halvø.
Umiiviitaa is the NE-most of the islands E of Fridtjof Nansen Halvø. The island just S of Umiiviitaa is Putoqartikajik (Gabel Ø) fig. 2.34.
Kulusuk (Gerner Ø) fig. 2.33 is 1 M SE of Fridtjof Nansen Halvø and stretches 5 M NE-SW. There is a cairn at its 369 m high summit. The narrow channel Ikaasaartik runs between Kulusuk (Gerner Ø) and the shore. This channel has a foul bottom in its SW end, but is reported to be a useful anchorage in the area of its N entrance. This anchorage has been reported to be ice-free in early August. The waters between Kulusuk (Gerner Ø) and Putoqartikajik (Gabel Ø) are foul with numerous skerries and islets.
A number of small, unnamed islands are found S of Kulusuk (Gerner Ø), and 3 M to its SW is the archipelago Qeertaartivit.
Kiatak 64º20'N 040º32'W, fig. 2.34, is a 766 m high peak located on a narrow peninsula that protrudes S from Fridtjof Nansen Halvø. Kiatak has a distinct red stripe from its peak to its base, and is the most easily identified landmark in the area. A settlement was once located at the base of Kiatak.
Attivata Imaa (Nansen Bugt) is located in the NW part of Umiivik and runs 9 M towards the W from Kiatak. A narrow, 5 M long secondary fjord that reaches to the WSW connects the bay with Torsukattak.
Torsukattak is a narrow, 6 M long fjord to the W of Umiivik, after which it reaches the Sverdrup Sund. There have been a number of settlements along the N side of Torsukattak.
Sverdrup Sund stretches 10 M to the SW and S from the W side of Torsukattak. The sound is 4 M wide with an island in its centre.
Napparsimalikajiip Ikaasaa (Dietrichson Sund) stretches 7 M to the WNW from the NW of Sverdrup Sund. The peak of Arnaraartivaq (Jyllandsfjeldet), 898 m, is located on the N side of this sound. 10 M further to the WNW is Sadelfjeldet, at 1,405 m.
Trefoldigheden Ø is on the S side of Napparsimalikajiip Ikaasaa (Dietrichson Sund) and has a peak of 796 m.
The Umiivik region includes Sverdrup Sund and Umiiviip Kangertiva (Gyldenløve Fjord). This

region differs from many of the East Greenlandic fjords in that the coasts are consistently covered with ice walls that reach out into the sea, while bare mountain peaks are relatively uncommon.
Umiiviip Kiammut Kangera (Kap Poul Løvenørn) fig. 2.35.

2.1.6.7 Recording stations

Recording stations has been set up on the seabed in the waters SE of Kangeq (Kap Niels Juel) between 63º04,00'N 040º45,00'W and 63º00,00'N 040º33,00'W.
Additional instruments are found on the seabed in the waters E of Kangeq (Kap Niels Juel) between 63º07,20'N 035º32,60'W and 63º35,50'N 036º39,00'W.
These Recording stations are unmarked. For more details, see Danish Notices to Mariners number 30/643 2007.

2.2 Approaches and access to waterways (fjords), towns, villages, etc.

The coast between Taateraat Kangersuasiat (Kap Herluf Trolle) and Umiiviip Kiammut Kangera (Kap Poul Løvenørn) features a number of fjords and bays, the depths of which are mostly unknown.
The most commonly frequented locations in the area are Kusanartoq Havn, Timmiarmiut, Saqqisikuik (Skjoldungen), Silasiorpiip Kangertiva (Caroline Amalie Havn), Tiniteqilaarmiit (former village), and Umiivik (summer fishing village). See also parts 2.3.1 - 2.3.6 of Section 2.3 in this chapter.

The following fjords (from S-N) are found in this region:

2.2.1 Avaqqat Kangerluat 61º16'N 042º38'W

The entrance to Avaqqat Kangerluat is between the points of Taateraat Nuuat and Avaqqat. The fjord reaches 17 M to the W, is 2.5 M wide at its entrance and narrows to 1 M wide further in. About 2 M in from Taateraat Nuuat on the fjord's S side, the coast runs 4 M to the SW and W. The Seventh Thule Expedition reported finding an anchorage on the S side of the fjord, but its location is unknown. The highlands around Avaqqat Kangerluat are uneven, and glaciers protrude into the fjord.

2.2.2 Anorituup Kangerlua 61º31'N 042º23'W

The fjord reaches 20 M from Nuuk towards the W. Near the S side of the fjord's entrance, there are several large bays surrounded by highlands, with altitudes up to 1,341 m. Several glaciers reach out into the fjord and calve large icebergs. On the N side of Anorituup Kangerlua, close to the fjord entrance, there is a large plain at the base of some low hills. Evidence of an earlier settlement has been found here. The area is generally called Anorituup region.

2.2.3 Napasorsuup Kangerlua (Napasorsuaq Fjord) 61º45'N 042º11'W

The fjord entrance is located between Inussuit peninsula and Kangeq (Kap Daniel Rantzau). The fjord reaches 18 M to the W and NW, and is 3.5 M wide at its mouth, narrowing to 1 M wide at its head.

2.2.4 Puisortup Kangerlua 61º54'N 042º12'W

The fjord is situated N of Sermip Nuua peninsula and reaches 6 M to the W.
The fjord is 1 M wide at its mouth, and maintains this width until its head, where it narrows to less than 0,5 M. Puisortoq peninsula is on the N side of the fjord, with the Puisortoq glacier forming an ice wall along 3 M of the peninsula's E shore. The glacier rises vertically from the sea to a height of 185 m, then slopes steadily upwards at 30º until it meets the inland ice in the highlands. Because this glacier calves icebergs along the ice wall, it should be considered very dangerous and safe distance should be maintained.

2.2.5 Sikuijivitteq (Mogens Heinesen Fjord) 62°20'N 042°07'W

The fjord stretches 20 M to the NW, where it is surrounded by high mountain peaks. For most of its length, the fjord is 3 M wide with shores covered in snow and glacial ice. The fjord's only easily accessed point is a small bay on its N side, which has a few rocky islets at its inlet. The remains of huts and burial sites have been found on the shores of the bay.

2.2.6 Qasinngortuup Kangertiva 62º27'N 042º09'W

Bay that stretches 8 M to W, where its splits into two branches that run 3 and 5 M, respectively, to the WNW and NW.

2.2.7 Uttorsiutit Tunuat 62º28'N 042º15'W

Channel 1-M wide to the W of Uttorsiutit island. The Seventh Thule Expedition reported finding a suitable anchorage on the SW side of Uttorsiutit. The SW point of the island is called Eqalummiit and is surrounded by foul waters that should be kept at a safe distance.
The bay has an anchorage that is protected by two small islands that are on the bay's S coast. Larger vessels can anchor in the bay close to these islands.
There is also an anchorage in a bay on the N side of Uttorsiutit, just NW of the former Timmiarmiut Weather Station, see Section 2.3.
In a 1.5 M long cove on the island's E side, there is also an excellent anchorage that can be used to call on the former Timmiarmiut Weather Station.

2.2.8 Timmiarmiit Kangertivat (Timmiarmiut Fjord) 62º36'N 042º08'W

The fjord stretches 27 M to the W from its entrance, which is between Uttorsiutit and Aaluik. The Immikkoortukajik archipelago is 8 M long, and is located 2 M NW of the NW point of Uttorsiutit. From here, Timmiarmiit Kangertivat (Timmiarmiut Fjord) reaches to the 15 M to the W and 18 M to the N. The high-relief landscape surrounding the fjord links to the inland

glaciers. There are three large tributaries on the fjord's N side. The fjord is often blocked by ice that originates from the glacial tongues at the head of these three tributaries, and from the glacial walls that are found along both sides of the fjord.

2.2.9 Timmiarmiit Tunoqquttariaat 62º45'N 041º50'W

The sound is 14 M long and 0.5 to 1 M wide to the N of Timmiarmiit and S on Nikutiimusip Qaqqaraatai (Kamøen).

2.2.10 Uummannap Tunoqquttariaa 62º53'N 041º36'W

A narrow channel between Uummannaq (Griffenfeld Ø) and the mainland, with mountainous landscape on both sides. When not ice-filled, the channel can be navigated, as it is deep and free from dangers, with a minimum depth of 146 m at its S end.

2.2.11 Uummannap Kangertiva (Sehested Fjord) 63º01'N 041º24'W

The fjord has its entrance between Uummannaq (Griffenfeld Ø) and Uippak. The fjord is 23 M long, and runs first towards the WNW, then turns towards the NW. Kong Dan Halvø comprises the fjord's N coast.

The tributary Annat Fjord is 15 M W of Uummannap Kangertiva (Sehested Fjord)'s entrance inlet, and is 2.5 M wide at its mouth. A small lake drains into the NE corner of Annat Fjord, close to which there is also a well-protected anchorage. The landward end of Uummannap Kangertiva (Sehested Fjord) is filled with ice, as the Guldfaxe and Rimfaxe glaciers emerge here. On the S side of the fjord, there are also a number of small tributaries, of which the furthest W is Sikuijivitteq, and runs 5 M to the S and W. The glacier Garm Gletscher terminates in this tributary's innermost part.

Imikajik is a narrow, 3 M long inlet on the S side of the fjord, 3 M W of the NW corner of Uummannaq (Griffenfeld Ø). A good anchorage for small vessels has been found here, but the fjord begins to freeze as early as mid-August.

2.2.12 Kangertikajik 63º02'N 041º31'W

The fjord reaches 20 M to the NW from its mouth, which is found between Uummannaq (Griffenfeld Ø) and Uippak. This fjord is also ice-filled at its terminus, as the Apusiikajik (Skinfaxe Gletscher) emerges here. N of Uippak island is the narrow channel Vend-om, which is 4 M long and leads to the NNW.

2.2.13 Sønder Skjoldungesund 63º09'N 041º11'W

The sound is 27 M long and 1 M wide and can be approached from between Kangeq (Kap Skjold) and Kangeq (Kap Niels Juel) chart 2250.

2.2.13.1 Depths
The fjord is deep and clear of hazards.

2.2.13.2 Ice
Medium-sized icebergs may be encountered in the entrance to the sound, which is navigable in September and October but begins to freeze in late October.

2.2.13.3 Halfdan Fjord
The fjord, fig. 2.2 is on the N side of Sønder Skjoldungesund and runs 4 M to the N, and makes for a good anchorage. The first 3 M of the fjord reach to the N, after which the basin turns to the W, where there are depths between 18-65 m and a soft seabed. A small, low rocky island is found in the middle of the fjord entrance, and can be passed on either side, though the W side is preferred.

2.2.13.4 Silasiorpiip Kangertiva (Caroline Amalie Havn)
The harbour, fig. 2.5 is on the S side of the fjord, just S of Halfdan Fjord. The fjord is ice-free from August to October.
Gletscherlukke 63º10'N 041º30'W is on the fjord's S shore, 4.5 M W of Silasiorpiip Kangertiva (Caroline Amalie Havn). There is a small glacier on the W side of this fjord, which is deep at its N entrance. Qusiit Kangertivat (Stærkodder Vig) is 3 M NW of Gletscherlukke, and runs 2 M to the W.

2.2.13.5 Qoornersaata Kangertiva (Balder Fjord)
Qoornersaata Kangertiva (Balder Fjord) is 5 M NW of Qusiit Kangertivat (Stærkodder Vig), and has two branches that run 4 M to the W and NW. There is a skerry NW of this fjord entrance, but otherwise the slay seabed around Saqqisikuik (Skjoldungen) is believed to be free from dangers and deep - with the exception of a reef in shallow water just before the entrance to Qoornersaata Kangertiva (Balder Fjord).

2.2.13.6 Eqalummiit (Dronning Marie Dal)
A wide, 3.4 M long flat valley surrounded by steep mountains, is found near the head of Sønder Skjoldungesund. Sourced from a small lake, there is a stream that runs through the valley that is said to be rich with salmon. There is a hut on the N side of the bay.
The small Drøneren glacier is 1.5 M S of Eqalummiit (Dronning Marie Dal), and has been so-named (the Thunderer) because it can be heard long before it is seen.

2.2.13.7 Torsukataa (Yrsa Fjord)
On the SE part of Saqqisikuik (Skjoldungen) island reaches 6 M to the NW. The tidal range in the fjord is 2 M. A glacial tongue reaches out into the waters near the fjord's terminus.

2.2.13.8 Pulaqqaviip Ikaasaa (Mørkesund) 63º29'N 041º51'W
Pulaqqaviip Ikaasaa (Mørkesund) 63º29'N 041º51'W is an 4 M long sound N of Saqqisikuik (Skjoldungen) island, and connects Sønder Skjoldungesund with Nørre Skjoldungesund. The waters around the N side of Saqqisikuik (Skjoldungen) island are foul.

2.2.14 Nørre Skjoldungesund 63º15’N 041º05’W

The sound lies between Saqqisikuik (Skjoldungen) island and Langenæs peninsula. The NW part of the landward end of the sound is called Kattilersarpik (Nørrevig), where Thrym Gletscher terminates. Qittalivaqartip Immikkoortui (Diserne) archipelago is located on S side of the entrance to Nørre Skjoldungesund, 3 M NNW of Kangeq (Kap Niels Juel). The archipelago stretches 2 M to the NW.

Ice begins to form in the fjord at the beginning of October, after which the fjord and its freshwater currents can be expected to be frozen.

2.2.14.1 Depths

Mid-channel the fjord is believed to be deep and clear of dangers, but it has not been sufficiently surveyed.

2.2.15 Akorninnarmiit Oqqummut Kangertivat (Graah Fjord) 63º18’N 041º00’W

The entrance to Akorninnarmiit Oqqummut Kangertivat (Graah Fjord) is between Langenæs and Imaarsivik, which is a 305 m high island, which lies 2.5 M NE of Kap Langenæs. The island is 4 M long and 2 M wide. The island of Tupikajik lies 2 M SE of Kap Langenæs and is a good landmark on the approach.

8 M from the entrance to Akorninnarmiit Oqqummut Kangertivat (Graah Fjord), the fjord-arm Jættefjorden extends 10 M towards the NNW. Akorninnarmiit Oqqummut Kangertivat (Graah Fjord) continues a similar distance to the NW, with two tributaries at its head. The N tributary, called Kangertiva Kiatteq (Lommen), reaches 3 M to the N. A good anchorage has been reported in the N-most part of Kangertiva Kiatteq (Lommen), N of the archipelago Urd Øer that sits in the middle of the channel.

Finnsbu 63º23’N 041º18’W is located in SW part of Akorninnarmiit Oqqummut Kangertivat (Graah Fjord), 7 M NW of the SE tip of Langenæs. A meteorological station was once located here.

Graah Havn 63º21’N 041º08’W is located on the W side of Imaarsivik island, and provides a good harbour for smaller vessels through a narrow but deep channel that leads into a basin. See also section 2.3.

2.2.16 Ilertakajik 63º25,5’N 041º01’W

The fjord stretches 14 M to the W and NW, where it ends at a glacier. It is surrounded by tall, steep mountains that reach up to 1,500 m near its head. Ilertakajik marks the N end of the coastal alpine region. The mountains to its N are lower and more rounded.

Four 3 M long fjords dissect the landscape W of Kangeq (Kap Moltke). From the W, they are called Sarpaq (Dragsfjord), Apusiikajiip Kangertiva (Magnes Fjord), Umiartivaliviip Kangertiva (Modesfjord) and Nattittiit Kangertivat (Fyllas Vig).

There are several islands and skerries at the entrance to these fjords.

2.2.17 Kangertittivaq (Bernstorff Isfjord) 63º39'N 040º35'W

The entrance to Kangertittivaq (Bernstorff Isfjord) is between Sattiaatteq island and Kap Møsting. The fjord is 30 M long and reaches in a WNW direction. It is usually, if not always, ice-filled. There are usually a number of icebergs just outside the fjord entrance, and there are very strong eddies of icebergs and bergy bits just within the outer bank of icebergs. Kangertittivaq (Bernstorff Isfjord) produces more icebergs than any other ice fjord in SE Greenland. These are carried out of the fjord by a strong current, making the waters outside and S of the fjord entrance difficult and very dangerous to navigate. The waters N of Kap Møsting are also difficult to navigate due to ice and unsettled waters, even in calm wind conditions.

2.2.18 Quseertaliip Kangertiva (Otte Krumpen Fjord) 63º56'N 040º37'W

The fjord stretches 6 M to the W. The waters on the S side of the fjord are foul with numerous islands and skerries. There is also an archipelago called Qeertartivatsiaq 2 M SE of the fjord entrance.

2.2.19 Umiiviip Kangertiva (Gyldenløve Fjord) 64°09'N 040°36'W

The fjord stretches 30 M to the WNW from Kangerajik, on the E side of Kangerajiip Apusiia (Colberger Heide). Umiiviip Kangertiva (Gyldenløve Fjord) is an ice fjord and is part of the Umiivik region.

2.2.20 Kattertooq 64º24'N 040º15'W

The fjord is a 1-4 M wide ice fjord that separates the island of Jens Munk Ø from the mainland.

2.3 Harbours and anchorages

The following harbours and anchorages can be accessed in this region:
2.3.1 Kusanartoq Havn
2.3.2 Timmiarmiut
2.3.3 Saqqisikuik (Skjoldungen)
2.3.4 Silasiorpiip Kangertiva (Caroline Amalie Havn)
2.3.5 Tiniteqilaarmiit
2.3.6 In addition to these known harbours, there are several anchorages that have not yet been surveyed. Some of these anchorages may be used as emergency harbours.

2.3.1 Kusanartoq Havn 61º48'N 042º15'W

The harbour is an anchorage in Tunua, the site of former weather station Kangeq (Kap Cort Adelaer).

2.3.1.1 Approach

When approaching from the N, the island on which Kangeq (Kap Cort Adelaer) and Kangeq (Kap Daniel Rantzau) are located emerges as a very apparent, single, dark, rock formation,

fig. 2.17. It is easily differentiated from the glaciated land area farther N. When approaching from the S, Kangeq (Kap Cort Adelaer) appears to be an extension of the mainland to its N (see views of the land). The best approach is achieved by holding a course towards 5 M E Kangeq (Kap Cort Adelaer), after which a course toward the island should be kept for 4 M, until Kap Rantzau Daniel has been passed. This puts the vessel E of Napasorsuup Kangerlua (Napasorsuaq Fjord), after which it should keep to the middle of the channel, but keeping distance to the skerries awash 0.3 M N of Inussuit. Here a large area of breakers can be seen under a NE swell. The waters 1 - 1.5 M from Kangeq (Kap Daniel Rantzau) are believed to be free of dangers, though closer to the shore, the bottom is not expected to be clear. However, after this point, the approach is clear and deep. When Range Pynt, the island's most SW point, has been passed at a distance of 0.5 M, the vessel should keep towards a point 0.5 M W of Range Point, where the intersection of two sets of beacons indicates the approach to the inlet where the anchorage is located. A course of 048º should be held from the beacons' intersection leads a course between rocks and skerries and into the anchorage, which is 1.3 M to the NE. Tunua cannot be approached from the N because the waters here are shallow and full of obstacles.
Note: The two sets of beacons cannot be expected to be in place and in order.

2.3.1.2 Seasonal access
The anchorage is not an active one, but can be used between mid-July to late September as shelter from the drift ice and as a safe haven.

2.3.1.3 Anchoring and mooring
Vessels can anchor at a depth of 40 m in a sandy bottom with good holding, just beyond the harbour's "landing", and there is adequate room for swinging on the anchor.

2.3.1.4 Ice
Due to the long and rather narrow entrance, large floes and icebergs are not a problem in the anchorage, but bergy bits that drift through these waters at a rate of 1-2 kn can be expected.

2.3.1.5 Wind and currents
The prevailing winds here are from the NE or SW, the former tending to be the strongest but not creating significant swell.

2.3.1.6 Tides
The high water at spring- and neap- tides are 3.1 m and 1.8 m, respectively.

2.3.1.7 Supplies
None, but there is a freshwater stream 1 M NE of anchorage.

2.3.2 Timmiarmiut 62º32'N 042º10'W
The former weather station is located on the island of Uttorsiutit, on the S side of the entrance to Timmiarmiut.

2.3.2.1 Approach

The station buildings are located on a low, flat isthmus that connects the island Uttorsiutit's small NE area with its larger SW area. The anchorage can be approached by keeping a course towards 10 M E of Uttorsiutit, after which the fjord Østfjord on the E side of the island can be accessed. From the S and E, the 643 m high mountain on the island's S side is prominent and accentuated by the snowy column that stretches from its peak to its base. Timmiarmiit Kangertivat (Timmiarmiut Fjord) is also easy to identify from seawards, as it marks a terrain change between the steep alpine landscape to its N and the lower, rounder, and more glacially smoothed landscape along the coast to its S. See coastal sketches, fig. 2.25 – 2.29.
The station is usually approached from the E through Østfjord, though there is a second, less actively used approach from the N through Nordfjord. The waters in the latter approach have not been adequately surveyed, and the bottom is not clear of dangers.

2.3.2.2 Østfjord

The fjord can be approached from a point 10 M E of its mouth (or the centre of the island). From here, vessels should keep close to the S of the small islands that are found 0.5 M S of Maniitsoq and 1.5 M E of the mouth of Østfjord. After the islands have been passed, the vessels should keep toward the middle of the mouth of the fjord. The extent of the fjord is first visible once its mouth has been cleared. From here, vessels should keep to the middle of the channel. An excellent harbour basin can be found by the narrow inlet on the S of the fjord.

2.3.2.3 Depths

Østfjord is known to be very deep throughout, with no other known skerries than the ones identified in chart 2250.

2.3.2.4 Anchoring and mooring

Vessels can anchor in the leading line formed by the radio mast and the station building, where the depth is 10 m over a good holding ground. Mooring bolts can be found in the rocks by the landing area. Vessels can moor stern-to and haul in close to the ledge by the landing area. From here, a path leads to the storage area and station huts. The anchorage is well protected from sea and swell, and the wind will not usually affect vessels' safety while in the anchorage. See fig. 2.4.
Note: The leading line and the mooring bolts cannot be expected to be in place and in order.

2.3.2.5 Ice

The fjord is usually ice-free in the summer months. Østfjord is deep enough to permit navigation around large icebergs that appear from the outside to block the entrance. In the winter months, ice is generally less of a problem in Østfjord than in Nordfjord, but spring tides can carry large bergs into the fjord. If these subsequently run aground, they can hinder navigation. This is also likely to occur in Nordfjord. On July 14th, 1965, the ice belt was reported to be 35 M wide with a concentration of 8/10. A vessel reported that it took 20 hours to pass the belt.

2.3.2.6 Tides

The high water at spring- and neap- tides is 3.5 m and 2.0 m, respectively.

2.3.2.7 Nordfjord
Nordfjord can be approached from a point 10 M E of Uttorsiutit, from which vessels should keep to the N of the island until it is possible to see into the fjord. Three channels lead to the anchorage, the middle of which is believed to be the best and is indicated in chart 2250 with a dotted line. The bottom of the W channel has submerged hazards and E channel is very narrow. Nordfjord is no longer used for accessing the former weather station.

2.3.3 Saqqisikuik (Skjoldungen) 63º13,0'N 041º24,0'W
see GHP (in Danish only).

2.3.4 Silasiorpiip Kangertiva (Caroline Amalie Havn) 63°11'N 041°19'W
See fig. 2.5.

2.3.4.1 Approach
Whether approaching Sønder Skjoldungesund from the N or S, vessels should keep 20 M from the coast (to the degree the polar ice extent permits) until Kangeq (Kap Niels Juel) is at a bearing of 310º. From here, vessels should keep toward mouth of the fjord and pass 3 M S of Kangeq (Kap Niels Juel), after which they should proceed in the centre of the channel until reaching 63º12'N 041º18'W. From here, the fjord can be entered.

2.3.4.2 Seasonal access
Access to the fjord depends on the ice distribution in the given year as well as the vessel's ice-strengethening and engine power. Those that are not ice-strengthened can usually navigate Sønder Skjoldungesund between mid-July and late September.

2.3.4.3 Anchoring and mooring
The harbour is well protected and can be used when harbour of the former village Saqqisikuik (Skjoldungen) is blocked by ice. The relatively shallow depths prevent the ice pack and bergs from drifting into the fjord, leaving the anchorage in the S-most bay generally ice-free. During short stays, vessels can also anchor in the bay to the N, 600 from the entrance. Smaller vessels of up to 50 m can anchor in either location on 85 m of chain. In the S anchorage, there are two mooring stones to the W and NW of the mouth of the stream that empties into the in the furthest end of the cove.

2.3.4.4 Ice
The harbour is usually ice-free by mid-July until early October.

2.3.4.5 Tides
At the spring tide, the highest high water is 3.5 m.

2.3.4.6 Supplies
None, but fresh water can be filled from the stream that empties into the furthest end of the cove.

2.3.5 Tiniteqilaarmiit 63º23'N 041º10'W

The former village was located on the N side of Akorninnarmiit Oqqummut Kangertivat (Graah Fjord), 5 M into the fjord.
There is currently no information available about this harbour.

2.3.6 Anchorages on the coast between Taateraat Kangersuasiat (Kap Herluf Trolle) and Umiiviip Kiammut Kangera (Kap Poul Løvenørn).

The anchorages listed below have not been systematically surveyed, but smaller vessels have used them during expeditions and other activities. The anchorages may provide refuge for smaller ships and vessels.
There are anchorages at the following locations:

2.3.6.1 Avaqqat Kangerluat 61º16'N 042º38'W

See section 2.2.

2.3.6.2 Issortooq 61º27'N 042º26'W

A protected harbour has reportedly been accessed through a narrow channel. The harbour can be approached from the NE, is well protected and has a good holding bottom. This location is susceptible to strong gusts from the mountains. Grounded icebergs may block the entrance to the harbour, and the waters between these bergs can be very unsettled.

2.3.6.3 Kangeq (Kap Daniel Rantzau) 61°48'N 042°08'W

A sheltered and often ice-free harbour has been reported NW of Kangeq (Kap Daniel Rantzau), but there is also a risk for strong swell here.

2.3.6.4 Qasinngortooq 62º23'N 042º06'W

There is a narrow cove near the point, where there is mediocre shelter between the 3-4 m high rocks. There are no further details available about this anchorage.

2.3.6.5 Qasinngortuup Immikkoortukajaa 62º25'N 042º10'W

Shelter and a landing area have been found on the W side of the island. Tunua (the channel S and W of the island) has been navigated, but has not been surveyed or investigated for use as a refuge.

2.3.6.6 In Uttorsiutit Tunuat 62º28'N 042º15'W

See section 2.2.

2.3.6.7 By Timmiarmiit 62°40'N 042°17'W

There is said to be a good and protected harbour in the bay near the former village on the SW side of island Timmiarmiit. The entrance to the bay is shallow and protected from large icebergs, but the waters have not been surveyed.

2.3.6.8 Sarpaq 62º47’N 042º20’W
An anchorage has been reported near Sarpaq, which is located at the NW point of Timmiarmiit. An anchorage has also been found by the island of Aaluik S of Timmiarmiit. Neither of these locations has been surveyed.

2.3.6.9 Uummannaq (Griffenfeld Ø) 62º54’N 041º31’W
In the narrow fjord that stretches into the S side of the island, a number of anchorages and harbours have been found and are usually ice-free in early September.

2.3.6.10 Ebba Havn 63º00’N 041º28’W
On the N side of Uummannaq (Griffenfeld Ø), Ebba Havn can be accessed by motorboats, though the entrance can feature heavy swell and can be blocked by icebergs. Vessels should keep to the E side of the channel on their approach, as there are skerries in the middle of the channel.

2.3.6.11 Annat Fjord 63º04’N 041º55’W and in Imikajik 62º59’N 041º40’W
See section 2.2.

2.3.6.12 Qusiit Kangertivat (Stærkodder Vig) 63º15’N 041º35’W
A good anchorage has been reported in this cove. See also the description of Nørre Skjoldungesund in section 2.2.

2.3.6.13 Akorninnarmiit Oqqummut Kangertivat (Graah Fjord)
There are anchorages in the following locations:
In Kangertiva Kiatteq (Lommen) 63º31’N 041º30’W by Finnsbu 63º23’N 041º18’W and in Graah Havn 63º22’N 041º09’W. See section 2.2.

2.3.6.14 Nattittiit Kangertivat (Fylla Vig) 63º30’N 040º51’W
Vessels may be able to anchor in the cove, but there are no further details available.

2.3.6.15 Sattiaatteq 63º38’N 040º38’W
Motorboats can find shelter in the sound SW of the island and in a small cove on the island’s S side. There is a freshwater stream in the furthest reach of the cove.

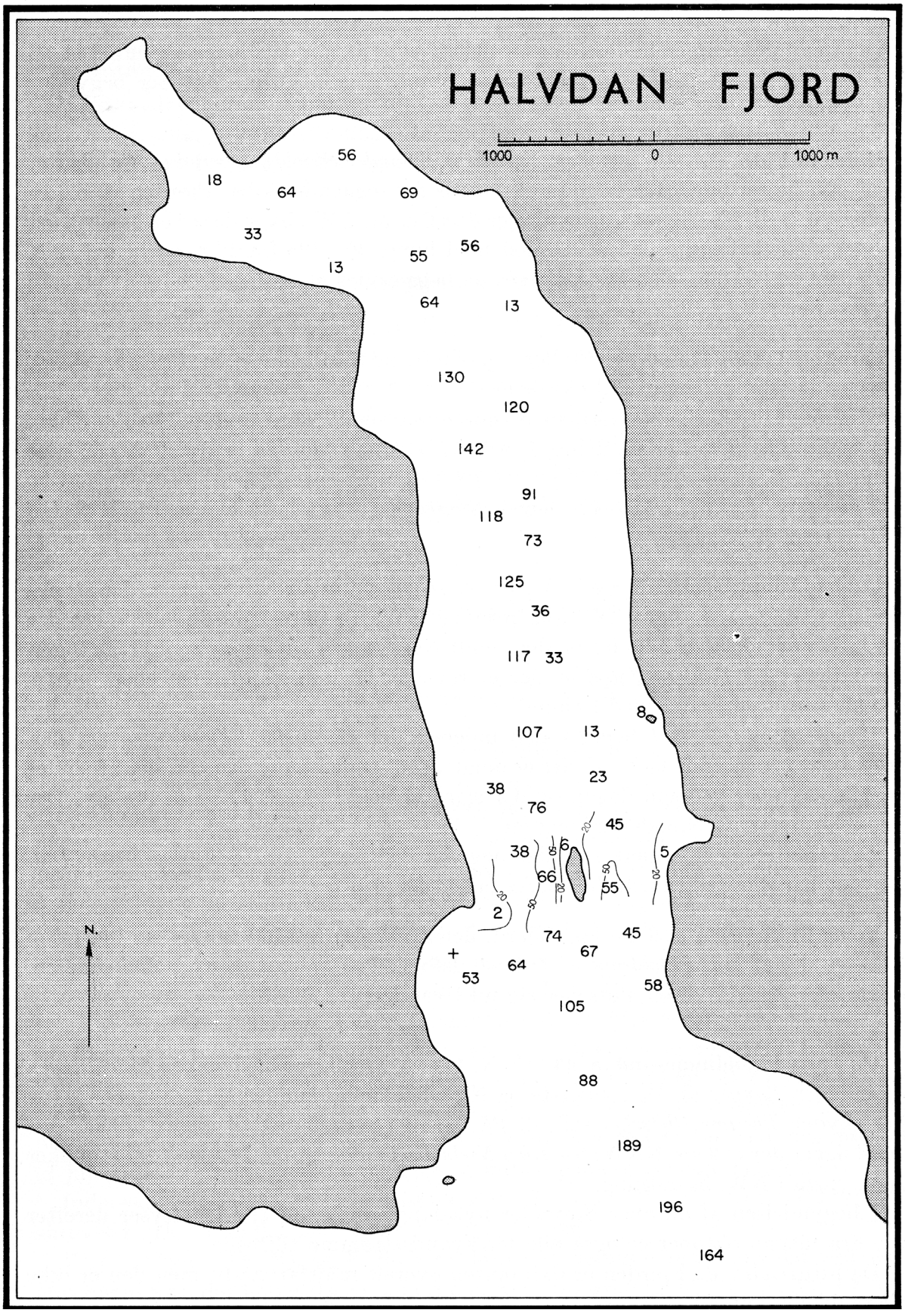

Fig. 2.2 – Halvdan Fjord.

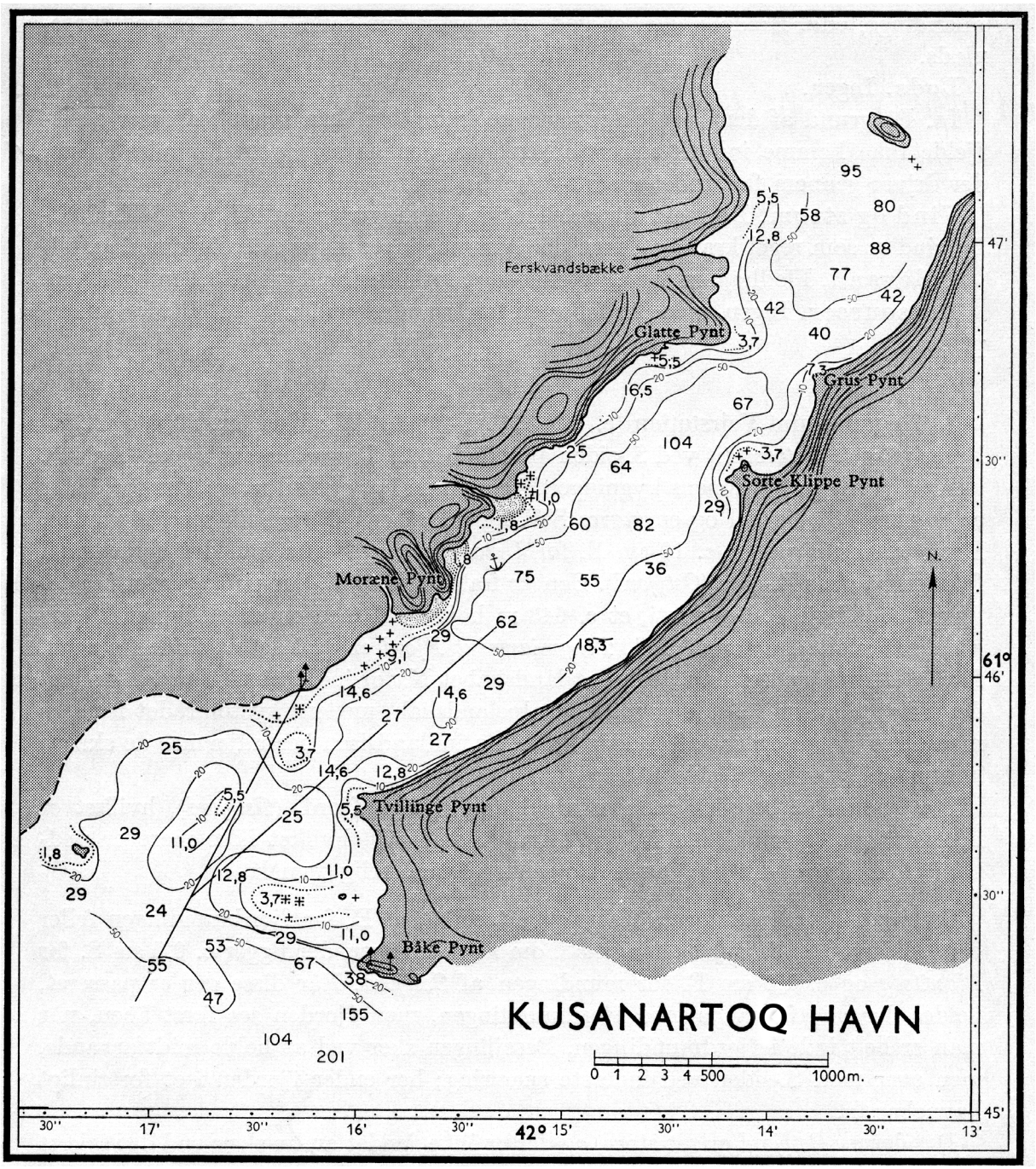

Fig. 2.3 – Kusanartoq Havn.

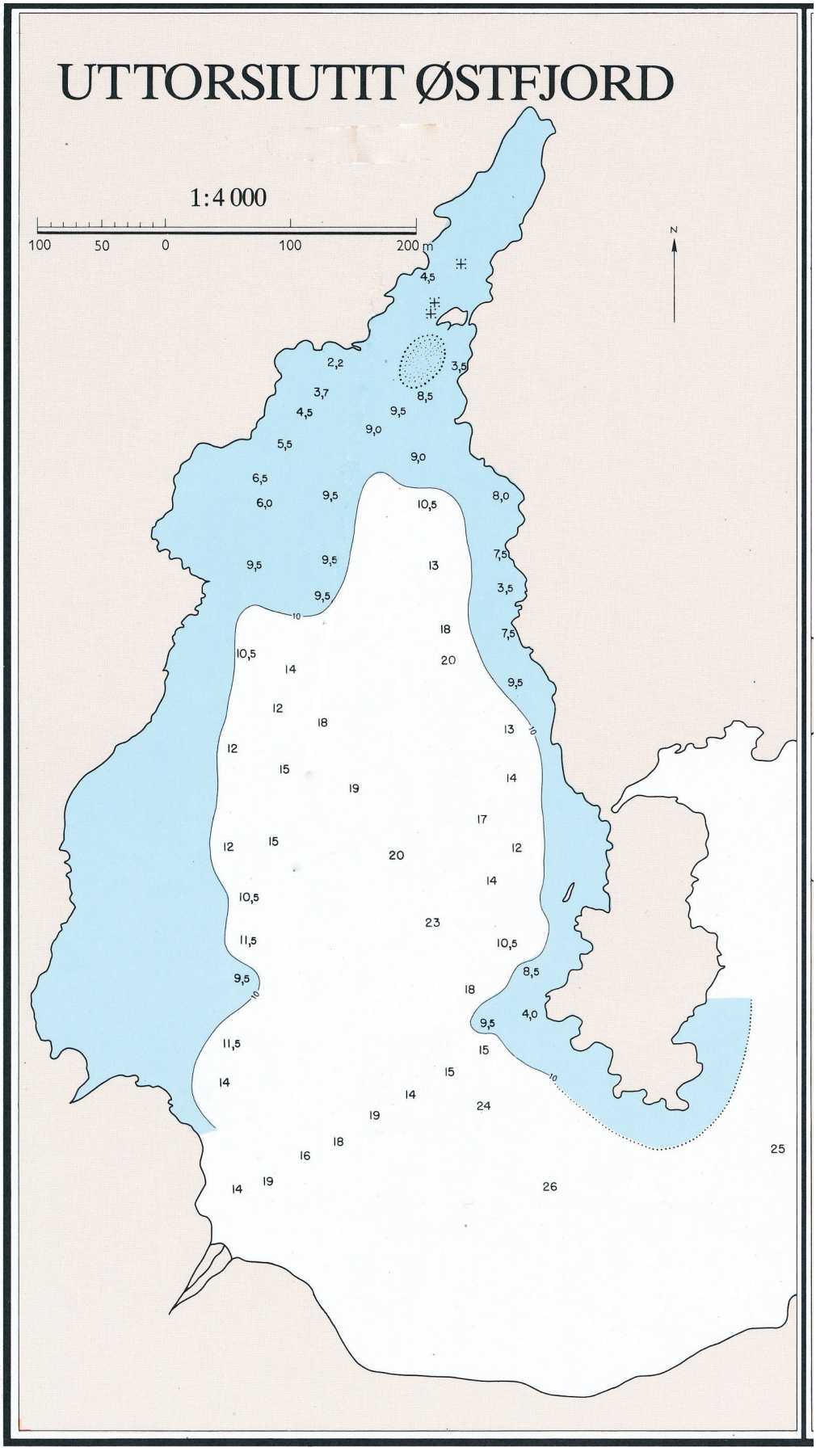

Fig. 2.4 – Uttorsiutit (Østfjord).

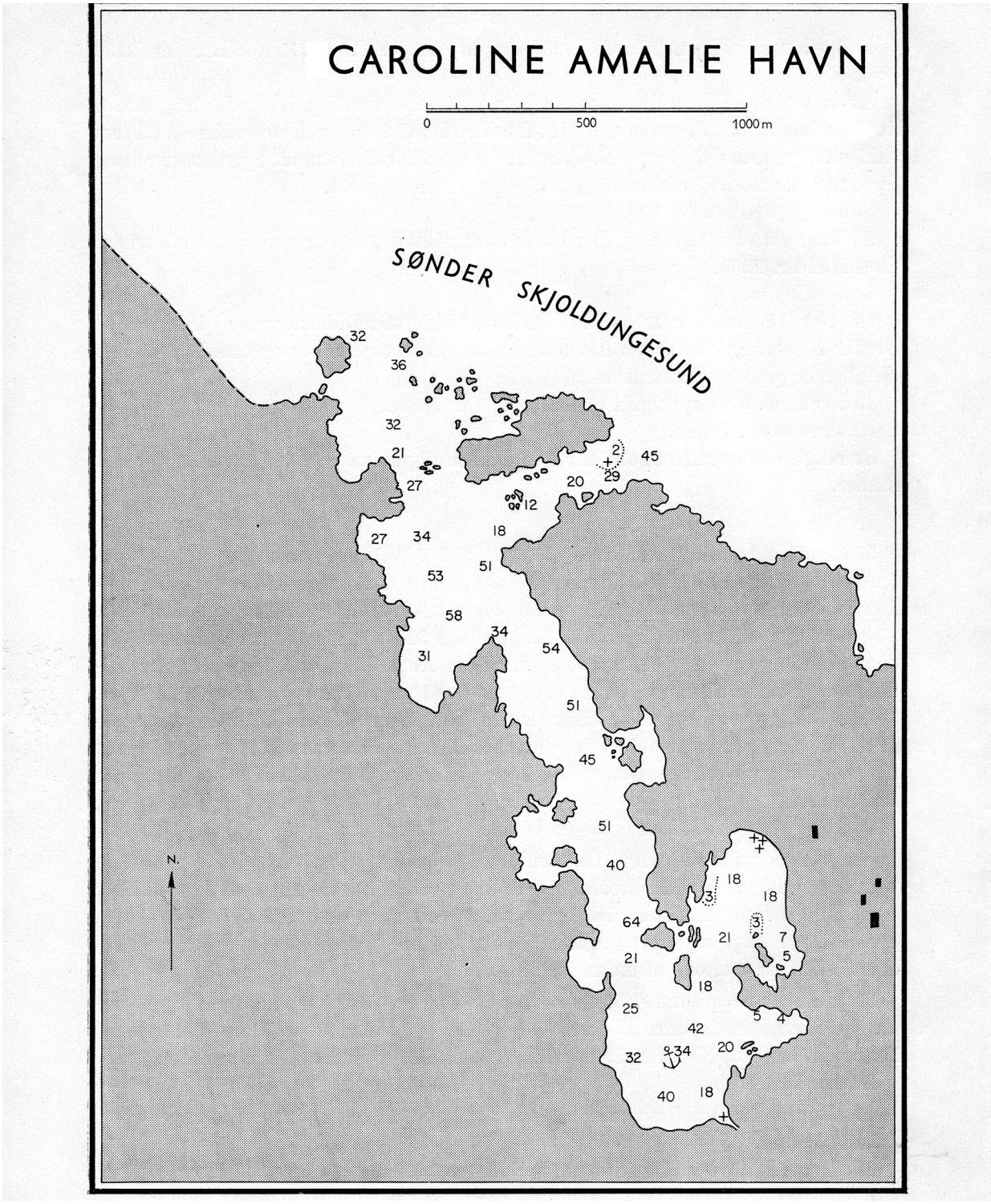

Fig. 2.5 – Silasiorpiip Kangertiva (Caroline Amalie Havn).

Fig. 2.6 - Kangersuasiat (Kap Herluf Trolle) bearing 270°, distant 10 M.

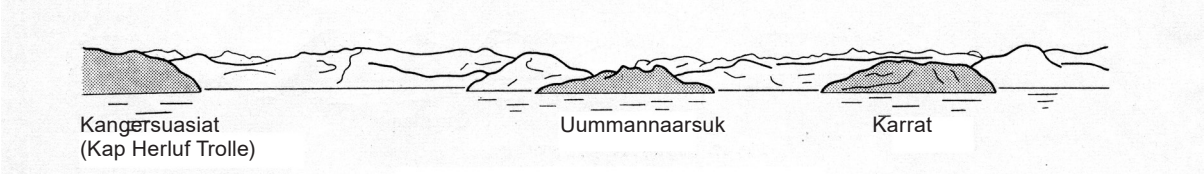

Fig. 2.7 - Uummannaarsuk bearing 280°, distant 8 M.

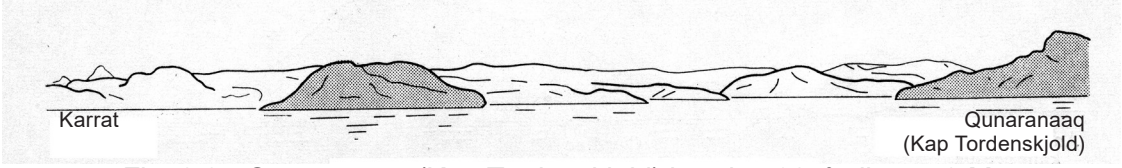

Fig. 2.8 - Qunaranaaq (Kap Tordenskjold) bearing 325°, distant 9 M.

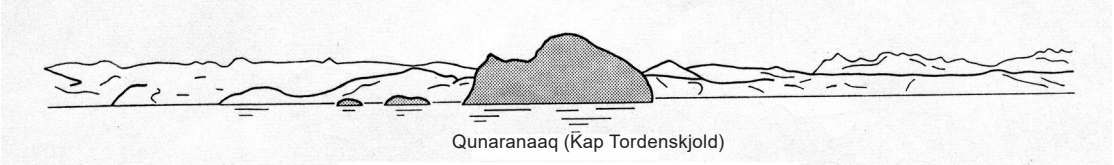

Fig. 2.9 - Qunaranaaq (Kap Tordenskjold) bearing 295°, distant 7 M.

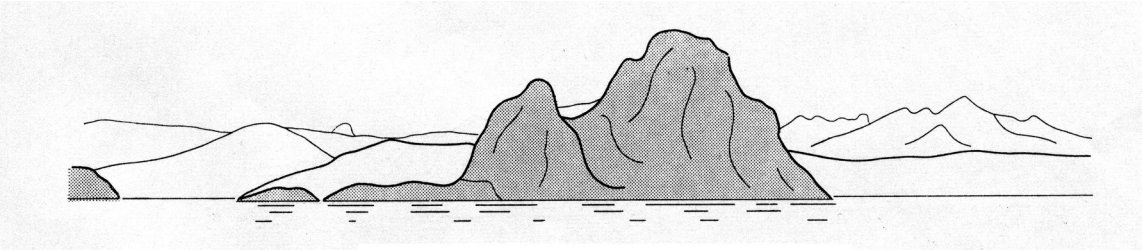

Fig. 2.10 - Qunaranaaq (Kap Tordenskjold) bearing 305°, distant 5 M.

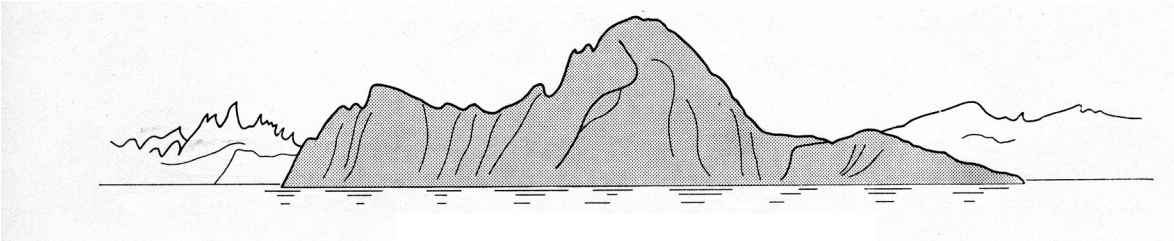

Fig. 2.11 - Qunaranaaq (Kap Tordenskjold) bearing 245°, distant 6 M.

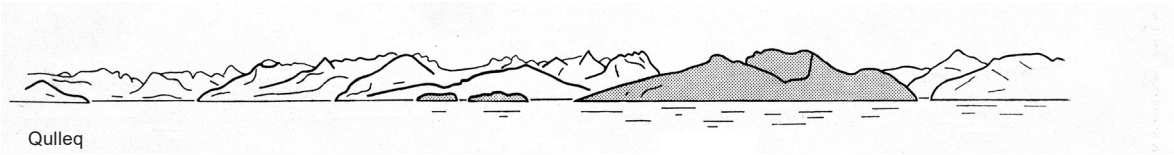

Fig. 2.12 - Qulleq bearing 300°, distant 7 M.

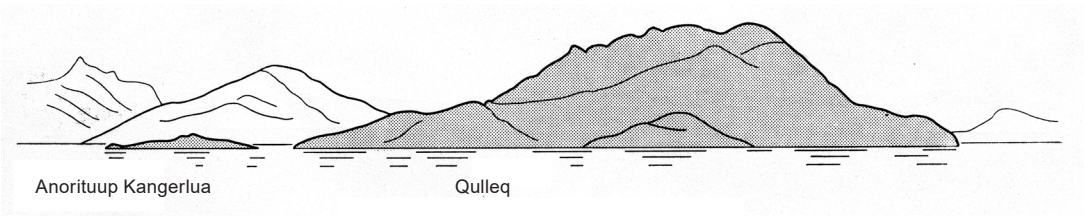

Fig. 2.13 - Qulleq bearing 327°, distant 5 M.

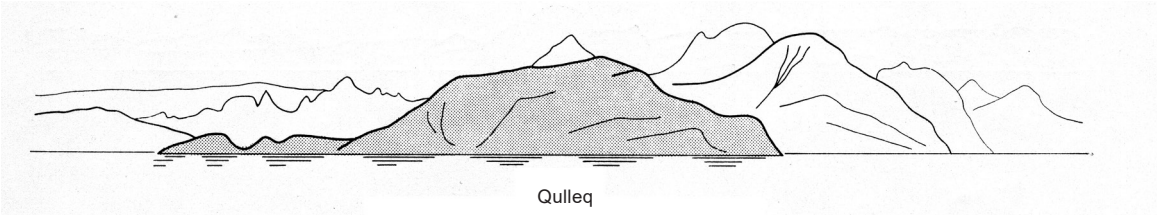

Fig. 2.14 - Qulleq bearing 270°, distant 3,5 M.

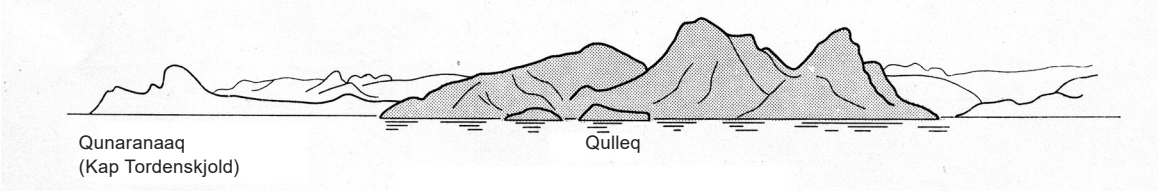

Fig. 2.15 - Qulleq bearing 250°, distant 4 M.

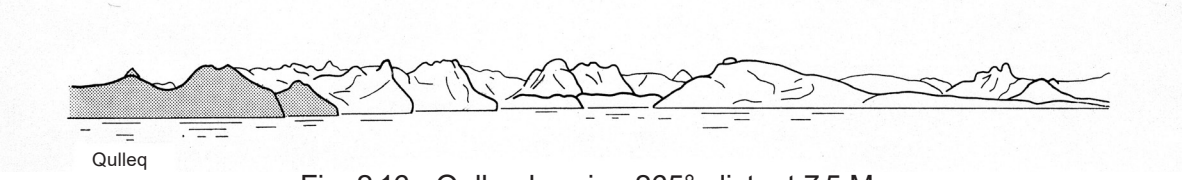

Fig. 2.16 - Qulleq bearing 265°, distant 7,5 M.

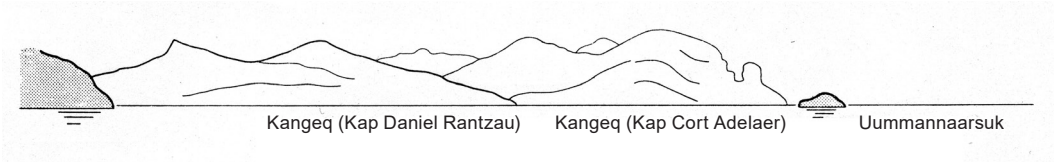

Fig. 2.17 - Kangeq (Kap Daniel Rantzau) bearing 355°, distant 12 M.

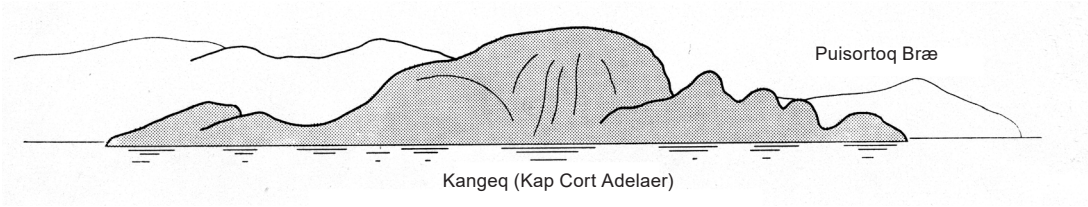

Fig. 2.18 - Kangeq (Kap Cort Adelaer) bearing 335°, distant 6 M.

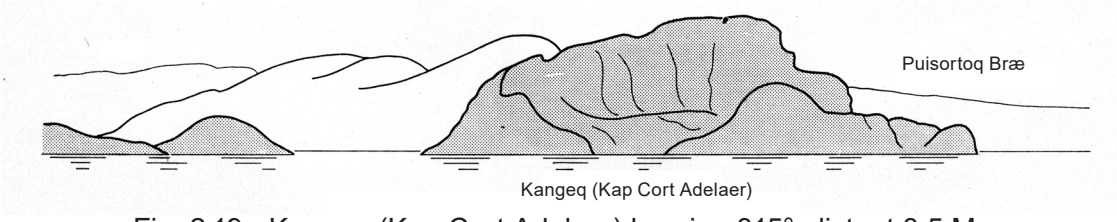

Fig. 2.19 - Kangeq (Kap Cort Adelaer) bearing 315°, distant 3,5 M.

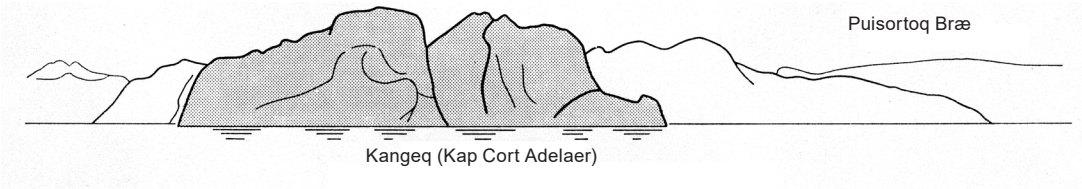

Fig. 2.20 - Kangeq (Kap Cort Adelaer) bearing 260°, distant 4 M.

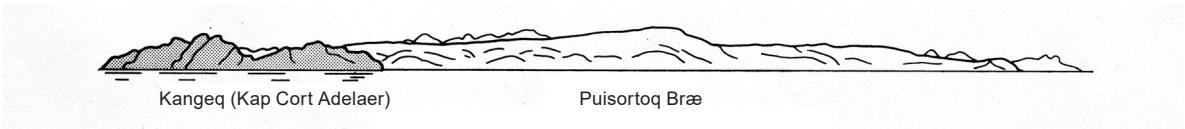

Fig. 2.21 - Kangeq (Kap Cort Adelaer) bearing 227°, distant 9 M.

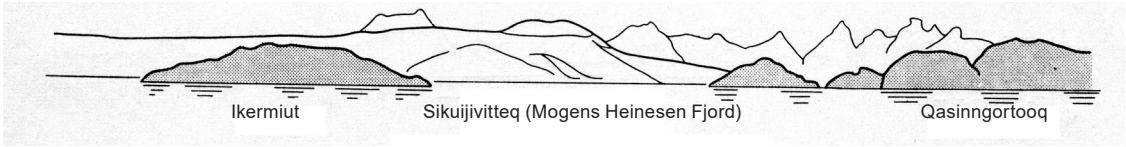

Fig. 2.22 - Ikermiut bearing 280°, distant 9 M.

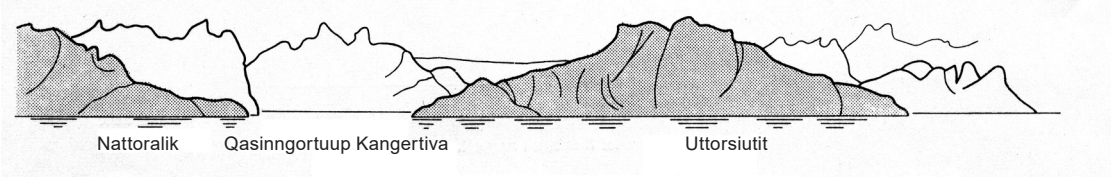

Fig. 2.23 - Uttorsiutit bearing 315°, distant 10 M.

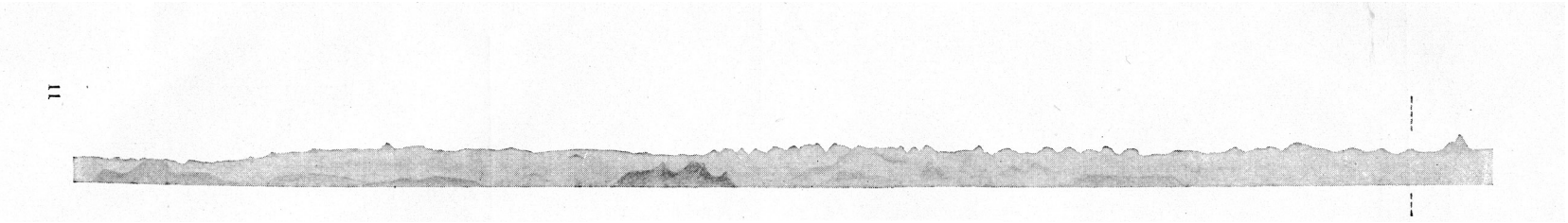

Fig. 2.24 - Qulleq bearing 227°, distant 33 M.

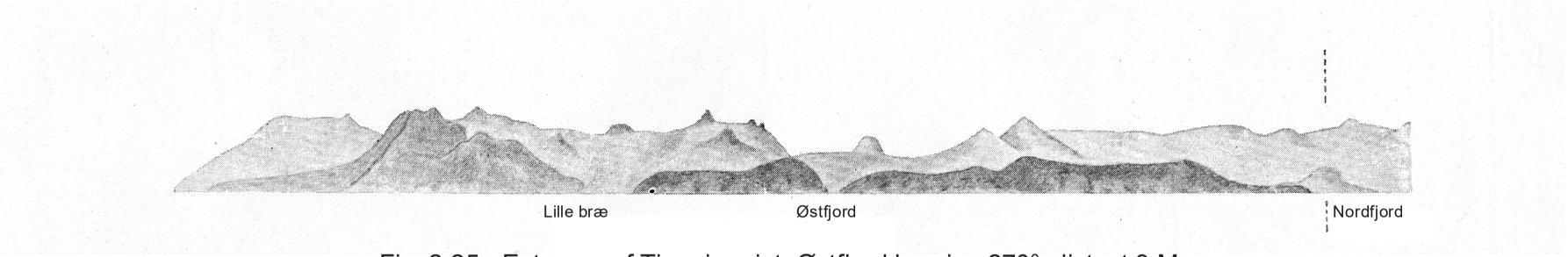

Fig. 2.25 - Entrance of Timmiarmiut, Østfjord bearing 270°, distant 9 M.

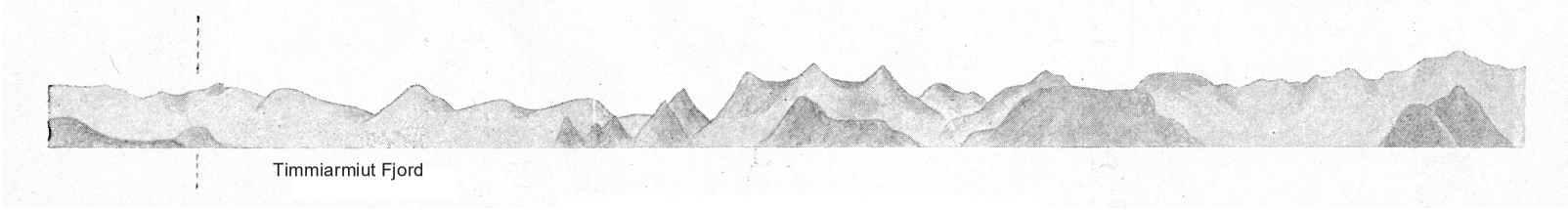

Fig. 2.26 - Uttorsiutit N point bearing 270°, distant 9 M.

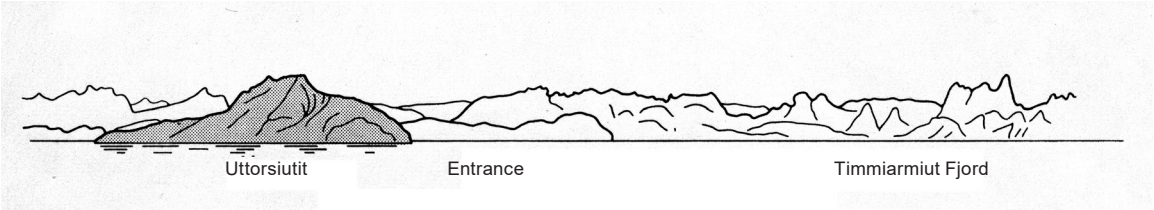

Fig. 2.27 - The entrance of Timmiarmiut bearing 310°, distant 7,5 M.

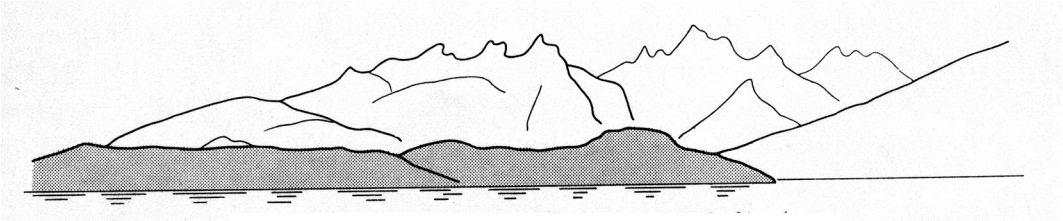

Fig. 2.28 - The entrance of Timmiarmiut bearing 315°, distant 1 M.

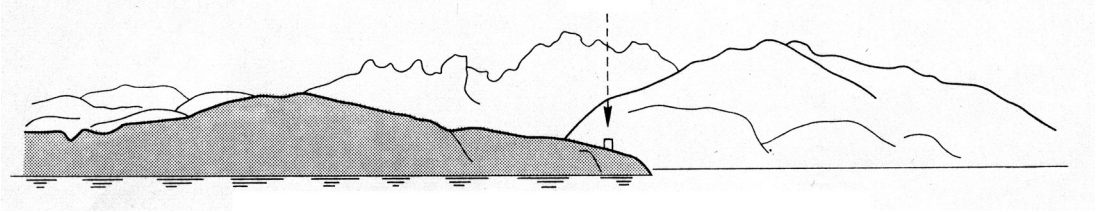

Fig. 2.29 - The entrance of Timmiarmiut bearing 315°, distant 0,5 M.

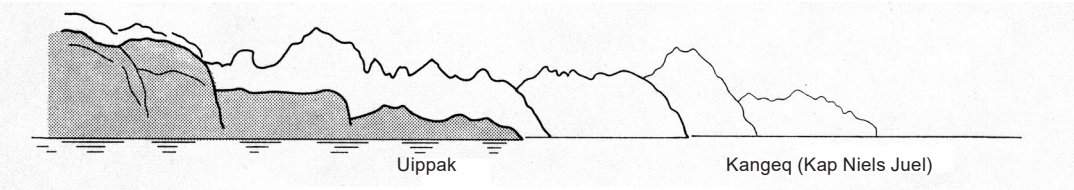

Fig. 2.30 - Kangeq (Kap Niels Juel) bearing 015°, distant 15 M.

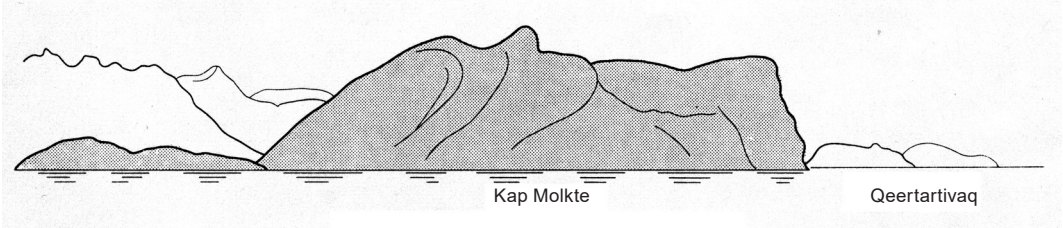

Fig. 2.31 - Kap Molkte bearing 310°, distant 6 M.

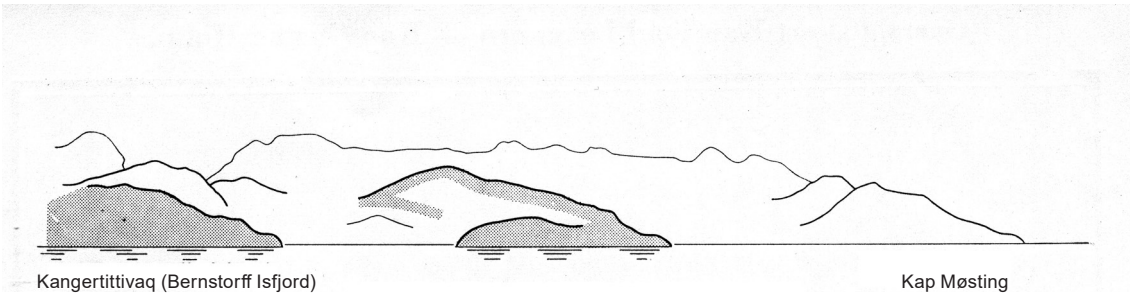

Fig. 2.32 - Kap Møsting bearing 350°, distant 6,5 M.

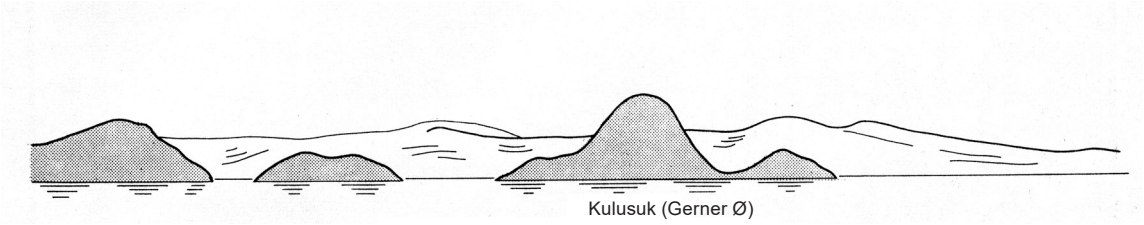

Fig. 2.33 - Kulusuk (Gerner Ø) bearing 300°, distant 12 M.

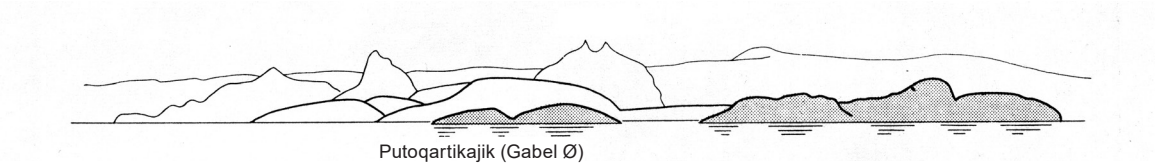

Fig. 2.34 - Putoqartikajik (Gabel Ø) bearing 270°, distant 14 M.

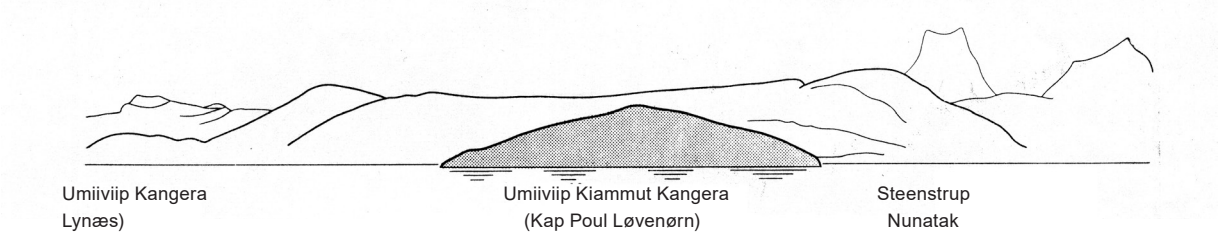

Fig. 2.35 - Umiiviip Kiammut Kangera (Kap Poul Løvenørn) bearing 260°, distant 12 M.

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Map

Umiiviip Kiammut Kangera (Kap Poul Løvenørn) – Tasiilap Karra (Kap Gustav Holm)

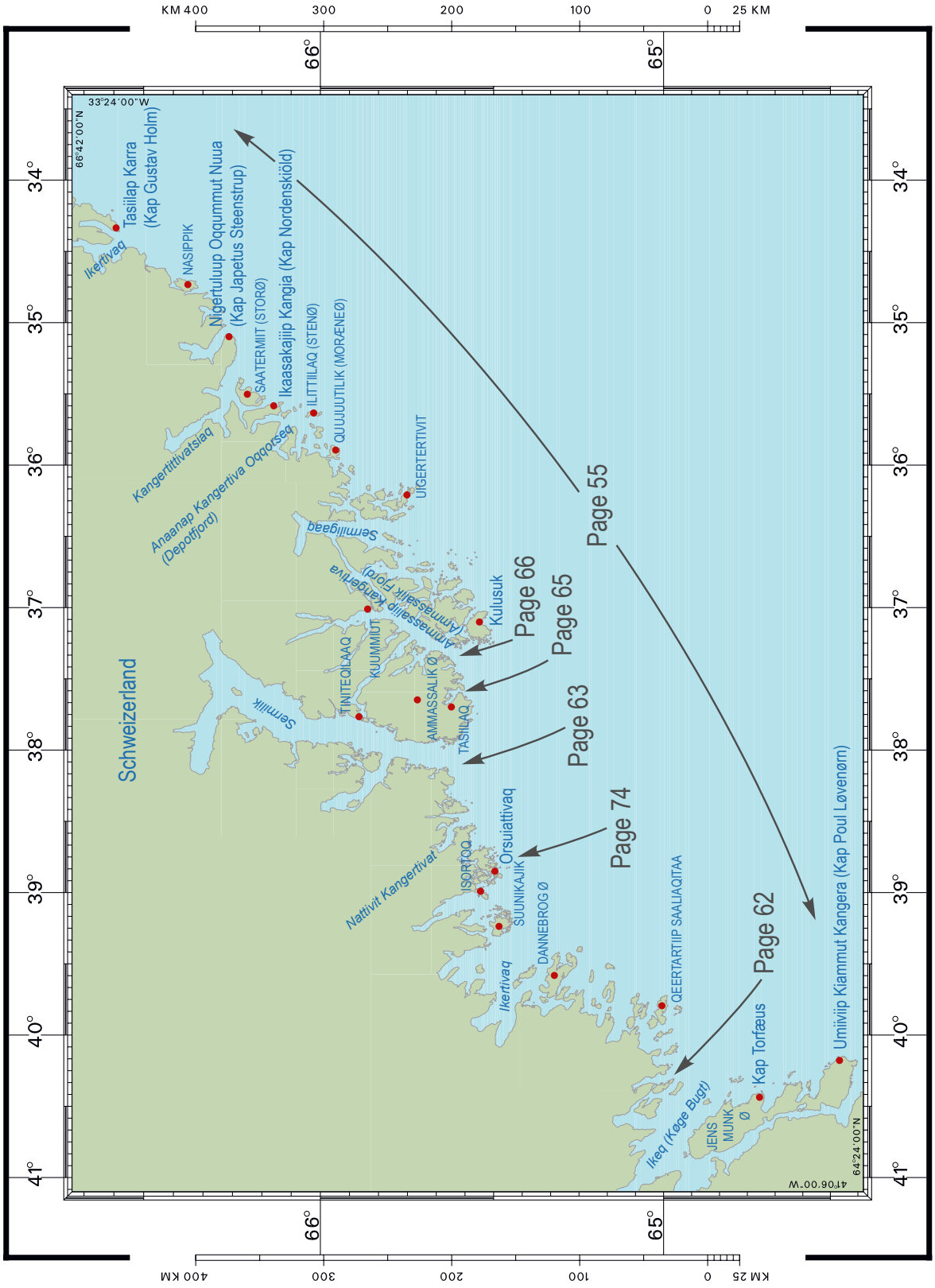

Fig. 3.1

CHAPTER 3

Umiiviip Kiammut Kangera (Kap Poul Løvenørn) – Tasiilap Karra (Kap Gustav Holm)

Area 64º28'N 040º09'W – 66º34'N 034º21'W, charts 2300, 2310, 2350 and 2351.

3.1 Transit of the area
3.2 Approaches and navigation in waterways (fjords), towns and settlements etc.
3.3 Harbours and anchorages

3.1 Transit of the area

See the views of the land between Umiiviip Kiammut Kangera (Kap Poul Løvenørn) and Tasiilap Karra (Kap Gustav Holm).

3.1.1 Landmarks

Umiiviip Kiammut Kangera (Kap Poul Løvenørn) 64º28'N0 040º09'W is 280 m high and is located on the SE part of Jens Munk Ø. It is a bare point which projects from a steep headland, which is of light colour with black strata.
Annikitseq is a 1,235 m high mountain near the W side of Kattertooq and about midway between the N and S inlet to this sound.
Jens Munk Ø is 35 M long and separated from the mainland by Kattertooq. From Umiiviip Kiammut Kangera (Kap Poul Løvenørn), the E side of Jens Munk Ø first extends NW and later NNW. The island varies in width from 1 to 5 M.
Pamiattiilaq lies 9 M NNW of Umiiviip Kiammut Kangera (Kap Poul Løvenørn) and is the N entrance point to Peder Oxe Bugt, a bay which stretches 4 M in a NW direction. In its NW and innermost part, Peder Oxe Bugt is only separated only from Katterooq ice fjord by a 1 M wide isthmus, and there is a group of islands in the entrance to this bay, the largest of which is called Pros Mund Ø.
Søren Nordbye Øer is a group of islands that lies 2.5 M NE of Pamiattiilaq, and the largest of the islands is called Isippittivaq.
Kap Torfæus 64º42'N 040º24'W forms the N entrance point to Ukiiverajiip Kangertiva (Lemon Bugt), which stretches 3 M in a NW direction into Jens Munk Ø. 2 islets lie 2.5 M SE and 2 M NE of Kap Torfæus respectively, and there are also a couple of islets close to the coast.
Ikermiit 64º47'N 040º19'W is the largest island in a group of islands located 6 M NE of Kap Torfæus and 4 M from the coast.
The largest island among Peder Skram Øer is Nuerniagartiit. It is 57 m high and lies 3 M NW of Ikermiit and forms the N side of the bay Upernassivik.
Upernassivik is a bay on the E side of Jens Munk Ø. There are a couple of small islands in the SW entrance to the bay, of which the island furthest to the N is 2 M from the coast.

Putugua, which is 100 m high, is 4 M NNW of Peder Skram Øer and 2 M from the coast; it is the furthest N of the islands off Jens Munk Ø.
A group of islands that is 10 M wide stretches along the mainland between Ikeq (Køge Bugt) and Ikertivaq, which is a large bay 35 M farther NNE.
Pikiitsiitaa (Ole Rømer Ø) is the furthest SW of the islands in the group of islands, which lies along the coast on the N side of Ikeq. The island is 200 m high and forms the SW entrance point to Ittip Kangertiva.
Aqitseq is a 3 M long and 2 M wide island located 5 M ENE of Pikiitsiitaa (Ole Rømer Ø). There is a rock close to the islands N point in the strait between the island and the peninsula N of this.
Ittip Kangertiva stretches 8 M NNW of the inlet, which lies between Pikiitsiitaa (Ole Rømer E) and the island Aqitseq. The fjord has a width of 1.0-1.5 M, and in the part furthest inside there are some short fjord arms; it is surrounded on both sides by mostly ice free land, which reaches a height on the W side of 535 m, but only 400 m on the E side. There is an anchorage in the E part of Ittip Kangertiva directly off the former station hut. See section 3.3 under anchorages.
Pikiitsip Kiammut Kangertiva is a bay that runs 8 M to the N in the N part of Ikeq (Køge Bugt). The entrance to the bay lies 5 M NW of Pikiitsiitaa (Ole Rømer Ø). The peninsula Pamiattik is on the W side of the bay, and on the E side is a 305 m high unnamed island. On the E side of this island, an anchorage is reported in the 2 M long cove that cuts into the island in a NW direction. See section 3.3.
Graah Øer includes the islands between the fjord Ikeq (Køge Bugt) and Ikertivaq. The group of islands lies scattered over a 30 M long and 10 M wide area and the islands are mostly larger islands. Sattiit (Koklapperne) are the furthest SE of the islands, and there are some small islands and rocks close NW of the largest island in Sattiit (Koklapperne).
Qeertartiip Saaliaqitaa 65º00'N 039º50'W is the largest of the islands in the group of islands furthest S. The island's E point is named Aflandshage and reaches a height of 207 m.
Auluit (Sneedorff Ø) is 1.5 M W of Qeertartiip Saaliaqitaa, and there are some small islands located NW and S respectively of this island.
Manniivitseq (Nældebladet) is a small island located close SSE of Auluit (Sneedorff Ø).
Ørsted Ø is 1.5 M N of Qeertartiip Saaliaqitaa and is of roughly the same size as this island. Its maximum height is 200 m.
Aqqusiaajik is an island that lies close NW of Ørsted Ø and, together with this island, forms the S side of a cove, which cuts 4 M into the coast in a NW direction and is called Ikeq.
Approximately 4 M SW of Ikeq, there is an unnamed cove in whose innermost part is the 514 m high Nunatak, an easily identifiable point for vessels wishing to approach the area at Ittip Kangertiva.
Atilaat (Hornemann Ø) is 4 M NNE of Ørsted Ø and is 350 m high. There is a good anchorage in a cove on the W side of the island and the cove can be approached from both the S and the N of the island. See section 4.3.
Atilaat Saarsiat (Vahl Ø) is 2.5 M E of Atilaat (Hornemann Ø) and is 153 m high.
Vend-om, 103 m, is 2.5 M NE of Atilaat (Hornemann Ø), and on the N side of the island there is reported to be a small bay where it is possible to land from a boat.
Kap Gudbrand Torlaksen 65º14'N 039º41'W is the E point of the peninsula Toornaartik, which

stretches 4 M from the headland in an E direction.
Dannebrog Ø is the largest and furthest N of Graah Øer. It has a maximum height of 410 m and an irregular shape with two prominent points on the E side. The N extremity of these points reach a height of 217 m at Graah Varde. The S point is Holm Næs and is 200 m high.
A small unnamed island, 51 m high, lies 1 M SE of Dannebrog Ø.
Ittit, a 300 m high island, lies between Dannebrog Ø and Kap Gudbrand Torlaksen. On the SW side of Dannebrog Ø, there is a small bay at the mid-point of the island with a fine boat harbour. See section 3.3.
W of Dannebrog Ø and Ittit there is a large unnamed bay, which runs 9 M in a N-S direction between the Toornaartik peninsula and an unnamed peninsula 9 M further N. The N peninsula, together with two small islands which are respectively 2 M E and 2 M NE of this peninsula, forms the S entrance to Ikertivaq. The SE of these islands rises to a height of 361 m and the NW island has a height of 100 m. In the bay 1 M NW of Dannebrog Ø there is a small island that rises to a height of 100 m.
Suunikajik lies 11 M NE of Dannebrog Ø and is 222 m high. The island is surrounded by a number of small rocks and islands, and the easternmost island is called Takiseeq.
Iissalik is a 51 m high island which lies 2 M NE of Takiseeq. The island is separated from the mainland by a narrow channel. There are some small islands and rocks close NE of this island, and on one of these is the settlement of Isertoq. See section 3.3.
E of the island Iissalik is a group of islands that stretches 8 M in a NE direction. This group of islands is separated from the mainland by many narrow passages. The islands have rounded shapes and they are low with vegetation. The hinterland N of the group of islands is steep mountain landscape with valleys in between, and the area has so far been a good hunting area for the residents of the Tasiilaq district. The largest of the islands is called Kitak. This island rises to 200 m and is separated from the mainland by a channel named Ikaasaatik.
Orsuiattivaq is the island SW of Kitak and is the furthest SW of the group of islands.
Nuukajik is a 300 m promontory on the SE side of the peninsula Niaqernartivaq and lies 4 M NE of the SE point of Kitak. On the N side of this peninsula lies the fjord Nattivit Kangertivat, see section 3.2.
Immikkeerteq is an island located 1 M W of Tungoortup Qaani and close S of the peninsula Nattivit. S and SE of Tungoortup Qaani lie some rocky islands, of which the island furthest SE is also called Immikkeerteq and lies 1.5 M from the coast. This island is 48 m high.
Qeerpik is the island that lies close S of Tungoortup Qaani.
Kap Tycho Brahe 65º37'N 038º11'W lies 6 M NE of the southernmost point of Tungoortup Qaani and is a promontory that rises to a height of 989 m.
Isip Ilua is a wide bay that cuts into the mainland between Tungoortup Qaani and Kap Tycho Brahe. On the NE side of this bay there is a crossing place called Torsukattak and there is reported to be an anchorage here, see section 3.3. There are also reported to be a harbour in the NW part of the bay, see section 3.3.
Ammassalik Ø is a large island, 20 M in a N-S direction and 16 M in an E-W direction and the entire area is called the Tasiilaq area. The town of Tasiilaq lies at Tasiilaq (Kong Oscar Havn). There is a large bay on the island's S side, see Section 3.2. The W side of Ammassalik Ø forms a part of the E coast of the large fjord Sermilik (Egede og Rothe Fjord). To the N the island is separated from the mainland by two narrow waters Aariaa and Ikaasartivaq and to the

E, Ammassalik Ø forms part of the W coast of Ammassaliip Kangertiva (Ammassalik Fjord). The E side of the island has several long fjord arms, and there are a number of islands along the coast.
Ammassalik Ø SW and S coast, chart 2310.
From the SW point of the island Immikkeerteq on the E side of the entrance to Sermilik, the coast extends SE for a distance of 4.5 M to the southernmost point of a 701 m high peninsula called Paattorpik. Close SE of the point is the island of Mannginnerseerpik, and the island and the peninsula together form the W side of a 2 M long, unnamed fjord that cuts into the land in a NW direction. 2 M E of the innermost part of the fjord is the 810 m high Apusiikajiip Qaqqartivaa (Ymer Bjerg).
Off this coastline with many small coves there are a number of islands and rocks.
Utsiit 65º36.9'N 037º58'W is a rock that is dry at low tide and which is located 0.3 M WSW of the SW point of Immikkeerteq.
Eriit is a small group of islands that lies 1 M SSW of the SW point of Immikkeerteq.
A rock has been observed 1.3 M SE of the southernmost large island in the group of islands Eriit, over which the depth is 0.5 m.
Nuiarteq 65º34.7'N 037º52.3'W is a rock which is dry at low tide and which is located 1.75 M WNW of Mannginnerseerpik and 1.0 M from the coast.
500 m SW of Nuiarteq there is rock. The depth above it is not known.
Nertiimalit is two small islands that lie 0.8 M NW of Nuiarteq, and with an underwater rock 200 m SSW of the southernmost of the islands. These waters have not yet been surveyed, and extreme caution must be taken when approaching the coast within a distance of 1.5 M.
Mannginnerseerpiip Immikkeerterajivi is a group of islands that lies 1.3 M SE of the SE-point of Mannginnerseerpik and 1 M from the coast.
Qasigissat is the westernmost point at a 1 M long bay that indents the coastline in a NNW direction.
Ortunuiaq is the easternmost point of the bay referred to above, and 0.7 M NW of the point lies Qaqqartivakajik (Sømandsfjeldet), which rises to a height of 718 m. The land rises steeply on both sides of the bay and on the W side it rises to a height of 829 m. The point at Ortunuiaq is a steep granite slope.
A group of large islands lies E of Ammassalik Ø and the entire group of islands extends 32 M to the NNE. The southernmost of these islands is called Kulusuk and the northernmost is Qiianarteq.
Naajanngivit (Kap Dan) 65º31'N 037º10'W is the southernmost point on the island of Kulusuk. Kulusuk island is easily recognizable by the dome-shaped SE point, which in Qalorujoorneq rises to a height of 660 m. There is a foul area with many small islands and reefs that extend out from Naajanngivit (Kap Dan) in a SW and S direction. The outermost known underwater rocks lie 3 M SW of Naajanngivit (Kap Dan) and there is a 35 m high rocky islet 3 M SE of the point.
Kangeq is the SE point of the island of Kulusuk, and between this point and Erik den Rødes Ø, which lies 23 M further NE, there are many large and small islands and rocks. This entire group of islands borders to the W with Ammassaliip Kangertiva (Ammassalik Fjord), Ikaasak and Ikkatteq, and to the NE with Sermiligaaq fjord.

The largest of the islands on the W side of the area S of Sermiligaaq are called from S: Ingiingaleq, Eqqiligaarteq, Nuerniakkat, Tiniteqilaaq and Qiianarteq.
Qiianarteq's N coast forms the S side of the fjord Ikkatteq and its NE coast borders Sermiligaaq. However, there are numerous small islands and rocks SE of the islands named above and the outermost of these is the group of islands Kitsissit Oqqorsiit, located 15 M ENE of Naajanngivit (Kap Dan). See under Sermiligaaq.
Eriks den Rødes Ø is one of the largest islands, which lies on the E side of the entrance to Sermiligaaq. In its N part, the island rises to a maximum height of 483 m and it is almost divided by Qilivit, a 2 M long fjord which cuts into the E side of the island. There are a number of small islands on the E and S sides of the island, of which Uigertertivit 200 m lies furthest to the SE.
Uigerti 264 m lies 1 M SW of Erik den Rødes Ø.
Ilittiilaq lies 1 M W of Erik den Rødes Ø.
Leif Ø is the largest of the islands in this group of islands and its S end lies 1 M W of Erik den Røde Ø. The island's northernmost point is called Ilaqqat (Sarfaq Pynt) and the highest point rises to a height of 710 m. Leif Ø is very indented by small fjords and on the NW and NE side, the island is separated from the mainland by Ikaasak and Ikaasak Kiatteq respectively. NW of Leif Ø there is a peninsula whose highest point rises to a height of 660 m, and the settlement of Sermiligaaq lies on the south-westerly point of this peninsula, see section 4.3.
From the peninsula on the E side of Sermiligaaq, the coastline extends 7 M to the E, where there are 3 fjords, which from W to E are called Kangersivartikajik, Sammileq and Iliartalik. A peninsula called Aammangaat 884 m lies between the two westernmost fjords. The SW headland of the peninsula that lies on the E side of Sammileq is called Qammavaajik, and close SE off this headland there is a small island called Kitsililu (Grafitø). The easternmost point at the entrance to Iliartalik lies 3 M E of Kitsililu (Grafitø), and from here the coast of the mainland extends 19 M NE to Ikaasakajiip Kangia (Kap Nordenskiöld). There are a large number of large and small islands on this stretch of coastline.
Tikivippik 495 m is the island furthest SW of this group of islands and is separated from the mainland by Tikivippiip Ikaasaa (Jernø Sund).
Tukingaleq (Jernø) lies 1 M NE of Tikivippik, and N of Tukingaleq (Jernø), Ikaasakitsip Kangertiva (Jernø Bugt) extends 2 M into the coast in a W direction.
Quujuutilik lies 2.5 M NE of Tikivippik and is the largest of the islands. It is separated from the mainland by a narrow channel called Ikkaviip Ikaasaa.
Aputiteeq (Grusø) lies 2 M N of Quujuutilik and 0.5 M from the coast. Quujuutilik (Moræneø) lies 1.5 M E of Aputiteeq (Grusø). Stenø lies 2 M ENE of Quujuutilik (Moræneø), which is a 2.5 M long and narrow island with a maximum height of 531 m.
Qattunaap Kangertiva (Bjørnebugt) lies S of a peninsula, whose easternmost point is called Kangikajik. The innermost part of the bay is divided into 2 parts by a small peninsula.
Fladøerne is a group of 3 small islands that lie on the S side of the entrance to Qattunaap Kangertiva (Bjørnebugt).
Kangikajik 66º05'N 035º44'W is a peninsula that lies between Qattunaap Kangertiva (Bjørnebugt) and Anaanap Kangertiva Oqqorseq (Depotfjord). The peninsula rises to a maximum height of 829 m.
Akilerut is the foreland between Anaanap Kangertiva Oqqorseq (Depotfjord) and Anaanap Kangertiva Kiatteq.

Anaanap Kangertiva Kiatteq is a 6 M long and 1.5 M wide fjord that extends in a N and NW direction. The mouth of the fjord lies between Akilerut and the point of a long and narrow peninsula 2 M E of Akilerut.
Anaanap Ikaasaa (Depotsund) is a narrow channel between Anaana (Depotø) and the peninsula N of this island. Anaana (Depotø) is a small island that rises to 300 m. Ikaasammiit is a small, 122 m high island that lies 0.5 M SSE of Anaana (Depotø). 0.5 M SSE of Ikaasammiit lies a small, unnamed island.
Nipinnerit is a small, 200 m high island that lies 1.5 M NE of Anaana (Depotø).
Ikaasakajiip Kangia (Kap Nordenskiöld) 66º08'N 035º34'W is the E point of the long peninsula that forms the E side of Anaanap Kangertiva Kiatteq.
Ikaasakajik is a narrow passage between the mainland and Saartermiit (Storø). Ikaasakajik becomes Arpertilu (Vestfjord).
Arpertilu (Vestfjord) extends 3 M in a SW direction from Ikaasakajik, and its innermost part is at a narrow spit of land separated from Anaanap Kangertiva Kiatteq. The fjord is surrounded on both sides by high and steep mountains.
Saartermiit (Storø) is a 876 m high and 5 M long island, whose S extremity is called Tupikajik. There is a bay on the S side of the island where there is reported to be a good harbour. See section 3.3.
Qeertalik is a small island that lies close off the NE end of Saartermiit (Storø).
Ingolf Fjeld 2,232 m lies on the N side of the inner part of the fjord Kangertittivatsiaq.
Mont Forel 3,360 m, the second highest mountain in Greenland, lies 36 M NNW of the inner part of Kangertittivatsiaq and is surrounded by numerous peaks that rise to heights of between 2,400 and 3,240 m.
Nigertuluup Oqqummut Nuua (Kap Japetus Steenstrup) 880 m is the E point of a peninsula on the N side of the fjord Kangertittivatsiaq. To the S, the peninsula drops steeply to the sea and, at its westernmost part, rises to a height of 1,156 m.
Simiilaq (Ailsa Ø) 281 m is a small steep island that lies close S off the mouth of the fjord Tuttulik.
Arerpeertalik (Kap Wandel) 66º18'N 034º53'W is the S point of a 800 m high peninsula that forms the E side of the fjord Tuttulik. There is a small island close off Arerpeertalik (Kap Wandel).
Nasippik is the E point of a small, hammer-shaped peninsula that is 700 m high and forms the E side of Nasippiip Kangertiva (Vahl Fjord).
Sulussuutip Apusiia (K.J.V. Steenstrup Søndre Bræ) and K.J.V. Steenstrup Nordre Bræ lie 4 M and 9 M N of Nasippik respectively. There are two large, active glaciers, 60 to 90 m high, that discharge into the open sea. On the NE side of the N glacier that faces out to the sea, there are two ice-free peaks that rise to a height of 819 and 872 m respectively.

3.1.2 Depths

On the stretch of coast between Umiiviip Kiammut Kangera (Kap Poul Løvenørn) and the entrance to Sermilik, adequate surveying has not been carried out within 25 M of the coast, and chart 2300 does not provide much depth information. It is therefore advised that, when navigating along this stretch of coast, an appropriate distance shall be maintained from the

shore to ensure the vessel remains beyond the coastal shelf. A distance of 15-20 M from the outermost islands should be safe, and ther are probably dangers far further in, since a sounding track from Sattiit (Koklapperne) towards Orsuiattivaq at a distance of 8 M from the outer islands shows depths of not less than 180 m.
Close off Nuna King Christian IX, which has a length of 500 M and is situated behind the coastal strip between Sermilik and Kangikajik (Kap Brewster), the waters are free of dangers outside a distance of 15-20 M from the outer islands and the coastline. However, along this section of coast off d'Aunay Bugt there is an area with depths of 40 m, and off Kangerlussuaq there are depths of less then 200 m 75 M from the coast.

3.1.3 Ice

In April and May, the polar ice lies off the coast, since the ice then stretches from Nunap Isua (Kap Farvel) to 70º N and has a width of 60 M and a concentration of 8/10 to 10/10. There may at this time be a narrow fringe of fast ice along the coast. The polar ice begins to disperse at the end of May and by mid-June it usually lies in a smaller concentration between 65º and 70º N. The ice then continues to disperse in July and August. From late August to mid-October there is usually only dispersed ice in the area. The polar ice begins to come by Naajanngivit (Kap Dan) in mid-October. In November, an ice belt can be expected along the coast, and in late November there is usually a broad belt of impenetrable sea ice lying close to the shore. There have been a few years where open water was observed in November and December. In January and February, there may be open leads and shore leads can be up to 2 M wide. In March, W storms can drive the ice far out to sea, but as soon as the wind drops, the ice moves back toward the coast.
Regarding ice, refer also to approaches to Tasiilaq.

3.1.4 Current

Refer to Surface currents along Greenland's E coast in the following special section.

3.2 Approaches and navigation in waterways (fjords), towns and settlements etc.

In the area between Umiiviip Kiammut Kangera (Kap Poul Løvenørn) and Tasiilap Karra (Kap Gustav Holm) there are the following fjords, which are listed in order from the S.

3.2.1 Ikeq (Køge Bugt) 64º55’N 040º23’W

Ikeq (Køge Bugt) 64º55’N 040º23’W is a large bay that extends 25 M to the NW and in whose E part lie the islands Putugua and Pikiitsiitaa (Ole Rømer Ø). On the N side of the bay there are a number of fjord arms and the inner part of the fjord is surrounded by high mountains that are usually free of snow. In the SW part of Ikeq lies Pikiitsip Kangertivata Puiaqattua.

3.2.1.1 Depths

The fjord has not been surveyed.

3.2.2 Ikertivaq 65º23’N 039º17’W

Ikertivaq 65º23’N 039º17’W is a large fjord or bay, whose entrance lies between Dannebrog Ø and Suunikajik. The actual entrance to the fjord lies between two promontories on the mainland. The SW promontory is located in 65º24’N 039º42’W and rises to a height of 100 m, and the NE promontory lies 11 M further NE and rises to a height of 500 m. The fjord extends 10 M NW and in its inner part it is irregular, with many fjord arms separated by similarly irregular promontories.

3.2.2.1 Depths

The fjord has not been surveyed.

3.2.2.2 Ice

With respect to ice, the fjord is considered one of the most difficult and dangerous in the S part of Greenland’s E coast because of the many large icebergs that go aground in the entrance to the fjord, prevent calved ice from the glaciers in the innermost part of the fjord getting out in the sea.

3.2.3 Isertup Kangertiva 65º33’N 039º03’W

Isertup Kangertiva 65º33’N 039º03’W is a fjord that extends 12 M NNW. It is 3 M wide at the entrance, but narrows to 1 M in the innermost part. The W side of the fjord is restricted by the 745 m high peninsula Akiliaatseq.

3.2.3.1 Depths

The fjord has not been surveyed.
Refer to section 3.3 regarding Orsuiattivaq and the settlement Isertoq.

3.2.4 Nattivit Kangertivat 65º37’N 038º31’W

Nattivit Kangertivat 65º37’N 038º31’W
The fjord, which extends 6 M to the W and NW, has an average width of about 2 M. The entrance to the fjord lies between the foreland Isi and the peninsula Nattivit. The inner part of the fjord contains the Bussemandgletscher, a glacier that slopes gradually up to the ice cap. The land rises close NE off this glacier and the highest point, Pingaajik, rises to a height of

700 m. Tasiilaalik is a bay that extends 2.5 M in a N and NW direction from the NE part of Nattivit Kangertivat. The 500 m high mountain Sulussuut lies on the N side of this bay. The small islands in the N part of Nattivit Kangertivat have been used as a base by the British Arctic Air Route expedition, and the location of the base was 65º39'N 038º38'W. This expedition reports that the fjord begins to freeze in early October and from the beginning of December until June in the following year, the fjord is usually completely frozen.
E of the peninsula Nattivit, a long, narrow fjord extends 5.5 M to the N, and 3 M inside the entrance to this fjord, a fjord arm extends 2 M to the NE. The E side of the fjord is formed by a peninsula, whose highest point is the mountain Tungoortup Qaani (400 m).

3.2.4.1 Depths
The fjord has not been surveyed.

3.2.5 Sermilik (Egede og Rothe Fjord) 65º37'N 038º04'W
The entrance to Sermilik lies between Kap Tycho Brahe 65º37'N 038º11'W and the islands on the SW side of Ammassalik Ø and is 4 M wide. From the entrance, the fjord extends 40 M to the NNE to an island called Aammangaa. From here, the main fjord continues 8 M to the NE to a glacier, Midgårdgletscher, while a fjord arm Maniisilertarpia (Helheimfjord) extends 15 M WNW and ends at the glacier, Helheimgletscher. Apuseerajik (Fenrisgletscher) extends from the N side of the fjord 5 M W of Midgårdgletscher. These three big glaciers discharge many large icebergs, which often fill the fjord.

Sermilik W coast
From Kap Tycho Brahe, the W coast of Sermimlik extends 10 M to the N to Qeertartivatsaap Kangertiva (Johan Petersen Fjord). There are a number of islands along this coastline and it is irregular and indented by two short fjords. The southernmost of these fjords is 2 M long and lies 1 M N of Angiit Immikkeertivat, which is the largest of these islands, which lie close E off Kap Tycho Brahe. The other fjord, Kaporniakkat 65º45'N 38º05'W, lies 5 M further NNE and extends 2 M in a NW direction. There are some small islands along this coastline, which is steep and mountainous.
Qingaaq is a 1,080 m high mountain located 3 M NW of the island Angiit Immikkeertivat, and Aappaluttortivit is a 925 m high mountain, which lies 5 M NNW of Angiit Immikkeertivat.
Qeertartivatsaap Kangertiva (Johan Petersen Fjord) 65º49'N 038º02'W extends 16 M NW and NNW of Sermilik. The greatest width of the fjord is 3 M, and its inner part ends in several glaciers, which extend right down to the sea. Refer to section 3.3 regarding anchorage.
Qeertartivatsiaq is the largest island in Sermilik and the island's highest point rises to 400 m. The island forms the N entrance point to Qeertartivatsaap Kangertiva (Johan Petersen Fjord).
Stoklund Fjord is a narrow sound that separates Qeertartivatsiaq from the mainland and extends 4 M to the N.
Amitsivartiva is a narrow fjord that extends 3 M NW from the N part of Stoklund Fjord. The land W of this fjord rises to a height of 650 m. A couple of narrow, unnamed fjords cut northwards into the coastline N of Stoklund Fjord.
A little N of the abandoned settlement of Umiattuartivit lies the 456 m high Hoessly Bjerg.

From Umiattuartivit, the coast extends along the W side of Sermilik in a N direction for a distance of 10 M to Ittip Nuua 66º05'N 037º57'W, which is the N headland at the entrance to Tasiilaartik. The fjord Tasiilaartik 66º05'N 037º56'W extends 9 M W and N.
Suukerti is a small island that lies in the entrance to a small cove 4.5 M N of Umiattuartivit.
Suukertip Kangertiva is a small bay that lies 2 M N of the island Suukerti and extends 2 M in a NW direction. NW of the innermost part of this bay the land rises to a height of 741 m and even further to the NW, immediately before the ice cap, the land rises to a maximum height of 1,040 m.
Itti is the E point of the small peninsula that lies 6 M NNE of Ittip Nuua.
Tasiilaajik is a small bay that extends 1 M in a WNW direction and is located just N of Itti. In the innermost part of this bay, there is reported to be a small harbour that can be used by motor boats, as not much ice can get in there, even when Sermilik is filled with ice, see section 4.3.
Tasiilaq 66º11'N 037º48'W is a wide bay whose entrance is located between Itti and Akiliaatseq 1.75 M further NNE. In the bay there are several islands, and in its innermost part there are some coves. A glacier extends into the SW part of the bay.
Akiliaatseq is the S part of the peninsula Tasiilaajik, which lies between Tasiilaq and Maniisilertarpia (Helheimfjord). In its E part, this peninsula rises to a height of 486 m, and further W the greatest height is 700 m.
Aammangaa is a 400 m high island that lies mid-channel, 2.25 M E of the E side of the peninsula Tasiilaajik.

Sermilik northernmost part

N of Aammangaa, the innermost part of Sermilik divides into two fjord arms. Ningerti is the E fjord arm that extends 9 M NE to the glacier Midgårdgletscher. The glacier Apuseerajik (Fenrisgletscher) extends into the N part.
Maniisilertarpia (Helheimfjord) is the W fjord arm that extends 15 M WNW from Aammangaa. Helheimgletscher extends out into this fjord's W part, and Skaktgletscher extends into the N part.

Sermilik E coast

From the island of Ikkatteq and further N, the E coast of Sermilik is formed for 15 M by Ammassalik Ø.
Ikkatteq is the largest of a number of small islands that lie close SW, W and NW off a somewhat larger island called Immikkeerteq. Refer to section 3.3 regarding the settlement Ikkatteq. There are many islands N of the island Ikkatteq, the largest of which are Ittilaajik, Ammaaq and Simiittat.
Immikkeerteq is an island, 1.8 M long, which lies close off the coast and is only separated from the mainland by a small channel. There are a number of islands N of this island, the largest of which is Atterteq, and 1 M NNW of this island lies Arnaraaq.
Sivinganeq is a small peninsula 2.8 M N of Ikkatteq and it forms the NW entrance to a small bay. There are many islands along the SW side of Ammassalik Ø, and adequate surveying has not been carried out to allow safe navigation in these waters.
Pupik is a point that lies 6 M N of Sivinganeq, and the stretch of coast between these points is only indented a little, but there are traces of earlier habitation in many places.

Ukiiverajik is a small island that lies 1 M S of the point Pupik, and there has been a settlement of the same name on the island.
From Pupik, the coast extends 2 M ESE and then extends N for a stretch of 5 M to the entrance to Ikaasartivaq, which is the sound that extends N of Ammassalik Ø.
Sarpaq lies at the W entrance to Ikaasartivaq and divides it into two parts, of which the S channel is the widest.
There are a number of islands on the NW side of Ammassalik Ø, the largest of which are Qaattu, Takiseeq and Immikkoortaajik.
Tiniteqilaaq is a peninsula that lies close NNW off Ammassalik Ø. The peninsula extends 4 M out from the mainland in a SSW direction, and the settlement Tiniteqilaaq lies on the SW point of the peninsula, see section 4.3.
Pikiitsi is an island that lies 0.5 M off the coast, 3 M N of the settlement Tiniteqilaaq. There is a small bay SE of the island, and there are some small islands in the channel between Pikiitsi and the mainland. There is a somewhat larger bay NE of Pikiitsi, where the abandoned settlements of Isik and Iterlak were previously located.
From this bay, the coastline extends 5 M in a N direction and 2 M in a NE direction to Itterajik, which is the N point of the Innartivaq peninsula. Innartivaq is also the name of a promontory that rises steeply to a height of 612 m.
Innartiip Kangertiva 66º00'N 037º45'W is a small bay that extends 1.5 M NE. This bay is easily accessible and when Sermilik is navigable, the bay is free of ice. It is reported to be useful as anchorage for vessels, see section 3.3. From Itterajik, the coast extends 7 M NNE to Nuuk, which is a small point that extends out from the coast in a W direction.
There is a small bay between Itterajik and the abandoned settlement Paarnakajiit, see section 3.3, in whose innermost part the now abandoned settlement Saputit was previously located. Ikaasaalaq is a small bay that lies between the abandoned settlement Paarnakajiit and Nuuk, but it is foul in this bay.
From Nuuk, the coast extends 10 M in a NE direction to Ningerti, where the land S of Midgårdgletscher rises to a height of 1,250 m.

3.2.6 Tasiilaq (Kong Oscar Havn) 65º36'N 037º34'W, chart 2351

Tasiilaq (Kong Oscar Havn) 65º36'N 037º34'W, chart 2351, is a rather large, almost closed fjord, in which the harbour to the capital of East Greenland, Tasiilaq, is located. The fjord, whose inlet is 750 m wide, indents about the mid-point of the S coast of Ammassalik Ø, 2 M NE of the point Ortunuiaq. At the entrance, a light has been established on the S point of the channel's E side, Tasiilap Nuua, a 3.5 M long peninsula, which forms the E side of Tasiilaq (Kong Oscar Havn).

3.2.6.1 Approach

The S coast of Ammassalik Ø can be approached on courses between NW and NE, and from a position 1.5 M SE of Ortunuiaq, which is a steep coast, the entrance to the harbour can be approached on a N course, avoiding the 5.1 m rocks 1,450 m SE and the 6.2 m rocks 500 m S respectively of Tasiilap Nuua.
It is usually best to approach Tasiilaq (Kong Oscar Havn) from S or SW inside the ice fields that are often found at Kulusuk, and which can extend 15-20 M in a SE direction. The racon

on Kulusuk can be used for the approach.

3.2.7 Ammassaliip Kangertiva (Ammassalik Fjord) 65º33'N 037º22'W, charts 2310 and 2300

The entrance to the fjord lies between Qammavik on the SE coast of Ammassalik Ø and Naajanngivit (Kap Dan) on the S point of the island Kulusuk. At the entrance, Ammassaliip Kangertiva (Ammassalik Fjord) has a width of 9 M and extends 26 M NNE and N, where the inner part divides into two small fjord arms Qinngertuaq and Tasiilaq, which extend 10 M NNW and 7 M in a N direction respectively. 18 M inside the entrance to the fjord, Ikaasak extends to the NE for a distance of 6 M, and from here the waters continue 2 M in a N direction to the SW entrance of Ikkatteq, which extends 8 M in a N direction and opens into Sermiligaaq.

3.2.7.1 Depths

In Ammassaliip Kangertiva (Ammassalik Fjord), the depths mid-channel are deep everywhere, but they reduce at the entrance to Ikaasak to 60 m. However, the area should not be considered sufficiently surveyed and caution should be exercised when navigating outside the sounding tracks indicated on the chart.

3.2.7.2 Approach

Vessels that approach Ammassaliip Kangertiva (Ammassalik Fjord) from SW can approach a point 4 M 150º from Ortunuiaq. From here, keep NE until abeam of Qammavik and then mid-channel into the fjord to the entrance to Ikaasak or to the settlement of Kuummiut, which lies 3 M further N.

3.2.7.3 Current

At the entrance to Ammassaliip Kangertiva (Ammassalik Fjord), the current often flows strongly from NW, and the position must therefore be checked regularly.

3.2.7.4 Navigation period

The fjord is usually navigable from mid-June to late October if custom built ice-classed tonnage is used, and otherwise from mid-July to late September.

Ammassaliip Kangertiva (Ammassalik Fjord) W side

From Tasiilap Nuua on the E side of the entrance to Tasiilaq (Kong Oscar Havn) and to the island of Ikaasartivaq, which lies 13 M further NNE, the W side of the fjord is formed by the SE side of Ammassalik Ø. This stretch of coast is deeply indented by numerous fjords, and the most southerly of these, Sarpakajik, lies between Tasiilap Nuua and Qammavik. The fjord extends 3.5 M in a N direction and contains many small islands. From Qammavik, the coast extends 4.5 M NE to the island Qittalivaajik, and this section is indented by 2 bays. The S bay extends 1 M NW, while the bay furthest N, Tasiilaartik, extends 2.5 M in a N direction. The peninsula between the bays is a steep promontory that rises to a height of 664 m.
Qittalivaajik is a small island that lies 4.5 M NE of Qammavik. NW and N of this island there are also a couple of 1 M long bays, which indent the coast in a NW and NNW direction.

Qernertivartivit 65º43'N 037º18'W is an island, on whose S side is situated a settlement of the same name. There are some small islands on its NW and SE side.
Sammileq is a fjord, whose entrance lies 1 M W of Qernertivartivit. It extends 2.5 M to the W.
Tasiilaq 65º44'N 037º22'W is a narrow fjord that extend 6 M NW from its mouth NW of Qernertivartivit.
Ikaasartivaq is a small island that lies 0.5 M NE of Qernertivartivit.
Ikaasartivaq 65º44'N 037º12'W is a fjord, whose E entrance lies between the island Ikaasartivaq and the peninsula Qernertoq. The fjord has a width ranging from 1.0 M to 1.5 M and extends 18 M NW and SW to Sermilik. The NE cost of Ammassalik Ø is relatively level, and the highest peak rises to a height of 1,067 m. There is an underwater rock 2.8 M inside the SE entrance, 0.5 M from the N coast. There are a couple of small islands or rocks 1.3 M NW of this underwater rock.
E of the islands there is an underwater rock, above which the depth is 2 m.
Tasiilaartik is a fjord that extends 5 M NW on the N side of Qernertoq. At its innermost part lies Qoornip Qaqqartivaa (Rødhorn), which is a 1,050 m high mountain.
Ikaasaalaq 65º52'N 037º05'W is a fjord, whose mouth lies between Kiittaajik and Pattingaleq. The fjord extends 14 M NW and NNW, and a stream discharges into its innermost part.
Alingaat (Marie Havn) 65º51'N 037º08'W is a small bay on the S side of Ikaasaalaq 1 M inside the mouth of the fjord, see section 4.3. From the foreland Pattingaleq, the coast extends 5.5 M N to the peninsula, which separates the two fjords Qinngertuaq and Tasiilaq.
Seeraq 65º56'N 037º09'W is a small fjord that indents in a NW direction as far as the foot of Pikkivartivit (Sioraq Fjelde) 1,100 m. It is here, close to Seeraq, that a large number of ammassats (a 15-16 cm salmon fish) [capelin, mallotus villosus] appear in May and June to spawn.

Ammassaliip Kangertiva (Ammassalik Fjord) E side

From Naajanngivit (Kap Dan) 65º31'N 037º10'W, the S point of the island Kulusuk, the island's W side extends 4 M N to the settlement Kulusuk (Kap Dan), (see under the settlement Kulusuk (Kap Dan)). There are many small islands and rocks along the W and N coasts of the island Kulusuk, and there is a foul area 3 M WSW of Naajanngivit (Kap Dan). There is a 35 m high rocky island 3 M SE of Naajanngivit (Kap Dan) and a 42 m high island close SE of this point.
Aaluit is an island in a group of islands, which lies close NW of Kulusuk and is separated from this island by a channel called Tunu. Tunu is the SW channel to the settlement Kulusuk (Kap Dan) and Kulusuk Mittarfik (Airfield). See under Kulusuk (Kap Dan) and Kulusuk.
1 M NE of the island Kulusuk there is a large, unnamed island, which extends 9 M in a N S direction. For a distance of 5 M, this island's NW side boarders Ammassaliip Kangertiva (Ammassalik Fjord), and here there is a prominent and easily recognisable 885 m high mountain ridge, which extends in a NE-SW direction. Viewed from the S part of Ammassaliip Kangertiva (Ammassalik Fjord), the mountain ridge has a tent-like appearance. At this island's NW point lies a small island, named Pikiitsi, and from here and 7 M NE, the SE side of Ammassaliip Kangertiva (Ammassalik Fjord) is formed by the NW side of two large, unnamed islands, and the small island Aammangaaq, which lies between them and rises to a height of 300 m.

Kangaartik 65º49'N 037º01'W is the SW point of a 7 M long peninsula, which forms the NW side of Ikaasak. See under Ikaasak.
N of this peninsula, a narrow fjord cuts 4 M inland in a NE direction, and at the N side of this entrance lies the settlement of Kuummiut, see under Kuummiut.
From Kuummiut, the E coast of Ammassaliip Kangertiva (Ammassalik Fjord) extends 7 M N to the S point of the peninsula Mittittoq, which divides the fjord into the two fjord arms Qinngertuaq and Tasiilaq, see below. 3 M N of Kuummiut and 1 M inland, there is a 1,250 m high peak, which has a light colour and is therefore easily recognisable.

Ammassaliip Kangertiva (Ammassalik Fjord) N part

Qinngertuaq 65º58'N 037º07'W is the westernmost of the two fjord arms into which the 7 M long peninsula Mittittoq divides the N part of Ammassaliip Kangertiva (Ammassalik Fjord). It is a 1 M wide and 10 M long fjord, which extends in a NNW direction and the land is high and steep on both sides of the fjord. A stream discharges in its innermost part, which dewaters the glacier further to the N. There are many salmon in this stream. Close W of the fjord's innermost part is Cassiope mountain, which is 1,100 m high.
Tasiilaq 65º58'N 037º05'W is the furthest E of the two fjord arms in the N part of Ammassaliip Kangertiva (Ammassalik Fjord). It is 1 M wide and 7 M long and extends 1 M in a NE direction and then 6 M in a N direction. The land on its E side is steep and rises to a height of 1,306 m, while the W side borders the 1,123 m high peninsula that separates this fjord. In the innermost part, a stream discharges, where there are many salmon.
Ikaasak 65º49'N 037º00'W is a 1 M wide and 6 M long sound, which extends in a NE direction and connects Ammassaliip Kangertiva (Ammassalik Fjord) with the sea W of the island Qiianarteq. The channel is bordered on the entire length of its N side by an elongated peninsula, whose SW point is called Kangaartik and lies 2 M S of the settlement of Kuummiut. Close inside the W entrance, the waters are somewhat narrow, and here lies Qeertaartivit (Fugleholmene), three small islands, the largest of which lies furthest to the SW. Many birds have their breeding sites here.

Approach

The approach is mid-channel from Ammassaliip Kangertiva (Ammassalik Fjord) and S of the three small islands.

Depths

The smallest depths in the W part of the entrance are 60 m and in the remaining part of the channel, no depths have been found mid-channel that are less than 100 m. From Ikaasak's NE mouth and further S, the depth conditions are not known.
Ikkatteq 65º54'N 036º45'W is a sound, which extends 7 M NE in continuation of Ikaasak, from the NW point of the island Qiianarteq to Sermiligaaq. 3.5 M inside the sound, on the N side, there are two 1,200 m high mountain peaks with an easily recognisable gap between them. Opposite the gap is a low foreshore where there was previously an American base and airfield. (Closed after the war).

Navigation
Ikaasak can be sailed through from SW and mid-channel shall be maintained in Ikkatteq. Sermiligaaq has not been surveyed, and approaching Ikkatteq from NE is therefore not recommended.

Depths
There have been no depths below 55 m found mid-channel in Ikkatteq.
Anchorage
It is possible to anchor S of the gap at a distance of 0.25 M from the coast (off the former base). The depth here is 37 m and there is a sandy bottom.

Current and ice
The current in Ikkatteq varies between 0.5 and 2.0 kn, but it is affected by the wind. Normally it sets SW. However, it can shift and set NE. A number of small iceberg discharge into Ikkatteq from Apuseeq (Knud Rasmussen Gletscher), but the large ones run aground in the channel's NE part immediately before the anchorage, where the depth decreases. Drift ice continues throughout the channel.

3.2.8 Sermiligaaq 65º54'N 036º26'W
The mouth of the fjord lies between the island Qiianarteq and the SW point of a peninsula, where the settlement of Sermiligaaq is located.
The fjord Sermiligaaq is 3 M wide and 18 M long. To the N, it divides into two fjord arms, the W of which extends 2.5 M W and ends in a glacier, while the E fjord arm extends 2.5 M NE and ends in Apuseeq (Knud Rasmussen Gletscher). The land at the N side of Sermiligaaq rises to the height of 1,494 m. Further inland the height increases somewhat, and Rytterknægten, which lies 7 M NW of the innermost part of the fjord, rises to a height of 2,020 m.

3.2.8.1 Approach
The fjord is only navigated by smaller vessels, and the depth conditions are not known well enough for navigation by larger vessels to be recommended. In the area S of the mouth of the fjord between Kitsissit Oqqorsiit, the group of islands furthest S and Nunakitseq, which lies 18 M further N, there are many small islands and both known and unknown rocks. The most important of the islands are:
Imilik, which lies 3.5 M N of Kitsissit Oqqorsiit and rises to the height of 177 m. There are some small islands and rocks 2 M E of this island.
Imittilaq, which lies 3.5 M N of Imilik and rises to a height of 140 m. There are numerous small islands and rocks S and SW of Imittilaq, and there are 5 unnamed small islands 3.5 M NE of this island. There is a rock 1 M NE of these unnamed small islands.
Naajatsaat is a small island which lies on the SE side of Qiianarteq. There is also a small unnamed island 2 M S of Naajatsaat, and a number of rocks lie a little N of this small, unnamed island.
Nakkarpik is a small island, which lies 1.5 M E of Naajatsaat.

Pusissaraq lies 0.5 M NE of Nakkarpik and extends 2.5 M NNE. There is a small unnamed island in the channel between Pusisaraq and Nakkarpik.
Nunakitseq lies 1.5 M N of the N end of Pusisaraq and consists of 5 small islands.

3.2.8.2 Depths
The depths in the area S of Sermiligaaq and in Sermiligaaq itself are not sufficiently surveyed.

3.2.8.3 Ice
Sermiligaaq is usually filled with icebergs from Apuseeq (Knud Rasmussen Gletscher), and the area S of the fjord is hazardous to navigate due to the many rocks, small islands and the drift ice that is always present.

3.2.8.4 Current
The current normally sets S and SW in the waters S of Sermiligaaq, and it can be quite strong and give rise to hard pack ice.

3.2.9 Anaanap Kangertiva Oqqorseq (Depotfjord) 66º06'N 035º43'W
The mouth lies between Kangikajik and Akilerut, which lies 2.5 M further N. The fjord extends 5 M WNW and is approximately 2 M wide. A narrow fjord arm extends from the innermost part of Anaanap Kangertiva Oqqorseq (Depotfjord) 1.5 M SW and ends at Idrac Gletscher.

3.2.10 Kangertittivatsiaq 66º14'N 035º20'W
The mouth of this fjord lies between Qeertalik and a peninsula, whose S coast lies 3 M further NE. The E point of the peninsula is named Nigertuluup Oqqummut Nuua (Kap Japetus Steenstrup) 880 m, and the S coast of the peninsula extends 10 M W and WNW to the foreland Suunerajik.
To the S, the peninsula drops steeply to the sea and, at its innermost W part, rises to a height of 1,156 m.
Nordfjord is a narrow 4 M long fjord arm, which lies on the N side of Kangertittivatsiaq, and whose mouth lies between the points Suunerajik and Midtpynt, which lies 1 M further W.
Nuuluk is a point, which lies 2 M S of Midtpynt, and between Nuuluk and Saartermiit (Storø) a passage leads to Ikaasakajik and Arpertilu (Vestfjord). The entrance to the inner part of Kangertitigvatsiaq lies between Nuuluk and Itteraajik, which is a point 2 M W of Midtpynt. The fjord here extends 13 M NW and is 1-2 M wide; in its innermost part it ends in Kattilersorpia (Glacier de France).
Sammilik is a short fjord that, 3 M inside Nuuluk, extends 3 M SW and ends in a glacier. The natural surroundings here are reported to be magnificent, and a short fjord arm ends in a steep glacier to the N, while the fjord on the N side is surrounded by high, pointed mountain peaks.

3.2.11 Nigertuluk 66º16'N 035º02'W
The mouth of the fjord lies between Nigertuluup Oqqummut Nuua (Kap Japetus Steenstrup) and the island Nigertuluup Immikkeertiva, which lies 1.5 M further NE. The fjord extends 5

M NW and then a further 5 M N. There are 2 underwater rocks on its N side, 5 M inside the mouth. Two glaciers discharge into its NW and N part respectively.

3.2.12 Tuttulik 66º18'N 034º56'W

Tuttulik is a 4 M long fjord, which extends N from its mouth to a square basin, that is surrounded W and E by high mountains and ends to the N in a glacier, which has a 30 m high edge out to the fjord. In the innermost part of the fjord, a short fjord arm extends 2 M W. On the point between this fjord arm and the glacier there is a memorial to Watkins, who died off the glacier in 1932. There is a hut furthest inside the W fjord arm.

3.2.12.1 Ice

Tuttulik is usually frozen from mid-November to mid-May, and it is usually full of ice until the end of July. The fjord has been reported almost free of ice in September and October.

3.2.12.2 Fog

There can be quite a lot of fog from April to August. Simiilaq (Ailsa Ø) is a small steep island that rises to a height of 281 m and lies close S off the mouth of the fjord Tuttulik.

3.2.13 Nasippiip Kangertiva (Vahl Fjord) 66º20'N 034º47'W

Nasippiip Kangertiva (Vahl Fjord) is a 2 M long fjord, that extends in a N direction and lies 4 M NE of Arerpeertalik (Kap Wandel).

3.2.14 Ikertivaq 66º33'N 034º24'W

Ikertivaq is a bay, which cuts into the N side of K.J.V. Steenstrup Nordre Bræ. The mouth of the bay lies between two ice-free peaks, the furthest S of which lies N of the glacier edge of K.J.V. Steenstrup Nordre Bræ and the N peak is Tasiilap Karra (Kap Gustav Holm). The bay has two fjord arms, the largest of which Tasiilaq extends 13 M NW and N.
Simiilaq is a small island that lies in the middle of the entrance to the bay, 1.5 M inside.
Tasiilap Kangertiva Oqqorseq lies 6 M inside the mouth and extends 3 M in a SW- direction, where it ends in a glacier, which protrudes between 1,200 m high land on the N side and a 1,100 m high peninsula on the S side. On the S side of the 1,100 m high peninsula, there is also a glacier that protrudes out into the bay.
The mouth of Tasiilap Attertikajia 66º34.5'N 034º23'W is due W of Tasiilap Karra (Kap Gustav Holm) and extends 7 M N, where it ends in a glacier edge. The coastal land on both sides of this fjord arm is high, and on the W side of the mouth of the fjord it rises to a height of 1,000 m, and on the E side at Tasiilap Karra (Kap Gustav Holm) it rises to a height of 966 m. It is reported that there is a usable harbour for larger vessels in Tasiilap Attertikajia, see section 3.3.

3.3 Harbours and anchorages

Between Umiiviip Kiammut Kangera (Kap Poul Løvenørn) and Tasiilap Karra (Kap Gustav Holm), there are a number of inhabited places, which can be navigated, and where there are harbours or anchorages (see under A). Some partly known anchorages should also be mentioned, which can possibly be used as a lay-by or emergency harbour, but they are not surveyed and should therefore be used with caution (see under B).

A. Harbours and anchorages, where there are settlements nearby.

At Isertup Kangertiva:
3.3.1 The settlement of Isertoq

At Sermilik:
3.3.2 The settlement of Ikkatteq
3.3.3 The settlement of Tiniteqilaaq

At Tasiilaq (Kong Oscar Havn):
3.3.4 The town of Tasiilaq

At Ammassaliip Kangertiva (Ammassalik Fjord):
3.3.5 The settlement of Kuummiut
3.3.6 The settlement of Qernertivartivit
3.3.7 Kulusuk Mittarfik (Airfield)

At Sermiligaaq:
3.3.9 The settlement of Sermiligaaq
3.3.8 The settlement of Kulusuk (Kap Dan)

3.3.1 The settlement of Isertoq 65º32’N 038º58’W

chart 2300.

3.3.2 The settlement of Ikkatteq 65º38’N 037º57’W

charts 2300 and 2310.

3.3.3 Tiniteqilaaq 65º53’N 037º47’W

A settlement that lies on the SW point of the peninsula of the same name.

3.3.4 Tasiilaq 65º37’N 037º38’W

charts 2351, 2310. The town lies at the small bay on the SW side of Tasiilaq (Kong Oscar Havn) and is the largest town in East Greenland.

3.3.5 Kuummiut 65º51.5’N 037º00.5’W

charts 2351, 2310, 2300.

3.3.6 The settlement of Qernertivartivit 65º42.5’N 037º17.5’W

charts 2310 and 2300, is a small settlement. It lies on the S side of the island Qernertivartivit at the E side of Ammassalik Ø.

Kulusuk is the furthest SW of the island chain that lies E of Ammassaliip Kangertiva (Ammassalik Fjord). It is 5 M in an E-W direction, 4 M in a N-S direction, and its greatest height is 660 m. It is easily recognisable by the dome shape of its 660 m high peak on the

island's E side. On Kulusuk lies Kulusuk Mittarfik (Airfield) and the settlement of Kulusuk (Kap Dan).

3.3.7 Kulusuk Mittarfik (Airfield) 65º34.6'N 037º08.7'W
charts 2310 and 2351.

3.3.8 The settlement of Kulusuk (Kap Dan) 65º34.3'N 037º11'W
charts 2310 and 2351.

3.3.9 The settlement of Sermiligaaq 65º54'N 036º22'W
chart 2300.

B. Harbours and anchorages in whose vicinity there are no settlements.

At Ikeq:
3.3.10 Ittip Kangertiva
3.3.11 NW of Pikiitsiitaa (Ole Rømer Ø)
3.3.12 Atilaat (Hornemann Ø)

At Ikertivaq:
3.3.13 Dannebrog Ø
3.3.14 Suunikajik

At Isertup Kangertiva:
3.3.15 Orsuiattivaq (formerly a Loran station)
3.3.16 Kitak

At Isip Ilua:
3.3.17 Isip Ilua NW
3.3.18 Torsukattak

At Sermilik:
3.3.19 Qeertartivatsaap Kangertiva (Johan Petersen Fjord)
3.3.20 Tasiilaajik
3.3.21 Innartiip Kangertiva
3.3.22 Umiattuartivit
3.3.23 Paarnakajiit

At Ammassaliip Kangertiva (Ammassalik Fjord):
3.3.24 Alingaat (Marie Havn)
3.3.25 At Saartermiit (Storø)
3.3.26 At Tasiilap Attertikajia
3.3.27 Tittingaleq

3.3.10 Ittip Kangertiva 65º05'N 040º18'W
Ittip Kangertiva has been used by several vessels and from NE it has been approached by the route mentioned below. From Orsuiattivaq (the former Loran station), a course of 205º was set along the land so that Atilaat Saarsiat (Vahl Ø) was passed at a distance of 6 M and Sattiit (Koklapperne) at a distance of 7 M. When Nunatak and Sattiit (Koklapperne) are in line on a bearing of 310º, a course of 270º is maintained 14 M inwards, until the SE point of the island just N of Pikiitsiitaa (Ole Rømer Ø) is at 320º. A course of 320º shall now be set towards this point until the distance to both this point and the E side of Pikiitsiitaa (Ole Rømer Ø) is 1 M. The fjord now appears open and a course shall be sailed a little E of the mid-channel line into the fjord. The fjord provides shelter for all wind directions except NW and S. The anchorage is in a small cove on the E side of the fjord, 400 m SW of the beach at the station hut. This cove has also been used as a landing place for seaplanes. Two stone cairns have been erected to make it easier to find the anchorage. One is at the S side of the small cove, 125 m

SW of the station hut, and the other is on the N side of the cove, a little NW of the hut. With the S cairn on a bearing of 106º and the N cairn on a bearing of 060º, the water depth is 45 m. A little further S, with the two cairns on bearings of 075º and 021º respectively, the depth is 66 m.
Note: The cairns cannot be expected to be in place and in order.

3.3.11 NW of Pikiitsiitaa (Ole Rømer Ø) 65º02.5'N 040º28'W

There is reported to be an anchorage in the 2 M long cove, which, indents in a NW direction the E side of an unnamed island that lies 2 M NW of Pikiitsiitaa (Ole Rømer Ø).

3.3.12 Atilaat (Hornemann Ø) 65º10'N 039º43'W

There is reported to be an excellent anchorage in a cove that indents 2 M into the W side of Atilaat (Hornemann Ø). In the innermost part of the cove, the water depth is 10 m. Further W in the cove, there is also reported to be a possibility to anchor in the small bays that are found here.

3.3.13 Dannebrog Ø 65º15.6'N 039º36'W

On the SW side of Dannebrog Ø there is a fine boat harbour in a cove with good anchorage on both sides of a small spit of land that protrudes into the harbour. There is reported to be a reef on the S side of the entrance to the harbour. The harbour is usually free of ice in August, but the E side of the island can be densely packed with drift ice.

3.3.14 Suunikajik 65º28.5'N 039º10'W

On the E side of Suunikajik, there is reported to be a good little harbour that can be used by seagoing vessels. The harbour is usually free of ice in August. In addition, there is always good shelter between the small rocky islands along the E side of Suunikjik.

3.3.15 Orsuiattivaq 65º30'N 038º53'W

3.3.15.1 Landmarks

The island of Orsuiattivaq is quite low and difficult to differentiate from the surroundings at large distances. The highest point is 85 m, see fig. 3.2.

3.3.15.2 Approach

During the approach from both S and E, a course can be set towards a point 2 M S of the island, as it is important to keep well clear of the three small islands that lie 1.5 M SE of Orsuiattivaq.
When these three small islands have been passed at a distance of 1 M, it is possible to keep in towards the SW point of Orsuiattivaq, as the waters S of the island are apparently clear. However, there is a rock with 7.5 m of water 850 m SW of the island's SW point. The island's SW point can be passed at a distance of 500 m and, at this distance from the coast, it is possible to sail until the basin is viewed open on a bearing of 040º. Then it is possible to bear

into the basin, where the mooring is located, and from there it is possible to continue to the anchorage NW of the basin. There is a cairn on the W side of the entrance, which is painted yellow on the side towards the sea. In the entrance, which leads from the mooring to the anchorage, it is necessary to keep a little W of the mid-channel line.
If the usual entrance to the mooring is blocked by ice, it is possible to use the entrance 1,000 m NW of the mooring. It is important to bear close to the cliffs (2 m) on the W side of the entrance, where it is clear for a width of 30 m. To approach the entrance from N, make for the white stripe in the cliff to avoid a shallow area N of the entrance. Note however that even small growlers get stuck on the 4.5 m shoal and thereby quickly blocks the channel.

3.3.15.3 Anchorage and mooring

It is possible to anchor at the inner anchorage in a position of 300 m NW of a rock with 1.3 m water depth. The holding ground is apparently good and the water depth is 61 m, if anchoring at 300 m NW of the rock and 300 m NE of the shallow water at the island SW of the anchorage.
It is not possible to anchor in the basin, where the mooring is located, as the holding ground is poor and there is not enough swinging space, but it is necessary to stern-moor here, see the mooring plan fig. 3.2.
The ring bolts on the E and S side of the basin shall be used for mooring. Mooring shall be with the stern NE and, depending on the direction of the current on arrival, mooring shall first be forward or astern (current-side end of the vessel first) and then the two athwart moorings are set and used to pull the vessel clear of the current. The port anchor shall be set when the vessel is in position I.
Note: The mooring rings may be in very poor condition, as they have not been maintained since the closure of the Loran station.

3.3.15.4 Ice

The harbour can usually be navigated from late July until late October, but when the ice is in the waters outside the basin, the current will take some ice into the harbour. Larger icebergs usually run aground in the channel and may then block this. They usually disappear again when the current changes.

3.3.15.5 Current

The current can be very strong in the channel’s direction and along the W side of the island Orsuiattivaq. However, it is somewhat irregular in the basin itself.

3.3.15.6 Tide

The difference between high and low tide at spring tide is 3.5 m.

3.3.15.7 Special comments

The S entrance to the basin and the NW channel that leads from the basin to the inner anchorage has been surveyed, but the two other channels that lead NE and SE respectively have not been surveyed and are probably foul, and using them is therefore not recommended.

3.3.16 Kitak 65º33'N 038º47'W
It is reported that there is an anchorage on the NW side of the island, but the waters are not surveyed, so great care must be taken. The anchorage is reported to be approached through Ikaasaartik, the channel NW of Kitak, but there are several rocks in the channel. The ice usually disappears in August.

3.3.17 Isip Ilua 65º38'N 038º22'W
It is reported to be a boat harbour in the NW part of Isip Ilua in a cove that first extends N and then SW. Ice has still blocked the entrance to this cove in the middle of August.

3.3.18 Torsukattak 65º38'N 038º15'W
It is reported that there is an anchorage in a cove, Torsukattak, in the NE part of Isip Ilua. This anchorage is reported to be free of ice in August.

3.3.19 Qeertartivatsaap Kangertiva (Johan Petersen Fjord) 65º48.3'N 038º06'W
There is reported to be a small boat harbour with good anchorage W of a small island that lies at the entrance to a small bay 1.5 M W of the S point at the entrance to Qeertartivatsaap Kangertiva (Johan Petersen Fjord).

3.3.20 Tasiilaajik 66º10.5'N 037º47'W
There is reported to be an anchorage in the innermost part of the bay.

3.3.21 Innartiip Kangertiva 66º00'N 037º45'W
There is reported to be an anchorage in the bay. The ice conditions in Innartiip Kangertiva are good as soon as Sermilik can be navigated.

3.3.22 Umiattuartivit 65º54'N 038º00'W
is a former settlement.

3.3.23 Paarnakajiit 66º05'N 037º37'W
is a former settlement that lies 2 M NE of Itterajik.

3.3.24 Alingaat (Marie Havn) 65º51'N 037º08'W
is a small bay at the S side of Ikaasaalaq, 1 M inside the mouth of the fjord. There is an anchorage between Alingaat Immikkoortuat (Griseøen) and the innermost part of the bay.
A beacon has been established on the island (red painted pole in a yellow painted barrel).
The anchorage is usually free of ice because a stream discharges in the innermost part of the bay.

3.3.25 At Saartermiit (Storø) 66º10’N 035º32’W

In the bay at the S side of the island, there is reported to be a good anchorage, but caution is advised.

3.3.26 At Tasiilap Attertikajia 66º36.5’N 034º21’W

There is reported to a usable anchorage for larger vessels further inside the fjord.

3.3.27 Tittingaleq 65º33’N 037º13’W

is a former settlement on the W side of Kulusuk, S of Naajanngivit (Kap Dan).

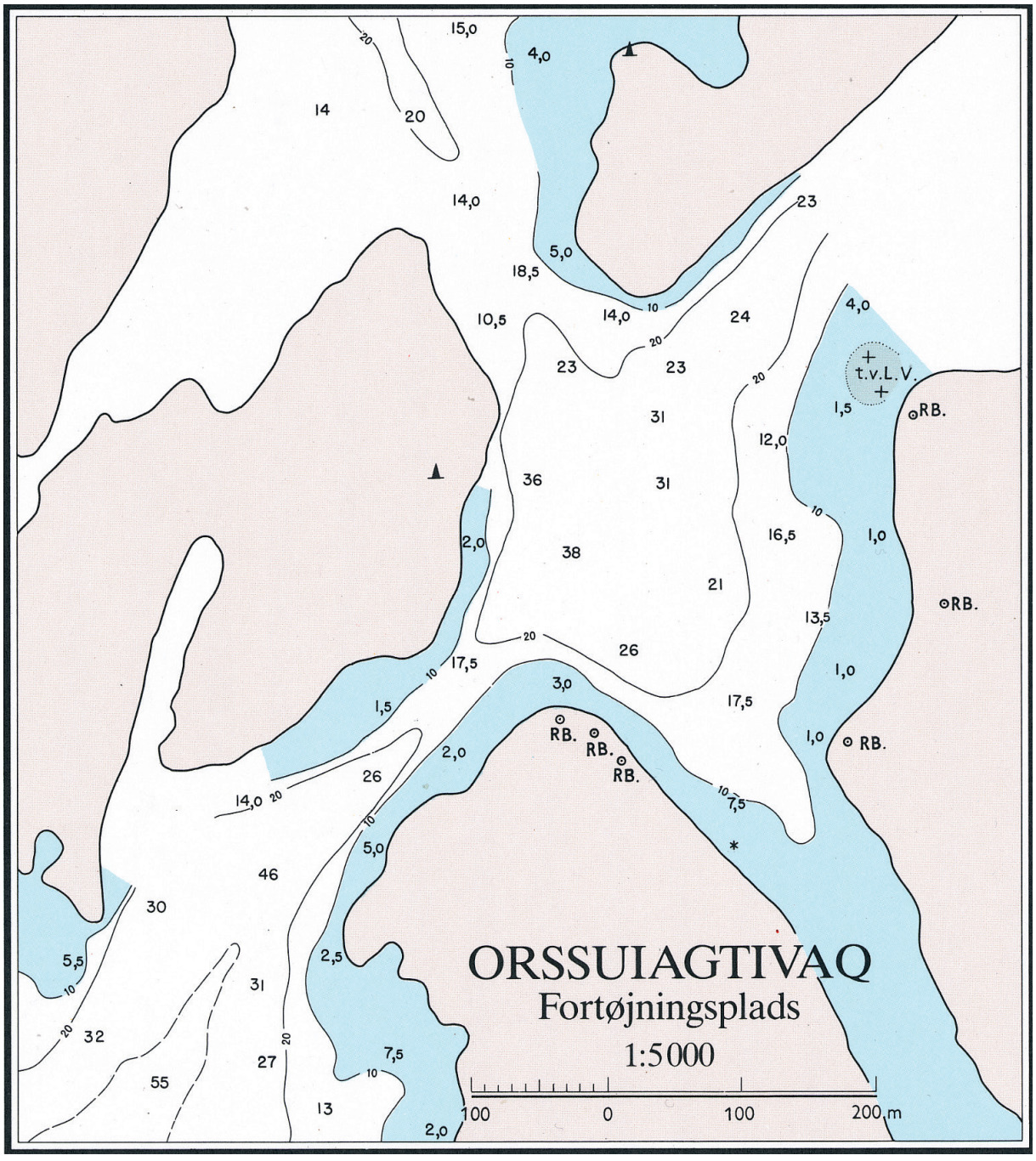

Fig. 3.2 - Orsuiattivaq

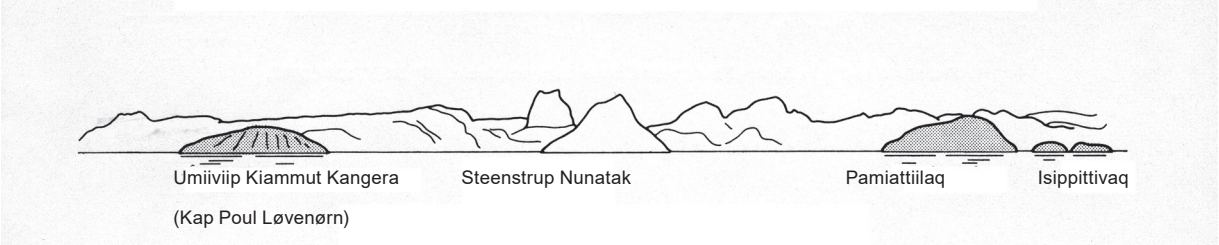

Fig. 3.3 - Umiiviip Kiammut Kangera (Kap Poul Løvenørn) bearing 240°, distant 15 M.

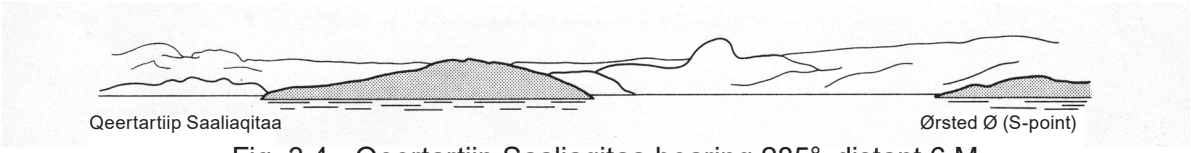

Fig. 3.4 - Qeertartiip Saaliaqitaa bearing 285°, distant 6 M.

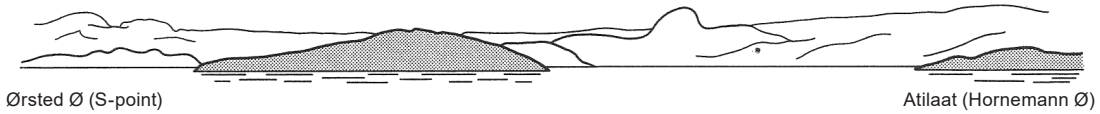

Fig. 3.5 - Atilaat (Hornemann Ø) bearing 315°, distant 8 M.

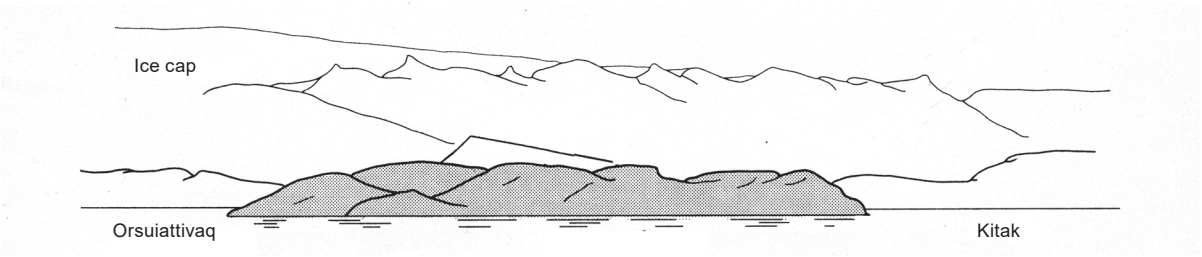

Fig. 3.6 - Orsuiattivaq bearing 014°, distant 15 M.

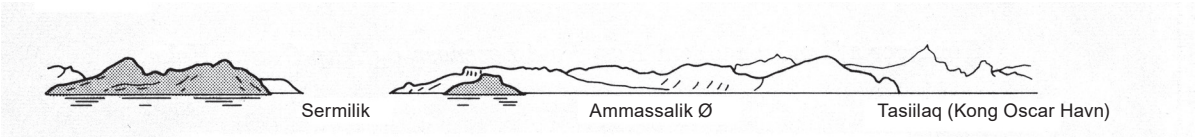

Fig. 3.7 - Kap Tycho Brahe – Tasiilaq (Kong Oscar Havn)
seen from the position approx. 65º15'N 038º00'W.

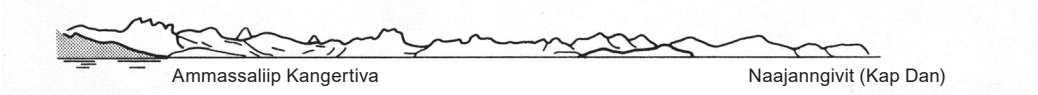

Fig. 3.8 - Tasiilaq (Kong Oscar Havn) - Naajanngivit (Kap Dan)
seen from the position approx. 65º15'N 038º00'W.

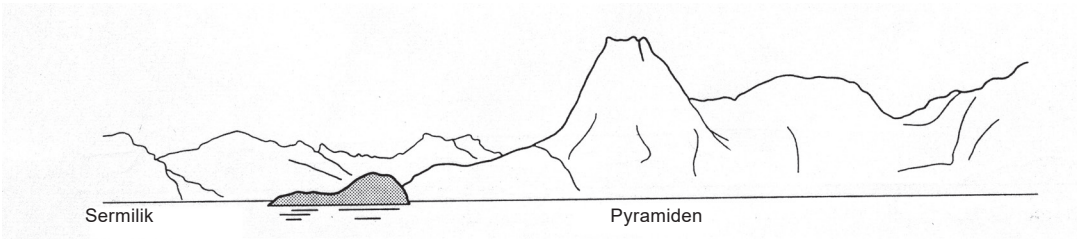

Fig. 3.9 - High mountain (Pyramiden) on the SW side of Ammassalik Ø
bearing 325º, distant 5 M.

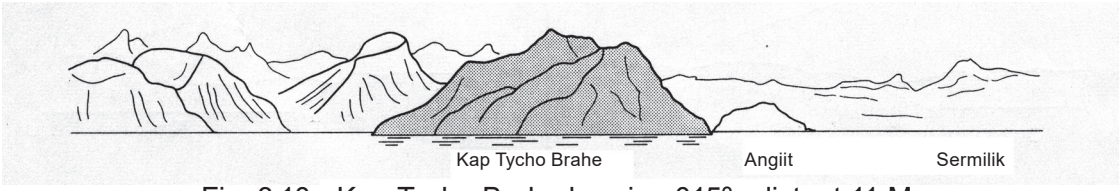

Fig. 3.10 - Kap Tycho Brahe bearing 015º, distant 11 M.

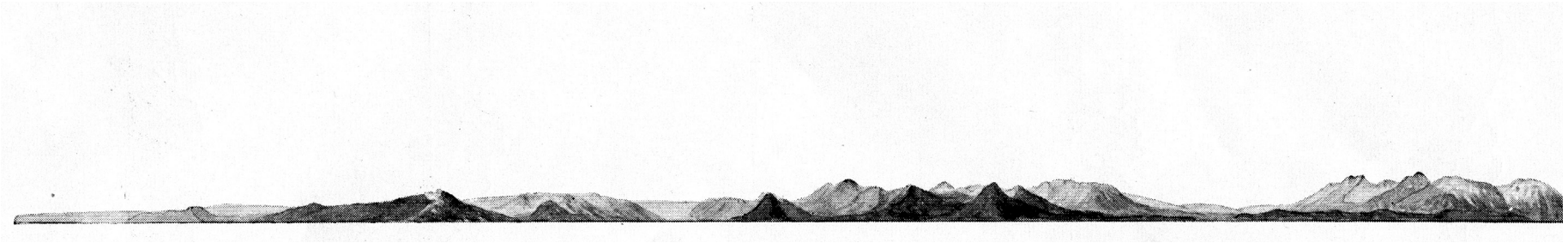

Fig. 3.11 - W of Sermilik – Tasiilaq (Kong Oscar Havn) seen from the position:
Entrance of Tasiilaq (Kong Oscar Havn) bearing 325º, distant 10 M.

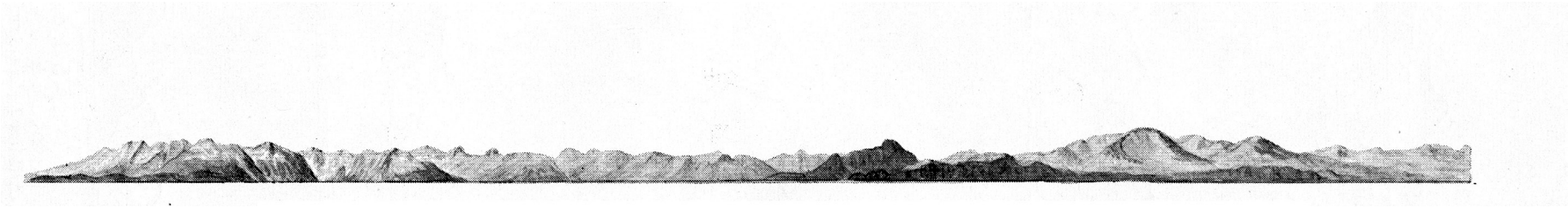

Fig. 3.12 - W of the entrance of Ammassaliip Kangertiva (Ammassalik Fjord) – E of Naajanngivit (Kap Dan) bearing 004º, distant 7 M.

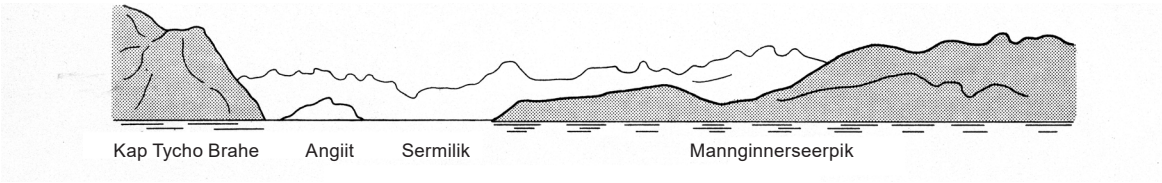

Fig. 3.13 - Kap Tycho Brahe bearing 020º, distant 11 M.

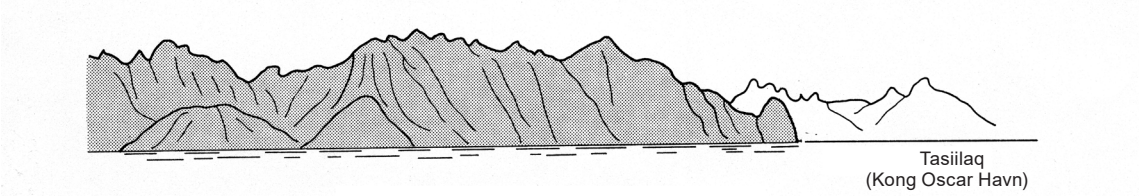

Fig. 3.14 - Ortunuiaq bearing 050º, distant 10 M.

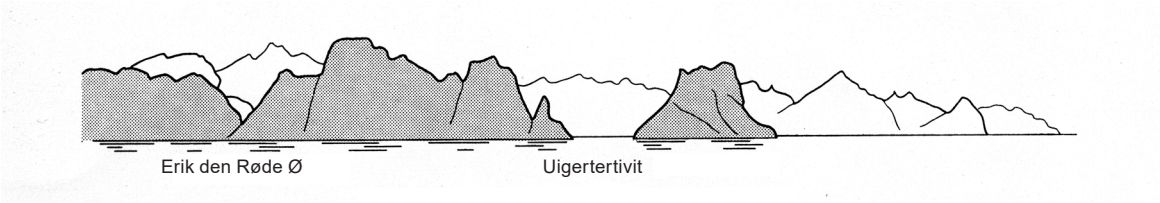

Fig. 3.15 - Uigertertivit bearing 025º, distant 10 M.

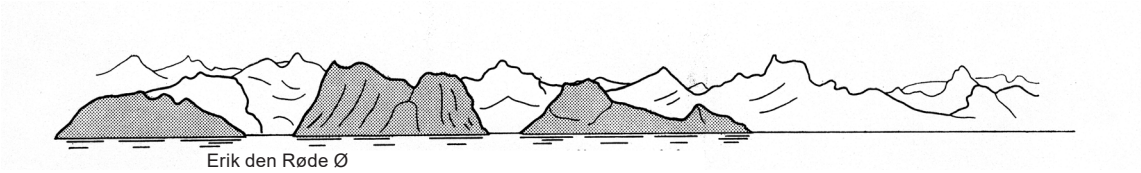

Fig. 3.16 - Erik den Røde Ø bearing 010º, distant 10 M.

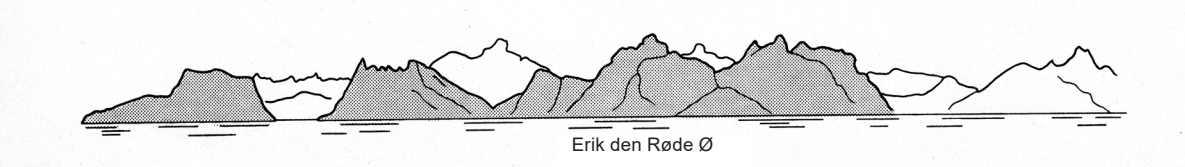

Fig. 3.17 - Erik den Røde Ø bearing 330º, distant 8 M.

Map

Tasiilap Karra (Kap Gustav Holm) – Kap Vedel

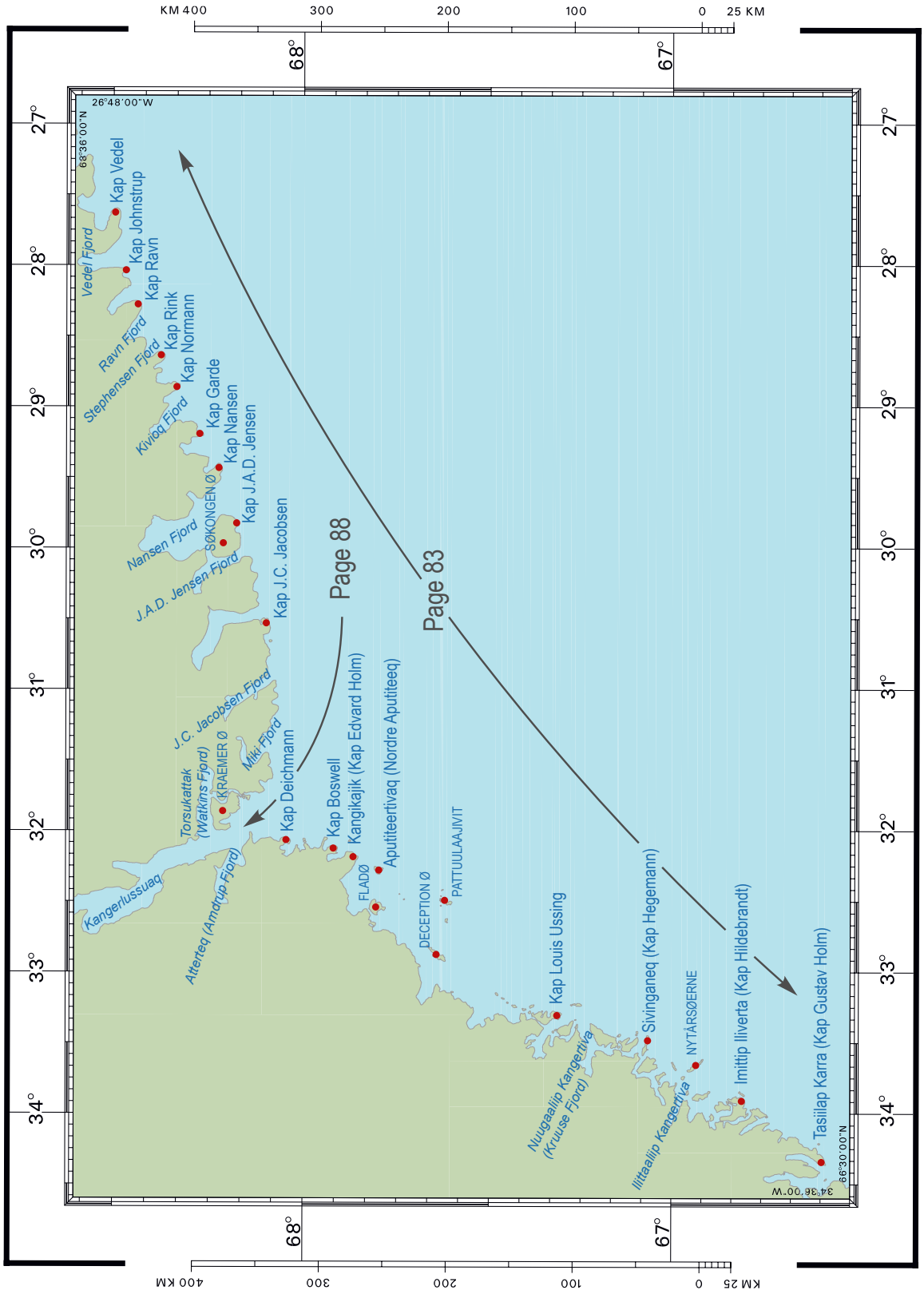

Fig. 4.1

CHAPTER 4

Tasiilap Karra (Kap Gustav Holm) – Kap Vedel

Area 66º34'N 034º21'W – 68º30'N 027º36'W, charts 2400 and 2650.

4.1 Transit of the area
4.2 Approaches and navigation in waterways (fjords), towns and settlements etc.
4.3 Harbours and anchorages

4.1 Transit of the area

See views of the land between Tasiilap Karra (Kap Gustav Holm) and Kap Vedel.

4.1.1 Landmarks

The coast between Tasiilap Karra (Kap Gustav Holm) and Kap Deichmann, which lies 105 M further NE, is regarded as one of the most difficult coastal stretches to access in East Greenland. The mountains rise almost vertically from the sea and form a barrier with some gaps through which glaciers protrude, while the coastal waters have numerous rocks and small islands. Along this stretch of coast there are very few soundings from the coast and 10 M out.

Tasiilap Karra (Kap Gustav Holm) 66º34'N 034º21'W is the S point of a mountainous peninsula, which rises to a height of 966 m and extends 7 M NNE to Kangikajik (Kap Buchholz).

Nanertalik is an island that lies 4 M NE of Tasiilap Karra (Kap Gustav Holm). There is a dangerous rock close E off the island.

Kap S.M. Jørgensen 66º45'N 033º57'W is the E point of the irregularly shaped peninsula, Ilittiartik, which rises to a height of 800 m.

Imittip Iliverta (Kap Hildebrandt) 66º48'N 033º54'W is the SE point of a very indented island, which lies close NE off Ilittiartik. On its E side, the island rises to a height of 732 m. There are a number of small islands close outside a bay that indents the N side of this island. Laube Gletcher lies 2 M NW of the N end of the island.

Imilik is a 209 m high island, which lies 0.5 M E of Imittip Iliverta (Kap Hildebrandt). There are reported to be rocks on the W side of the waters between Imilik and the island on which Imittip Iliverta (Kap Hildebrandt) lies.

Nytårsøerne islands lie E of Kialiip Imaa (Skrækkens Bugt) and consist of two elongated islands and a number of small islands.

Ittitalik (Lille Tindholm) 185 m is the southernmost and smallest of the Nytårsøerne. There are two small islands on its E side.

Takiseertivaq (Store Tindholm) 600 m is the largest and most northerly of the Nytårsøerne.

Svineryggen are two small islands, which lie between Takiseertivaq (Store Tindholm) and Ittitalik (Lille Tindholm).

Qajaatseq lies 1 M NW of Takiseertivaq (Store Tindholm) and is a small island, which rises to a height of 361 m.
Immikkeerteq (Lilleø) lies 2 M SW of Qajaatseq. Aaluiartik, which is a somewhat larger island, lies 1 M S of Immikkeerteq (Lilleø).
Nuuluk is a 1,100 m high peninsula, which lies 1 M W of Immikkeerteq (Lilleø). This peninsula forms the S side of a small fjord, named Ilittaaliip Kangertiva.
Tukingaleq is a small island that lies 1.5 M NE of Qajaatseq. There is a rock close E off the island.
Najaakki (Kap Warming) 67º01'N 033º42'W is the SE point of an island that rises to a height of 500 m. The island lies 1 M from the mainland and within the island the ice cap reaches down to the coast and protrudes between steep promontories, which rise to a height of up to 800 m, where numerous glacial tongues reach the sea. The mountain peaks that protrude through the ice cap rise to a height of 1,300-1,800 m close to the coastline. The island on which Najaakki (Kap Warming) lies is the most SW of a number of island that lie close off the coast from Najaakki (Kap Warming) and 15 M further NE.
Ikaasammiit is an island whose S end lies 1.5 M NE of Najaakki (Kap Warming). It is separated from the mainland at Ikaasak, which is 0.5 M wide. The island's maximum height is 928 m.
Langø is a narrow, 3 M long island, whose E point is named Sivinganeq (Kap Hegemann) 67º04'N 033º27'W. The island's maximum height is 360 m.
Aatseralikajiip Saarsia (Søndre Småholme) are two small islands, which lie close E off the S tip of Nyø.
Ammaat (Nordre Småholme) are two small islands, which lie 1 M NE of the N part of Nyø, which rises to a height of 737 m.
Tikkivii (Kap C. Christiansen) 67º13'N 033º22'W is the NE point of the island Milaat 675 m. The island is separated from the mainland by a narrow strait called Qoornitsiaq.
Søndre Aputiteeq is a small, elongated island that lies 3 M E of Nuugaalik 800 m.
Ersingerseq 674 m is an island that is separated from the mainland at Sikivijivitsiva (Suulu Sund).
Ammalorujuttoq is a small, 107 m high island that lies on the N side of the entrance to Attertia, 0.75 M SSE of Kap Louis Ussing.
Kap Louis Ussing 67º18'N 033º17'W is the S point of a glacier-filled peninsula that lies on the E and NE side of Attertia. The maximum height of the point is 300 m.
Kakittat (Agga Ø) is 337 m high and lies 4 M NNE of Kap Louis Ussing.
Uunartit is an island chain that extends 7 M in a NNE direction from the coast close W off Kakittat (Agga Ø).
The coast extends in a NE direction from the group of islands Uunartit to the mouth of Kangerlussuaq, a stretch of 45 M. This stretch of coast does not have as many islands as the coast from Uunartit and S toward Kap S.M. Jørgensen, but many glaciers protrude out into the sea, so the area is always blocked by ice.
Deception Ø is a 111 m high and 3.5 M long, narrow island, which lies 9 M N of the northernmost islands in the group of islands Uunartit and 3 M from the coast.
Ittutarajik and Pattuulaajivit, the latter of which is 150 m high, are two small islands that lie 6 M and 9 M respectively E of the S part of Deception Ø. About 1 M N of Pattuulaajivi lies the

westernmost island of a number of islands that extend E for 2.5 M.
Fladø 67º48'N 032º31'W is 163 m high and lies close off the coast, 9.5 M NE of Deception Ø.
Aputiteertivaq (Nordre Aputiteeq) is 91 m high and lies 4.5 M E of Fladø. The island is a little smaller than Fladø.
Kangikajik (Kap Edvard Holm) 67º51'N 032º11'W lies 3 M NNE of Aputiteertivaq (Nordre Aputiteeq) and is the S point of an exposed peninsula, which is 836 m high and extends in a SE direction from the mainland.
Immikkeerterajik (Keglen) is a 139 m high island, which lies 3 M NE of Kangikajik (Kap Edvard Holm).
The coast between Kangikajik (Kap Edvard Holm) and Kap Deichmann, which lies 13 M further N, is very indented by many small fjords.
Kap Boswell lies 2 M NW of Immikkeerterajik (Keglen) and is the SE point of a 600 m high peninsula, which extends out between two bays, Imiilaq (Søndre Boswell Bugt) and Nordre Boswell Bugt.
Barberkniven is a 2 M long and narrow peninsula that lies on the N side of Nordre Boswell Bugt.
Suunikajik (Den lave Pynt) lies 3 M N of Barberkniven, and close outside the point there are a couple of small islands, the outermost of which rises to a height of 30 m.
Kap Deichmann 68º03'N 032º03'W is the SE point of a small peninsula that rises to a height of 830 m and forms the NE side of a bay. A slightly larger island and some small islands lie close SW off Kap Deichmann, and an underwater rock is reported to lie 0.6 M NW of these islands, 0.3 M from land.
Between Kap Deichmann and Kap Vedel, a stretch of 105 M, the coast extends in an ENE direction and is characterised by the steeply and sharply delineated promontories, which have a distinctive uniformity and the numerous and relatively short fjords.
Kap Hammer 68º05'N 031º36'W is the E entrance point to Kangerlussuaq and the S point of a 1,120 m high peninsula. At the point itself, the land rises almost vertically to a height of 1,020 m.
Kap Irminger 68º04'N 030º56'W lies 15 M E of Kap Hammer, is 810 m high and is the SE point of a wide and mountainous peninsula, which separates Miki Fjord from J.C. Jacobsen Fjord.
Kap J.C. Jacobsen 68º06'N 030º30'W is the SE point of a wide peninsula, which lies between J.C. Jacobsen Fjord and Ryberg Fjord. The peninsula's SE part rises to a height of 1,000 m.
Strømø lies 4 M W of Kap J.C. Jacobsen and is a 250 m high but small island.
Nunap Isua is a promontory that lies 8 M ENE of Kap J.C. Jacobsen, and the land here rises to a height of 1,000 m.
Kap J.A.D. Jensen is the SE point of Søkongen Ø and rises to a height of 1,000 m.
Søkongen Ø is a large island, which lies between J.A.D. Jensen Fjord and Nansen Fjord.
Kap Nansen 68º13'N 029º26'W is the SE point of the land on the E side of Nansen Fjord. The land here rises steeply to a height of 600 m.
Between Kap Nansen and Kap Vedel 68º30'N 027º36'W there are a number of promontories, which from W to E are called Kap Hartz 600 m, Kap Garde 600 m, Kap Normann 740 m, Kap Rink 660 m, Kap Stephensen 1,000 m, Kap Ravn 740 m and Kap Johnstrup 454 m.

There are short fjords between these promontories from whose innermost part short glaciers protrude into the sea.
The mountains of Watkins Bjerge extend NW into the coast between Kap Nansen and Kap Ravn. The mountain peaks, which rise to a height of up to 2,134 m, lie close to the coast line, but Gunnbjørn Fjeld, which lies somewhat further to the NW, rises to a height of 3,700 m and is the highest point in Greenland.
Kap Hartz lies 2 M NNE of Kap Nansen, and between these two points, a small fjord extends 2 M inland in a NW direction.

Kap Garde lies 3.5 M ENE of Kap Hartz and is the SW point of a peninsula that forms the W side of Kivioq Fjord.
Kap Normann, 740 m, lies 9 M NE of Kap Garde.
Kap Rink, 660 m, lies 5 M ENE of Kap Normann, and a wide bay protrudes here 3 M into the coast.
Kap Stephensen 68º25'N 028º31'W lies 4 M NE of Kap Rink, and rises to a height of 1,000 m.
Kap Ravn, 740 m, lies 5 M E of Kap Stephensen and is the S point of a peninsula that separates Ravn Fjord from Wiedemann Fjord.
Kap Johnstrup, 454 m, lies 6 M ENE of Kap Ravn and is one of the steepest and jagged promontories along this part of the coast. There is a small bay on the W side of Kap Johnstrup.

4.1.2 Depths

Within 10 M of land between Tasiilap Karra (Kap Gustav Holm) and Kap Deichmann, there are only sparse soundings, but a sounding track 10 M of the coast and at the same distance E of Pattuulaajivit shows depths of more than 200 m. However, Aputiteertivaq (Nordre Aputiteeq) can be approached on a NW course without passing dangerous shallow areas.
A deep trench with depths of over 500 m cuts in a NNW direction towards the mouth of Kangerlussuaq, but W of this trench the depth decreases and there is probably a bank, which extends between Søndre Aputiteeq and Aputiteertivaq (Nordre Aputiteeq) E of Pattuulaajivit.
Between Kap Deichmann and Kap J.A.D. Jensen, a sounding track 1 M from the coast shows no depths less than 69 m, and between Kap J.A.D. Jensen and Kap Vedel, a series of soundings 3 M from the coast shows depths of between 165 m and 228 m.
Otherwise, the waters have not been surveyed, so mariners are urged to exercise due caution in the waters between Kap Nansen and Kap Vedel if approaching within 5 M of the coast. Somewhat further out the depth is everywhere more than 200 m.

4.1.3 Ice

The stretch of coast between Tasiilap Karra (Kap Gustav Holm) and Kap Vedel is normally free of ice from mid-August until early October, but icebergs and growlers occurs a little further out to sea and have been observed up to 40 M out.
It has been observed at the beginning of July that the small fjords on the coast between Kap Hammer and Kap Vedel are filled with ice and are therefore unsuitable for providing shelter. At the end of July it is normally possible to push through the ice to the mouth of

Kangerlussuaq and reach the weather station on Aputiteertivaq (Nordre Aputiteeq), but is must be done by special ice-strengthened vessels, as the ice conditions are often difficult at this time.

4.1.4 Current

Precise information about the current's direction is not available, but it is normally SW along the coast with an average speed of 0.2 kn. The speed can be increased somewhat by the wind and, during high winds from ENE, it has been measured at 0.8 kn or more.

4.1.5 Wind and weather

During the summer months, the winds along this stretch of coast are variable and it is often overcast with rain or snow. The prevailing wind direction is from the directions between NE and ENE.

4.2 Approaches and navigation in waterways (fjords), towns and settlements etc.

There are no towns or settlements between Tasiilap Karra (Kap Gustav Holm) and Kap Vedel. The fjords in the area are as follows, named from the S:

4.2.1 Kangerterajik (Poulsen Fjord) 66º44'N 034º02'W

The fjord/bay is a 4 M long bay, which extends in a NW direction inside the peninsula Ilittiartik, and which ends in two glaciers. The depth conditions in the fjord are unknown.

4.2.2 Kialiip Imaa (Skrækkens Bugt) 66º55'N 033º46'W

Over a stretch of 20 M N of Kap S.M. Jørgensen, the coastline recedes somewhat and forms a wide bay containing a number of islands, some of which lie up to 8 M from the coast. This entire bay was previously called Kialiip Imaa, but now this name only covers the waters between the islands of Aaluiartik, Immikkeerteq (Lilleø), Qajaatseq and Nytårsøerne.

4.2.3 Ilittaaliip Kangertiva 66º58.5'N 033º53'W

The fjord is 4 M long and extends in a WNW direction. The depths in the fjord are unknown.

4.2.4 Jaaku Sund 67º06'N 033º28'W

The entrance lies between Sivinganeq (Kap Hegemann) and Aatseralikajiip Saarsia (Søndre Småholme), extends NW, N and NE and separates Nyø, which is 737 m high, from the mainland. The depths are unknown.

4.2.5 Nuugaaliip Kangertiva (Kruuse Fjord) 67º14.5'N 033º20'W

The entrance lies between Tikkivii (Kap C. Christiansen) and Nuugaalik (Dødemandspynten), is 2 M wide at its outermost part and extends 9 M W. The fjord is almost always completely filled with ice.

4.2.6 Attertia 67º17.5'N 033º18'W

The entrance lies between Ersingerseq and Kap Louis Ussing, extends 9 M NW, and large parts of both fjord sides are covered with glaciers.

4.2.6.1 Depths

During an attempt to get into the fjord in 1932, it was established that there appeared to be a reef, on which it breaks, across the mouth of the fjord.

4.2.7 Imiilaq (Søndre Boswell Bugt) 67º54'N 032º08'W

There is a small bay that extends 2 M NW on the S side of the 600 m high, narrow peninsula, where Kap Boswell is located. Nordre Boswell Bugt lies on the N side of the peninsula. The depths in the two bays are unknown.

4.2.8 Kangerlussuaq 68º04'N 031º50'W

The second largest fjord in SE-Greenland and its entrance lies between Kap Deichmann and Kap Hammer. The fjord extends 40 M NNW and in its outermost part branches W and E in Atterteq (Amdrup Fjord) and Torsukattak (Watkins Fjord) respectively. In the fjords innermost part lies a small peninsula, Batbjerg, 1,660 m. This peninsula forms two bays, the furthest E of which is called Kangersertuup Qinngiva Kiatteq (Nordfjord), and the Nordfjord Gletscher discharges here. Kangerlussuaq Gletcher discharges in the westernmost part of the bay.
From Kap Deichmann, the W coast of Kangerlussuaq extends 6 M N to Amdrup Pynt, which is the furthest extent of a narrow peninsula, which stretches 2 M out from the coast. 3 M W of the point lies Admiraltinden, 1,022 m.
Sortskær are two small, black cliffs that are 9 m high. The rocks lie 2 M SSE of Amdrup Point, and it can often be difficult to distinguish between them and the many icebergs in these waters.

4.2.8.1 Amdrup Fjord 68º10'N 032º04'W

The entrance lies between Amdrup Pynt and Bagnæsset (4 M further NW) and from here, the fjord extends 11 M WNW. The fjord has not been surveyed and the depths are unknown.
Kvadderbugt is an open bay on the S side of Amdrup Fjord, 5 M W of Amdrup Pynt.
Kap Hammer 68º05'N 031º36'W lies at the E side of the entrance to Kangerlussuaq and from here, the coast extends 2 M NW to Hængefjeldet, an overhanging cliff that rises to a height of 765 m. An unnamed bay cuts between Kap Hammer and Hængefjeldet towards Hammerdalen.
Skærgårdshalvø lies 2.5 M NNW of Hængefjeldet and is a rocky peninsula, which stretches 1.5 M out from the coast in a SW direction. There are many small islands and rocks on its NW side and an underwater rock 0.25 M SSW of its SW point.
Kraemer Ø is a large island, which lies between Skærgårdshalvø and Torsukattak (Watkins Fjord). The island rises to a height of 1,025 m and is separated from the mainland by Uttental Sund. The island's SW side is deeply indented by Kraemer Bay, a bay whose depth is too

deep to anchor in.

4.2.8.2 Uttental Sund 68º10'N 031º47'W

The waters between Kraemer Ø and the mainland. The sound is approached between Skærgårdshalvø and Kraemer Ø, while navigating close to Kraemer Ø.

4.2.8.2.1 Depths

Close inside the S entrance, along the SE side of the channel, there are many small islands, rocks and reefs. The outermost reef is reported to stretch 150 m N from the furthest NE of the visible rocky islands. Another reef with a depth of 1.5 m is reported to extend W from the coast of the mainland, 1 M inside the entrance. The N side of the channel, close to Kraemer Ø, is reported to be clear, and this route has been navigated several times. In the N entrance to Uttental Sund there is a reef, which is almost dry at low tide. The deepest part of the sound is reported in midwater, 68 m. In the S channel, the depth in the middle is from 18 to 25 m.

4.2.8.2.2 Anchorages

There is a usable anchorage in 30 m of water close off land in the E side of the sound and close N off Forbindelsesgletcher, which extends between Uttental Sund and Miki Fjord.

4.2.8.2.3 Ice

Not much ice gets into Uttental Sund, partly because the reef in the N entrance prevents large icebergs from passing into the sound, and partly because the depths along the S side of Kraemer Ø are not very large.

4.2.8.2.4 Current

The tidal stream in the sound is strong. The tidal stream runs N with rising waters and S with ebbing waters. It often forms strong eddies around the reefs and rocks in the S entrance.

4.2.8.2.5 Wind and weather

In winter, the wind blows mostly from N and NE. A strong wind out from Kangerlussuaq is not always caused by wind from the ice cap, but can also be caused by an accumulation of air form the Atlantic over the area between Kangerlussuaq and Kangertittivaq (Scoresby Sund). Foehn wind can also occur. In the summer, there is usually only a light wind from varying directions, though mostly from S or N. The highest temperatures occur in May, June and July, and temperatures of up to 16º C have been recorded. These temperatures occur in May and June and normally in connection with Foehn wind. Summer mist occurs occasionally from the end of May to mid-September.
Kangerlussuaq lies in the area between S Greenland, which has rather a lot of precipitation, and N Greenland, where it is quite dry. November and May have most precipitation and the area is normally covered with snow from early October to mid-May.

4.2.8.2.6 Approach and navigation

Wessels that approach Kangerlussuaq from the S on their way to Uttental Sund, can keep 5 M off Kap Deichmann and from there, keep in towards Kraemer Bugt until Amdrup Point has been passed. It is possible to turn E and keep in towards Uttental Sund, as it is necessary to pass close to Kraemer Ø to stay clear of the rocks in the SE part of the waters. Wessels coming from NE can pass Kap Hammer at more than 1 M distance and then keep towards a point 1.5 M E of Amdrup Pynt. From there you sail as described above.

4.2.8.3 Torsukattak (Watkins Fjord) 68º15'N 032º00'W

The entrance to the fjord lies between Kraemer Ø and Spækpynten, and it extends 11 M E. Many glaciers discharge along the N side of the fjord and it is therefore normally filled with ice.
Depths are unknown.

4.2.8.4 Courtauld Fjord 68º25'N 032º17'W

The fjord lies 10 M NNW of the entrance to Torsukattak (Watkins Fjord) and extends 5 M in a NNE direction. The depths are unknown.
Kangerlussuaq becomes wider in its innermost part and forms a large basin, surrounded by high, rugged mountains. The sides of the fjord rise steeply to heights from around 1,220 m to 2,134 m and several glaciers protrude here. Kangerlussuaq Gletcher is one of the largest in Greenland. This glacier lies W of Batbjerg.

4.2.8.5 Kangersertuup Qinngiva Kiatteq (Nordfjord)

lies E of Batbjerg and Nordfjord Gletscher discharges into this fjord.

4.2.9 Miki Fjord 68º06'N 031º24'W

The fjord extends 4 M NW and then 4 M E, with an average width of 1 M. The fjord's entrance is surrounded on both sides by almost vertical mountains, which rise to a height of 853 m on the W side and 1,289 m on the E side. A river discharges through Vandfaldsdalen where the fjord turns E, and there is a sandy beach at the mouth of the river. A river also discharges through the wide Sødalen in the innermost part of the fjord. The W and N coasts slope evenly upwards, while the S side is steep and has several glaciers.

4.2.9.1 Navigation period

The fjord can normally be navigated from mid-August to mid-October and is approached mid-channel, where it is very deep.

4.2.9.2. Anchorages

Anchor in the N part of the fjord opposite where the rivers discharge.

4.2.9.2.1

At Vandfaldsdalen, it is possible to anchor in 20 m of water with room to swing, but there may be a swell here. Larger vessels have anchored in 45 m of water 300 m off where the river discharges.

4.2.9.2.2
The anchorage in the innermost part of the fjord is considered to be the best and the depth here ranges from 24-40 m.

4.2.9.3 Ice
Pack ice and icebergs can get into the fjord with the tide and in August they have been a nuisance at both anchorages.

4.2.10 J.C. Jacobsen Fjord 68º05'N 030º54'W
The fjord extends 10 M NNW and is 1.5 M wide. There is a small glacier 4 M inside the entrance on the W side of the fjord. It extends W towards Miki Fjord. Schjelderup Gletcher protrudes into the NE part of J.C. Jacobsen Fjord.

4.2.10.1 Depths
The depths in the fjord are unknown and there may be a ridge across the mouth of the fjord, as unusually strong movement in the ice has been observed here, which would indicate that the current is deflect. Great caution should be taken during approach.

4.2.10.2 Ice
The fjord has been observed free of ice at the beginning of August and off its entrance there was shore lead up to 8-10 M from the coast at that time.

4.2.11 Ryberg Fjord 68º06'N 030º26'W
The fjord extends 8 M N and then continues NW for a similar length, where it ends in the large Sorgenfri Gletcher, but several glaciers also protrudes on both sides of the fjord.

4.2.12 J.A.D. Jensen Fjord 68º10'N 030º02'W
The entrance to the fjord lies between a promontory 3 M E of Nunap Isua and Søkongen Ø. The fjord is 1.5 M wide and extends 11 M NNW and W, where it ends in a glacier. There is a narrow channel on its E side, which connects J.A.D. Jensen Fjord with Nansen Fjord N of Søkongen Ø.

4.2.12.1 Depths
The depths in J.A.D. Jensen Fjord are deep and there are also large depths mid-channel N of Søkongen Ø. The fjord appears to be free from dangers.

4.2.12.2 Anchorages
Vessels have anchored at the NW point of Søkongen Ø, 0.2 M offshore in depths of between 28 m and 46 m. There may be strong swells in the fjord, however, and the anchorage is not good then because the ice can be set in strong motion.

4.2.13 Nansen Fjord 68º13’N 029º 38’W
The entrance to the fjord lies between Kap J.A.D. Jensen and Kap Nansen and it extends 15 M NNW, where its outermost part turns into Christian IV Gletcher. Numerous glaciers discharge into its E side.

4.2.13.1 Depths
The depths at mid-channel are very deep and no underwater obstructions have been found. The fjord appears to be free from dangers.

4.2.14 Kivioq Fjord 68º21’N 029º03’W
The fjord extends 8 M to the W. In the innermost part, the fjord narrows and numerous glaciers protrude here.

4.2.15 Stephensen Fjord 68º24’N 028º35’W
The fjord is a short fjord that extends 2M NW and ends in a glacier. The fjord lies between Kap Rink and Kap Stephensen. The depths are unknown.

4.2.16 Ravn Fjord 68º26’N 028º27’W
The fjord is a short fjord that extends 3 M NW between Kap Stephensen and Kap Ravn and it ends in Kronborg Gletcher. The depths are unknown.

4.2.17 Wiedemann Fjord 68º27’N 028º12’W
The fjord lies on the E side of Kap Ravn and extends 8 M NW. It has an approximate width of 3 M at its mouth. In the innermost part, the fjord ends in a glacier. The E side of the fjord is free of glaciers and depths of 15 m can be found here. The land on the E side slopes evenly upwards to a height of 400 m and then rises to a height of approximately 1,133 m. A river discharges on this side and the current here from the rivers may keep the coast free of ice. It is therefore possible to anchor 0.3 M from the coast.

4.2.18 Vedel Fjord 68º28’N 027º54’W
The fjord extends 8 M N from the entrance of the fjord, which lies between Kap Johnstrup and Kap Vedel. In its inner NW part, Borggaven (glacier) protrudes into the fjord.

4.3 Harbours and anchorages
There are no towns or settlements between Tasiilap Karra (Kap Gustav Holm) and Kap Vedel. The following anchorages have been used in the area:
4.3.1 Uttental Sund, see section 4.2
4.3.2 Miki Fjord, see section 4.2
4.3.3 J.A.D. Jensen Fjord, see section 4.2
4.3.4 Wiedemann Fjord, see section 4.2.

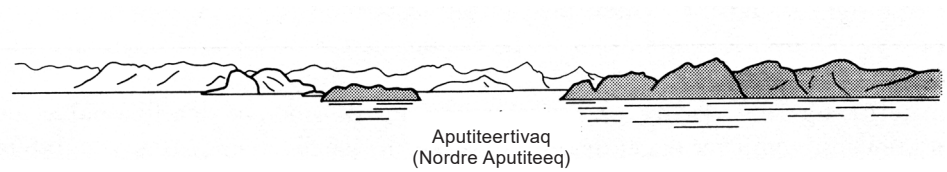

Fig 4.2 - Aputiteertivaq (Nordre Aputiteeq) bearing 300°, distant 15 M.

Map

Kap Vedel – Kangikajik (Kap Brewster)

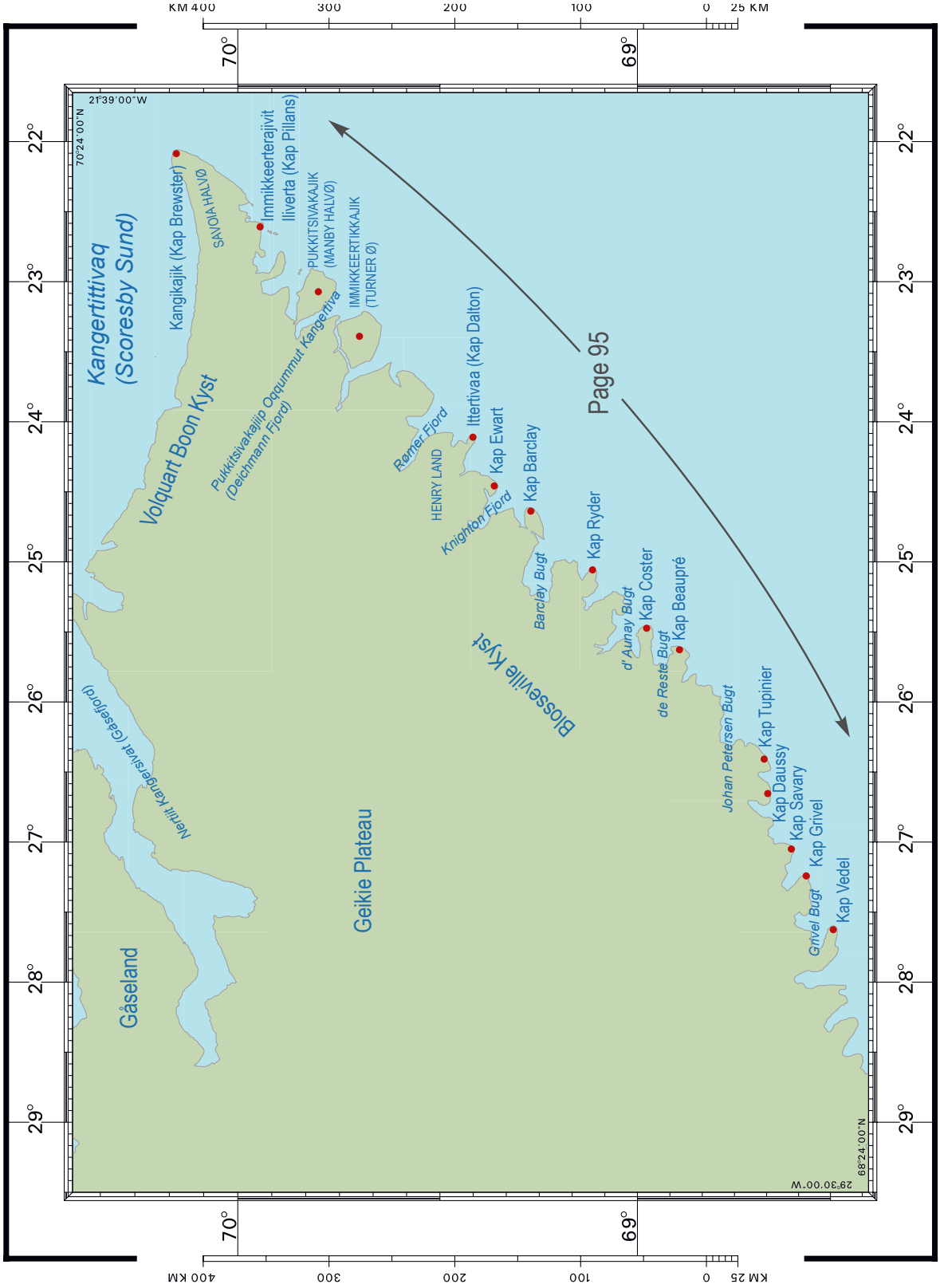

Fig. 5.1

CHAPTER 5

Kap Vedel – Kangikajik (Kap Brewster)

Area 68º30'N 027º36'W – 70º09'N 022º03'W, chart 2500.

5.1 Transit of the area
5.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
5.3 Harbours and anchorages

5.1 Transit of the area

See views of the land between Kap Vedel and Kangikajik (Kap Brewster).

5.1.1 Landmarks

The stretch of coast between Kap Vedel and Barclay Bugt, which lies 70 M further NE, is called Blosseville Kyst and is named after the Frenchman Blosseville.
The ice cap protrudes in the area between Kap Vedel and Kangikajik (Kap Brewster), all the way down to the inner parts of the fjords, where glaciers discharge many icebergs. High peaks can be seen further inland sticking up through the ice. The fjords in the area have steep coasts, but some of them contain bays, where it is normally possible to find anchorages during the best period in the summer. Some of these small bays have shallow water and a river that discharges. The river often keeps the drift ice far enough away so that it is possible to anchor. This section of coast also shows signs that the swells from the Danmark Stræde reach the coast when the pack ice disappears in the autumn.
Kap Vedel 68º30'N 027º36'W, 800 m high, is the E point of the peninsula, which lies NE of the entrance to Vedel Fjord. The peninsula rises to a height of 1,000 m.
Kap Grivel 68º33.5'N 027º13'W is the E point of the peninsula between Grivel Bugt and Savary Fjord.
Kap Savary 68º36'N 027º04'W lies on the N side of the approach to Savary Fjord, which extends 4.5 M NW. The point at Kap Savary is rather steep and the land quickly rises to a height of 752 m.
Sortebræ is a glacier that discharges ice to a rather large area and it protrudes between Kap Savary and Kap Daussy, which lies 8 M further ENE. There is a major moraine formation on the E side of Sortebræ, whose black surface caused Amdrup to name the glacier accordingly, but otherwise there is nothing black about Sortebræ, which extends far inland, where it is divided into two parts by a high mountain.
Kap Daussy 68º40'N 026º42'W lies 6 M ENE of Kap Savary. There is a small bay on the W side of Kap Daussy where a glacier protrudes into its innermost part. On the E side there is also a bay, Søkongen Bugt, which indents the land in a NNE direction.
Kap Tupinier lies 8 M ENE of Kap Daussy, and the coastal land between these two points

rises to a height of 815 m close to Kap Tupinier.
Kap Beaupré 68º53'N 025º37'W lies 20 M NE of Kap Tupinier and a glacier, Storbræ, protrudes into the sea approximately midway between these two points.

Rigny Bjerg lies 18 M NW of Kap Beaupré and protrudes up through Storbræ. Rigny Bjerg is easily recognisable and rises to a height of 2,386 m.
Kap Coster 68º58'N 025º28'W lies 7 M NE of Kap Beaupré and is the E point of a promontory, which rises to a height of 945 m and separates d'Aunay Bugt from de Reste Bugt.
Kap Ryder 69º07'N0 025º02'W lies 12 M NE of Kap Coster and is a promontory on the coast between d'Aunay Bugt and Barclay Bugt.
Kap Barclay 69º16'N 024º36'W lies 13 M NE of Kap Ryder and is the NE point of a peninsula that separates Barclay Bugt from Knighton Fjord.
Kap Ewart 69º22'N 024º27'W lies 7 M NE of Kap Barclay and is the point on the N side of the entrance to Knighton Fjord.
Ittertivaa (Kap Dalton) 69º25'N 024º06'W lies 7 M NE of Kap Ewart and is a freestanding promontory that rises to a height of 396 m. It is the SE point of a mountainous peninsula, which consists of basalt rock and is connected to the mainland by a narrow isthmus, which forms the E side of an unnamed bay. The mountains behind the peninsula rise to a height of 1,400 m, and 7 M NW of Ittertivaa (Kap Dalton) the highest mountain rises to a height of 1,433 m. There is a hot spring with a temperature of 30º C in the coastal basalt on the N side of Ittertivaa (Kap Dalton). There is an anchorage on the N side of Ittertivaa (Kap Dalton), see section 5.3.
Henry Land is a wide peninsula which rises to a height of 1,005 m on Uunartertaqarteq. The peninsula's NE point, Akileqitaa, lies 8 M NE of its S point. At its innermost part, the peninsula rises to a height of 1,738 m.
Immikkeertikajik (Turner Ø) 1,045 m, which lies between Rømer Fjord and Pukkitsivakajiip Oqqummut Kangertiva (Deichmann Fjord), is separated from the mainland by Immikkeertikajiip Ikaasakajia (Turner Sund).
Pukkitsivakajik (Manby Halvø) lies NE of Pukkitsivakajiip Oqqummut Kangertiva (Deichmann Fjord) and is connected to the mainland by a narrow isthmus at its innermost part. There are two small islands on the NE side of the peninsula.
Sulussuutikajik (Steward Ø), which lies close to the coast 5 M N of the NE part of Pukkitsivakajik (Manby Halvø), has a highest point of 945 m.
Immikkeerterajivit (Dunholm Øer) consists of three small islands that lie 3-4 4 M NE of the E point of Sulussuutikajik (Steward Ø).
Immikkeerterajivit Iliverta (Kap Pillans) 69º56'N 022º35'W is the point NE of Immikkeerterajivit (Dunholm Øer).
Kap Graham lies 2 M NNE of Immikkeerterajivit Iliverta (Kap Pillans).
Ilinnikajiip Kiammut Nuua (Kap Russel) 69º58'N 022º25'W is the SE point of Savoia Halvø.
Kangikajik (Kap Brewster) 70º09'N 022º03'W is the NE point of Savoia Halvø and lies at the S side of the entrance to Kangertittivaq (Scoresby Sund). Savoia Halvø is a freestanding, narrow peninsula, which rises to a height of 281 m to the NE. The heights of the mountains increase further inland and at a distance of 12 M from the point, the height at Sfinxen is 1,214 m.

5.1.2 Depths

The depths along the coast between Kap Vedel and Kangikajik (Kap Brewster) are only sparsely surveyed and there are only a few soundings. However, it appears that 10-15 M off the coast there are no dangers and with depths of over 100 m. A bank was reported in 1932, with a depth of at least 40 m. This bank stretched 8 M ESE from a position 4 M S of Kap Ryder. Vessels that have navigated the waters between Ittertivaa (Kap Dalton) and Kangikajik (Kap Brewster) have reported an accumulation of icebergs in 69º30'N 023º10'W, which indicates the presence of a bank around this position. The depth in this area is reported to be 164-256 m.

5.1.3 Ice and current

The combination of ice, current and tide makes navigating close off Blosseville Kyst difficult and dangerous. During "Søkongen's" navigation in a SW direction along this coast in 1932, it was reported that, as you get further SW, the ice was gradually pressed closer and closer in towards the coast. S of Blosseville Kyst, off Kap Stephensen, the ice was so densely compacted that further navigation was impossible. The reason for this compaction is probably that large icebergs run aground in a relatively shallow area, after which the drift ice is forcefully packed together around these icebergs. In the open channels between the drift ice, the current flowed strongly and carried broken pieces of ice. Here, the current is especially strong near the points, but is diminishes somewhat in the entrances to the fjords.
In July and August, the pack ice that follows the East Greenland Current along East Greenland's coast, is pressed close into the coast S of Kangikajik (Kap Brewster). This is probably due to the rotation of the earth, the wind and the tide. There are often many grounded icebergs E and SE of Kangikajik (Kap Brewster). SE of Kangikajik (Kap Brewster), the grounded icebergs gather the drift ice to form a border between the shore lead and the open sea. There seems to be a tendency here for the tidal current to be pressed together into relatively narrow channels and this increases its speed.
It is assumed that there will normally be a lead in the ice at Kangikajik (Kap Brewster), from this point and out in direction 120º. This assumption is based on the fact that at Kangikajik (Kap Brewster), the direction of the coastline changes from S to SW, which makes the drift ice turn and thereby spread its E side. The NE tidal current is apparently a surface current, while the predominant SW current is an underwater current. This can be concluded from the fact that icebergs and other old ice (polar ice) with large depths continue the SW drift, independently of the surface current, if they do not run aground.
It has not been investigated whether the tidal current at the coast between Kap Vedel and Kangikajik (Kap Brewster) causes flood and ebb tide currents in the fjords and bays on this coast, but it is probable that it is only weak, due to the short length and relatively wide width of the fjord.
The flood tide runs N along the E coast of Greenland and at Blosseville Kyst, it diminishes the speed of the East Greenland Current. The flood tide is strongest close off the coast and in some places it is strong enough to give a slight N direction to the current. The ebb tide, however, reinforces the East Greenland Current during its flow SW along the coast.
The current is often very strong off the steep promontories at Blossevile Kyst and there are

a number of areas with relatively shallow water, where the large icebergs ground. When the pack ice then accumulates over these areas, all navigation is here is made impossible. The drift ice comes in close to the coast at Kap Savary and there are many grounded icebergs that, together with the pack ice, cause strong eddies in this area.
There is probably ice at Kap Ryder until at least mid-July.

5.2 Approaches and navigation of waterways (fjords), towns and settlements etc.

Between Kap Vedel and Kangikajik (Kap Brewster), the coast is only indented by small, relatively short fjords and bays, most of which are relatively unsurveyed with regard to depths. There are no weather stations or settlements in this area and, as a result, there is no frequent navigation of this stretch of coast. There are some anchorages that have been used to seek shelter from the ice. See under anchorages in section 5.3.
From the S, the bays and fjords in the area mentioned in this chapter are as follows:

5.2.1 Grivel Bugt 68º31'N 027º30'W

The bay cuts 4 M into the coast in a W direction. Grivel Fjord, a fjord arm that extends 2 M N, lies in its N part.

5.2.2 Savary Fjord 68º35'N 027º09'W

The fjord extends 4 M NW, where it ends in a glacier.

5.2.3 Søkongen Bugt 68º39'N 026º32'W

The bay extends 2 M NNE. There is a lagoon in the innermost part of the bay that extends in a NE direction and an area with relatively level terrain and some vegetation extends some way inland from the innermost part of this lagoon. The bay is called "Søkongen Bugt", because "Søkongen" used the bay as an anchorage 17-20 July 1932, see section 5.3.

5.2.4 Johan Petersen Bugt 68º45'N 026º09'W

The bay only extends 2 M inland. There is a hot spring in the innermost part of the bay.

5.2.5 de Reste Bugt 68º56'N 025º32'W

The bay extends 3 M inland in a W direction and ends in a glacier.

5.2.6 d'Aunay Bugt 69º00'N 025º22'W

The bay consists of three small bays that extend W, NW and NE respectively. The W indention is normally filled with icebergs. The NE is open for swell from the sea, whereas it is possible to anchor in the NW indention, where the depth is such that larger icebergs cannot get in. In its innermost part, the NW indentation splits into two smaller bays. The E bay has a length of 2 M and a width of 0.5 M. A large river discharges at the end of the bay. The coastal

land around d'Aunay Bugt rises more evenly than in other places on this stretch of coast. In mid-July, the slopes on the E side of the bay are almost free of ice and snow. However, the W side is steep and has many glaciers.

5.2.7 Barclay Bugt 69º13'N 024º53'W

The bay extends 8 M NW and is 4 M wide. In the innermost part of the bay, two glaciers protrude to the surface of the sea.
In mid-July 1932, there were icebergs and a great deal of drift ice in the bay and "Søkongen" could only get halfway into the bay's innermost part. The S glacier is not large, but the N glacier is large and is connected to the ice cap by the Dendritgletscher.
Høst Havn lies in the NE part of Barclay Bay and there is an anchorage there, see section 5.3.

5.2.8 Knighton Fjord 69º19'N 024º31'W

The bay extends 5 M inland in a NW direction. The fjord's innermost part contains a short indentation that extends in a N direction and is surrounded on both sides by almost vertical cliffs, behind which the ice cap can be seen. On the W side of the fjord there is a hot sulphurous spring, and the fjord's outer part contains two small coves, one of which extends SW and almost reaches Høst Havn. The other cove extends NE in behind Kap Ewart, where there is an anchorage, see section 5.3.

5.2.9 Uunartertaqartikajiip Oqqummut Kangertiva 69º29'N 023º58'W

The fjord extends 9 M NW between Ittertivaa (Kap Dalton) and the S point of Henry Land. Inside it divides into two fjord arms, the northernmost of which ends in Bartholin Bræ.

5.2.10 Rømer Fjord 69º38'N 023º28'W

The fjord extends 10 M inland between Henry Land and Immikkeertikajik (Turner Ø). It first extends 6 M NNW to the W entrance of Immikkeertikajiip Ikaasakajia (Turner Sund), and then continues a further 4 M WNW.
Approximately 1.5 M W of the NE point of Henry Land, depths of between 30 m and 5 m have been reported (2006).

5.2.11 Immikkeertikajiip Ikaasakajia (Turner Sund) 69º45'N 023º16'W

The narrow, 8 M long sound separates Immikkeertikajik (Turner Ø) from the mainland. The sound connects Rømer Fjord with Pukkitsivakajiip Oqqummut Kangertiva (Deichmann Fjord) and is well protected against swells. Immikkeertikajiip Ikaasakajia (Turner Sund) is normally free of ice in the month of August.

5.2.11.1 Depths

A vessel has reported (2006) that there are depths of between 14 m and 8 m in the E entrance to Immikkeertikajiip Ikaasakajia (Turner Sund). Between the E entrance and the isthmus in

the middle of Immikkeertikajiip Ikaasakajia (Turner Sund), there are depths of between 70 m and 40 m mid-channel. Depths of between 12 m and 6 m have been reported mid-channel in the W part of Immikkeertikajiip Ikaasakajia (Turner Sund).

5.2.12 Pukkitsivakajiip Oqqummut Kangertiva (Deichmann Fjord) 69º45'N 023º09'W

The fjord extends 10 M NNW and the entrance to the fjord lies between the E point of Immikkeertikajik (Turner Ø) and the S point of Pukkitsivakajik (Manby Halvø), which lies 5 M further NE. Steno Bræ protrudes down to the surface of the sea in the innermost part of the fjord.
Between Pukkitsivakajik (Manby Halvø) and the Akinnarteqitaa peninsula, a bay protrudes 5 M inland in a W direction and on both sides of Sulussuutikajik (Steward Ø), there are 5 M long bays that end in glaciers.
Between Immikkeerterajivit Iliverta (Kap Pillans), Kap Graham and Ilinnikajiip Kiammut Nuua (Kap Russel), on the S side of Savoia Halvø, there are two small bays that both end in a glacier. The depths here are unknown.

5.3 Harbours and anchorages

The anchorages that exist on the stretch of coast discussed in this chapter have not been surveyed, but have been used by expedition vessels and smaller vessels to seek shelter from the ice.
The most important anchorages include:

5.3.1 Søkongen Bugt 68º41'N 026º31'W

The bay cuts 2 M into the coast in a NNE direction and lies a little E of Kap Daussy. The bay's name is due to the fact that "Søkongen" (a motor schooner) used the harbour as an anchorage from 17-20 July 1932. No ice difficulties were ascertained at that time in the anchorage, which was situated in the NE part of the bay, 0.25 M from the coast. The water depth here was 17 m, see section 5.2.

5.3.2 d'Aunay Bugt 69º04'N 025º34'W

The NW fjord arm, which can be recognised by a small island at its entrance, has a good anchorage in its innermost part. It is possible to anchor in 30 m of water and there is good anchor hold in mud, but the depth decreases rapidly, so it soon becomes 80 m deep. It is probably also possible to anchor in the NE indentation, even though it is subject to swells from the SE.

5.3.3 Høst Havn 69º16'N 024º47'W

The harbour is a small cove in the NE part of Barclay Bugt, just inside the entrance to the bay. In the entrance to Høst Havn, the depth is relatively small, but it increases to 22 m in the innermost part. The cove is narrowest in its middle part, after which it becomes a rather large

basin with depths from 15-22 m and is free of rocks or underwater obstructions.
It is deep all the way in to the coast and there is a good anchor hold of clay. There is shelter from all winds at the anchorage.

5.3.4 Knighton Fjord 69º23'N 024º30'W

The anchorage lies in the fjord's NE cove and its entrance is narrow due to an isthmus that extends to the S coast of the cove. Within this isthmus, the cove's middle is 28 m deep, where it is possible to anchor and where the bottom is mud. In the year 1900, Amdrup found the winter ice unbroken in Knighton Bugt and its cove as late as 22 July, but in 1932 the bay was free of ice 12 July, with the exception of a small cove at Kap Ewart.

5.3.5 Ittertivaa (Kap Dalton) 69º26'N 024º09'W

There is an anchorage in a small cove on the N side of Ittertivaa (Kap Dalton). This anchorage was used by "Antarctic" in 1900 and by "Søkongen" in 1932. The anchorage provides shelter from NW and SW, but is open to the NE.
The depth is 21-29 m and the bottom is sand and gravel. Extreme caution must be shown when anchoring, as the depth decreases rapidly as soon as the soundings show depths from 75-55 m. There are two lagoons on the S side of this bay and they are separated from the sea by narrow isthmuses. The outer of these lagoons has sufficient depth in its entrance so that small vessels can seek shelter here in case of ice pressure. The lagoon itself has poor water depths, with boulders visible in a number of places. Large driftwood logs have been found here and boulders on the coast seem to indicate that strong waves break against the coast in the autumn.

5.3.6 Rømer Fjord 69º38'N 023º38'W

A vessel is reported (2006) to have anchored immediately W of the NE point on Henry Land in 60 m of water, 0.2 M from land.

5.3.7 Immikkeertikajiip Ikaasakajia (Turner Sund) 69º45'N 023º17'W

The 8 M long, narrow sound is well protected from swells from the sea. The depths here are not adequately surveyed, but it is assumed that it is possible to anchor in a number of places. The sound is normally free of ice in August.
A vessel is reported (2006) to have anchored in the sound immediately E of the isthmus in the middle of the sound. Water depth is 50 m.

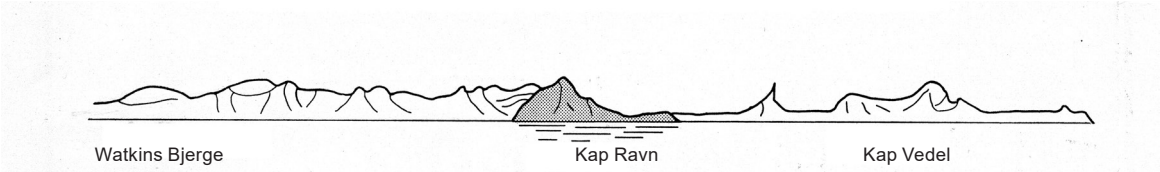

Fig 5.2 - The coastal area of Kap Ravn, seen from the position 67°14'N 027°38'W.

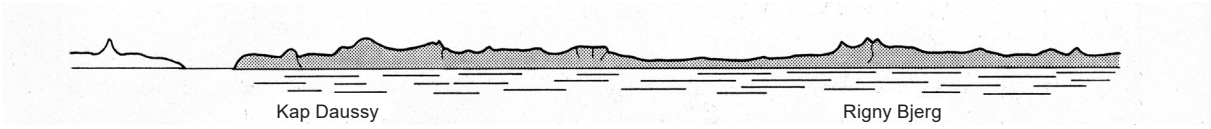

Fig 5.3 - Blosseville Kyst seen from the position 67°37'N 024°34'W.

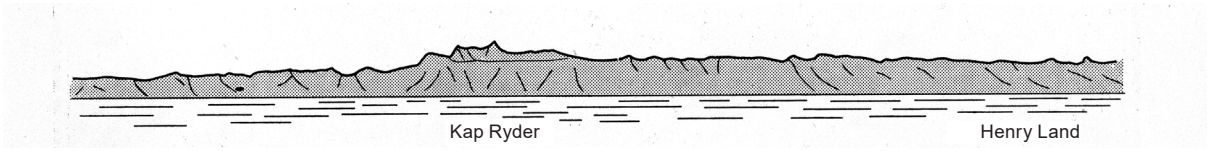

Fig 5.4 - The coastal area of Kap Ryder, seen from the position 68°19'N 024°11'W.

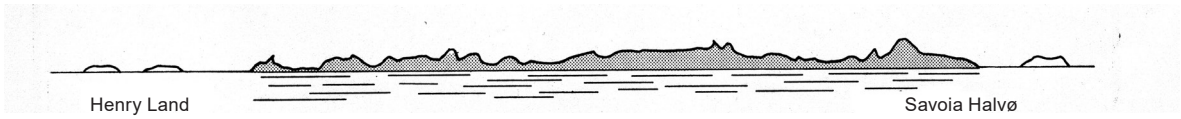

Fig 5.5 - The coastal area between Henry Land and Savoia Halvø,
seen from the position 69°08'N 020°27'W.

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Map

Kangikajik (Kap Brewster) – Kap Simpson

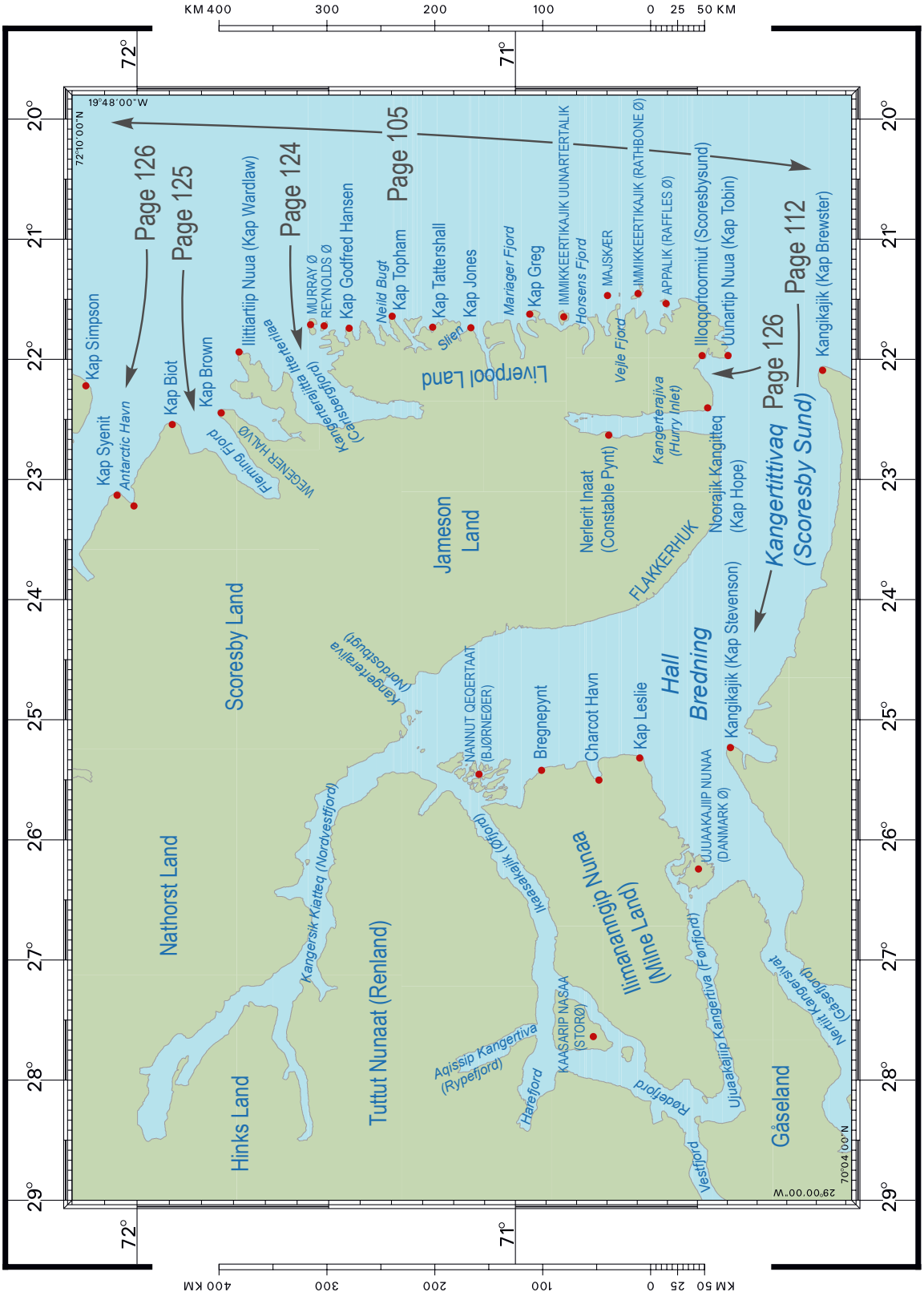

Fig. 6.1

CHAPTER 6

Kangikajik (Kap Brewster) – Kap Simpson

Area 70º09'N 022º03'W – 72º07'N 022º17'W, charts 2000, 2600 and 2650.

6.1 Transit of the area
6.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
6.3 Harbours and anchorages (areas with sheltered waters).

6.1 Transit of the area

See views of the land between Kangikajik (Kap Brewster) and Kap Simpson.

6.1.1 General information

Nuna Kong Christian X is a land area behind the coast between Kangertittivaq (Scoresby Sund) and Dove Bugt and is very different from the areas to both the S and the N. The coastline, which extends in a N direction for 400 M from Kangertittivaq (Scoresby Sund), is indented by long, deep fjords that divide the area into one of the most magnificent fjord systems that exist. Both N and S of this area, the coastline is more regular and the ice-free land is narrower. The ice-free land has its greatest expanse in the area around Kangertittivaq (Scoresby Sund), where is has an approximate width of 150 M, but the land area is filled with impassable mountain landscape, where many of the fjords and coves end.
Liverpool Land is separated on the W side from Jameson Land at Kangerterajiva (Hurry Inlet) and Kangerterajitta Itterterilaa (Carlsberg Fjord) and Kangerterajittap Ilinnera (Klitdal), which is the land between the two fjords. The distance between the two fjords in their innermost part is 23 M. From the more level landscape around Noorajik Kangitteq (Kap Hope) on the S side of the land, the height increases evenly to the N and rises to a height of 1,463 m. The E side of Liverpool Land extends 60 M N from Kap Lister to Kap Gladstone, W of Immikkeertikajiit Martik (Reynold Ø). Seen from the sea, this coastline has an uneven, alpine appearance with mountain tops that rise steeply from the coastline, which here is inaccessible in most places, even though it is not very high. The mountain peaks in Liverpool Land are steep and many of the peaks are almost vertical and rise to heights between 915 and 1,475 m. When Liverpool Land is seen from the E at a greater distance, it can be difficult to tell the difference between the different points, since the entire stretch of coast can appear to consist of a collection of rugged, steep mountain peaks. However, the highest mountain formations in Liverpool Land rise clearly above the somewhat lower coastal mountains, and if even one of these has been identified, it will normally be possible to use the more prominent points on the coast, such as Immikkeertikajik (Rathbone Ø), Immikkeertikajik Uunartertalik (Janus Ø), Kap Topham, Immikkeertikajiit Martik (Reynold Ø) and Immikkeertikajiit Martik (Murray Ø), to find the other points. The easily recognisable peaks in Liverpool Land include Kæmpehøjen,

a large snow covered dome, the double-peaked mountain Tvillingerne, which lies 10 M W of Immikkeertikajik (Rathbone Ø), and Sylfjeldene, Kirken and Kindtænderne, which all lie further N.

6.1.1.1 Landmarks

Kangikajik (Kap Brewster) 70º09'N 022º03'W is the S point at the entrance to Kangertittivaq (Scoresby Sund) and the NE point of Savoia Halvø, which is a narrow protruding point, which rises to a height of 281 m. Further in from the point, 11 M from Kangikajik (Kap Brewster), the height increases to 1,220 m.

Nuua (Kap Swainson) 70º25.5'N 021º44'W is the SE tip of Liverpool Land and is rather low.

Apusiaajiip Nuua 70º26.5'N 021º40'W is the headland 2 M NE of Nuua (Kap Swainson).

Kap Lister lies 5 M NE of Nuua (Kap Swainson) and directly S of a gorge with a stream. It is a high and steep coastal mountain that is easily recognisable. From Kap Lister, the land decreases gradually in height to the S towards Nuua (Kap Swainson).

Kiammut Nuukajia (Kap Hodgson) 70º33'N 021º30'W is a 701 m high, steep promontory, which protrudes in a NE direction. There is a glacier in the bay on the NW side of the promontory. S of Kiammut Nuukajia (Kap Hodgson), Liverpool Land has a more even and rounded appearance than on the other part of this stretch of coast, where the peaked, alpine shapes are predominant.

Kap Greg 70º57'N 021º35'W is a 610 m high, steep point that is connected to the mainland by a narrow isthmus, on which there is a hunting station. There are a couple of sizable glaciers at Kap Greg.

Close to the coast between Kiammut Nuukajia (Kap Hodgson) and Kap Greg there are a number of large and small islands, the most important of which are:

Appalik (Raffles Ø), which is 500 m high and the southernmost of the islands. It lies 1.5 M N of Kiammut Nuukajia (Kap Hodgson) and has a cliff that protrudes into the sea. The top of the cliff resembles the ruins of a castle.

The other islands are more rounded and, from the S, are called: Immikkeertikajik (Rathbone Ø), Islantit (Parker Øer), Majskær and Tartaajik (Glasgow Ø) and Immikkeertikajik Uunartertalik (Janus Ø), which has hot springs on the S side.

Immikkeertikajik (Rathbone Ø) lies 2 M SE of Kap Høegh. It is an easily recognisable, elongated island with a prominent location. The island consists of 2 parts: a large W and NW part that rises to a height of 500 m, and a smaller and lower protruding E part, which at its furthest end has a couple of characteristic peaks that are connected to the main part of the island by a low, narrow isthmus.

Islantit (Parker Øer) lies 1.5 M E of Ukaleqarteq (Kap Høegh). They are two small, 90 m high islands that are easily recognisable and prominent. They can be clearly seen from a long distance. The westernmost island has two peaks.

Majskær lies 2 M N of Islantit (Parker Øer) and is a group of small, low rocks.

Tartaajik (Glasgow Ø) lies 5 M NW from Majskær, close off the NE point of a peninsula that separates the two large fjords, Horsens Fjord and Vejle Fjord. The island is 110 m high and the peninsula between the fjords is a spur from some peaked mountains that, due to their appearance, are called Sylfjeldene and are easily recognisable.

Ukaleqarteq (Kap Høegh) 70º43'N 021º32'W is 400 m high and easily recognisable. It is the E point of the steep Sandbach Halvø. There is a hunting station on the low isthmus that connects Ukaleqarteq (Kap Høegh) with the rest of the peninsula.
Immikkeertikajik Uunartertalik (Janus Ø) lies 3 M N of Tartaajik (Glasgow Ø) and E of Emmanuel Gletscher. This is a 600 m high rocky island, separate from the mainland by Isbrosund.
Pyramiden is a 1,300 m high mountain that lies 4 M inside the outer coast on the S side of Emmanuel Gletscher.
Holloway Bugt is the waters between Immikkeertikajik Uunartertalik (Janus Ø) and Kap Greg. The large indentations in the coast on the coastal stretch between Kiammut Nuukajia (Kap Hodgson) and Kap Greg are named, from the S, Spærrebugt, Kangertivatsiaakajik (Lillefjord), Gletscherbugt, Nuukajiit Akornganni Kangerterajik (Gabet), Kolding Fjord, Vejle Fjord, Horsens Fjord, Isbrosund, Holloway Bugt and Hyttebugt.
Ravnenæs, 500 m, lies 3 M NW of Kap Greg and is the peninsula that separates Randers Fjord and Mariager Fjord. Tange Bugt lies W of the point with Kap Greg.
Forposten 71º01'N 021º40'W is the point on the N side of the entrance to Mariager Fjord.
Kap Buddicom 71º04'N 021º40'W is the S point at the entrance to Kangertivit Anginersaat (Storefjord). Close to Kap Buddicom there is a mountain peak called Kirken, because it is shaped like an enormous church tower with 2 spires.
Kap Jones 71º07'N 021º43'W is the point between Kangertivit Anginersaat (Storefjord) and Slien.
Kap Tattershall 71º11'N 021º40'W is a high and steep promontory and W of it lies a mountain called Murtinderne.
Kap Smith is the SE point of the 800 m high island that forms the S side of the entrance to Campbell Sund.
Kap Topham 71º20'N 021º37'W is the E point of a long peninsula, which separates Campbell Sund from Neild Bugt. There is a protruding promontory of bare cliffs with an unusual layering. The promontory is easily recognisable and can be seen from far out to sea.
Kap Hewitt, which lies 5 M NNW of Kap Topham, is the E point of a peninsula, which stretches in an E direction between two unnamed bays.
Kap Godfred Hansen lies 2.5 M NNW of Kap Hewitt and is the E point of a narrow peninsula, which lies between Kap Hewitt and Immikkeertikajiit Martik (Reynold Ø).
Isikajia is the point that lies 2.5 M NNW of Kap Godfred Hansen.
Immikkeertikajiit Martik (Reynold Ø) lies 3 M N of Kap Godfred Hansen and Immikkeertikajiit Martik (Murray Ø) lies 1 M N of Immikkeertikajiit Martik (Reynold Ø). Both islands lie on the S side of the entrance to Kangerterajitta Itterterilaa (Carlsberg Fjord) and are easily recognisable, as they clearly stick out from their surroundings.
Kap Gladstone 71º32'N 021º53'W is an isolated promontory that is 453 m high. It is the N point of Liverpool Land and lies out to Kangerterajitta Itterterilaa (Carlsberg Fjord).
Canning Land is the very indentated peninsula between Kangerterajitta Itterterilaa (Carlsberg Fjord) and Nathorst Fjord. The peninsula is mountainous with many separate, steep mountain ridges and peaks, and it falls steeply towards the sea. On the E side, Ålborg Fjord protrudes in between the points Kap Fletcher and Kap Allen. N of Kap Allen, a smaller unnamed bay indents the coast and close within its innermost part lays Bowen Bjerg.

Ilittiartiip Nuua (Kap Wardlaw) 71º44'N 021º55'W is the NE point of Canning Land and rises to a maximum height of 365 m. The points slope steeply towards the sea and, on a stretch of 1 M, the point furthest NE is 100 m high and quite prominent.
Århus Bugt is a bay on the N side of Canning Land between Ilittiartiip Nuua (Kap Wardlaw) and Kap Tyrrell, which lies 5 M further W.
Kap Brown is the NE point of the peninsula that separates Nathorst Fjord and Fleming Fjord, which is an 823 m high and prominent promontory with a red-brown colour. It is reported that there can be open water at Kap Brown relatively early in the summer, and this area can be open until early-November. There is often a strong swell at Kap Brown.
Kap Biot 71º54'N 022º32'W is the point of the peninsula that lies on the W side of the entrance to Fleming Fjord. The promontory has a red-brown colour and, from the surface of the sea, it rises almost vertically to a height of 610 m, but there is a narrow foreshore that can be used by sledge if the sea ice is not strong enough for that purpose.
Kap Simpson 72º07'N 022º20'W, see chapter 7.

6.1.1.2 Depths

The depths off Liverpool Land are not known in detail. Between Kap Lister and Immikkeertikajiit Martik (Murray Ø), there are only a few soundings closer to the coast than 2 M, and only a few of all these soundings show depths of less than 200 m. The soundings only indicate a few places with a possibility of finding rocks as far out as 5 M from land.
The shallowest soundings on the chart in the vicinity of Liverpool Land are as follows:
150 m: 2 M E of Kiammut Nuukajia (Kap Hodgson)
157 m: 4 M E of Appalik (Raffles Ø)
131 m: 5 M E of Immikkeertikajik Uunartertalik (Janus Ø)
130 m: 5 M E of Kap Greg
74 m: 4 M E of Kap Jones In an area around this sounding, which is assumed to stretch SE from 0.5 M off the coast till 4.5 M from this, there is also a warning of the possible presence of rocks.
51-78 m: 3.5 M N of Immikkeertikajiit Martik (Murray Ø). It is believed that there is a possibility that there may be rocks near this position.
1 M SE of Kap Lister and 1 M ESE of Nuua (Kap Swainson), the depths are 49 m and 20 m respectively. The shallow water may extend here, where the land decreases evenly in height, quite far out. SE and S of Nuua (Kap Swainson), however, the 200 m depth contour appears to already exist 2 M from the coast.
In Kangertivit Anginersaat (Storefjord), the sounding track leads 8 M into the entrance of the fjord. The depths mid-channel here are all more than 200 m, except at the westernmost sounding, which is 119 m.

6.1.1.2.1 Rocks

Rocks are reported 1.5 M and 2.5 M respectively NNE of the N point of Canning Land, approximately at the entrance to Nathorst Fjord.

6.1.1.3 Ice

6.1.1.3.1 Fast ice

At the beginning of July, there will normally still be a narrow belt of fast ice (winter ice) along the E coast of Liverpool Land, where only the E part of Immikkeertikajik (Rathbone Ø), Kap Greg and possibly a couple of other points further N, extend outside the fast ice boundary. During July, this ice normally disappears and, with favourable ice conditions, the coast can be clear of fast ice in mid-July. In years where the ice conditions are unfavourable, the fast ice can often stay longer, and in some places it has remained until mid-August. There is no fast ice here later than 1 September.

6.1.1.3.2 Pack ice

The occurrence of pack ice off the coast of Liverpool Land is not regular and there is almost always a more or less wide ice belt here.
In July, shore lead often begins to form between the pack ice and the coast or between the pack ice and any remaining part of the fast ice. The shore lead can then be used to transit the area, but keep in mind that the pack ice can very rapidly be blown towards land by the wind. The width of the shore lead is often widest at the S part of the coast, N of Kangertittivaq (Scoresby Sund) and can decrease strongly N of Kap Greg, where the pack ice often lies close to land. The coast of the S part of Liverpool Land, like the entrance of Kangertittivaq (Scoresby Sund), can in summer sometimes be clear of the pack ice belt that is otherwise outside the area.

6.1.1.3.3 Icebergs

In the pack ice belt and along the coast of the area described in this chapter, there are usually a number of dispersed icebergs that normally originate from Kangerluk Kejser Franz Joseph and its area, since the glaciers on the actual coast of Liverpool Land almost never discharge icebergs. There are often many grounded icebergs off Kangikajik (Kap Brewster).

6.1.1.3.4 Navigation

Normally, the waters along the coast of Liverpool Land shall only be passed, and during such a transit, vessels should as far as possible avoid getting stuck in the ice. Mariners who have previously passed the coast of Liverpool Land at a distance of 1-3 M have ascertained that the icebergs were not grounded here and they therefore concluded that the waters were free of dangers. However, according to more recent information about a shallow area with rocks E of the entrance to Kangertivit Anginersaat (Storefjord), if the ice condition allow it, vessels should avoid transiting this presumably dangerous area, or at least only transit when forced to do so, and then with great caution.

6.1.1.3.4.1 The ice in the fjord area W of the entrance to Kangertittivaq (Scoresby Sund)

The fjords are almost always free of winter ice in August, but variations may occur from year to year. In calm weather, new ice forms around 1 September to such a thickness that it is dangerous for motorboats without ice sheathing. This applies especially in the N part of the

area. In the last half of September, new ice forms in calm areas in the interior of the fjords, but normally the fjords can be navigated almost everywhere by vessels and large motor-boats until mid-October, after which the fjords quickly freeze over. If a storm sets in from the N shortly after the ice has formed, the ice can break up in several places, e.g. in the central part of Hall Bredning. Strong Foehn winds in the autumn can also cause open water to form, e.g. at Ujuaakajiip Kangertiva (Fønfjord). There is no particular detailed information about Kangertittivaq (Scoresby Sund). At Danmark Ø, the ice can be thick at the end of October. On 27 November 1936, there was still open water in Kangerterajiva (Hurry Inlet) 4 M N of Noorajik Kangitteq (Kap Hope), while the inner part of Rosenvinge Bugt was covered by ice. Kangerterajiva (Hurry Inlet) was covered with smooth new ice in the beginning of November 1937.
Normally, the first melting ice streams begin to flow in mid-May, but the winter ice does not really begin to melt until the beginning of June and the outer ice edge is therefore very constant in May and June. During June, the temperature rises rapidly in the inner part of the fjords and by the end of June the snow has melted on the winter ice, but the ice itself remains almost unbroken. The fjord ice disappears around 1 July if the weather is calm and sunny. The ice melts in Hall Bredning over the following 2 weeks, but if the weather is cold from May to July, there can still be a belt of land ice in mid-July, which may remain until late summer. The weather conditions in June generally play a major role in determining when the fjords can be navigated. In a year with normal ice conditions, the E edge of the land ice on 1 July extends from the S coast of Kangertittivaq (Scoresby Sund) at Kangikajik (Kap Brewster) in an almost straight line to a little W of Innakajik (Kap Stewart), and there will still be some ice in the outer part of Kangerterajiva (Hurry Inlet) and a narrow belt of land ice along the S and E sides of Liverpool Land. By 11 July, there is normally open water on the N coast of Kangertittivaq (Scoresby Sund) from Nuua (Kap Swainson) to Innakajik (Kap Stewart). Around mid-July, the land ice disappears from the outer part of Kangertittivaq (Scoresby Sund). Earlier ice observations show that shore lead can form from early-July from Kangertittivaq (Scoresby Sund) to Hold With Hope.
On 25 July 1938, there was winter ice in Kangertittivaq (Scoresby Sund) from Kangikajik (Kap Brewster) and N to Noorajik Kangitteq (Kap Hope) 70º28’N 022º25’W (and the W limit was 20 M further W). Usually, all outer parts of the winter ice are melted around 1 August.

6.1.1.3.5 Winter ice

The first small areas with open water appear in the inner part of the fjord at the end of June. All the narrow fjord arms are ice-free by the first week of July, and Kangertittivaq (Scoresby Sund) becomes ice free in the second and third week of July. In particularly favourable ice years, however, all land ice disappears by mid-July, while in unfavourable ice years, larger areas of land ice can remain until mid-August or even longer. There are no reports of winter ice remaining after 1 September.

6.1.1.3.6 Drift ice

As soon as the winter ice has gone, the drift ice can come in.

6.1.1.3.7 Ice observations

In the years 1926-1927, there was open water throughout the winter in the entrance to Kangertittivaq (Scoresby Sund).
1932: A rather strong current brought growlers to the coast between Kap Tobin and Noorajik Kangitteq (Kap Hope).
1933: On 1 July the ice in Rosenvinge Bugt had not disappeared and there was land ice near Kap Tobin and Noorajik Kangitteq (Kap Hope). The entrance to Kangerterajiva (Hurry Inlet) was still covered with ice, but the ice was beginning to break up.
1934: In September there was a narrow but compact belt of drift ice over the entrance to Kangertittivaq (Scoresby Sund). On 3 September 1934, a vessel became stuck in the ice with winds of force 6-8 from the NE, and it was carried by the ice into the fjord and almost to Noorajik Kangitteq (Kap Hope), where it was on 4 September. On 5 September the vessel was somewhat SW of Innakajik (Kap Stewart) and there was then open water and swell at the entrance to Kangertittivaq (Scoresby Sund). On 6 September the vessel was closer to land, while at the entrance to Kangertittivaq (Scoresby Sund) there was dispersed ice and a large swell. The current now flowed out of the fjord, but the ice was still compact. On 8 September, the ice was more open and it was possible to sail to the area at Innakajik (Kap Stewart), where the ice was close to the coast, and from there it was possible to continue to outside Kangerterajiva (Hurry Inlet), after which it was possible to continue S, but the vessel got stuck in the ice again here. On 9 September the wind blew from N and the vessel reached Noorajik Kangitteq (Kap Hope), where the ice was dispersed but was drifting strongly. On 10 September a lead formed from a point 2 M S of Noorajik Kangitteq (Kap Hope) to approximately the middle of the fjord. The vessel passed through this lead and reached open water at midnight on 11 September. There was an almost unbroken tongue of drift ice in an ENE direction from Kangikajik (Kap Brewster).

6.1.1.4 Current

The current is caused by the tide and the discharge of melt water. It can be noticed from early-August until early-October and is strongest in the first half of September.

6.2 Approaches and navigation of waterways (fjords), towns and settlements etc.

The coastline between Kangikajik (Kap Brewster) and Kap Simpson contains Kangertittivaq (Scoresby Sund) the large mountain complex that lies W and NW of the entrance to Kangertittivaq (Scoresby Sund). Liverpool Land is also indented by a number of large and small bays and fjords. There are some large fjords between the N part of Liverpool Land and Kap Simpson, as well as Davy Sund, which is the entrance to Kangerluk Kong Oscar.
The fjords and bays within the areas covered by chapter 6 are described in sections 6.2.1, 6.2.2 and 6.2.3.

6.2.1 Fjords and bays in the Kangertittivaq (Scoresby Sund) area

6.2.2 Fjords and bays in the E part of Liverpool Land

6.2.3 Fjords and bays in the N part of Liverpool Land

6.2.1 Fjords and bays in the Kangertittivaq (Scoresby Sund) area

6.2.1.1 Kangertittivaq (Scoresby Sund) 70º17'N 021º50'W

6.2.1.1.1 Landmarks

Kangertittivaq (Scoresby Sund) continues in an extensive fjord complex that stretches 150-160 M W and NW from the fjord entrance between Kangikajik (Kap Brewster) and Nuua (Kap Swainson). This fjord complex has several fjord arms and from its entrance, Kangertittivaq (Scoresby Sund) extends with a width of 20 M, 68 M WNW to Kap Leslie, which is the SE point of Ilimananngip Nunaa (Milne Land). Here the waters divide into a SW and a NW branch.

The SW branch extends 25 M SW, where it divides again into Nertiit Kangersivat (Gåsefjord) and Ujuaakajiip Kangertiva (Fønfjord). The NW branch is Hall Bredning, which extends 40 M NNW, where it then splits into Østfjord and Kangersik Kiatteq (Nordvestfjord), each of which has a number of fjord arms.

The coast along Kangertittivaq (Scoresby Sund) is mostly steep and inaccessible and most of

the land that surrounds the area is mountainous, with many peaks that rise to a height of up to 1,985 m. The W part of the area consists of a number of small and large islands that are separated by narrow channels, from where small fjord arms extend into the inland ice.

Kangertittivaq (Scoresby Sund) S and W coast.

The S coast of Kangertittivaq (Scoresby Sund) consists of a high section of basalt that rises steeply up from the fjord for a stretch of 60 M, from Kangikajik (Kap Brewster) to Kangikajik (Kap Stevenson). The mountain walls facing Kangertittivaq (Scoresby Sund) are generally 600-900 m high, and on the many horizontal shelves of the basalt wall, the snow lies as white stripes on the dark, violet mountain. Above the mountain side there are plateaus with glaciers and snow and these glaciers protrude through gorges or over the mountain sides into the fjord. It is only possible to land at a few places along this coast, e.g. a little W of Kangikajik (Kap Brewster).

Kangikajik (Kap Brewster) 70º09'N 022º03'W. The outer part of Savoia Halvø consists of a rather even plateau, 300 m high, with a lower, plateau-shaped spur into the sea. The mountainside towards Kangertittivaq (Scoresby Sund) is steep and unclimbable almost everywhere, but the slope towards the SE is less steep. There is a deep subsidence across the plateau in a NW-SW direction. On each side of the subsidence the plateau has 3 large, cone-shaped mountains.

Kangikajik (Kap Stevenson) 70º25'N 025º12'W rises to a height of 950 m.

Kap Leslie 70º39'N 025º18'W lies 15 M N of Kangikajik (Kap Stevenson). The entrance to the S branch of Kangertittivaq (Scoresby Sund) lies between these two promontories. This branch of Kangertittivaq (Scoresby Sund) extends 29 M WSW to the E point of Gåseland. There are not many glaciers on the steep mountain face that forms the coast SW of Kangikajik (Kap Stevenson). There are several ridges and peaks here, but not so many plateaus, and the coast begins to be a little more indented by valleys, most of which contain glaciers. The large Syd Bræ lies 25 M SW of Kangikajik (Kap Stevenson). It has a calving edge several miles long.

Gåseland is a peninsula that extends 45 M E. The peninsula borders Nertiit Kangersivat (Gåsefjord) on the S side, and Ujuaakajiip Kangertiva (Fønfjord) on the N side. The peninsula's ice-covered interior rises to a maximum height of 1,951 m.

Ujuaakajiip Nunaa (Danmark Ø) 70º30'N 026º15'W lies at the entrance to Ujuaakajiip Kangertiva (Fønfjord). The island has its highest point, 300 m, in the W and NW and from here the land descends towards the E and SE, where it becomes flat with heights of up to 60 m. The island's S coast is very steep on its W part, but to the E the land is low and the coast is indented. One of these indentations forms Hekla Havn. See section 6.3.

Ilimananngip Nunaa (Milne Land) is a large island, which borders Kangertittivaq (Scoresby Sund), Rensund, Ujuaakajiip Kangertiva (Fønfjord) to the S, and borders Vestfjord, Rødefjord, Snesund, Øfjord to the W and Hall Bredning to the E. The interior of the island rises to a height of 2,103 m and is covered by an ice cap, from where many glaciers extend towards the sea. Mudderbugt lies on the S side of Ilimananngip Nunaa (Milne Land), see section 6.3, where a 1-1.5 M long sand spit extends from the coast. A number of streams discharge into the innermost part of the bay, carrying clay and sludge. The streams come from some sandstone layers that extend N towards the sandstone mountains. The coast

E of Mudderbugt has no indentations and along this straight coast there is shallow water and no harbours or anchorages. At Kap Leslie the coastline turns N and consists of a more steep cliff with a low, wide foreshore. The cliff has grooves carved by the streams from melt water during the spring. There are two large bays on the coast between Kap Leslie and Bregnepynt, both of which have glaciers in their innermost part, which do not reach the sea. Bregnepynt lies N of the two bays mentioned above and the coastline here turns NW, S of Nannut Qeqertaat (Bjørneøer). There are a couple of large glaciers NW of Bregnepynt that reach down to the water, but they are not very productive.
Nannut Qeqertaat (Bjørneøer) 71º05'N 025º30'W lie NE of Ilimananngip Nunaa (Milne Land) at the entrance to Ikaasakajik (Øfjord). They are a group of islands with peaks, jagged mountains and separated by several narrow sounds. The islands fall abruptly to the sea and there are large depths quite close to the islands. There are 11 islands in the group of islands, some of which are low and flat with rounded shapes, while others are steep with jagged, rocky ridges. A number of the islands are very indented and generally rise to heights of 150-180 m, but above this height there are some characteristically shaped sharp ridges and peaks that rise to heights of 360-460 m
2 M E of Nannut Qeqertaat (Bjørneøer) there are two islands, 2-3 m high, 250 m long and 100 m wide.
Tuttut Nunaat (Renland) is the peninsula N of Ilimananngip Nunaa (Milne Land), from which it is separated at Ikaasakajik (Øfjord). On the N side, the peninsula borders Kangersik Kiatteq (Nordvestfjord), which is a continuation of Hall Bredning. The mountains on the peninsula are high and steep with pointed peaks and ridges. The coastal areas rise steeply from the sea and between the rugged mountains there are deep gorges, between which glaciers protrude towards the sea to the surrounding fjords.

Kangertittivaq (Scoresby Sund) N and E coast.

The N coast of Kangertittivaq (Scoresby Sund) between Nuua (Kap Swainson) and Noorajik Kangitteq (Kap Hope), which lies 14 M W, is formed by the S part of Liverpool Land. Between Nuua (Kap Swainson) and Uunartip Nuua (Kap Tobin) there are two small bays of which the furthest E and largest is called Kangertivatsiaakajik (Hartz Vig). The bay to the W is not named. There are some hot springs in the innermost part of Kangertivatsiaakajik (Hartz Vig).
Uunartip Nuua (Kap Tobin) 70º24.5'N 021º58'W is the southernmost point of Liverpool Land.
Uunarteq (Kap Tobin) is the name of the settlement (abandoned), which lies 1 M WNW of Uunartip Nuua (Kap Tobin). See section 6.3.
Uunarteq is the name of the peninsula on which Uunarteq (Kap Tobin) lies.
Rosenvinge Bugt 70º27'N 022º07'W, see section 6.2.
Ittoqqortoormiit Kimmut Kangertivat (Amdrup Havn) is the bay SE of the town of Illoqqortoormiut (Scoresbysund), and there is a previously used anchorage here. See section 6.3.
Illoqqortoormiut (Scoresbysund), see section 6.3, is the northernmost town in East Greenland, as there are no other inhabited areas N of Illoqqortoormiut (Scoresbysund) except for Mesters Vig, Ella Ø, Daneborg, Danmarkshavn and Station Nord.
Noorajik Kangitteq (Kap Hope) 70º28'N 022º25'W is a relatively low point. E of this lies the settlement (abandoned) of Ittaajimmiut/Igterajivit (Kap Hope), see section 6.3.

Innakajik (Kap Stewart) 70º27'N 022º38'W lies 5 M W of Noorajik Kangitteq (Kap Hope) and has a different structure and appearance than the other coastal areas nearby. There is a low sandy beach close to the point and there used to be a settlement, Ittorisseq, 1 M N of Innakajik (Kap Stewart). The entrance to Kangerterajiva (Hurry Inlet) lies between Noorajik Kangitteq (Kap Hope) and Innakajik (Kap Stewart).
Jameson Land is the extended area of land between Kangerterajiva (Hurry Inlet) and Hall Bredning. To the E, the land consists of an elevated section, whose main direction is N-S and which fills out the E part of the area towards Kangerterajiva (Hurry Inlet) and Kangerterajittap Ilinnera (Klitdal). From here, the land slopes evenly to the W. The highland to the E is quite narrow at Innakajik (Kap Stewart), but the width increases further N. The S and W coasts have numerous streams that discharge into Kangertittivaq (Scoresby Sund) and Hall Bredning, and the land is low and undulating. N along the W coast of Jameson Land, the land area increases somewhat in height. The streams that discharge into Kangertittivaq (Scoresby Sund) are almost all insignificant, but there are many of them. Where they penetrate the low bluff near the coast, the streams carry out this bluff and the slender streams have formed fan-shaped sloping planes here, over which the water spreads out and almost completely disappears. A couple of the largest streams have very wide entrances, almost like small coves with shallow water.
At Vandreblokken, it can be seen at low tide that a spit extends out into the water on both sides of the block off each stream. Outside and between these spits, the water is so shallow that a boat with a draught of 0.5 m cannot get to within 300 m of the coast. At high tide, the spits are covered and appear only as mild protrusions on the coastline.
Along the SW coast of Jameson Land, the shallow water extends 0.5-1.0 M out and its outermost part has a depth of 1-2 m. From here, the depth increases rapidly. From Nordostbugt to a few M from Innakajik (Kap Stewart), this shallow water is often "marked" by grounded icebergs. The SW part of Jameson Land consists of low, 30-50 m high slopes of sand, clay and gravel and outside these there is a low foreshore with firm sand of various widths. The N part of the W side of Jameson Land is traversed by large and long streams that flow out through the coastal slopes and deposit large banks of clay and sand outside their mouths. The shallow water here extends far from the coast and it is impossible to get within 1 M of the coast, even with a small boat.
Kap Hooker 70º27'N 023º17'W is the SW point of Jameson Land and is not an actual cape, since the coast is low and flat and rounded off so evenly that it is difficult to find Kap Hooker.
Scoresby Land is the land area that lies NW of Jameson Land between the N part of Hall Bredning and Kangerluk Kong Oscar.

6.2.1.1.2 Depths

The depths in the entrance to Kangertittivaq (Scoresby Sund) are large everywhere and it is generally free of dangers if an appropriate distance is maintained from Nuua (Kap Swainson) and Kangikajik (Kap Brewster). The 100, 200 and 300 m contours lie close to each other at both Kangikajik (Kap Brewster) and Nuua (Kap Swainson). The known depths in the remaining area are indicated on the charts and in the information provided in the description of each fjord.

6.2.1.1.3 Ice

The Kangertittivaq (Scoresby Sund) fjord area is considered the most accessible area on the E coast of Greenland, because the drift ice here usually lies further out to sea than it does further S. It has long been believed that the drift ice was more dispersed between the parallels of latitude at 73ºN and 75ºN than any other place along N part of the E coast. It was therefore formerly assumed that the safest and fastest route for a vessel approaching from SE was to go to this latitude and then navigate through the ice from there, instead of trying further S. Now that the ice recognisance is made by satellite and is performed more regularly than before, it seems that vessels that approach Kangertittivaq (Scoresby Sund) from SE can normally steer directly towards the entrance or towards a point at 69º00'N 019º00'W, instead of sailing the much longer route towards N.

6.2.1.1.4 Local ice conditions

In Kangertittivaq (Scoresby Sund) and its fjord arms, leads with open water have been observed as early as February and the sea area outside the entrance to the fjord has been ice-free in May, but the conditions vary greatly from year to year. Normally the ice breaks in Kangertittivaq (Scoresby Sund) in mid-July and navigation is then possible in the last part of July as well as in August and September. The sound can be ice-free in September, but navigation after mid-September can be made difficult by strong storms. The least amount of ice usually occurs at the end of September, but there have been a few years where the fjord did not expel the winter ice. There are often large areas with open water outside the entrance to Kangertittivaq (Scoresby Sund) in August. New ice normally begins to form in the fjord arms at the end of August, and by the beginning of October the drift ice begins to arrive in the waters with the East Greenland Current, and this drift ice usually passes close off the fjord entrance and obstructs further navigation to Kangertittivaq (Scoresby Sund) for the next 9 months. There have been a few years where open water was observed outside the fjord entrance in October and even in November. The many active glaciers in the Kangertittivaq (Scoresby Sund) area, together with the winter ice, make navigation difficult.

6.2.1.1.5 Current and tide

There is a significant and regular tidal current in Kangertittivaq (Scoresby Sund), but it appears to only act as a surface current, since items of a shall draught are carried by the current, whereas icebergs with large draughts do not appear to be greatly affected by it. This shows that there are both surface and underwater currents in the sound.

6.2.1.2 Nertiit Kangersivat (Gåsefjord) 70º19'N 026º15'W

The fjord extends from the innermost part of Kangertittivaq (Scoresby Sund) 50 M towards WSW. The fjord is surrounded on both sides by quite steep mountains that consist of gneiss overlain with basalt. The basalt lies considerably lower on the S side of the fjord than on the N side. Some distance inside the fjord, a large stream flows out on the N side and this stream carries a great deal of clay with it, which colours the water red in a large area. The clay is deposited and forms a bank, which protrudes far into the fjord.

6.2.1.2.1 Depths

The depths in Nertiit Kangersivat (Gåsefjord) have not been surveyed, so caution is advised.

6.2.1.2.2 Ice

There are always a large number of icebergs in Nertiit Kangersivat (Gåsefjord) from the glaciers on the S side of the fjord. The glacier in the innermost part of the fjord appears to be retreating and has not discharged icebergs for a long time.

6.2.1.3 Ujuaakajiip Kangertiva (Fønfjord) 70º25'N 026º13'W

The fjord is rather narrow and separates Ilimananngip Nunaa (Milne Land) from Nertiit Kangersivat (Gåsefjord). The fjord extends 35 M W and then turns 8 M N and ends in Rødefjord and Vestfjord. The coasts of both fjords are steep and have sheer mountain slopes that consist of gneiss with a layer of basalt above and firn fields and ice fields on top. On the N side of the fjord there are a couple of extensive valleys that go up into Ilimananngip Nunaa (Milne Land) roughly at a right angle to the longitudinal direction of the fjord. Where Ujuaakajiip Kangertiva (Fønfjord) turns to the N, there is a large basin where there is a small island, Røde Ø, which has a strong reddish colour and rises to a height of 120 m.

6.2.1.3.1 Depths

The depth in the middle of the fjord is everywhere more than 300 m, but the fjord is not surveyed, so great caution is advised. There are probably no anchorages.

6.2.1.3.2 Ice

The ice can be quite dispersed in the middle of the fjord, but under Renodde, which is the point between Vestfjord and Ujuaakajiip Kangertiva (Fønfjord), the current can pack the ice close to the coast.

6.2.1.3.3 Navigation

Can normally take place when the ice in the fjords is drifting.

6.2.1.4 Rensund 70º31'N 026º05'W

The sound lies between Ujuaakajiip Nunaa (Danmark Ø) and Ilimananngip Nunaa (Milne Land). The sound is 10 M long and rather narrow. The coast on the N side of Rensund is quite high and steep but, like the rest of the land, becomes lower and flatter towards the E.

6.2.1.4.1 Depths

The sound is deep enough mid-channel that even large icebergs can pass through it, but otherwise the depth conditions have not been surveyed in detail. In the W part of the sound, the depths are a little less and there are usually many icebergs grounded at the points of the W side of the sound.

6.2.1.5 Vestfjord 70º32'N 028º20'W

The fjord extends 20 M WSW from Kobberpynt, which lies NW of the basin in the NW part of Ujuaakajiip Kangertiva (Fønfjord). Renodde is the point at the entrance to the S side of the fjord and is formed by a small peninsula with rounded tops that rise to heights of 60-90 m, and it is connected to the mainland by a rather low and narrow isthmus. The coasts on both side of the fjord are steep and inaccessible and in its innermost part there are two glaciers, the largest of which comes from SW and the smallest from NW. The edge of the smallest

glacier is 18-30 m high. The mountain peaks at the innermost part of the fjord rise to heights of 2,100-2,400 m. Further W there are some nunataks and behind these, the ice cap itself.

6.2.1.5.1 Depths

The fjord has not been surveyed, but the depths are probably large mid-channel. Great caution is advised.

6.2.1.5.2 Ice

As already mentioned, there are two glaciers in the innermost part of the fjord and many icebergs originate here. They are often gathered on the N side of the fjord in the bay at Flade Pynt. There is normally some open water in the fjord in mid-May.

6.2.1.6 Rødefjord 70º32'N 028º12'W

This fjord connects Vestfjord and Ujuaakajiip Kangertiva (Fønfjord) with Ikaasakajik (Øfjord) and is 22 M long.

Langenæs extends out to the SW part of Rødefjord and is the E end of the long, narrow stretch of land that separates Vestfjord from Rolige Bræ. On the W side of Rødefjord, the mountains recede somewhat from the coast and give room for a sloping foreshore, which is cut through in two places by large streams from the ice cap. The furthest N of these streams is the largest and forms a large clay bank outside its mouth. Sorte Ø and Storø are located on the E side of the fjord.

6.2.1.6.1 Depths

The depths have not been adequately surveyed but the depths are probably large E of the fjord's mid-channel line. A vessel reported (2005) a depth of 21 m at 70º31.9'N 028º11.7'W.

6.2.1.6.2 Ice

There is usually open water in the fjord in mid-May.

6.2.1.7 Harefjord 70º55'N 027º50'W

The entrance to the fjord lies NW of Kaasarip Nasaa (Storø) and extends 12 M W, where two glaciers discharge into its innermost part. The almost closed inner part of the fjord has steep mountain walls, glaciers and icebergs. Behind the glaciers there are mountains and further W is the ice cap. C. Hofmann Halvø lies on the N side of Harefjord and here there is a reddish mountain section that slopes evenly down towards the fjord and ends in a 3 m high slope.

6.2.1.7.1 Depths

The depths are not adequately surveyed but it is probably deep everywhere mid-channel in this fjord.

6.2.1.7.2 Ice

The glaciers in the innermost part of the fjord are probably not very productive, but there are always some icebergs in this part of the fjord.

6.2.1.8 Aqissip Kangertiva (Rypefjord) 70º56'N 027º35'W

The fjord extends 14 M NNW from its entrance. The E side of the fjord and the N part of the W side consists of gneiss, while the middle part of the W side is a reddish rock like Røde Ø. S of this region, the W side of the fjord borders the low SE point of C. Hofmann Halvø, and in its innermost part, Aqissip Kangertiva (Rypefjord) ends at Eielson Gletscher, which is a calm glacier.

6.2.1.8.1 Depths

The depths are not adequately surveyed but it is probably deep mid-channel in the fjord.

6.2.1.8.2 Ice

Eielson Gletscher ends in the innermost part of the fjord, but there are rarely many icebergs.

6.2.1.9 Snesund 70º44'N 027º36'W

The sound is 20 M long and connects Rødefjord with Ikaasakajik (Øfjord) E of Sorte Ø and Kaasarip Nasaa (Storø). The coast on the W side of Ilimananngip Nunaa (Milne Land) as well as Sorte Ø and Kaasarip Nasaa (Storø) consist of gneiss mountains. The two islands are relatively low, but on the E side of Snesund, Ilimananngip Nunaa (Milne Land) is an immense alpine landscape with high, jagged mountain crests, sharp peaks and deep gorges. Everywhere on the highest mountain plateaus there is a glacier cap, and 6 large glaciers reach all the way down to the sea, while a number of smaller glaciers hang in the gorges.

6.2.1.9.1 Depths

The depths are unknown, but are assumed to be deep mid-channel in Snesund.

6.2.1.9.2 Ice

The ice conditions are unknown.

6.2.1.10 Ikaasakajik (Øfjord) 71º14'N 025º25'W

The fjord is 50 M long. The land on both sides of the fjord is mountainous and rises relatively steeply up to the inner part of Tuttut Nunaat (Renland) and Ilimananngip Nunaa (Milne Land) respectively. Both Tuttut Nunaat (Renland) and Ilimananngip Nunaa (Milne Land) have ice caps.

6.2.1.10.1 Depths

The depth in the middle part of the fjord is relatively deep, between 500 and 1,000 m.

6.2.1.10.2 Ice

There is normally open water in the fjord in mid-May, but there are icebergs that should be passed at a distance of at least 1 M because in the summer they can suddenly break up and spread rapidly over a large area.

6.2.1.11 Kangersik Kiatteq (Nordvestfjord) 71º16'N 025º15'W

The fjord is a continuation of Hall Bredning and borders to the S with Tuttut Nunaat (Renland), Hinks Land and Charcot Land. To the N, it borders Scoresby Land and Nathorst

Land. The fjord extends 75 M NNW from Suuninnguaa (Sydkap), which the NE entrance point. Both sides of the fjord are bordered by almost vertical mountains, which rise to a height of 1,980 m at their highest point.

6.2.1.11.1 Depths
The fjord is very deep and depths of up to 1,459 m have been observed. It is deep everywhere mid-channel throughout the length of the fjord.

6.2.1.11.2 Ice
In the innermost part of the fjord, a couple of glaciers protrude on each side of Charcot Land. The NW glacier is called F. Graae Gletscher, and the SW glacier is called Daugaard-Jensen Gletscher. The inner 25 M are normally filled with ice and should not be navigated with small vessels.

6.2.1.12 Immikkeertaata Kangertiva (Nordbugten) 71º34'N 026º25'W
The bay is a small cove on the N side of Kangersik Kiatteq (Nordvestfjord). The bay extends 4 M N and is surrounded by steep mountains. Its N part ends in a stream mouth and there is an anchorage S of this.

6.2.1.13 Flyverfjord 71º37'N 027º20'W
The fjord is a fjord arm that extends 20 M W from Kangersik Kiatteq (Nordvestfjord).

6.2.1.13.1 Depths
The depths are unknown, but it is assumed to be deep mid-channel.

6.2.1.13.2 Ice
The 10 M furthest in are normally filled with icebergs.

6.2.1.14 Hall Bredning 70º39'N 024º40'W
The basin is the N arm of Kangertittivaq (Scoresby Sund) and its entrance lies between Kap Leslie on Ilimananngip Nunaa (Milne Land) and the SW point of Jameson Land. From Kap Leslie, the basin extends NNW for a distance of 40 M to Suuninnguaa (Sydkap) in its N part. Kangerterajiva (Nordostbugt) lies in the NE part of Hall Bredning and towards the NW there is the entrance to Kangersik Kiatteq (Nordvestfjord) and Ikaasakajik (Øfjord). The islands Nannut Qeqertaat (Bjørneøer) lie off Ikaasakajik (Øfjord). Hall Bredning has a width of 20 M.

6.2.1.14.1 Depths
The depth is large everywhere mid-channel, but along the W side of Jameson Land, the shallow water extends 1-6 M out from the coast and then falls off steeply. In the SE part, the shallow water lies 0.5-1 M from the coast, but further N the shallow water becomes wider and off the mouths of the streams in the NE part of Hall Bredning, there is shallow water 6 M out from the coast.

6.2.1.14.2 Ice

From Kangerterajiva (Nordostbugt) to within a few M from Innakajik (Kap Stewart), it is sometimes possible to see the shallow water ”marked” by stranded icebergs, and smaller vessels have sometimes found an open passage between these and the shallow water. There are usually stranded icebergs in Kangerterajiva (Nordostbugt), and winter ice begins to form in early-October, when there is usually some ice in the small coves and indentions along the coast.

6.2.1.14.3 Suuninnguaa (Sydkap) 71º17’N 025º03’W

This is the S point of Scoresby Land and there was once a settlement here. There are 2 houses NE of the point.

Approach to Suuninnguaa (Sydkap)

From the area at the entrance to Kangertittivaq (Scoresby Sund), keep 5 M S of Innakajik (Kap Stewart), and from here it is possible, at a distance of 5 M from the coast of Jameson Land, to steer W and NW until mid-channel off Charcot Havn, from where it is possible to steer towards Suuninnguaa (Sydkap).

6.2.1.14.4 Kangerterajiva (Nordostbugt) 71º17’N 024º48’W

The bay is the NE part of Hall Bredning, and its innermost part ends at the entrance to the wide Schuchert Flod. There are some islands in the W part of the bay. The island furthest N is 121 m high and easily recognisable. Gurreholm is a hunting station, which lies on the E side of the bay, 11 M E from Suuninnguaa (Sydkap), and the station can be approached from a position NE of Nannut Qeqertaat (Bjørneøer).

6.2.1.15 Kangerterajiva (Hurry Inlet) 70º27’N 022º31’W

The fjord, whose entrance lies between Noorajik Kangitteq (Kap Hope) and Innakajik (Kap Stewart), extends 23 M N to the stream bed at the mouth of Ryder Elv, the largest stream in the Kangertittivaq (Scoresby Sund) area. Most of the streams on both the E and W side are small and almost all of them have transported considerable quantities of sand and gravel and formed small spits. They make their way through this to the fjord via a small delta. These streams drain the local glaciers. The spits are partly submerged at high tide. Ryder Elv has a large volume of water in the first half of August. However, the current is calm and the water depth is low.

The E side of Kangerterajiva (Hurry Inlet) has a coast that rises evenly and slowly toward the high part of Liverpool Land, and the coast has 4 rather marked valleys that extend in a W-E direction. Unusual heat has been noticed during the summer in Kangerterajiva (Hurry Inlet), which then causes peat and grass to become highly combustible.

The S part of the W side of Kangerterajiva (Hurry Inlet) is formed by high, steeply rising cliffs of limestone, sandstone and basalt and has a light brown colour. These cliffs are called Neill Klinter. At the foot of Neill Klinter there is a low, flat strip of land where there used to be a settlement, and immediately S of Neill Klinter there are some 18-30 m high prismatic stone pillars. Nerlerit Inaat (Constable Pynt) is a prominent point that lies 17 M N of Innakajik (Kap Stewart) and close N off the N end of Neill Klinter.

At Nerlerit Inaat (Constable Pynt) there is a landing location.

Nathorst Fjeld lies 5 M N of Nerlerit Inaat (Constable Pynt), and the mountain rises to a height of 565 m. The islands Fame Øer lie approximately 3 M E of Nathorst Fjeld and 2 M from the innermost part of the fjord.
Ulveodde is a small protruding point in the NE part of the fjord and beacons have been used here to mark an anchorage, see section 6.3.
Kangerterajittap Ilinnera (Klitdal) is a 22 M long valley that connects Kangerterajiva (Hurry Inlet) with Kangerterajitta Itterterilaa (Carlsberg Fjord).

6.2.1.15.1 Depths

The depth mid-channel in Kangerterajiva (Hurry Inlet) is anywhere between 60 and 150 m, but it decreases steadily to the W. In calm weather, the bright, sandy bottom can be seen at a depth of 12-20 m. Between the two Fame Øer islands furthest NE, there is a stone reef at a depth of 2-4 m and the part of Kangerterajiva (Hurry Inlet) furthest N is very shallow. An ordinary dinghy cannot float in over the sand bank, which is partly dry at low tide.

6.2.1.15.2 Ice

There are no large icebergs in Kangerterajiva (Hurry Inlet) and it is normally possible to navigate into the fjord when the winter ice melts in late-July. Kangerterajiva (Hurry Inlet) is usually covered by new ice by the end of October. However, it has been observed on a number of occasions that, at the beginning of August, the fjord ice has remained almost unbroken in Hall Bredning, and Kangertittivaq (Scoresby Sund) was then blocked by ice to the E, while at the entrance to Kangerterajiva (Hurry Inlet) and in Ittoqqortoormiit Qinngerajivat (Hvalrosbugt), there seemed to be a dispersion of the ice, but outside of this spread ice there were apparently a solid, intact mass of ice with many icebergs. There has been old ice (Polar ice) on 10 August toward the S coast of Jameson Land, but there was shore lead of 1 M width. W of Kap Hooker there was open water and in Kangerterajiva (Hurry Inlet) no significance quantity of ice.

6.2.1.16 Rosenvinge Bugt 70º25'N 022º10'W

The bay, which is 5 M wide, cuts 5 M into Liverpool Land W of Illoqqortoormiut (Scoresbysund). In the NE part of the bay lies the town of Illoqqortoormiut (Scoresbysund), see section 6.3, and the innermost part of the bay is called Ittoqqortoormiit Qinngerajivat (Hvalrosbugt).

6.2.1.16.1 Depths

The 100 m contour goes 1.5 M S around Noorajik Kangitteq (Kap Hope), then 2 M along the N coast in Ittoqqortoormiit Qinngerajivat (Hvalrosbugt) and 0.5 M SW around Uunartip Nuua (Kap Tobin). There are anchorages in the bay S of Illoqqortoormiut (Scoresbysund). (See under Illoqqortoormiut (Scoresbysund) and Ittoqqortoormiit Kimmut Kangertivat (Amdrup Havn)).

6.2.1.16.2 Ice

The water depths in Ittoqqortoormiit Qinngerajivat (Hvalrosbugt) and Ittoqqortoormiit Kimmut Kangertivat (Amdrup Havn) are too small for large icebergs to enter, but drift ice from

Kangertittivaq (Scoresby Sund) often fills Rosenvinge Bugt. At flood tide, the ice is normally driven NW and in towards the coast of Jameson Land, and in the opposite direction at falling tide. The ice usually moves quickly and it should be monitored closely to avoid the risk of being brought ashore. It is possible to anchor in the NE part of Ittoqqortoormiit Qinngerajivat (Hvalrosbugt).

6.2.2 Named from the S, the fjords and bays on the E coast of Liverpool Land are as follows:

6.2.2.1 Spærrebugt
6.2.2.2 Kangertivatsiaakajik (Lillefjord)
6.2.2.3 Gletscher Bugt
6.2.2.4 Nuukajiit Akornganni Kangerterajik (Gabet)
6.2.2.5 Kolding Fjord
6.2.2.6 Vejle Fjord
6.2.2.7 Horsens Fjord
6.2.2.8 Isbrosund
6.2.2.9 Holloway Bugt
6.2.2.10 Hyttebugt
6.2.2.11 Tange Bugt
6.2.2.12 Randers Fjord
6.2.2.13 Mariager Fjord
6.2.2.14 Kangertivit Anginersaat (Storefjord)
6.2.2.15 Slien
6.2.2.16 Tværsund
6.2.2.17 Campbell Sund
6.2.2.18 Neild Bugt

The landmarks are the peaks in Liverpool Land and the islands and points along the E coast of Liverpool Land that are mentioned in section 6.1, see the views of the land.

6.2.2.01 Navigation

This area is not usually navigated except for the purpose of transiting the coast. See section 6.1. The depths in the fjords are unknown.

6.2.2.02 Ice

It has been observed in mid-July that the winter ice has remained from Trail Ø along the coast of Liverpool Land and in a width of 6-8 M from the coast and with pronounced hummocking. On 1 August there can still be some fast ice between the islands.

6.2.2.14 Kangertivit Anginersaat (Storefjord) 71º06'N 021º42'W

This fjord extends 12 M WSW. 4 M inside the entrance, a fjord arm extends 3 M SSE and there is a short arm a little further inside that extends in a N direction. The entrance to the fjord is known by the two points, of which Kap Jones, 914 m, is the easiest to locate.

6.2.2.14.1 Depths

The depths are large everywhere mid-channel in the fjord. A bank with a minimum depth of 74 m extends 0.5 M from the coast to 4.5 M out NE of Kap Jones. The bottom is uneven, with peaks and rocks on this bank, and it should therefore be avoided.

6.2.2.14.2 Approach

Vessels that wish to approach from the S, should keep at least 5 M from the coast until the S entrance to the fjord is on a bearing of 270º, then keep to the middle of the entrance and mid-channel into the fjord. An American icebreaker that found large depths 7 M inside the fjord has navigated the fjord.

6.2.2.14.3 Ice
There are two glaciers that protrude out into the fjord's innermost part and there are almost always some smaller icebergs in the fjord.

6.2.3 The fjords and bays in the N part of Liverpool Land are as follows:

6.2.3.1 Kangerterajitta Itterterilaa (Carlsberg Fjord) 71º38'N 021º52'W

6.2.3.1.1 Landmarks
The entrance to the fjord lies between Kap Gladstone and Ilittiartiip Nuua (Kap Wardlaw) and it extends 26 M inland in a SW and S direction. In its innermost part it narrows somewhat and continues in Kangerterajittap Ilinnera (Klitdal) towards Kangerterajiva (Hurry Inlet). Immikkeertikajiit Martik (Reynold Ø) and Immikkeertikajiit Martik (Murray Ø) are easy to recognise. Both sides of the outer part of the fjord are very indented and there is a deep indentation on the S side between Kap Gladstone and Kap Greville, which lies 4 M further WSW. N of the entrance to the fjord, there is an indentation between Ilittiartiip Nuua (Kap Wardlaw) and Kap Allen, and an even larger indentation, Ålborg Fjord, between Kap Allen and Kap Fletcher. A stream flows out into the fjord through a delta 12 M SW of Kap Fletcher. The W side of the fjord is comprised of rather uniform ridges, which are often penetrated, however, by large and small valleys and gorges. On Canning Land, the massive mountains rise to heights of 600-700 m and the heights of the mountains increase steadily towards the S and reach a height of 1,000 m at the innermost part of the fjord. The extensive valleys between the mountain formations are often deep, and the bottoms of the valleys are often not much higher than sea level. The 1-1.5 M wide transition to Nathorst Fjord is rather low (only 8-10 m high) and flat. On the E side of the fjord, the land slopes in low hillocks, between which there are many small lakes southwards to Kangerterajittap Ilinnera (Klitdal). Many glaciers protrude out to the coast here.

6.2.3.1.2 Depths
The depths are great everywhere mid-channel in the fjord, but in the innermost part, at a distance of 3 M from the coast, a depth of 46 m has been found. A small bank with a minimum depth of 52 m lies in the entrance to the fjord, 3.5 M N of Immikkeertikajiit Martik (Murray Ø). There may be dangerous rocks on this bank and the area should be avoided, as the depths are very varied. There is a rock 2 M from the fjord's innermost part and 1 M S of the indicated depth of 46 m.

6.2.3.1.3 Ice
The fjord has been observed to be ice-free in early-September, with the exception of a few icebergs, but otherwise it is frozen for most of the year. There can be some swell inside the fjord when the drift ice has moved out to sea. A NE wind is quite common on this coast.

6.2.3.1.4 Approach
The fjord is probably best approached from a position of 3 M E of Ilittiartiip Nuua (Kap Wardlaw). From here, steer towards a point 3 M E of Kap Fletcher.

6.2.3.2 Ålborg Fjord 71º39'N 022º05'W

6.2.3.3 Århus Bugt 71º44'N 022º06'W

6.2.3.4 Nathorst Fjord 71º47'N 022º19'W

6.2.3.4.1 Landmarks
The entrance to the fjord lies between the N point of Canning Land and Kap Brown. Nathorst Fjord extends 13 M in a SSW direction. It is 2 M wide at the entrance, but increases to twice that width a little further in. Immikkeertaa (Depot Ø) can be found here in the SE part. It is a small, flat island with a maximum height of 20 m.

6.2.3.4.2 Depths
There is no depth information available, but the fjord is known to have been navigated once. A single sounding in the fjord's outer part, 3 M SSE of Kap Brown, indicated 250 m of water. There is an area NE of the entrance to the fjord mouth where there is reported to be rocks, but the positions are uncertain, so the N point of Canning Land should not be approached closer than within 4 M. The rocks are stated to lie 3 M NNE and 1.8 M N of Kap Tyrrell.

6.2.3.4.3 Ice
The fjord is frozen over for most of the year, but in August it is somewhat ice-free. Refer to section 6.3 regarding anchorage.

6.2.3.5 Fleming Fjord 71º51'N 022º27'W

6.2.3.5.1 Landmarks
The entrance to the fjord lies between Kap Brown and Kap Biot and both of these points are easily recognisable by their steep and prominent location. A bay indents Scoresby Land SW of Kap Biot. S of this bay, the width of the fjord narrows to 3M. The fjord is 17 M long and it extends in a SSW-NNE direction. On the NW side of the fjord, S of the bay, the wide and flat Ørsted Dal valley, where a large stream flows out into the fjord through immense sandy plains, breaks the uniform mountainsides. The mountains on the SE side of the fjord, on Wegener Halvø, rise to a height of 1,000 m and are intersected by deep valleys. At the fjord's innermost part, there is a low section from which a large valley leads up into the landscape, and to the SE lies Pingel Dal with a stream that flows out between vertical cliffs that are 10-15 m high. Otherwise, the mountains rise steeply from the sea on both sides of the fjord and, in many places, they end in pyramid shaped peaks that rise to great heights. The highest point rises to a height of 1,064 m and lies 10 M SSW of the entrance to the fjord. There are a number of hunting stations on the coast of Fleming Fjord.

6.2.3.5.2 Depths
The depths in mid-channel in Fleming Fjord are quite large and only decrease in the innermost part of the fjord. Outside Ørsted Dal, the shallow water probably extends quite far out, since it is possible to see growlers grounded here.

6.2.3.5.3 Ice
The fjord is filled with ice most of the year, but in August the conditions are somewhat better. A light tidal current, presumed to be 1.5 kn, is observed in August.

6.2.3.5.4 Approach
It is probably safest to approach a point 3 M SE of Kap Biot and then steer mid-channel into the fjord. Avoid the foul area N of Canning Land, as well as keeping well clear of the shoal outside Ørsted Dal.

6.2.3.5.5 Anchorages see section 6.3.

6.2.3.6 Davy Sund 72º01'N 022º22'W
The entrance to Davy Sund lies between Kap Biot and Kap Simpson. It is the furthest S of the entrances to the large fjord complexes Kangerluk Kong Oscar and Kangerluk Kejser Franz Joseph. Davy Sund extends 12 M to the NNW to Antarctic Havn, where the sound continues in Kangerluk Kong Oscar, see chapter 7.

6.3 Harbours and anchorages (areas with sheltered waters).
Harbours and anchorages
6.3.1 In Kangertittivaq (Scoresby Sund)
6.3.2 Along the E coast of Liverpool Land
6.3.3 Along the N coast of Liverpool Land
6.3.4 In the fjords W of Kangertittivaq (Scoresby Sund)

6.3.1 In Kangertittivaq (Scoresby Sund)

6.3.1.1 Illoqqortoormiut (Scoresbysund) 70º28'N 021º58'W, charts 2600 and 2650

6.3.1.2 Uunarteq (Kap Tobin) 70º24.5'N 021º58.0'W, charts 2600 and 2650

6.3.1.3 Ittaajimmiut / Igterajivit (Kap Hope) 70º27.5'N 022º22'W, chart 2600

6.3.1.4 Ittoqqortoormiit Qinngerajivat (Hvalrosbugt) 70º29'N 022º05'W, chart 2600
In Ittoqqortoormiit Qinngerajivat (Hvalrosbugt), the 10 m depth contour runs approximately parallel with the coast at a distance of 250-500 m from land. In the E part of the bay, the 10 m depth contour lies closest to the land and between Illoqqortoormiut (Scoresbysund) and the former weather station at the bay's NE part, the depth is over 10 m at a distance of 50 m from the coast. The 100 m depth contour extends from 1.5 M SW of Illoqqortoormiut (Scoresbysund) in a WSW direction to 2 M SE of Basaltnæs. Off Basaltnæs, a sand bank extends with a depth of 10 m for 2 M to the SE. Outside 10 m depth contour, the bay is free of dangers, but with somewhat varying depths and with the shallowest depths in the NW part, where there is a sandy bottom.

6.3.1.4.1 Approach
See under approach to Illoqqortoormiut (Scoresbysund). From 0.5 M SW of Illoqqortoormiut (Scoresbysund), it is possible to steer towards the anchorage at a distance of 0.5 M from land.

6.3.1.4.2 Anchorage
In Ittoqqortoormiit Qinngerajivat (Hvalrosbugt), large vessels can anchor in the NE part in 40 m of water 0.5 M from land in position 70º29.2'N 022º00'W, and smaller vessels can anchor in 20 m of water, 500 m from land NNE from the position mentioned above. The anchor hold is good.

6.3.1.4.3 Ice
Larger vessels from early-July to late-September can use the anchorage, since the winter ice normally breaks up in early-July.
If the conditions at Illoqqortoormiut (Scoresbysund) are difficult, Ittoqqortoormiit Qinngerajivat (Hvalrosbugt) can be used as an anchorage.

6.3.1.5 Ittoqqortoormiit Kimmut Kangertivat (Amdrup Havn) 70º28'N 021º58'W, charts 2600 and 2650

6.3.1.5.1 Approach
See under approach to Illoqqortoormiut (Scoresbysund). A bank with 12 m of water lies close W of the entrance to Ittoqqortoormiit Kimmut Kangertivat (Amdrup Havn). There is a rock in the S part of the bay, over which the depth is 5 m.

6.3.1.5.2 Anchorage and mooring
Ittoqqortoormiit Kimmut Kangertivat (Amdrup Havn) is a good anchorage for smaller vessels, but the anchor hold is not good because it consists mostly of rocky ground. There is no protection from drift ice while anchoring because there is a strong current along the coast of the S part of Liverpool Land. This current brings drift ice into Ittoqqortoormiit Kimmut Kangertivat (Amdrup Havn) and further out again past Illoqqortoormiut (Scoresbysund), out into Rosenvinge Bugt and over towards Noorajik Kangitteq (Kap Hope).

6.3.1.5.3 Ice
It is normally possible to get into Ittoqqortoormiit Kimmut Kangertivat (Amdrup Havn) from early-July until the end of September. Due to the shallow water, large icebergs cannot get into the harbour, but it is often blocked by drift ice and smaller growlers. N winds can blow down from the mountains with hurricane strength.
Fox Havn 70º27'N 021º56'W is a small cove S of Ittoqqortoormiit Kimmut Kangertivat (Amdrup Havn). Small vessels can find shelter from the ice here. The harbour must be approached from the S side of the entrance, as there are rocks on the N side.

6.3.1.6 Hekla Havn 70º27'N 026º15'W
The harbour lies on the SE side of Ujuaakajiip Nunaa (Danmark Ø) and is a small bay, which

is formed by two low, protruding tongues of land. The mountains on the W side of the harbour rise steeply, but on the N side there are a couple of small bays, of which the furthest E and largest is rather shallow. There are slopes in the innermost parts of these bays through which small watercourses flow and where there is some vegetation.

6.3.1.6.1 Anchorage and mooring

It is possible to anchor in the harbour, where the deepest depth is 15 m and the type of bottom is clay everywhere. The entrance between the two tongues of land that form the entrance is 200 m wide, but there is a small rocky reef in the E part and the depth here is 3.5 m. The depth increases a little further W to 13 m. Outside the entrance to the harbour, the depth increases quickly to more than 40 m.

6.3.1.6.2 Ice

The ice in the harbour begins to break up at the end of July and there can be open water in early-August. The harbour begins to be ice covered in early-October.
The harbour has been used by an expedition and the buildings were on the E side of the harbour. Ruins of old Eskimo winter huts have been found on a flat vegetated slope on the W side of the harbour. There is another small bay 2.5 M NE of Hekla Havn and it is also possible to anchor here 0.5 M from the bay's innermost part, where the water depth is 38 m. Nordisk Mineselskab and others now use the harbour.

6.3.1.7 Mudderbugt 70º35'N 025º50'W

The bay lies on the S side of Ilimananngip Nunaa (Milne Land), 8 M NE of Hekla Havn. There are also opportunities to anchor here, but the bay has rather low depths with a clayey and sandy bottom. The widths are low and the bay ends in a flat plain. There are often many icebergs grounded outside Mudderbugt. There is an underwater rock between Mudderbugt and Hekla Havn, but the exact position is unknown.

6.3.1.8 Charcot Havn 70º48'N 025º20'W

The bay lies on the E side of Ilimananngip Nunaa (Milne Land), 8 M NE of Kap Leslie. It is possible to anchor here on the S side of the bay between the actual entrance and 0.5 M inside. The rest of the bay is not good for anchorage due to icebergs.

6.3.1.9 Fame Øer 70º50'N 022º30'W

The islands lie in the N part of Kangerterajiva (Hurry Inlet), and there are several anchorage options at these islands. Anchorages are reported at the following positions:

6.3.1.9.1

Nathorst Fjeld on a bearing of 334º and S of Fame Øer on a bearing of 056º. The depth here is 40 m and the type of bottom is soft mud. This anchorage is exposed to the wind, which almost always blows along the fjord.

6.3.1.9.2

E of the two southernmost Fame Øer. This anchorage is approached from W between the

two islands, where the depth is 23 m, but passage between the other islands is impossible due to the many rocks.

6.3.1.9.3

N of Fame Øer 70º51'N 022º29'W, where it is reported as the intersection between two sets of anchorage mark beacons, one set of which is on Ulveodde and the other set 1 M further SE. The two sets of anchorage mark beacons should be in line on a bearing of 040º and 105º respectively.

6.3.1.10 Vandreblokken 70º40'N 024º05'W

It is possible to anchor off the mouth of a stream at Vandreblokken NW of Kap Hooker. The location is not known exactly, but there is a report of anchoring in 25 m of water, good anchor hold with sand and steadily decreasing depths towards the coast.

6.3.1.11 Kangerterajiva (Nordostbugt) 71º14'N 024º37'W

It is possible to anchor in Kangerterajiva (Nordostbugt) 350 m W of Gurreholm (station hut). The water depths here are 18-27 m and the ground rises steeply in towards the coast.

6.3.1.12 Suuninnguaa (Sydkap) 71º17'N 025º03'W

It is possible to anchor 600 m S of Suuninnguaa (Sydkap) in 59 m of water. There is also an anchorage at Suuninnguaa (Sydkap) between the island furthest N of the two islands and the mainland, where the depth is 45-64 m. The type of bottom is firm mud. The position of the anchorage 71º17.6'N 024º57'W is reported with the bearings: Suuninnguaa (Sydkap) S point on a bearing of 262º and the E part of the island on a bearing of 195º. NE of Suuninnguaa (Sydkap) where there are two huts that are also called Suuninnguaa (Sydkap). A vessel has anchored in 12 m of water, 70 m from the coast in position 71º17.8'N 025º03'W. It has also been possible to anchor 50 m from the coast in 8 m water in position 71º18.5'N 025º00'W. A vessel can be dried out here.

6.3.1.13 Immikkeertaata Kangertiva (Nordbugten) 71º35'N 026º28'W

It is possible to anchor in Immikkeertaata Kangertiva (Nordbugten) in position 71º38'N 026º27'W. The anchorage lies 0.5 M from the coast in the part of the bay furthest N, where the depth is 80 m and an icebreaker has used it in October. There were many icebergs out in the fjord then, but only a few were in the actual cove. New ice formations begin in early-October. Immikkeertaata Kangertiva (Nordbugten) is approached by keeping mid-channel into Kangersik Kiatteq (Nordvestfjord). There is a fresh water stream in the innermost part of Immikkeertaata Kangertiva (Nordbugten). A vessel has anchored 30 m from the coast within the anchorage mentioned above. There was steeply sloping ground and the depth was 10-12 m.

6.3.2 Along the S and E coast of Liverpool Land

The depths in the fjords are not adequately surveyed to ascertain whether there are usable anchorages. Furthermore, the winter ice usually remains in these fjords until August and when the winter ice melts, the coast is blocked by drift ice.

6.3.2.1 Uunarterajiip Kangerterajiva (Thala Vig) 70º25'N 021º55'W
The depth in this small bay is 12-15 m and the bay appears free of dangers, but a reef extends 200 m out from the point on its E side.

6.3.2.2 Kangertivatsiaakajik (Hartz Vig) 70º26'N 021º48'W
The cove is a bay in the S part of Liverpool Land, 3 M NE of Uunartip Nuua (Kap Tobin). It may be possible to anchor in the bay, but the depths are not adequately surveyed and any anchorage is very exposed due to drift ice.

6.3.3 Along the N coast of Liverpool Land

6.3.3.1 Kangerterajitta Itterterilaa (Carlsberg Fjord) 71º29'N 022º32'W
An anchorage has been used at the stated position off the stream bed on the W side of the fjord. The location was determined by the following bearings: Kap Fletcher on a bearing of 047º, Kap Greville on a bearing of 085º and the W point of the land S of the anchorage on a bearing of 174º. The depth was 55 m.
It is probably also possible to anchor in Ålborg Fjord between Kap Fletcher and Kap Allen, as the land here is low and flat.

6.3.3.2 Nathorst Fjord 71º44'N 022º26'W
It is reported that sealers have anchored at the stated position 300-400 m from land within the foreland on the W side of the fjord where the station hut is located. The bay is said to be free of dangers with good anchor hold of clay, but a part of its innermost area becomes dry at low tide. The position of the anchorage is uncertain.

6.3.3.3 Fleming Fjord 71º50.8'N 022º44'W
An anchorage has been used at the given position 4 M SE of Kap Biot. The location was determined by the following bearings: The SE point of Kap Biot on a bearing of 049º, the N point of Kap Brown on a bearing of 121º and the point at the S side of the bay on a bearing of 201º. The depth here was 59 m.
An anchorage has also been used in the fjord's innermost SW part, approximately 1 M from land. The depth here was 60 m. It is possible to land by boat on the N side of the mouth of the stream close to the station hut, but otherwise landing by boat is difficult in this area.

6.3.4 In the fjords W of Kangertittivaq (Scoresby Sund)

6.3.4.1
Ujuaakajiip Kangertiva (Fønfjord). Anchorages have been used at the following positions in Ujuaakajiip Kangertiva (Fønfjord):

6.3.4.1.1
On the W side of Ujuaakajiip Nunaa (Danmark Ø), in position 70º31'N 026º24'W, a vessel has anchored and stern moored on even, steeply sloping ground 50-100 m from the coast.

As the vessel was stern moored, the depth was 16 m forward and 10 m astern. The anchorage is reported to be good for vessels.

6.3.4.1.2
At the N side of Ujuaakajiip Kangertiva (Fønfjord), in position 70º32'N 026º58'W, a vessel has anchored and stern moored 40-50 m from the coast, where the depths were 18 m forward and 10 m astern. Icebergs can bother the anchorage.

6.3.4.1.3
At the N side of Ujuaakajiip Kangertiva (Fønfjord), in position 70º26'N 027º50'W, a vessel has anchored and stern moored 100 m from the coast, where the depths were 16 m forward and 8 m astern. It was even and good anchor hold, but the anchorage is open.

6.3.4.1.4
At the SW side of Ujuaakajiip Kangertiva (Fønfjord) in position 70º22'N 028º14'W, a vessel has anchored and stern moored on steeply sloping ground, 100 m from the coast where the depth was 10 m. The anchorage is not good.

6.3.4.1.5
In the long fjord, which indents Ujuaakajiip Nunaa (Danmark Ø) from the NW, in position 70º32.4'N 026º15.1'W. Water depth was 25-35 m.
The anchorage is approached from the W through Rensund. From the entrance of the fjord to the narrows immediately W of the anchorage, keep in the W part of the fjord.

6.3.4.2 Rødefjord
Anchorages have been used at the following positions in Rødefjord:

6.3.4.2.1
A vessel has anchored and stern moored 100 m from the coast in the bay NE of Røde Ø in position 70º32'N 028º00'W. Icebergs from Vestfjord can bother the anchorage.

6.3.4.2.2
A vessel has anchored swinging 100 m from the coast at the N side of Sorte Ø in position 70º42.5'N 027º47'W. The anchorage is considered to be good, with depths of 8 m and 18 m at 75 and 150 m from the coast, respectively. However, icebergs can bother the anchorage.

6.3.4.2.3
A vessel has anchored and stern moored in 18 m of water on the W side of Rødefjord in position 70º43.5'N 028º01'W. The depth was 10 m at 100 m from the coast. The anchorage is considered good.

6.3.4.2.4
A vessel has anchored and stern moored 100 m from the coast on the W side of Rødefjord in position 70º46.2'N 028º00'W. The anchorage is not good.

6.3.4.3 Harefjord

Anchorages have been used at the following position in Harefjord:
A vessel has anchored and stern moored 80 m from the coast in the NW part of the fjord in position 70º59'N 028º08'W. The depth was 18 m forward and 10 m astern. Close to this anchorage there are a number of good anchorages, but there are often many icebergs in Harefjord.
It is reported that on the N side of Harefjord, 11 M W of the S tip of C. Hofmann Halvø, there is a small protected bay. The depth is 8 m at the entrance, which in 100 m wide, and in the middle of the bay it is 15 m. In both the E and the W part there are depths of 1-3 m with individual large rocks. The bay is free of icebergs and large growlers.

6.3.4.4 Aqissip Kangertiva (Rypefjord)

Anchorages have been used at the following positions in Aqissip Kangertiva (Rypefjord):

6.3.4.4.1

A vessel has anchored and stern moored on the W side of the fjord in position 71º01'N 027º44'W. The anchorage is in 18 m of water, 100 m from the coast and when moored the depth astern was 5 m.

6.3.4.4.2

A vessel has anchored and stern moored on the W side of the fjord in position 71º03'N 027º49'W. The ground was evenly and steeply sloping from the beach edge and 200 m out, where the depth was 20 m. A vessel can be dried out here.

6.3.4.4.3

A vessel has anchored swinging 300 m from the coast on the E side of the fjord in position 71º05,4'N 027º43'W. The depth was 22 m. The anchorage is considered good and there are rarely many icebergs in Aqissip Kangertiva (Rypefjord), as Eielson Gletscher is relatively calm.

6.3.4.4.4 Ikaasakajik (Øfjord)

Anchorages have been used at the following positions in Ikaasakajik (Øfjord):

6.3.4.4.4.1

A vessel has anchored and stern moored on the N side of the fjord in position 71º02'N 026º18'W. The anchorage is not good, as it is exposed to icebergs from Kangersik Kiatteq (Nordvestfjord).It has been observed here that an iceberg completely breaks up and causes an approximately 10 m high tidal wave when the ice spread 1.5 M in all directions at great speed. The speed of the spreading ice was so great that a vessel would have no possibility to sail away from such a tidal wave with ice. The safety zone for a large iceberg must be considered to be a circle with the iceberg as the centre and a radius of 1.5 M.

6.3.4.4.4.2
In the innermost part of the small fjord, which extends NW, an anchorage has been used in position 71º15.2'N 025º45'W. The depth is unknown.

6.3.4.4.5 Nannut Qeqertaat (Bjørneøer)
There is believed to be an anchorage in a small cove on the W side of Jytte Havn in position 71º04.5'N 025º38'W, but information about this anchorage is not available.

6.3.4.4.6 Kangersik Kiatteq (Nordvestfjord)
Anchorages have been used at the following positions in Kangersik Kiatteq (Nordvestfjord):

6.3.4.4.6.1
At the E side of the fjord in the SE part of a small bay N of Suuninnguaa (Sydkap) in position 71º18.5'N 025º05'W, where the depth was 12 m, a vessel anchored and stern moored 70 m from land. Fresh water can be obtained from the mouth of the stream. The anchorage is considered good.

6.3.4.4.6.2
On the N side of the fjord in position 71º33.7'N 025º51'W, a vessel has anchored and stern moored 30 m from the coast in 10-12 m water with steep, sloping ground.

6.3.4.4.6.3
A vessel has anchored and stern moored 40 m from the coast in Immikkeertaata Kangertiva (Nordbugten) in position 71º38'N 026º28'W. The depth was 18 m on steeply sloping ground.

6.3.4.4.6.4
A vessel has anchored and stern-moored 40 m from the coast in Flyverfjord in position 71º39'N 027º38'W. The depth was 16 m on steeply sloping ground. There are many icebergs in the innermost NW part of Kangersik Kiatteq (Nordvestfjord) and it is considered to be very dangerous to go further in than to Immikkoortilaq.

6.3.4.4.6.5
On the S side of Kangersik Kiatteq (Nordvestfjord) in position 71º29'N 027º13'W, a vessel has anchored on the E side of the bay N of the mouth of the stream. The depth of the anchorage is unknown.

6.3.4.4.7 Hall Bredning

6.3.4.4.7.1 Immikkeertikajik.
On the N side of the island Immikkeertikajik in position 71º17.5'N 025º01'W, a vessel has anchored 50 m from the coast. The depth was 6 m and the anchorage is considered good. See also under Suuninnguaa (Sydkap).

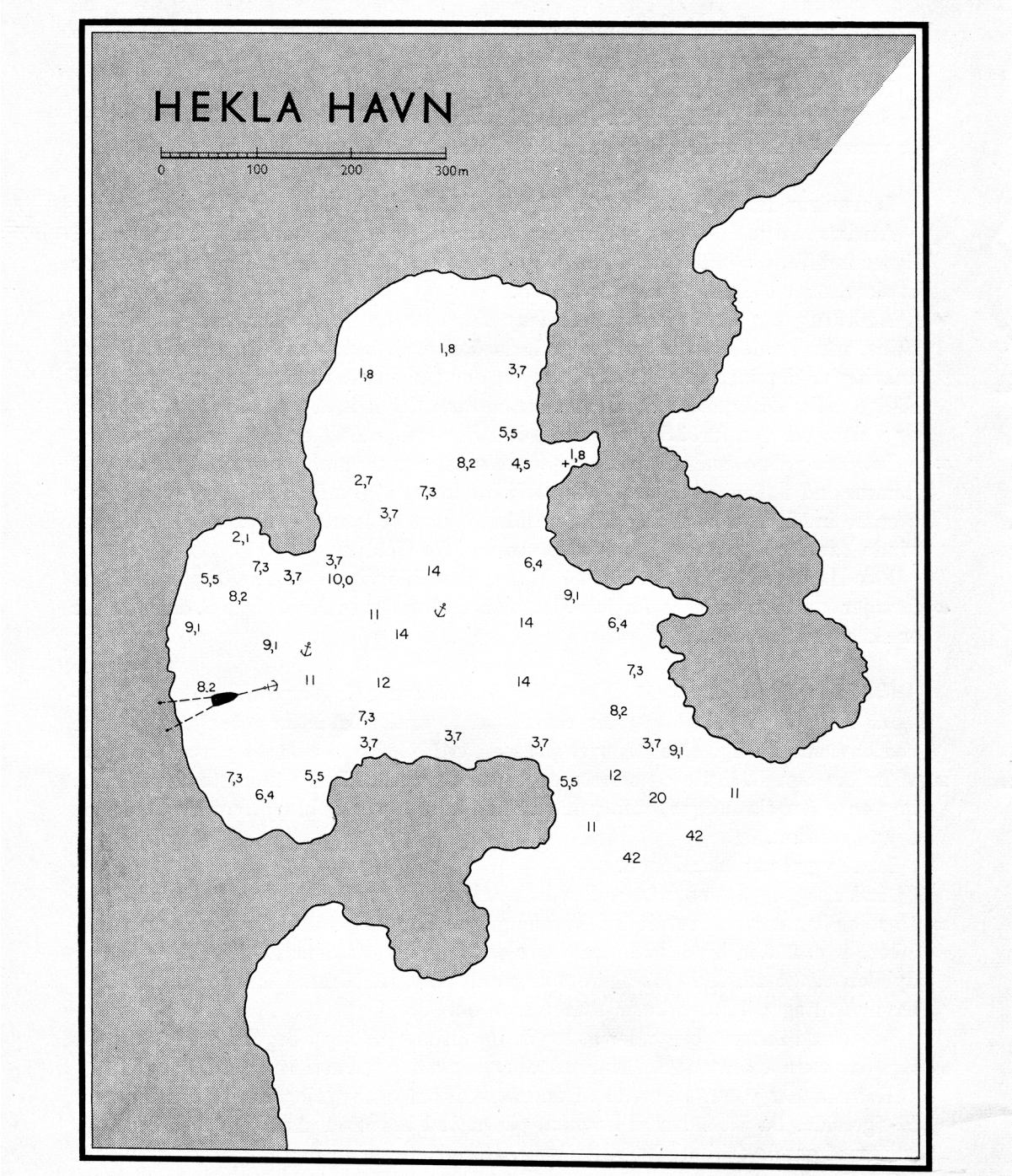

Fig. 6.2 - Hekla Havn

Fig. 6.3 -Kangikajik (Kap Brewster)) bearing 235°, distant 25 M.

Fig. 6.4 - Nuua (Kap Swainson) bearing 280°, distant 15 M.

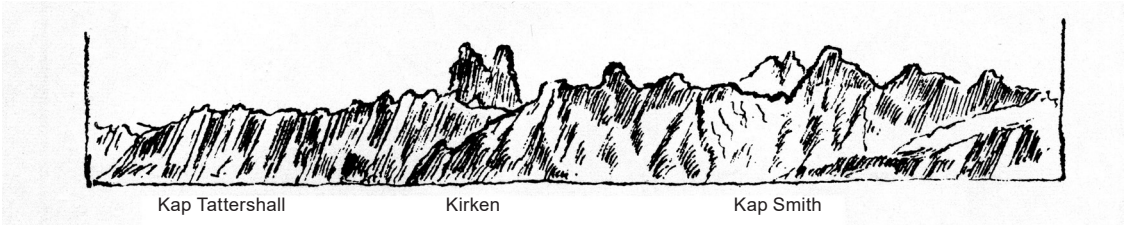

Fig. 6.5 - Kap Smith bearing 202º, distant 20 M.

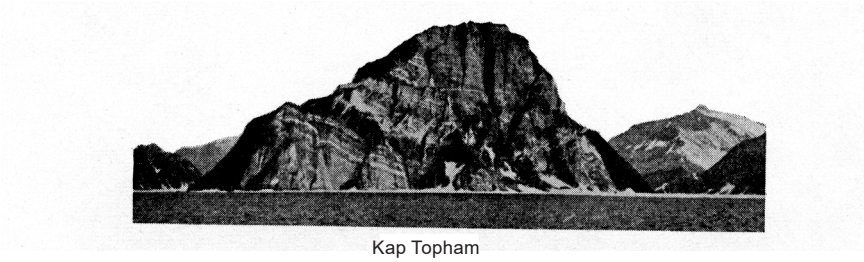

Fig. 6.6 - Kap Topham bearing 225º, distant 3 M.

Fig. 6.7 - Ilittiartiip Nuua (Kap Wardlaw) bearing 300º, distant 12 M.

Map

Kap Simpson – Kap Broer Ruys

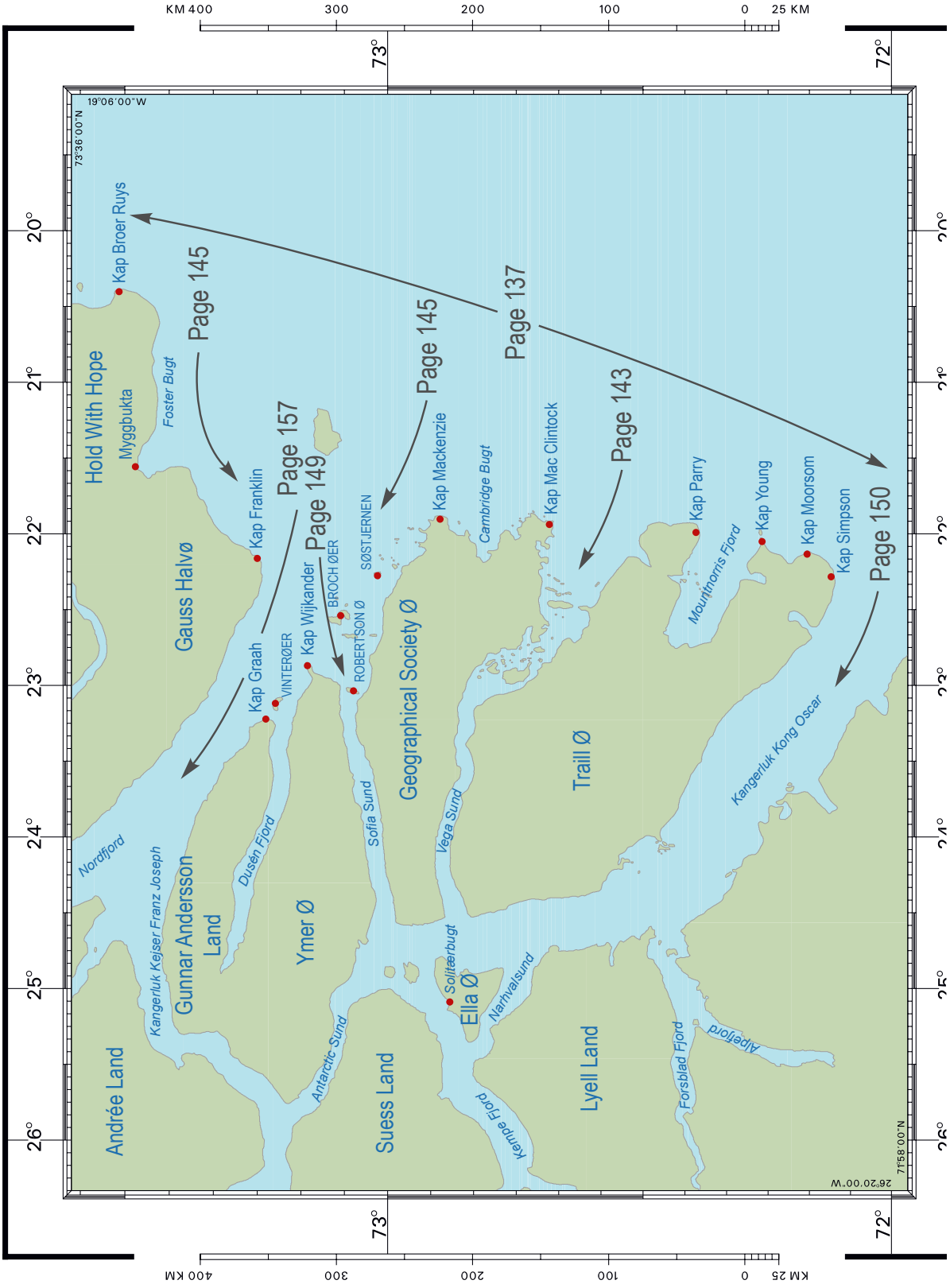

Fig. 7.1

CHAPTER 7

Kap Simpson – Kap Broer Ruys

Area 72º08'N 022º15'W – 73º32'N 020º23'W, charts 2701, 2730, 2750 and 2000.

7.1 Transit of the area
7.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
7.3 Harbours and anchorages

7.1 Transit of the area

See views of the land between Kap Simpson and Kap Broer Ruys.

7.1.1 General

There is a large fjord complex surrounded by high mountains W of a line between Kap Biot, Kap Simpson and Kap Broer Ruys. This fjord complex consists of two main fjords, Kangerluk Kong Oscar and Kangerluk Kejser Franz Joseph, the branches of these fjords and the islands Traill Ø, Geographical Society Ø, Ymer Ø, Ella Ø, Maria Ø, Ruth Ø and Bontekoe Ø. The largest fjord branches between the two main fjords are Davy Sund, Vega Sund and Sofia Sund.

7.1.1.1 Landmarks

The outer area E of the fjord complexes.
Kap Simpson, 72º08'N 022º15'W, the SE point of Traill Ø is a very large rocky point, which rises from the sea at an angle of 50º and then slopes very evenly up towards Vandyke Klipper, which rises to a highest point of 700 m. This enormous rocky peninsula has a prominent blue-grey colour with yellow or red stripes and to the NE it ends in a sharp point called Kap Moorsom (see views of the land). There is a small valley, Føndal, close W off Kap Simpson, where traces have been found of earlier habitation. 4 M further W there is a larger valley with the mouth of a stream.
Kap Moorsom is a short promontory, which lies 5.5 M NNE of Kap Simpson.
Kap Young lies 5.5 M NE of Kap Moorsom and is a low protrusion to the E. Between Kap Young and Kap Moorsom there is a wide unnamed bay in an area of lowland where a number of streams discharge, and the E coast of Traill Ø has a more varied appearance in this area than the stretch N of Kap Parry.
Rock is an 80 m high, small, pointed, rocky island that lies E of Kap Young at the S side of the entrance to Mountnorris Fjord.
Craig Øer are somewhat lower islands that lie in the middle part of Mountnorris Fjord off Begtrup Vig.
Kap Parry, which lies S of the entrance to Vega Sund and 8 M NNE of Kap Young, is 509 m

high and rather steep. From here the land rises evenly towards Ellemandsbjerge, which lies NW of Kap Parry and which rises to a height of 880 m.
Franklin Ø, which lies 5 M ESE of Kap Mac Clintock, is a 70 m high rocky island. The waters are foul between Franklin Ø and Kap Mackenzie, as there are small islands and rocks at a distance of up to 5.5 M from the coast.
Kap Mackenzie 72º55'N 021º52'W is the NE point of Geographical Society Ø. The point is a 152 m high basalt cliff, which rises steeply from a small stony beach. The point is connected with the land by a low isthmus and can appear from the SE as a very wide, dark and high island with a small dip in the middle.
Like the E part of the island's S coast, the E coast of Geographical Society Ø is low and a little hilly. The flat coast continues E in a shallow and foul sea with rocks and small islands. The easternmost of these islands is the so-called Ulstein, a small, protruding, dark island 3 M SE of Kap Mackenzie. The mountains Rudbeck Bjerg, Laplace Bjerg, Leitch Bjerg and Freycinet Bjerg lie on the NE and E coast of Geographical Society Ø. Seen from the S, Leitch Bjerg is not very conspicuous, but has a dark, almost pointy, little peak, but otherwise appears almost as the end towards the S of the heights at Laplace Bjerg, whereas the valley that extends from Cambridge Bugt W to Vega Sund, N of Scott Keltie Øer, is easily recognisable.
Bontekoe Ø 353 m, which lies 13 M NE of Kap Mackenzie in Foster Bugt, is easily recognisable, see under Foster Bugt.

7.1.2 Depths

The depths in the area E of the fjord complex described in this chapter vary greatly between the entrance to Davy Sund and Foster Bugt, but a number of sounding tracks on chart 2701 provide a relatively good indication of how close one should approach the coast when transiting the area. If the ice conditions allow for it, a transit distance of 5-10 M is recommended, although no closer than 5-6 M to Geographical Society Ø. The E side of this island also gives a poor radar echo.
The island called Rock outside Mountnorris Fjord should not be approached closer than 1.5 M, as there is shallow water around it. With regards to the depths in the actual fjord complex, refer to the description under the individual fjords.

7.1.3 Ice

Some of the area's fjords are ice-free under good ice conditions in August and September, but others are blocked across the mouth by thick, compact drift ice. The conditions vary greatly, however, with wind, current and the pack ice. During very favourable ice years, almost no ice was encountered during journeys from Denmark to Kangertittivaq (Scoresby Sund) (N of Iceland) and along the coast of Liverpool Land to Kangerluk Kejser Franz Joseph. There have even been ice-free areas up to 79º N, the coast along Hold With Hope has been observed almost ice-free as early as the beginning of July, even if Kangerluk Kong Oscar and Kangerluk Kejser Franz Joseph were packed with winter ice at the time. There have been several years when their entrances were closed until 23 July. Usually there is open water outside Kangerluk Kejser Franz Joseph in August, but drift ice from N should be expected at any time.

Refer also to general ice information for the sea area.
The ice conditions within the area described in chapter 7 are similar to the ice conditions between Kap Broer Ruys and Bass Rock, see chapter 8.

7.1.3.1 Winter ice (fast ice)

In a normal ice year, the outer boundary of the fast ice around 1 July extends from a point a little W of the SE point of the Hold With Hope land in an almost straight line to Immikkeertikajiit Martik (Murray Ø) at the N point of Liverpool Land. In late June, the first small areas with ice-free water begin to appear in the innermost part of the ice-covered fjord and in the first week of July, all the inner parts of the fjord are ice-free. Kangerluk Kejser Franz Joseph and Kangerluk Kong Oscar become ice-free in the second and third week of July. The outer parts of the fast ice outside the outer coast normally also disappear in this period.
The fjords are almost always free of winter ice in August. The dates mentioned above can vary greatly, and strong wind, small volumes of snow, a great deal of sun and heat normally produce water that is open early, while calm, cold weather delays the melting of the ice. If the weather has been cool in May-July, belts of winter ice can still be met in the middle of July, which can last until late in the summer, in the outer parts of Kangerluk Kejser Franz Joseph and Kangerluk Kong Oscar. The conditions in Davy Sund and the outer parts of Kangerluk Kong Oscar depend greatly on the presence and extent of the drift ice. If the weather conditions are calm in July, currents will flow out of the fjords due to the large volumes of melt water that is added to these. This current will then remove the drift ice somewhat from both the coast and the outer boundary of the winter ice. However, if the drift ice is driven towards the coast by E winds, this will prevent the break-up and disappearance of the winter ice. In an otherwise favourable ice year with mild weather, S winds can also cause the winter ice to remain longer in Davy Sund and the S part of Kangerluk Kong Oscar. The winter ice in Davy Sund can remain all summer, but this seems to have only occurred rarely in recent years. Usually, all winter ice disappears from the fjords in August, although a possible exception is Kangerterajitta Itterterilaa (Carlsberg Fjord) and, to some extent, also Nathorst Fjord and Fleming Fjord (all S of Davy Sund), which by being open towards the NE are affected more by drift ice than the other fjords in the area.
At the outer coast of Traill Ø and Geographical Society Ø, the winter ice can break up at the end of July, but it could remain until the end of August. The winter ice off Geographical Society Ø may be held in place all summer by the many islets, rocks and shoals, and it sometimes occurs in Mountnorris Fjord that the fjord ice does not break up at all.

7.1.3.2 New ice

New ice begins to form around 1 September and as early as the second half of September it may cause a nuisance inside the fjords, but it is usually possible to navigate with larger vessels and motor boats with ice sheathing until mid-October, after which time the fjords quickly become totally blocked. New ice forms relatively early in the outer part of Kangerluk Kejser Franz Joseph.

7.1.3.3 Drift ice

During the summer, under calm and warm weather conditions, the drift ice will be driven somewhat E by the outgoing current from the fjords, forming a shore lead along the outer coasts, which especially in August can be used for offshore transit. It should also be noted, however, that even under conditions with good shore lead off the largest part of the coast, the stretch between Franklin Ø (at Vega Sund) and Liverpool Land can be blocked by drift ice lying close to the coast. If the drift ice is driven W by the wind, it will push against the fast ice, and if this has disappeared, it can penetrate into the fjords.

There is usually quite a strong current off Kap Broer Ruys that can be further reinforced by E winds and which brings the pack ice, if the ice lies close to the outer coast, into Foster Bugt where, especially after a storm, it can lie densely packed from Hold With Hope to Bontekoe Ø. However, such ice will spread rather quickly in Foster Bugt, or it will be carried further past Bontekoe Ø, but it can be pressed by E winds in against Mackenzie Bugt, Kap Franklin and the islands off Kap Humboldt (SE point of Ymer Ø). The ice can sometimes lie packed around Kap Franklin and as far W as to a line between Margrethedal (9 M WNW of Kap Franklin) and Kap Graah (NE point of Ymer Ø). On rare occasions, the ice in Kangerluk Kejser Franz Joseph can be driven W as far as Kap Weber, but ice that gets that far into the fjord does not appear to remain there for very long. In Sofia Sund, the drift ice can be carried all the way through the sound as far as Kangerluk Kong Oscar.

However, even if the current in Kangerluk Kejser Franz Joseph mainly flows out of the fjord during the period when the ice and snow are melting, there is usually an ingoing current around Kap Franklin. This is rarely strong enough, however, to carry volumes of ice of any consequence W past Margrethedal.

Kangerterajitta Itterterilaa (Carlsberg Fjord), Nathorst Fjord and Fleming Fjord, which are open to the NE, easily become full of drift ice with NE winds. The drift ice can also be carried into Davy Sund and sometimes even further into Kangerluk Kong Oscar, where it can lie packed together as far as a line from the S part of the mountain Kongeborgen (Traill Ø) to the entrance to Segelsällskapet Fjord. However, the ice is stopped by the many islands outside of this fjord and only small drift ice floes have been observed inside of these. Ice floes can sometime be carried past Kongeborgen by the current to the S side of Ymer Ø, where they melt away.

If the fjord ice disappears, Mountnorris Fjord on the E side of Traill Ø can easily be packed full of drift ice from the sea.

7.1.3.4 Icebergs

The broadest glacier in the area is the one in the inner part of Nordfjord, which discharges into Waltershausen Gletscher. However, it only produces a few, small icebergs.

The most productive glaciers in the area are in the innermost part of Isfjord, Gerard de Geer Gletscher and Jættegletscher. Of these, Gerard de Geer Gletscher in particular is very productive. Numerous large icebergs are discharged each summer from these two glaciers and are carried out into Kangerluk Kejser Franz Joseph. Some of them are carried out through Antarctic Sund and many of these are grounded N of Ruth Ø, while others ground in the waters around Ella Ø, where they melt. None of these icebergs seem to reach S of Traill-iup Immikkeertivi (Haslum Øer) at Traill Ø. The number of icebergs that pass Antarctic Sund seems to vary greatly from year to year.

The rest of the icebergs from Isfjord are carried out along the N side of Ymer Ø. Some are carried into Nordfjord towards Waltershausen Gletscher and into Moskusoksefjord, where they ground and melt away, while the largest are carried further out through Kangerluk Kejser Franz Joseph. Most of these ground on a line from Vinterøer (at the entrance to Dusén Fjord) to past Broch Øer and Laplace Øer and from Kap Mackenzie to Franklin Ø, N of the entrance to Vega Sund. Only relatively few of the icebergs reach the open sea and continue S with the East Greenland Current.
Other glaciers within the area that can be mentioned include: Nunatakgletscher in the inner part of Geologfjord, Nordenskiöld Gletscher in the inner part of Kangerluk Kejser Franz Joseph, Hisinger Gletscher in the inner part of Dickson Fjord and Gullygletscher in the inner part of Alpefjord.
Nordenskiöld Gletscher produces only a few icebergs and some of the many icebergs that form a bank of icebergs in Kjerulf Fjord probably come from this glacier. The rest of these glaciers are as good as unproductive. Some small local glaciers that reach the sea in Geologfjord, in Kangerluk Kejser Franz Joseph and in Dickson Fjord are totally unproductive.

7.1.4 Approach and navigation in the outer waters

When approaching Davy Sund from the S, it is normally best to approach Liverpool Land around Immikkeertikajik (Rathbone Ø) (NE of Illoqqortoormiut (Scoresbysund)), where experience has shown that the ice edge is easiest to pass, and at the beginning of the navigation season it is often possible to keep N at a distance of 10 M from the coast up to Ilittiartiip Nuua (Kap Wardlaw), as the concentration of ice is least at this distance. Two rocks have been reported at Ilittiartiip Nuua (Kap Wardlaw), 1.5 and 2.5 M respectively NNE of Ilittiartiip Nuua (Kap Wardlaw). If Kangerluk Kong Oscar and Davy Sund are still closed by winter ice, an attempt can be made to continue N to Vega Sund or to go through Sofia Sund from Foster Bugt. It appears that the ice concentration is often more close off the coast of Hold With Hope and Gauss Halvø and when Kap Franklin has been passed, there is usually open water to Sofia Sund, Ella Ø and Nyhavn. This route is also normally used during approaches from the N.
When transiting any shore lead between Liverpool Land and Hold With Hope, the coast E of Geographical Society Ø should not be approached to within 5-6 M, and besides the area on the E side of this island is often unnavigable due to the ice. However, the waters on the E side of Traill Ø are apparently free from dangers and deep and it is possible to pass within 2 M off the coast. There is not always good shore lead on the stretch between Liverpool Land and the E entrance to Vega Sund, even if there is good shore lead further N, as even under good conditions to the N, the drift ice here is often pressed close to the shore, making passage impossible or difficult.
The long and large fjords of the fjord complex can usually, but not always, be navigated for a few months each year, normally from 15 July to 6 September (see under various fjords). When well clear of the coast, the E of the fjord complex is deep everywhere but navigation here is often obstructed by thick drift ice. There are many excellent anchorages in the fjord complexes, see section 7.3.

7.2 Approaches and navigation of channels (fjords), towns and settlements

The large fjord complexes that are grouped around Kangerluk Kong Oscar and Kangerluk Kejser Franz Joseph lie W of a line between Kap Biot, Kap Simpson and Kap Broer Ruys. Nyhavn and Ella Ø lie within the fjord complex and can both be navigated each year from mid-July to 6 September, see section 7.3.
There are no towns, settlements or weather stations in the area.

The most important fjords and bays in the fjord complex are the following:

7.2.1 In the outer area:

7.2.1.1 Davy Sund
7.2.1.2 Mountnorris Fjord
7.2.1.3 Vega Sund
7.2.1.4 Cambridge Bugt
7.2.1.5 Foster Bugt and Mackenzie Bugt
7.2.1.6 Sofia Sund
7.2.1.7 Dusén Fjord

7.2.2 In the Kangerluk Kong Oscar area:

7.2.2.1 Kangerluk Kong Oscar
7.2.2.2 Segelsällskapet Fjord
7.2.2.3 Alpefjord
7.2.2.4 Forsblad Fjord
7.2.2.5 Narhvalsund
7.2.2.6 Kempes Fjord
7.2.2.7 Rhedin Fjord
7.2.2.8 Röhss Fjord
7.2.2.9 Dickson Fjord

7.2.3 In the Kangerluk Kejser Franz Joseph area:

7.2.3.1 Kangerluk Kejser Franz Joseph
7.2.3.2 Nordfjord
7.2.3.3 Moskusoksefjord
7.2.3.4 Geologfjord
7.2.3.5 Isfjord
7.2.3.6 Kjerulf Fjord
7.2.3.7 Antarctic Sund

7.2.1 The outer area, chart 2701

7.2.1.1 Davy Sund 72º00’N 022º20’W

The entrance to Davy Sund lies between Kap Biot and Kap Simpson. Davy Sund is the furthest S of the entrances to the large fjord complexes Kangerluk Kong Oscar and Kangerluk Kejser Franz Joseph. Davy Sund extends 12 M NNW to outside Kempe Fjord (on the S side) and Drømmebugten (on the N side).
When approaching Davy Sund, Ilittiartiip Nuua (Kap Wardlaw) 71º44’N 021º55’W can be seen protruding NE on Canning Land, between Kangerterajitta Itterterilaa (Carlsberg Fjord) and Nathorst Fjord, and it is also possible to see Kap Brown 10 M WNW, which is an easily recognisable, red-brown, high and steeply falling promontory, which forms a kind of large cauldron filled by a small glacier. 7 M NNW of Kap Brown, on the N side of Fleming Fjord, lies the high, red-brown Kap Biot, which rises almost vertically from the sea and forms the SE point of the entrance to Davy Sund.

7.2.1.2 Mountnorris Fjord 72º19’N 022º00’W

The fjord extends 16 M in a WNW direction into the SE side of Traill Ø and is surrounded

by high mountains, which slope down to a lowland in the innermost part of the fjord, which extends both N to Vega Sund and to the W. In the middle of the fjord's N side, an extensive valley extends from the small Begtrup Vig to Ebeltoft Vig at Vega Sund.

7.2.1.2.1 Depths

Chart 2701 provides good directions. The island Rock should not be approached closer than 400 m, but otherwise the S part of the entrance appears to be free from dangers.
Kap Parry should not be approached closer than 1 M. The waters N of Craig Øer cannot be navigated and a part of the innermost part of the fjord becomes dry at low tide.

7.2.1.2.2 Current

A vessel that got stuck in the ice in mid-July has reported that it was only carried 1 M S over 3 days.

7.2.1.2.3 Anchorage.

See section 7.3.

7.2.1.3 Vega Sund 72º35'N 022º00'W, chart 2730

The sound is a narrow passage, which extends 50 M from the E entrance NW and W between Traill Ø and Geographical Society Ø and then ends in Kangerluk Kong Oscar.

7.2.1.3.1 Landmarks

The previously mentioned high mountains of Kongeborgen and Svedenborg Bjerg are on the S and N side respectively of the W entrance to Vega Sund. At the N side of the entrance, a rather long, low isthmus extends into the sound from the SW corner of Svedenborg Bjerg.
In the W part of the sound, close to Kangerluk Kong Oscar, the coasts are steep with high, multi-coloured mountains with small glaciers on the top. Further E, there is a smoother, more sloping landscape on both sides of the sound. Especially on the S side, the peaks pull back from the coast and W of Østernæs there is broad, lowland where a stream discharges. Opposite this lowland, on the N side of the sound, there are some recognisable, red-brown heights 1,200 m. E of these heights, an extensive valley leads N to the entrance to Sofia Sund.
In the E half of the sound, E of Scott Keltie Øer, there are several more islands between Freycinet Bjerg on Geographical Society Ø and the low isthmus, Kap Palander, which extends N from Traill Ø. The largest of these is called Nordenskiöld Ø. Both Scott Keltie Øer and the islands around Nordenskiöld Ø consist of volcanic rock and in many places they are covered by moraine gravel and resemble the actual coastal land on the N side of outer Vega Sund, which has extended, slightly hilly landscapes and an indented and uneven coastline. Towards the E, this coastal land ends in Kap Mac Clintock.
From Vega Sund, a wide extensive valley N of Scott Keltie Øer leads E between Leitch Bjerg and Freycinet Bjerg to Cambridge Bugt on the E side of Geographical Society Ø.
On the S side of Vega Sund, E of Østernæs, the coasts are flat or evenly sloping up towards the inland with eskers and small ridges without marked mountain formations.
From the low Kap Palander to the NE point of Ellemandsbjerge, the coast is steep and rather inaccessible, with a smaller extensive valley E of Kap Palander and with lowland in the

innermost part of Ebeltoft Vig. The small, 70 m high Franklin Ø lies 5 M ESE of Kap Mac Clintock at the E entrance to the sound. The small, low island, Læsø, lies 3 M ESE of Kap Palander.

7.2.1.3.2 Depths
From the W entrance to the sound until Scott Keltie Øer, the roughly measured depths mid-channel vary between 90 m and 300 m. At the W end of the sound, near the S side (the N side of Kongeborgen), there may be a shoal, as icebergs have been observed apparently grounded at this location.

7.2.1.3.3 Navigation
In years when Vega Sund is ice-free, these waters provide a good opportunity to get into Kangerluk Kong Oscar.

7.2.1.3.4 Approach
See chart 2730 and views of the land of the land. From the sea, the entrance to the fjord is approached midway between Kap Mac Clintock and the NE point of Ellemandsbjerge, after which a course shall be steered towards the narrow channel at Kap Palander. From here, keep to the S side of Thora Ø until the beacons on Magga Ø are inline. Then keep on this beacon line until the beacons S of Snævringen are in line and then keep on this line until the crossing mark (2 stakes) on Kista Ø are abreast. From there, keep mid-channel through Snævringen and the rest of the sound, as there are no known obstacles in the W part of Vega Sund.
The coast on Traill Ø can be passed at a distance of 400-500 m, and Østernæs can be passed at the same distance. When navigating the bay SE of Østernæs, do not get too close to the N side of Kista Ø. Moreover, do not get too close to Gåseøen and the two islands to the N.
Anchorages, see section 7.3.

7.2.1.3.5 Norskeruten (The Norwigian Route)
This route goes up between Scott Keltie Øer. It should only be navigated by very small vessels (motor boats), as there is very shallow water and many rocks. It is possible to get through by following the soundings in chart 2730, but there are rocks close to the route in many places. At the exit, navigate due caution when passing a large shoal that extends along the N and NE point of Kista Ø.

7.2.1.3.6 Tidal stream
The tidal stream has been observed to be around 0.5 kn in September.

7.2.1.3.7 Ice
Vega Sund is normally ice-free by the middle or end of July.

7.2.1.4 Cambridge Bugt 72º49’N 022º00’W
The bay lies on the E side of Geographical Society Ø between Kap Mac Clintock and Kap

Mackenzie, which are the island's SE and NE points respectively.

7.2.1.4.1 Depths

As the winter ice lies far into Cambridge Bugt, the depths have not been surveyed and it is not advised to approach closer than 10 M to the coast.

Geographical Society Ø is a large and elongated island bordering Vega Sund to the S and Sofia Sund to the N. The island has only a few large indentions or wide plains along the outer coast. A broad depression that reaches a height of 200 m extends across the island in a N-S direction. On the E side there are three mountain peaks, and from the S they are named Freycinet Bjerg, Leitch Bjerg and Laplace Bjerg. These mountain tops rise to heights of 900 m, 1,005 m, and 1,190 m, respectively.

7.2.1.5 Foster Bugt 73º20'N 021º15'W and Mackenzie Bugt 73º27'N 021º25'W

7.2.1.5.1 Landmarks

There is a large bay named Foster Bugt between Kap Mackenzie and Kap Broer Ruys, and in its inner part Sofia Sund, Dusén Fjord and Kangerluk Kejser Franz Joseph have their E entrances.

Kap Broer Ruys 73º32'N 020º23'W lies at the N side of the bay on the SE point of Hold With Hope. W of here lies Uglehøjene, 415 m, and some lower and smaller elevated areas with more rounded shapes. These ridges are separated from each other and from Hold With Hope land's central highland by an extensive valley that runs approximately NE-SW and connects the low coastal land E of Mackenzie Bugt with Østersletten.

On the E side of the inner part of Mackenzie Bugt, the central highland reaches approximately to the coast. To the W it ends with the broad Badlanddal, which runs N-S and connects Loch Fyne with Mackenzie Bugt. W of this bay, Badlanddal continues S along the E side of the inner part of 1,200-1,300 m high mountain range, Giesecke Bjerge which extends from Kap Franklin to the inner part of Moskusoksefjord, and W around a smaller ridge area, the SE point of which is Kap Bennet. Kap Bennet's brown mountain has a somewhat rounded shape and is only 370 m high, but it is easily recognisable due to the isolated and protruding location.

There is a small, rather low islet, Terneholm, in the inner part of Mackenzie Bugt.

Approaching from the SE towards Mackenzie Bugt, the N part of Giesecke Bjerge with the 1,200 m high, apparently pointed and rather regularly shaped Ladderbjerg, which is easy to recognise, can be seen in a NW direction over the lowland in the foreground. The mountain is the furthest N of the mountain range and seen from the E, it is almost pyramid shaped with rather flat side with horizontal stripes towards the E. The peak is marked by a short ridge running in a N-S direction. The up to 1,500 m high peaks of Nordhoek Bjerg on the W side of Loch Fyne can be seen further N. The now abandoned station Myggbukta was located in the inner part of Mackenzie Bugt.

Kap Franklin 73º15'N 022º10'W at the N side of the entrance to Kangerluk Kejser Franz Joseph is a red-brown, slightly saddle-shaped mountain, Knuden, that extends S to a point, which at 40 m is relatively low compared to the high mountains.

The E side of Ymer Ø is comprised of low isthmuses, but to the W the land rises quickly to considerable heights, particularly on the S half of the island where Angelin Bjerg rises to a

height of 1,900 m.
Kap Wijkander, the island's E point on the S side of Dusén Fjord, lies on a brownish coloured isthmus that protrudes to the NE. Its outer, approximately 100 m high, rounded part is separated from the mainland by a rather low section, so that at a distance, the point looks like an island.
Kap Humboldt 73º06'N 023º00'W at the E entrance to Sofia Sund is a recognisable, E-facing basalt wall, which rises steeply from the sea with no beach in front.
Robertson Ø is a small rocky island, 158 m high, which lies S of Kap Humboldt in the entrance to Sofia Sund. Close E off Robertson Ø on the S side of Sofia Sund on Geographical Society Ø, there is the 1,322 m high Rudbeck Bjerg, which is very distinctive and easy to recognise, both from E and W.
The high and peaked mountain sections, which fill the main part of Geographical Society Ø, end 6-7 M from the island's E side with the recognisable peaks, Laplace Bjerg, Leitch Bjerg and Freycinet Bjerg. On its N side, Laplace Bjerg has a large snow-filled hollow. On the N side of Leitch Bjerg there is a dark slope, and seen from the N the mountain has a wide, dark top. Seen from NE, the top could almost be called a dark knoll, and seen from E, where the dark top is more pointed, the mountain actually only appears as the end to the S of the highlands at Laplace Bjerg, whereas the valley between Leitch Bjerg and Freycinet is easily recognisable. The land on Geographical Society Ø is very low E of theses mountains.
Kap Mackenzie 72º54'N 021º52'W consists of a small, isolated basalt area, 152 m in height, which was previously assumed to be an island. The islands Broch Øer and Laplace Øer, lying off the NE coast of Geographical Society Ø, are all low and brownish in colour. The waters between them are foul. The largest island of the Broch Øer, Borgøen, looks from a distance like 3 separate islands, of which the most central (and highest) has a castle-like shape. Seen from the N, the island E of Borgøen, Skildpadden, looks like a turtle with its head and neck extending to the E.
2 M W of the N point of Borgøen, between Borgøen and Kap Wijkander, there is a small, low, flat islet and 1.75 M further NW (2 M SE of Kap Wijkander), there is a rock, Flodskær, which is dry at low tide, but is so submerged at high tide that sometimes growlers can get stuck on the top of the rock and conceal it.
Bontekoe Ø in the middle of Foster Bugt is of volcanic origin and has a dark colour, but can appear almost bluish under certain lighting conditions. The island's N, steep part rises to a height of 353 m, which decreases to the S. There is a rather low and flat foreland on the S side of the island. From a distance, the island does not appear very high compared to the surroundings.

7.2.1.5.2 Depths

Within 2 M of Bontekoe Ø, the depths are rather varied. There is a rock with 1 m of water close off the coast on the island's NE side, and SE of the island there may be a shoal, as larger icebergs ground here.
The main waters between Bontekoe Ø and the N side of the bay, from the SE point of Hold With Hope to Kap Franklin, is free from dangers and has large, quite even depths. Along the N and NW sides of Foster Bugt, the 200 m contour extends at a distance of 1.5-3 M from the coast (not including Mackenzie Bugt). Close to Kap Franklin, the contour approaches the land and is 1 M S of the promontory. Within the 200 m contour, the depths decrease quickly. The

shallow waters W of the SE ridge area of Hold With Hope seems to extend quite far out in a number of places. 1-3 M E of the E side of Mackenzie Bugt the 20 m contour extends 1.5 M from the coast.
Shallow water with rocks outside the mouths of the many streams have been reported within the 200 m contour on the section between Kap Bennet and Kap Franklin.
The largest depths (more than 30 m of water) in Mackenzie Bugt are in the NE part of the bay and E and N of Terneholm. The 10 m contour is 0.7 M from shore at the SE part of the bay and it gradually gets closer to the coast from the NW until approximately 0.75 M SE of the Myggbukta station hut. The 10 m contour is NE of Terneholm, 150 m from the islet. The waters lying between the 10 m contour appears to be free from dangers. The NW and W part of the bay until as far as the heights at Kap Bennet are very shallow. However, there appears to be a narrow channel running N-S with depths above 10 m W of Terneholm, where the 10 m contour extends 300 m from the NW point of the islet. There are underwater rocks 2 M S of Terneholm, over which the lowest depth is unknown.
The depths in the main waters between Bontekoe Ø and Geographical Society Ø are known from a series of sounding tracks, taken approximately mid-water through this. They show very uniform depths of around 250 m. The depths S of a line from Kap Wijkander, N around Broch Øer and further SE, N around Geographical Society Ø, are very varied and the waters around and between Broch Øer and Laplace Øer respectively are rather foul. Between Kap Wijkander and Borgøen there is Flodskær and the abovementioned small, flat islet. There is reported to be shallows with 18 m of water 0.5 M S of the small, flat islet and it must be further expected that there may be as yet undiscovered shallows and rocks nearby.
The channels are navigable between Kap Wijkander and Flodskær and between Flodskær and the small, flat islet.
There are rocks above water on the N side of Borgøen. The shallow water is reported up to 200 m N of these rocks. Between Borgøen and the island, Langåren, there is a channel lying SW of Borgøen, in which the least measured depth mid-channel is 40 m. There are a couple of rocks in the N part of the channel and there are 2 small islands 1-1.5 M S of Borgøen.
Mid-channel between Broch Øer the westernmost Laplace Ø, Søstjernen, the smallest depth on a SW-NE course is 57 m. In a WNW direction from this channel and at a distance of 1.75 M from the coast of Geographical Society Ø, there is a navigable channel between Langåren and the small island to the S, Tveholmen (depths of 54-128 m).

7.2.1.5.3 Navigation of Foster Bugt

To Myggbukta from E.
Keep outside the 20 m contour along the S side of Hold With Hope land, i.e. generally 1.5 M from land, until it is possible to turn NW into Mackenzie Bugt, where the E part of the bay, E and N of Terneholm is used, and where it is possible to approach the coast and the islet as far as the 10 m contour. Only in emergency should an attempt be made to navigate the narrow channel between Terneholm and the shallow waters on the NW side of the bay.

7.2.1.5.3.1 The ice in Mackenzie Bugt

If there is ice in Mackenzie Bugt, the ice distribution can undergo major, sudden changes. If the ice is carried in by the wind or tidal stream, it often fills the entire interior of the bay. When

the wind changes or the ebb tide begins, the waters can quickly be cleared of all ice that has not grounded on the shallow waters. The winter ice in the bay normally disappears around 20 July but the break-up can occur far earlier, but also later. The fast ice forms again in the bay in early October.

7.2.1.5.3.2 Weather conditions

The prevailing winds at Myggbukta in the summer come from SE and from N in the winter. There are only a few days with storms and when the wind is hard, it usually has a foehn-like character. Precipitation is light and usually falls in the form of snow.

7.2.1.5.3.3 The ice in Foster Bugt

The ice can break up from Foster Bugt in mid-July, but it can also remain until early August. When the ice begins to break up, sometimes a section is formed along the coast from Kap Broer Ruys to Kap Franklin, where an ice-strengthening vessel can with care get through to Sofia Sund, but caution is advised, and it is very important to know what the ice conditions are like further inside.

Thick winter ice has been observed in mid-July from Bontekoe Ø to the mainland, so that all navigation was impossible. Thick polar ice and local winter ice have been observed at the same time on the N side of Bontekoe Ø, where there was ridged ice on the N and NE side of the island, but open water on its S side. The ice normally breaks up at the end of July or beginning of August, so vessels can pass into the innermost part of Foster Bugt and through Sofia Sund.

7.2.1.5.3.4 Approach to Sofia Sund

Depending on the ice conditions, Sofia Sund can be approached from both N and S of Bontekoe Ø.

During the S approach, keep midway between Bontekoe Ø and Kap Mackenzie. From a position 7.0 M NNE of Kap Mackenzie, keep 1 M N of Søstjernen and then between Tveholmen and Langåren and S around the rock that lies 1.6 M NE of the N point of Tveholmen. From here, keep towards Kap Humboldt and Robertson Ø and pass N of Robertson Ø. It is now possible to keep roughly mid-channel through Sofia Sund.

During the N approach, keep W and SW along the coast from a point 6 M E of Kap Broer Ruys, and pass Kap Bennet and Kap Franklin at a distance of 3 M. When passing the coast between Kap Bennet and Kap Franklin, keep outside the 200 m contour and avoid the above-mentioned shallow water near the coast. There is an excellent anchorage in Mackenzie Bugt, which is rarely used for extended periods, however, see section 7.3. From Kap Franklin, keep towards Kap Wijkander until the point is at a distance of 0.8 M, and then keep along the coast to Kap Humboldt, passing Flodskær, which lies 2 M SE of the N point of Kap Wijkander. It is also possible to navigate between Flodskær and the small, flat islet 2 M W of the N point of Borgøen and then towards the entrance to Sofia Sund. It is recommended in foggy conditions to use the passage between Kap Wijkander and Flodskær, as it makes it easier to avoid this rock.

The channel between the small, flat islet and Borgøen has also been navigated, but due to varying depths off the N side of Borgøen and the 18 m shoal and other possible obstacles 0.5

M S of the small, flat islet, the two above-mentioned passages are preferable. If the channel E of the small, flat islet is used anyway exercise due caution.
From Kap Humboldt, keep mid-channel through Sofia Sund to a point 2.5 M on a bearing 060º from the NE point of Maria Ø, and from there keep mid-channel through Antarctic Sund to Blomsterbugten or S towards Ella Ø.

7.2.1.5.3.5 Passage through Kangerluk Kejser Franz Joseph

If the ice conditions in Sofia Sund are difficult, it may be possible to reach Blomsterbugten and Solitærbugt on Ella Ø via Kangerluk Kejser Franz Joseph. The route through Kangerluk Kejser Franz Joseph goes mid-channel from Kap Franklin, keeping towards Kap Weber, which can be passed at a distance of 2 M. From here, keep mid-channel to Blomsterbugten. From Blomsterbugten, the route continues mid-channel through Antarctic Sund, W or E around Ruth Ø and Maria Ø to Solitærbugt.

7.2.1.6 Sofia Sund 73º02'N 023º45'W

The sound is the furthest S of the three fjord arms that lead W from Foster Bugt. Most of the sound has a width of 2-3 M and extends 30 M in a WSW direction. The E entrance lies between Kap Humboldt, which is the SE point of Ymer Ø and the N part of Geographical Society Ø. At the E entrance, Geographical Society Ø rises to a height of 1,322 m, and at the W entrance it rises to a height of 1,730 m.

7.2.1.6.1 Landmarks

Sofia Sund is surrounded on both sides by high, but evenly sloping mountains with large or small valleys and streams, with banks of gravel deposited at their mouths. Noteworthy among the mountains are the 1,426 m high Celcius Bjerg on the N side, 5 M W of Kap Humboldt, and the 1,683 m high Rødebjerg close to the W entrance of the sound (the mountain has a strong reddish colour). As previously mentioned, the 1,322 m high Rudbeck Bjerg, is easily recognisable from a distance on the S side of the sound, approximately due S of Celcius Bjerg. 3 M E of Rudbeck Bjerg there is another recognisable mountain, the upper part of which is formed by a basalt transition, which weaves down the N side of the mountain from the peak. The mountain appears to have a pointed peak when seen from the N. There are a number of high mountains on the W side of Geographical Society Ø, the westernmost of which is the 1,730 m high Svedenborg Bjerg.
Approximately midway in the sound, on the N side, the deep Barnabas Dal indents the land in a NW direction and the previously mentioned wide and flat Juulut Dal lies W of Rødebjerg. The 153 m high Robertson Ø is at the E entrance to the sound.

7.2.1.6.2 Depths

The depths mid-channel in the sound are large and even, although approximately off Barnabas Dal there is an area with less than 200 m of water.
The channel S of Robertson Ø is so shallow that it can only be navigated by motorboats and only at high tide.
See under Foster Bugt for the approach to Sofia Sund.

7.2.1.6.3 Ice
The ice normally disappears in mid-July, and Sofia Sund is often the water that can be navigated first. It is usually possible to navigate the sound in August and September.

7.2.1.6.4 Current
The current can reach a speed of 1-2 kn in Sofia Sund on both sides of Robertson Ø, where the waters are narrow.

7.2.1.7 Dusén Fjord 73º12'N 023º10'W
The entrance lies between Kap Wijkander and Kap Graah, which is the E point of Gunnar Andersson Land, which is also a part of Ymer Ø. The fjord extends 35 M WNW into Ymer Ø to within 5 M of Blomsterbugten.

7.2.1.7.1 Landmarks
W of the low Kap Graah and Kap Wijkander, the land rises to large heights on both side of the fjord, with a number of transverse valleys. The previously mentioned Zoologdalen is located on the N side. In continuation of the fjord in a W direction is Noa Dal, which reaches Blomsterbugten on the W side of Ymer Ø.

7.2.1.7.2 Depths
The waters quickly become shallow around and between Vinterøer. However, there are navigable channels between Kap Graah and the westernmost island of Vinterøer, where the depth is between 20 m and 40 m. The depth is 40 m between the westernmost island of Vinterøer and the two easternmost islands of Vinterøer, and between the latter two islands and Kap Wijkander, the depth is 65 m. There is a reef between the two easternmost islands of Vinterøer. Inside Vinterøer, the depth in the fjord is deep until its innermost part, where the width of the waters also decreases sharply.

7.2.1.7.3 Sailing directions
In the entrance to the fjord, it is possible to either keep mid-channel through the channels between Kap Graah and the westernmost of Vinterøer, or between the westernmost of Vinterøer and the two small easternmost islands, or between the easternmost islands and Kap Wijkander. Navigating between the two small easternmost Vinterøer should not be attempted. Keep mid-channel in the fjord itself (and well clear of the mouths of the streams) as far as the anchorage, see section 7.3.

7.2.2 The Kangerluk Kong Oscar area. Charts 2701, 2730 and 2750

7.2.2.1.1 Kangerluk Kong Oscar 72º07'N 022º50'W

7.2.1.1.1.1 Landmarks
Kangerluk Kong Oscar, which is a continuation of Davy Sund, is 80 M long and extends in a NW-SE direction from the mouth to outside Holm Bugt, and then in a NNW-SSE direction to Botanikerbugt at the W entrance to Sofia Sund. The SW side of Traill Ø, where Purpurfjeld

1,021 m, Forchhammer Bjerg 1,352 m and Svinhufvud Bjerge 1,378 m fall steeply down towards a narrow foreshore, forms the N side of Kangerluk Kong Oscar. The mountain range is broken by Drømmebugten and further NW by Holm Bugt. To the N, the E side of the fjord is formed by the 1,100-1,700 m high and steep mountains in Kongeborgen, and then by the W entrance of Vega Sund and Svedenborg Bjerg. The mountains on the SW side of Kangerluk Kong Oscar are more rugged than on the NE side. From Kap Biot, a high mountain range extends NW and is broken by Kempe Fjord. It then continues into Pictet Bjerge, which is steep at Antarctic Havn, but drops evenly towards Mesters Vig. The mountains are broken in a number of places by enormous valleys that extend deeply into Scoresby Land, and SW of Åkerblom Ø, Segelsällskapet Fjord extends to the SW. The 1,700 m high peaks, Syltoppene, lie on the coastline NW of Immikkeerterajii (Menander Øer), although they flatten out somewhat towards the beach. The beach and the land at the point do not give a good radar echo.

The S and W coast of Kangerluk Kong Oscar

Kempe Fjord 72º01'N 023º10'W is a good anchorage see section 7.3.
Mesters Vig 72º10'N 023º40'W is a small bay on the S side of Kangerluk Kong Oscar. It extends 4 M SW between evenly rising mountains and ends in a 4.3 M long valley that only rises slightly. It is possible to anchor in the mouth of the bay, but further in the water depth is relatively low, especially in the SE part of the bay, where even motorboats must remain at least 25 m from the coast. Mesters Vig must not be confused with Nyhavn, which is sometimes called Mestersvig. Lead ore was previously shipped from Nyhavn and there is also an airstrip here. The harbour is navigated every year, see under Nyhavn. Mesters Vig is not sufficiently surveyed and the great caution should be exercised, see also section 7.3.
The two small islands, Archer Øer, lie N of the entrance to Mesters Vig. The channel inside the islands is quite shallow (4 m) and should only be used by motor boats, see section 7.3.
The islands, Ran Øer, lie 6 M NW of Archer Øer, and there is a beacon on the largest of the islands.
Nyhavn lies S of Ran Øer, see section 7.3.
Immikkeerterajii (Menander Øer) is an island chain that extends 3 M NNW from a small protruding peninsula, which lies 6 M WNW of Ran Øer. The mainland W of the islands is high and Syltoppene is located here, between whose protruding peaks numerous glaciers protrude through the mountain gorges. The highest peak in Syltoppene rises to a height of 1,850 m. There is an anchorage in the inner SE part of the bay, see section 7.3.
A point 72º25'N 024º38'W lies 6 M NW of the island furthest NW of islands Immikkeerterajii (Menander Øer). There are some small islands close N and SE of this point and there are also rocks quite close off the coast.
Kap Lagerberg 72º31'N 024º40'W is the SE point of Lyell Land.
Hammar Ø is a 62 m high island, which lies close off the coast 1 M N of Kap Lagerberg.
Kap Dufva 72º40'N 024º42'W lies 9 M N of Kap Lagerberg.
Ella Ø lies on the W side of the innermost part of Kangerluk Kong Oscar. The highest point of the island lies on the side that faces towards Narhvalsund and slopes from here evenly E and NE. All of the SW coast of the island between Kap Harry and Bastionen, 9 M NW of Kap Harry, consists of steep cliffs that rise to a height of 1,047 m. The land rises to a height of

1,367 m at Bastionen. The low coast has an indention called Lemmingbugt, midway between Kap Harry and the island's NE point, Kap Elisabeth, which has a yellowish appearance. The NW coast of the island is 10 M long, and it is steep on the SW part, but the height decreases towards Kap Elisabeth.
Solitærbugt lies in the middle of this coast, E of Kap Oswald, see section 7.3.
Maria Ø 72º57'N 025º54'W lies at the mouth of Kempe Fjord. It consists of two mountain ranges that extend in an E-W direction with a valley between them. The S ridge is 270 m and the N ridge is 100 m high. The island has a greyish colour. There is a good anchorage to the E, between two points, see section 7.3.

N and E coast of Kangerluk Kong Oscar

Drømmebugten 72º10'N 22º41'W is a small cove on the SW side of Traill Ø. It extends 3.4 M inland between 800 m high mountains, which provide good protection against all winds except wind from SW. There is an anchorage in the innermost part of the bay, see section 7.3.
Holm Bugt 72º30'N 024º05'W lies on the SW side of Traill Ø, 40 M NW of Kap Simpson. It is possible to anchor in the innermost part of the bay, just N of Traill-iup Immikkeertivi (Haslum Øer), 0.8 M from land in 40 m water with good anchor hold, see section 7.3.
Traill-iup Immikkeertivi (Haslum Øer) is a group of small islands, which lie at the low isthmus that forms the SW side of Holm Bugt. A larger stream from an extensive valley, which winds almost unbroken across Traill Ø, first in a NE direction and then in an approximately E direction, to Mountnorris Fjord and Vega Sund, discharges on both sides of the point at Traill-iup Immikkeertivi (Haslum Øer). At the S side of the point, off the mouth, there is a large sand and clay deposit, which becomes dry at low tide.
Palisaderne is the low isthmus on the NW side of Holm Bugt. Hawley Ø is a small island, which lies 1.25 M SW of a small island close to the S side of Palisaderne. The coastal land N of Palisaderne again rises to a great height.
Kongeborgen is the 1,100-1,700 m high, steep mountain that lies on the W side of Traill Ø.
Svedenborg Bjerg is the 1,730 m high mountain that lies on the W side of Geographical Society Ø, out towards Kangerluk Kong Oscar. The mountain has a notable, rust-red colour, especially when it is seen in sunlight late in the afternoon.

7.2.2.1.1.2 Depths

Chart 2701 provides quite good information about the depths, but the surveys carried out of the waters cannot be characterised as actual surveys, as the requirements for this could not be observed. Sufficient care must still be taken and it must be remembered that the soundings that are indicated on the chart are individual soundings that are selected among many, which often deviate significantly from these, and that the soundings cover a considerable area and that the survey of the waters is based on individual sounding tracks and not on normal surveying.
According to the available soundings, the depths are large mid-channel in the largest part of Davy Sund and Kangerluk Kong Oscar, although they vary somewhat. It is only in the N part of the area between Maria Ø, Ruth Ø and Geographical Society Ø that the depth appears to decrease to 200 m. This depth is found E of a shoal, which protrudes out from Maria Ø to the E of the middle part of the waters, but it appears even here that there is a deeper, narrow

channel near Geographical Society Ø.
Some rocks are indicated in Davy Sund, N of Kap Tyrrell on Canning Land, at the entrance to Nathorst Fjord, and the area should be considered as foul at a distance of up to 3.5 M from Kap Tyrrell. Off Kap Biot, the 200 m contour lies approximately 3 M from the promontory, but it does not appear to extend very far into Fleming Fjord.
Off Antarctic Havn, the 200 m contour lies close outside the mouth of the harbour, and off Mesters Vig it lies approximately 3 M from shore, and a sounding of 165 m was taken 3 M E of the easternmost part of Archer Øer. There is a sounding of 86 m close to the middle part of the waters 3 M E of Åkerblom Ø. The depths in most places in the mouth of Segelsällskapet Fjord are less than 200 m.
There is a reef with rocks at Åkerblom Ø on the E side of the island. The reef extends approximately 1 M on a course of 101º.
Off Holm Bugt, the 200 m contour lies 5.5 M from the innermost part of the bay and 1 M from Hawley Ø. There is reported to be a shoal with 18 m of water 1.5 M NNW of Traill-iup Immikkeertivi (Haslum Øer), and there may possibly be rocks around this place. There are a couple of rocks at Kap Dufva, but the depth is over 200 m 1 M from the point. There is a shoal with 92 m 2 M SE of Kap Dufva. There is a large, possibly foul shoal in the waters E of Maria Ø to Ruth Ø. The 200 m contour from the S side of Antarctic Sund goes mainly in a SE- direction N of Ruth Ø towards the W side of Geographical Society Ø, where it appears to continue 1 M from the coast in a SW direction towards Kap Elisabeth, the NE point of Ella Ø.
There is a reef with 12 m of water approximately 1 M E of the NE point of Maria Ø and somewhat further S there is a rock with 6 m of water 0.5 M from the island.
As Kangerluk Kong Oscar is very deep, with up to 650 m of water, it is possible in most places to navigate to within 1 M of the coast. However, caution must be exercised when passing Holm Bugt and the entrance to Segelsällskapet Fjord, as there are rocks at the groups of islands there. Great caution should always be exercised off of valleys and stream beds, since the deposits are often steep and it cannot always be expected therefore that the echo sounder provides a warning sufficiently early.
The navigation period lasts from 15 July to 6 September.

7.2.2.1.1.3 Ice

The fjord is frozen for much of the year, but the ice melts first in the innermost part of the fjord complex and, during the navigation period, there may also be open water in Kangerluk Kong Oscar at Nyhavn, even if Davy Sund is full of winter ice. It may then be possible to examine by reconnaissance flights where there is the best possibilities for navigation, as this could be Vega Sund or Sofia Sund through Foster Bugt.

7.2.2.2 Segelsällskapet Fjord 72º27'N 024º38'W with Alpefjord and Forsblad Fjord

7.2.2.2.1 Landmarks

The previously mentioned group of small islands lie over the entrance to Segelsällskapet Fjord: Karlenes Ø, Jägmästarens Ø and Åkerblom, Ø 60 m, with intermediate and surrounding islets and rocks. The N side of the fjord is formed by the over 1,800 m high

Berzelius Bjerg, which shines in many colours. W of this mountain, at the outer part of Forsblad Fjord, lies the deep Polhem Dal, which extends in an approximately N direction across Lyell Land to Narhvalsund.
The mountains on the S side of the fjord have pointed peaks and there are several large glaciers here, which do not quite reach down to the water.
Kap Mæchel is a low, protruding point between Alpefjord and Forsblad Fjord, W of the flat Arwidsson Ø. A station hut has been erected on the S side of Kap Mæchel.

7.2.2.2.2 Depths

In the main entrance to Segelsällskapet Fjord, between Åkerblom Ø and Kap Lagerberg, the shallowest measured depth mid-channel is 55 m. In the channels between Karlenes Ø and Jägmästarens Ø and between Jägmästarens Ø and the islet 0.5 M NE of this island, soundings indicate 70 m and 112 m of water respectively, but the waters here are not particularly well surveyed. Hunters who have travelled in these areas believe they have found shoals that are not indicated on the chart. The waters are foul, with underwater rocks, between Åkerblom Ø and the islet mentioned above, NE of Jägmästarens Ø, and also E of the islet and SW of Åkerblom Ø.
Through the main channel, N of all the islands in the mouth of the fjord and further mid-channel through Segelsällskapet Fjord and mid-channel through Alpefjord, there is a single sounding track, which shows that the depths in the inner part of Segelsällskapet Fjord are large, that the shoal from Arwidsson Ø extends E and that the largest depth in Alpefjord is 200 m.

7.2.2.2.3 Sailing directions

The main channel to Segelsällskapet Fjord goes N of Åkerblom Ø, therefore, but if the conditions makes it necessary, the channels N and S of Jägmästarens Ø can be attempted, but great care must be taken when navigating here. It is possible to anchor at the NE side and W side of Åkerblom Ø. Care should be taken of the reef on the SW and SE sides of the island, see section 7.3.

7.2.2.3 Alpefjord 72º23’N 025º11’W

The fjord is an arm of Segelsällskapet Fjord and extends 15 M to the SSW. The fjord is surrounded by high, steep mountains with various transverse valleys and cliffs with glaciers. The converging and productive Gullygletscher and Sefstrøm Gletscher discharge into the innermost part of Alpefjord.
Glaciers fill the valleys around the mountains, Murchison Bjerge, which lie on Scoresby Land and rise to a height of 2,036 m.
Kap Mæchel, which is the NE point of Nathorst Land, lies between Alpefjord and Forsblad Fjord. W and S of the point, the land rises to heights of around 2,035 m.

7.2.2.3.1 Depths

The largest depth in Alpefjord is 200 m and can be found mid-channel between the entrance and the innermost part of the fjord, after which the depth decreases southwards. There is 49 m of water 0.5 M N of Gullygletscher, off a stream delta on the W side of the fjord. 1.5 M N of

Gullygletscher, the shallow water protrudes 0.5 M into the fjord.
Anchorages, see section 7.3.

7.2.2.4 Forsblad Fjord 72º25'N 025º12'W

The fjord is the other arm, which extends 20 M W from Kap Mæchel and borders Lyell Land to the N. The fjord is surrounded by high, steep mountains with transverse valleys and cliffs with glaciers.

7.2.2.4.1 Depths

The depth is unknown in Forsblad Fjord, but there are assumed to be a number of rocks. There are reported to be small islands and rocks in the inner part of the fjord and this inner part can probably only be reached by boat. There is no information available about whether any vessel has been W of the little (westernmost) point on the N side of the fjord.

7.2.2.5 Narhvalsund 72º44'N 024º50'W

7.2.2.5.1 Landmarks

The N side of Narhvalsund (SW coast of Ella Ø) consists of a 10 M long, almost vertical, reddish cliff face, which rises to a height of 1,000 m in places. The cliff wall at the W point of Ella Ø terminates with the 1,367 m high mountain, Bastionen. On the S side of the sound, a number of small local glaciers protrude through the mountain cliffs. The deep Polhem Dal extends S through Lyell Land at approximately the mid-point on the S coast.

7.2.2.5.2 Depths

In the SE and NW parts of Narhvalsund, the depths mid-channel appear to be large and even. Near the isthmus protruding at the mountain Rytterknægten on the S side of the sound, approximately midway between Polhem Dal and Kap Alfred, however, the soundings show less water than to both the SE and NW of here. The smallest measured depth mid-channel in the sound is 144 m and is located approximately 1 M E of the point mentioned above.

7.2.2.5.3 Sailing directions

When navigating in Narhvalsund, avoid approaching the point at Rytterknægten on the S side of the sound.
Anchorage, see section 7.3.

7.2.2.6 Kempe Fjord 72º56'N 025º00'W

7.2.2.6.1 Landmarks

The islands, Maria Ø and Ruth Ø, lie outside the mouth of Kempe Fjord. There is a small islet at the NW point of Maria Ø.
The low Kap Oswald protrudes 0.7 M in a N direction on the NW side of Ella Ø. There is a bay, Solitærbugt, at the E side of Kap Oswald, in which Ella Ø Station is located.
A reef extends 200 m out at Kap Oswald.
W of Narhvalsund, Kempe Fjord continues in a SW direction between high mountains, of

which the 2,117 m high, ice-covered mountain Snehætten on the S side of the fjord, close E off Rhedin Fjord, is especially prominent. There is a deeper valley, Murgangsdalen, which runs in a NW direction on the N side of the fjord. A station hut has been erected at Kap Hedlund, E of the entrance to Rhedin Fjord. Kempe Fjord divides into three fjords here, which from the S are called Rhedin Fjord, Röhss Fjord and Dickson Fjord.

7.2.2.6.2 Depths

In the N entrance to Kempe Fjord, W of Ruth Ø and Maria Ø, the depths are very uneven and vary mid-channel from 40 m to 200 m. There are some underwater rocks off the coast on the SW and S sides of Maria Ø.
The largest depths in the S part of the channel can be found between Maria Ø and Ella Ø. The channel is probably free from dangers.
The previously mentioned reef with rocks, which extends 200 m out from the point, is located N of Kap Oswald. The reef includes 2 rocks that are visible at low tide. W of Kap Alfred, the existing sounding tracks show very deep water in Kempe Fjord.

7.2.2.6.3 Sailing directions

When navigating from the N to Kempe Fjord, keep mid-channel between Ruth Ø and the E side of Suess Land. After passing Maria Ø, keep closest to Suess Land.
When navigating from the E, S of Maria Ø, keep closest to Ella Ø, although no closer than 0.5 M to Kap Elisabeth.
Anchorage in Solitærbugt off the station.

7.2.2.7 Rhedin Fjord 72º44'N 026º16'W

7.2.2.7.1 Landmarks

The high mountain sides along the fjord are broken by some valleys with glaciers from the interior. The valley, which continues in the direction of the fjord, is filled by the wide but unproductive Wahlenberg Gletscher, which can be seen from the fjord due S of an impressive, steep mountain wall. Snehætten, which is 2,117 m high and looks like a snow cap, lies 4 M SE of Kap Hedlund.

7.2.2.7.2 Depths

The depths in Rhedin Fjord appear to be very large in the N part of the fjord and decrease rather quickly in its innermost part towards Wahlenberg Gletscher.
Anchorage, see section 7.3.

7.2.2.8 Röhss Fjord 72º45'N 026º20'W

7.2.2.1 Landmarks

The fjord extends in a WSW direction and between high mountains 15 M into Gletscherland. There is a larger stream delta approximately halfway into the fjord on the S side, which protrudes into the waters as a point and is called Strømnæs. A narrows called "Strømmen" is formed here in connection with a protruding point directly off on the N coast. There is a

station hut at Strømnæs. The inner part of the fjord ends in a valley called Skræntdal.

7.2.2.2 Depths

There are no direct depth measurements in the fjord, but vessels have anchored directly E of Strømnæs. The actual narrows at Strømnæs are not navigable for vessels but are however for boats, except when the current here is at its strongest. The fjord is assumed to be deep again inside the narrows, but the waters at the innermost part of the fjord become shallow towards large mud banks.

7.2.2.9 Dickson Fjord 72º46'N 026º20'W

7.2.2.9.1 Landmarks

The fjord bends in a WNW direction along the S side of Suess Land between high and steep mountains with many gorges with glaciers. The large and somewhat productive Hisinger Gletscher protrudes into the innermost part of the fjord. The land S of the fjord is called Gletscherland and the highest point is here Lugano Bjerg, which is 2,220 m high and lies 2 M S of the innermost part of the fjord.
A 100 m long islet is said to lie at the entrance to the fjord and closest to the S side of the fjord. However, the islet is not included on any charts, and its existence must be considered questionable at present.

7.2.2.9.2 Depths

Depths are unknown in Dickson Fjord. Vessels that have attempted to anchor in the fjord have found steeply sloping ground along both sides of the fjord.

7.2.3 The Kangerluk Kejser Franz Joseph area

7.2.3.1 Kangerluk Kejser Franz Joseph 73º13'N 022º45'W, charts 2701, 2730 and 2750

The entrance to the fjord lies between Kap Graah on Gunnar Andersson Land and Kap Franklin on the SE point of Gauss Halvø. The fjord is 100 M long and extends first in a WNW direction between the N coast of Ymer Ø and the S coast of Gauss Halvø and then extends SW. At Kap Ovibos, the SE point of Strindberg Land, the fjord divides into Nordfjord and Geologfjord.
Kangerluk Kejser Franz Joseph is 7 M wide in its E part, but the mouth at Nordfjord reaches a width of 11 M. From Kap Weber, the SW entrance point to Geologfjord, Kangerluk Kejser Franz Joseph continues in a WSW direction for 10 M and then turns SSW to Kap Mohn.
At Kap Mohn, Antarctic Sund connects Kangerluk Kejser Franz Joseph with Kangerluk Kong Oscar, and Kangerluk Kejser Franz Joseph continues 10 M from here in a W direction to Isfjord, which extends in a WNW direction, while the main fjord extends S and W for 25 M between Frænkel Land and Suess Land to the foot of Nordenskiöld Gletscher. Kjerulf Fjord extends 7 M S from the innermost part of the main fjord. Low mountains slope down to sea

level on both sides of the E part of Kejser Franz Joesph Fjord.

7.2.3.1.1 Landmarks

The outer part of Kangerluk Kejser Franz Joseph is mostly surrounded by high, steep mountain coasts. An exception from this is the N side of Ymer Ø, from Kap Graah to S of Geologfjord, where the mountain sides are more evenly sloping. Various extensive valleys indent the land from the coasts. The easiest to recognise of these is Margrethedal, 9 M WNW of Kap Franklin, and Paralleldal on Gauss Halvø, Grejsdalen on Andrée Land between Geologfjord and Eleonore Bugt, and Zoologdalen, which runs in a N-S direction across Gunnar Andersson Land. The low islands, Vinterøer, lie at the entrance to Dusén Fjord between Kap Wijkander and Kap Graah. Kap Graah ends in a low point to the E.
The S part of Strindberg Land, between Nordfjord and Geologfjord, slopes down quite evenly. The SE point of it is named Kap Ovibos, while the lower S point is called Damesten.
Kap Weber 73º31'N 024º40'W is the E point of Andrée Land and is a 1,230 m high, steep promontory, whose sides rise vertically from the water, except on the NE side of the point, where there is a narrow foreshore, where it is possible to land.
Teufelsschloss lies 15 M WSW of Kap Weber and is a 1,520 m high, wide mountain, which protrudes out from Andrée Land like an isthmus and rises vertically from the water. There are regular stripes of red-yellow, black and lighter coloured types of rock across the mountain sides. Tower-like peaks and promontories on the edges of the mountain make it look like the ruins of a castle. Seen from the E, Teufelsschloss has a dome-shaped upper part, and seen from the N entrance to Antarctic Sund, the mountain has a rather wide lower part opening towards the SW.
Further inside, high and mostly steep mountains surround Kangerluk Kejser Franz Joseph. Hvidevæggen is a broad, white mountain range, SW of Teufelsschloss.
Junctiondal, NNW of Kap Mohn, cuts into Andrée Land in a NNW direction. On the mountain edge E of the valley, at a relatively low height, there are 2 conspicuous, vertical monoliths that are particularly clearly visible from SSW and NNE.
Kap Lapparent 73º14'N 026º10'W is on the S side of Andrée Land and at the E side of the entrance to Isfjord and rises steeply to a height of 1,475 m. The mountain has a brownish colour on its S side.
Frænkel Land is a peninsula which borders Isfjord to the N and Kangerluk Kejser Franz Joseph for a distance of 25 M to the S.
Ättestupan, which lies on Frænkel Land at the N side of the innermost part of Kangerluk Kejser Franz Joseph, where this turns WNW, is an impressive 6-7 M long mountain wall, which rises almost vertically to a height of 1,830 m. There is a waterfall W of Ättestupan that is more than 1,500 m high.
16 M W of the innermost part of Kangerluk Kejser Franz Joseph there is a 2,940 m high, snow-covered, pyramid-shaped mountain, Petermann Bjerg, close N of Nordenskiöld Gletscher. 5 M ENE of Petermann Bjerg lies the 2,372 m high Nathorst Tinde and between these two mountains, 2 M WSW of Nathorst Tinde, is Lille Petermann Bjerg, 2,400 m.
Ridderborgen, at the W side of the entrance to Kjerulf Fjord, is a steep, 1,885 m high mountain with a distinctive, square peak, which resembles a ruined castle.
Payer Tinde on the N part of Suess Land and S of the entrance to Isfjord, is a 2,320 m high

mountain with a pyramid-shaped, snow-covered peak. The mountain can be seen from great distances.
Kap Payer 73º12'N 026º27'W protrudes into the fjord NNW of Payer Tinde and is high, steep and glaciated.
Kap Mohn 73º12'N 025º45'W, the W point of Ymer Ø, has a grey-yellow colour and the point protrudes in a sloping, rather wide foreland.
Blomsterbugten is an open bay on the W side of Ymer Ø. The bay extends in towards the deep Noa Dal, W of the innermost part of Dusén Fjord. A hut has been erected at the bay, see section 7.3.
Kap Petersen 73º24'N 025º19'W is a low, glaciated promontory. There are two waterfalls S of the cape and behind these rises a 1,030 m high, easily recognisable, reddish-coloured mountain. The mountain has a slanted stripe of lighter rock.

7.2.3.1.2 Depths

The depths in the outer part of Kangerluk Kejser Franz Joseph are generally very large and even. Despite the relatively large number of soundings, the 200 m contour along the coasts can only be followed roughly in the E part of the fjord and in the waters SE and S of Kap Ovibos and Damesten.
From 1 M S of Kap Franklin, the 200 m contour only approaches the coast a couple of M W of the promontory, and then moves some distance away from it again until off Margrethedal, where it is approximately 2 M from land, after which it turns N again W of the valley.
At the S side of the entrance to the fjord, the 200 m contour, which is approximately 1.5 M NE of Broch Øer, follows the main direction of the fjord and it passes Kap Wijkander, Vinterøer and Kap Graah at a distance of 1.5 M. W of here, it has only been observed 1 M N of Zoologdalen.
SE and E of Kap Ovibos and Damesten, the 200 m contour is found up to 4 M from Strindberg Land and is observed again 2 M SE of Kap Weber. Close within the 200 m contour, the depth decreases quickly SE and S of Strindberg Land to less than 50 m, and there may be shallow water 3 M SE of Damesten.
There is a sounding of 49 m of water 5 M in the direction 011º from Zoologdalen and approximately in the middle of the width of the fjord, S of Nordfjord. There may be a larger shoal in this area, as many icebergs ground here.

7.2.3.2 Nordfjord 73º34'N 024º10'W

The entrance to the fjord lies 40 M inside Kap Franklin, between the W coast of Gauss Halvø and the S point of Strindberg Land. Nordfjord, which extends 15 M N to Waltershausen Gletscher, has a width of 7 M.
In the innermost part of the fjord, the 6 M wide, but not very productive Waltershausen Gletscher, protrudes in a S direction. At the W side of the fjord, the deep Brogetdal protrudes into Strindberg Land, N of the 1,231 m high Gunvor Bjerg. At the E side of the fjord, 5 M S of Waltershausen Gletscher and N of the steep Kap Kolthoff on Gauss Halvø, lies the entrance to Moskusoksefjord.

7.2.3.2.1 Depths

The depths are relatively deep everywhere in the fjord and the waters are free from dangers close to the coasts. The large depths from Kangerluk Kejser Franz Joseph continue into the fjord, E and NE of the 200 m contour at Kap Ovibos, and further into Moskusoksefjord. At the W side of Nordfjord, the 200 m contour is 1 M off Gunvor Bjerg and continues from here in approximately a NE direction towards the N side of the entrance to Moskusoksefjord. N of this contour, the depths decrease towards Waltershausen Gletscher. The depth is 100 m 0.5 M from the edge of the glacier.

7.2.3.2.2 Ice

The ice in the fjord usually breaks up at the end of July and a steady flow of icebergs then occurs from Waltershausen Gletscher, which is one of the largest glaciers in NE Greenland. The ice in Nordfjord usually stays mid-channel and drifts at a rate of 1 kn.

7.2.3.2.3 Sailing directions

During navigation in the waters in question, an appropriate distance shall be maintained from the costs, not get too close to the mouths of the streams, keep in mind the reported shallow area 3 M SE of Damesten and also be aware of the possibility of waters more shallow than the 49 m that are indicated on the chart in the direction 011º from Zoologdalen.

7.2.3.3 Moskusoksefjord 73º45'N 024º00'W

The fjord extends 35 M E, SE and NE between Gauss Halvø and Hudson Land and has a width of 2 M. The fjord is surrounded on both sides by high, steep mountains that rise to heights of up to 1,310 m. In its innermost part, the fjord narrows and the mountains become lower and gradually becomes a strip of land, 5 M wide, which separates the innermost part of the fjord from Loch Fyne. There is rather varied terrain on the S side of the fjord.
High, rugged mountain ranges with narrow valleys extend all the way to the coast on a stretch in from Kap Kolthoff, on a longer stretch approximately halfway inside the fjord, and also where the fjord turns NE. Otherwise the S coast has rather wide lowland, which has rounded esker ridges, terraces and grass plains rising towards the mountains.
Hudson Land is steep on the N side of the entrance to the fjord, but further inside the fjord the mountains pull back somewhat and make room for a broad, sloping terraced land that is furrowed by gorges with large streams. Even the beach is partly comprised of steep stone cliffs.
There is a large lowland area around the innermost part of the fjord, and a larger valley, Ankerdalen, extends NW from here into Hudson Land, and as an extension of the fjord, there is a broad valley that extends N of Ladderbjerg to the northernmost part of Badlanddal. The innermost 2-3 M of the fjord are shallow and cannot be navigated.

7.2.3.3.1 Depths

The depths in Moskusoksefjord decrease from 350 m at the entrance to 100 m mid-channel 6 M from the innermost part of the fjord. The waters are greatly narrowed 5 M from the innermost part of the fjord by stream deltas, especially from the N side of the fjord, which only leaves a narrow, winding channel with deeper water, through which a strong current may flow.

The innermost part of the fjord becomes dry at low tide.

7.2.3.4 Geologfjord 73º32'N 024º33'W

The fjord is separated from Nordfjord at Strindberg Land, and extends 35 M in a NNW direction. The entrance to the fjord lies between Damesten, the S point of Strindberg Land, and Kap Weber.
Geologfjord winds in between the mountains with layers of strongly coloured rock. The mountains are much lower than the mountains around Kangerluk Kejser Franz Joseph. On the W side they are high and long stretches fall abruptly towards the sea. More accessible lowland is not found until in at Eremitdal, which wedges W into Andrée Land and the point lying just opposite. The recognisable, 588 m high Elisabeth Bjerg is located at the W side of the fjord at an overhang 12-13 M from Kap Weber.

Nunatakgletscher, which is steep, uneven and very grooved, fills the valley in the innermost part of the fjord but it is said to be not very productive. 7.2.3.4.1 Depths

The depth mid-channel is not less than 100 m for the first 4 M into the fjord, but otherwise the depth mid-channel is large everywhere. There is a depth of 100 m mid-channel at the entrance to the fjord and close S of Bjørneø, 3.5 M inside the entrance to the fjord. 100 m from Bjørneø, the depth is reported to suddenly decrease to 71 m. Further N, the depth mid-channel increases and is 700 m off Elisabeth Bjerg.
Anchorage, see section 7.3.

7.2.3.5 Isfjord 73º14'N 026º18'W

The fjord extends mainly in a WNW direction for a distance of 25 M between the high and steep coasts of Andrée Land and Frænkel Land to Louise Boyd Land. Renbugten lies 7-8 M NW of Kap Lapparent on the N side of the fjord.
Renbugten 73º20'N 026º30'W is a small indentation in whose innermost part there is a stream delta outside two evenly sloping valleys, one of which, Rendalen, runs in a NNW direction, the main direction of the bay, while the other leads NE and ends in a glacier. In the innermost part of Isfjord there are two active glaciers, Gerard de Geer Gletscher and Jættegletscher, E and S respectively of Kap Hendil on Louise Boyd Land. Both glaciers have short, slightly sloping falls from the ice cap, which can be clearly seen from the fjord.

7.2.3.5.1 Depths

The depths mid-channel range between 450 m and 825 m.

7.2.3.5.2 Ice

There are often so many icebergs in Isfjord that it is difficult to get in. Many of the large icebergs in Kangerluk Kejser Franz Joseph come from the glaciers in Isfjord. On their way out to the sea, they all drift NE and then through Kangerluk Kejser Franz Joseph, passing close to the W end of Ymer Ø. Almost no icebergs from Isfjord pass through Antarctic Sund.

7.2.3.5.3 Sailing directions

The fjord has been navigated in the period from late August to early September and passage between the high icebergs and the coast occurred without difficulties. Keep mid-channel during navigation of these waters.
The land on both sides of Renbugten consists of cliffs that rise almost vertically from the sea to a height of 915 m. Vessels have anchored outside the delta in the innermost part of the bay with good holding ground 200 m from land in 35 m of water, see section 7.3.

7.2.3.6 Kjerulf Fjord 73º08'N 027º20'W

The fjord is the only fjord arm on the S side of Kangerluk Kejser Franz Joseph, and its entrance lies a little E of Nordenskiöld Gletscher. Ridderborgen is the W entrance point to Kjerulf Fjord and is a 1,885 m high mountain. The E entrance point lies 2 M further E and is a slope on Suess Land. From the entrance, the fjord extends S for a distance of 11 M. Valleys where the vegetation can be quite lush open onto both the E and W sides, close to the entrance to the fjord. There is a clayey and swampy terrain around the innermost part of the fjord, from where a couple of stony valleys extend inland.

7.2.3.6.1 Depths

The depths in these waters are very large everywhere. Anchorages can only be found in a few places and close to the coast.

7.2.3.6.2 Ice

The fjord is often filled with icebergs, and the inner two thirds can only be navigated by motorboat due to the many grounded icebergs.
Anchorages, see section 7.3.

7.2.3.7 Antarctic Sund 73º11'N 025º47'W

The fjord connects Kangerluk Kejser Franz Joseph with Kangerluk Kong Oscar, and from the entrance between Kap Mohn and the coast of Suess Land, it extends 20 M in an ESE direction.

7.2.3.7.1 Landmarks

The sound is mainly surrounded by high mountains, the most recognisable of which is Skildvagten 1,046 m on Suess Land. The mountain has a distinctively shaped, E-sloping peak. The lower part of the mountain, which is very protruding towards the E, has a yellow-greyish colour. Its rock layer is very winding on the N side. To the W, the layers mainly slope downwards. The upper part of the mountain is striped and more reddish. Skildvagten can be seen from far around. Approaching from the N (from the inner part of Kangerluk Kejser Franz Joseph), the mountain can be seen at the centre of the entrance to the sound.
S of Kap Mohn on the S side of Antarctic Sund there is a large, rather lush valley, Nanortalikdal, with a large stream. There is a rather large stream delta in the valley W of Skildvagten.
The points NW, N and NE of Skildvagten are rather steep, while the points S of the mountain are more even and gravelled. There is a large, recognisable stone with a clear, yellow-brown

colour W of the N end of Ruth Ø, close to the beach.
On Ymer Ø, 2 M SE of Kap Mohn, a small point with a small bay to the E protrudes on the N side of the sound. Roughly NNE of Skildvagten, a deep valley, Margeries Dal, runs in a NNE direction into Ymer Ø towards Dusén Fjord. The coastal mountains on both sides of this valley are very striped. W of the valley, the stripes go downwards at an angle to the W, while those SE of the valley go downwards at an angle to the SE.
Karl Jakobsen Bugt 73º03'N 024º44'W lies on the S side of Ymer Ø. The mountainsides W of this bay also have striking, wide stripes of red, bright and dark colours. The broad Juulut Dal, where there is rich vegetation, lies E of Karl Jakobsen Bugt.

7.2.3.7.2 Depths

The depths mid-channel in Antarctic Sund are large and rather uniform, except in the section stretching from off Skildvagten to 2 M SE of here, where the largest depths can be found closest to the W side of the sound. There are 2 rocks close the coast of Ymer Ø.
1) There is a rock in 73º03.8'N 024º54'W, over which waves break at low tide in rough weather. The rock is 0.5 M from the coast of Ymer Ø. The water is deep close to the SW side of the rock, but it is possible that, on the N side, the rock (reef) extends all the way to the land.
2) Another rock, over which the depth is unknown, lies approximately 1.8 M NW of the first rock and 0.75 M from the coast.
Between Ruth Ø and the point with the recognisable, yellow-brown stone, S of Skildvagten, there is a shoal in the E part of the waters, as large icebergs have been seen here that were apparently grounded.
At the N entrance to the sound, the available soundings suggest that the shallow waters extends somewhat from the coast at both Kap Mohn and at Suess Land, since the 200 m contour is approximately 1 M out from land on both sides.
2 M SE of Kap Mohn, a flat reef protrudes from the land off the point.

7.2.3.7.3 Sailing directions

Keep mid-channel when navigating the sound, except on the stretch off the two rocks in the SE part of the sound, where one shall keep closer to Suess Land and pass SW of the rocks.
Anchorages, see section 7.3.

7.3 Harbours and anchorages

Nyhavn and Ella Ø lie in this area and are navigated every year. There are a number of anchorages in the fjord complex around Kangerluk Kong Oscar and Kangerluk Kejser Franz Joseph that have previously been used as emergency harbours and resting places, but they are not all sufficiently surveyed and they must therefore be used with care. There are no habitations at these anchorages, the most important of which are as follows:

7.3.1 The fjords in the outer area between Kap Simpson and Kap Broer Ruys

7.3.1.1 Davy Sund
7.3.1.2 Mountnorris Fjord
7.3.1.3 Vega Sund
  7.3.1.3.1 Malia Havn
  7.3.1.3.2 Sverreborg
7.3.1.4 Cambridge Bugt
7.3.1.5 Foster Bugt
  7.3.1.5.1 Mackenzie Bugt
  7.3.1.5.2 Hold With Hope
  7.3.1.5.3 Borgøen
  7.3.1.5.4 Søstjernen
  7.3.1.5.5 Laplace Øer
  7.3.1.5.6 Bontekoe Ø
  7.3.1.5.7 Kap Humboldt
7.3.1.6 Sofia Sund
  7.3.1.6.1 Robertson Ø
  7.3.1.6.2 The N side of Sofia Sund
  7.3.1.6.3 Off Juulut Dal
7.3.1.7 Dusén Fjord
  7.3.1.7.1 Kap Wijkander
  7.3.1.7.2 Vinterøer
  7.3.1.7.3 Inner part of Dusén Fjord

7.3.2 The fjords in the Kangerluk Kong Oscar area

7.3.2.1 Kangerluk Kong Oscar
  7.3.2.1.1 Nyhavn
  7.3.2.1.2 Antarctic Havn
  7.3.2.1.3 Drømmebugten
  7.3.2.1.4 Mesters Vig
  7.3.2.1.5 Noret
  7.3.2.1.6 Immikkeerterajii (Menander Øer)
  7.3.2.1.7 Holm Bugt
7.3.2.2 Segelsällskapet Fjord
  7.3.2.2.1 Åkerblom Ø
  7.3.2.2.2 Arwidsson Ø
  7.3.2.2.3 Alpefjord
  7.3.2.2.4 Forsblad Fjord
7.3.2.3 Narhvalsund
7.3.2.4 Kempe Fjord
  7.3.2.4.1 Solitærbugt (Ella Ø)
  7.3.2.4.2 Maria Ø (E side and NW side)
  7.3.2.4.3 Rhedin Fjord
  7.3.2.4.4 Röhss Fjord
  7.3.2.4.5 Dickson Fjord

7.3.3 The Kangerluk Kejser Franz Joseph area

7.3.3.1 Kangerluk Kejser Franz Joseph
 7.3.3.1.1 Margrethedal
 7.3.3.1.2 Vinterøer
 7.3.3.1.3 Kap Graah
 7.3.3.1.4 Kap Weber
 7.3.3.1.5 Eleonore Bugt
 7.3.3.1.6 Blomsterbugten
7.3.3.2 Nordfjord
 7.3.3.2.1 Brogetdal
7.3.3.3 Moskusoksefjord
 7.3.3.3.1 The outer part of the fjord
 7.3.3.3.2 The inner part of the fjord
7.3.3.4 Geologfjord
7.3.3.5 Isfjord
 7.3.3.5.1 Renbugten
7.3.3.6 Kjerulf Fjord
 7.3.3.6.1 The mouth of the fjord
7.3.3.7 Antarctic Sund

7.3.1 The outer area between Kap Simpson and Kap Broer Ruys

7.3.1.1 Davy Sund. See under Kangerluk Kong Oscar

7.3.1.2 Mountnorris Fjord

It is possible to anchor in the NW part of the fjord off the large streambed. The depth here is 25 m.

7.3.1.3 Vega Sund

7.3.1.3.1 Malia Havn 72º42'N 022º36'W, charts 2701 and 2730

There is a well-protected anchorage in Malia Havn in the middle of the bay, where the anchor can be set in the intersection between the two anchor mark lines. Approaching the harbour with the two N beacons on a bearing of 007º, care must be taken of the islands and rocks on the W side of the entrance, which is rather narrow. The least depth in beacon line is 7 m. There is 24 m of water at the anchorage, with good holding ground, mud and clay. See fig. 7.6.

7.3.1.3.2 Sverreborg 72º50.3'N 022º57'W

Vessels have anchored at Sverreborg, and the water depth was 46 m. The depths around the anchorage are even and uniform. The low heights on the land NW of the anchorage have a recognisable red-brown colour. It is likely that anchorages can also be found along the coast in the central part of the sound.

7.3.1.4 Cambridge Bugt

There are no known anchorages.

7.3.1.5 Foster Bugt

7.3.1.5.1 Mackenzie Bugt 73º29'N 021º32'W, chart 2701

7.2.1.5.1.1 Landmarks

Kap Bennet is the SW entrance point, and the bay itself extends 6 M NNW. The abandoned meteorological station lies in the innermost part of the bay, Myggbukta, fig. 7.7. Some streams discharge into the innermost part of the bay and one of the largest discharges 2 M SW of the station. This stream runs through the wide Badlanddal, which forms a relatively easy passage over land to Moskusoksefjord and Loch Fyne and also forms a sharp separation of the land on the E and W side respectively.

The land E of the station rises to a height of 208 m and 10 M NW of the station lies the easily recognisable and prominent Ladderbjerg, which forms an easily recognisable point when approaching the bay from SE. Terneholm is the name of a small island that lies in Mackenzie Bugt. Its location is such that the tides do not bring ice in to the island and it is a breeding ground for thousands of terns.

7.3.1.5.1.2 Depths
The depths in the bay vary between 10 m and 55 m and a distance of at least 1 M from the coast must be maintained on the W side.
There is reported to be a rock 2 M S of Terneholm and 1.25 M from the coast, over which the depth is however unknown.

7.3.1.5.1.3 Approach
Mackenzie Bugt is best approached from a position 5-6 M E of Kap Broer Ruys, and from here following the coast at a distance of 3 M and later, before steering into the bay, approaching the coast to within 1 M.

7.3.1.5.1.4 Anchorage
It is possible to anchor in the N part of the bay at depths of between 10 m and 30 m 0.5 M from land, but the anchorage has rarely been used since the station was closed. If there is no ice in the waters, it is possible to anchor in 20 m of water 0.5 M SE of the radio station and 500 m from land. If there is drift ice in the bay or outside it, vessels should anchor further out in the bay.

7.3.1.5.1.5 Ice
The ice situation changes often in Mackenzie Bugt and when the drift ice is carried in by the wind or the tides, it often blocks the innermost part of the bay. With shifts of wind or outgoing currents, the drift ice quickly disappears, exception for the icebergs grounded outside the beds of streams. The winter ice usually breaks up 20 July, but it can also occur a little earlier or later. New ice formation begins in early October.

7.3.1.5.1.6 Wind and weather
The prevailing winds are from N in the winter and from SE in the summer. Days with storms are rare, and when they occur, the wind has a foehn-like character. There is little precipitation and it falls mostly as snow.

7.3.1.5.1.7 Special remarks
Myggbukta meteorological station was closed in 1940 and there are now only some wooden sheds remaining. The station was too far from the coast to provide the general weather for East Greenland at this latitude, as the meteorological conditions vary greatly according to the topographical conditions and the distance from the open sea.

7.3.1.5.2 The S side of Hold With Hope land
It is possible to anchor anywhere off the coast between the SE point of Hold With Hope land and Mackenzie Bugt. The ground is stony or clayey.

7.3.1.5.3 Borgøen 73º05'N 022º36'W, chart 2701
The island is the largest of Broch Øer, and there is a good anchorage here with flat, even clay bottom in 15-20 m of water. The anchorage is well-protected against all winds, and it is assumed to be so good that it could be used for overwintering. When approaching the anchorage

from N, care must be taken of a rock that lies between Langåren and Borgøen. The rock lies 0.5 M NE of Langåren and is dry at low tide. There is also a rock 200 m SW of the point at the N side of the anchorage. The S approach between Forposten and Langåren appears to be clear however. It is possible to anchor in 20 m of water with good holding ground. See fig. 7.8.

7.3.1.5.4 Søstjernen 73º01.5'N 022º19'W, chart 2701

There is an anchorage in the NW bay of the island, where there is shelter from all winds except those from the NW. It is possible to anchor in the middle of the bay a little inside the connecting line between the points, where there is 15 m of water and good holding ground. See fig. 7.9.

7.3.1.5.5 Laplace Øer 73º00'N 022º12'W

There are sufficient depths to anchor around Laplace Øer, but the waters are not well known and are unexplored. Vessels are very exposed to ice at this location and should navigate with great caution. It is possible to anchor in 49 m of water off Laplacenæsset 73º00'N 022º30'W at the following location: The station hut on a bearing of 163º and the coast E of the station on a bearing of 122º.

7.3.1.5.6 Bontekoe Ø 73º08'N 021º20'W

Vessels have anchored on a clay bottom S of Bontekoe Ø, where the shallows extend quite far out.

7.3.1.5.7 Kap Humboldt 73º06'N 023º00'W

It is possible to anchor off the station hut, 0.5 M N of Kap Humboldt. It is recommended to anchor 550 m from land with the station hut on a bearing of 313º, where the depth here is 58 m. It is also possible to approach a little closer to land, but one shall always anchor in more than 27 m of water, as there is a half-moon shaped reef here off the station. The shoal off Kap Humboldt slopes quickly away. Small boats can land a short distance N of the station. The anchorage is not very well protected. Vessels are often bothered by ice that drifts in and out of Sofia Sund with the tidal stream, which can be quite strong between Robertson Ø and Ymer Ø.

7.3.1.6 Sofia Sund

7.3.1.6.1 Robertson Ø 73º03.7'N 023º06'W, chart 2701

There is an anchorage off a stream delta 0.6 M W of Robertson Ø, at the S side of the sound and approximately midway between Rudbeck Bjerg and a mountain with a basalt (black, volcanic rock) peak 3 M E of Rudbeck Bjerg. The anchorage extends 1 M in an E-W direction. It is possible to anchor 0.5 M from the coast with the basalt mountain on a bearing of 167º. The holding ground is good in fine, brown sand.
The anchorage is well protected against all winds except winds from the W. The bottom is even and there are no rocks nearby. There is a sandy beach at the coast.
The tidal streams N and S of Robertson Ø can reach a speed of 2-3 kn.

7.3.1.6.2 The N side of Sofia Sund
In 1930, ”Godthaab” anchored close to land in 40 m of water at the N side of the sound, 5 M E of its W entrance.

7.3.1.6.3 Juulut Dal
The location outside Juulut Dal has been used as an anchorage, but the depths here are unknown, and great caution should be exercised here for a possible reef, which is assumed to protrude from where the valley’s stream discharges. It is known that several vessels have anchored in Sofia Sund on the N side of the fjord, but they have usually found sloping ground and poor anchorage.

7.3.1.7 Dusén Fjord

7.3.1.7.1 Kap Wijkander
It is possible to anchor in the mouth of the fjord at the W side of the low Kap Wijkander.

7.3.1.7.2 Vinterøer
A good anchorage that is protected against ice can be found on the S side the westernmost island of Vinterøer. The location is considered suitable for a winter harbour during a possible overwintering.

7.3.1.7.3 Inner part of the fjord
It is possible to anchor in 45 m of water close to the innermost part of Dusén Fjord, 0.5 M before the fjord narrows to a river-like channel and at a distance of 500 m and 400 m respectively to the N and S coasts of the fjord.

7.3.2 The Kangerluk Kong Oscar area
Kangerluk Kong Oscar

7.3.2.1.1 Nyhavn 72º16’N 023º57’W, charts 2730 and 2701

7.3.2.1.2 Antarctic Havn 72º01’N 023º10’W, chart 2600
The harbour is a small cove on the SW side of Davy Sund. The SE point at the mouth of the fjord is called Knivodden and lies 12 M NNW of Kap Biot. The NW point is called Kap Syenit and is a steeply sloping point. The cove extends 3 M SW and the inner part gradually becomes flat stretches of sand. Behind the harbour, the mountain landscape rises to a height of 1,093 m. A hut that is called Karlsbak lies in the SE part of the cove.

7.3.2.1.2.1 Depths
Inside the entrance, the depths decrease steadily towards the innermost part of the cove. The deepest water is found in its NW part.

7.3.2.1.2.2 Anchorage

The harbour has a good anchorage, which can be used by vessels of any size, and there is shelter from all wind directions except for winds from directions between N and NE. It is one of the best anchorages in the fjord, when it is free of ice. It is possible to anchor near the innermost SE part of the cove, where the depth is 55 m and where the holding ground is good. The location has Kap Syenit on a bearing of 005º, Knivodden on a bearing of 049º and the hunting hut on a bearing of 177º.

7.3.2.1.2.3 Ice

It is reported that Antarctic Havn is usually filled with ice, but it is often free of ice in August.

7.3.2.1.2.4 Approach

Approach by keeping to the NW side of the cove until the hut (Karlsbak) is on a bearing of 177º, then steer towards that. The harbour is easy to approach.

7.3.2.1.3 Drømmebugten 72º13'N 022º34'W, chart 2701

There is an anchorage in the innermost N part of Drømmebugten, where it is possible to anchor in 30 m of water and with good holding ground.

7.3.2.1.4 Mesters Vig (Archer Øer) 72º10'N 023º43'W, chart 2701

There are anchorages in the mouth of Mesters Vig in 47-48 m of water and in the waters close SW of Archer Øer.

The island furthest E of Archer Øer on a bearing 016º, the E point of Mesters Vig on a bearing of 128º and the W point of Mesters Vig on a bearing of 311º determine the anchorage in the mouth of Mesters Vig. The water depth here is 47 m and the bottom is soft, brown mud. The anchorage is rather open, but does provide some protection against winds from S and W.

There is a very good anchorage with 10 m of water and good holding ground in the sound between Archer Øer and the mainland. There is no significant current and so the ice does not move much. The inner part of Mesters Vig is dry at low tide.

7.3.2.1.5 Noret 72º14'N 023º49'W, chart 2701

Noret lies S of Nyhavn and can be navigated by motor boats with low draught. The entrance is shallow and full of rocks, so even motorboats must exercise due caution when navigating through the gap, where a current of up to 4 kn can flow. Otherwise, Noret is clear throughout its length and width, with water depths of up to 65 m. There is an ideal take-off and landing site here for sea aircraft, see fig. 7.11.

7.3.2.1.6 Immikkeerterajii (Menander Øer) 72º20'N 024º20'W, chart 2730

The islands are 8 M NW of Nyhavn. It is the coastline, together with the 4 islands, Immikkeerterajii (Menander Øer), which form a rather good anchorage with shelter from all wind directions except NW. Navigation can occur from N or between the 2 southernmost islands of Immikkeerterajii (Menander Øer). The anchorage is mid-channel in the crossing mark (2 beacons in line), which gives a water depth of 35 m with good holding ground of clay. Motorboats can pass between the peninsula and the southernmost island of Immikkeerterajii (Menander Øer).

7.3.2.1.6.1 Ice
It is assumed that the anchorage closes at the same time as the fjord.

7.3.2.1.7 Holm Bugt 72º30'N 024º05'W, chart 2701
The bay is formed by Palisaderne to the N and Traill-iup Immikkeertivi (Haslum Øer) to the S, while the hinterland to the NE is formed by flat land, into which a number of extensive valleys open. There is an anchorage in Holm Bugt close to a couple of beacons that were erected in 1956 and which have not been attended to since. The water depth here is 30-50 m at a distance of 400 m from land.
The bay provides shelter from most winds, except wind from WSW, which will also force ice into the bay.

7.3.2.1.7.1 Rocks
The area from Hawley Ø to the S point of Traill-iup Immikkeertivi (Haslum Øer) has many rocks. For example, there is a rock 2.0 m WSW of the southernmost island of Traill-iup Immikkeertivi (Haslum Øer). A rock, which is dry at low tide, lies 2 M in the direction 191º from Hawley Ø. 2 rocks that are dry at low tide are located 0.7 M S of Hawley Ø. Furthermore, there are several shallows between the middle and the southernmost rock, and more unknown rocks must be expected. Water filling can possibly occur from the stream near the hut.

7.3.2.2 Segelsällskapet Fjord

7.3.2.2.1 Åkerblom Ø
At the N part of the entrance to Segelsällskapet Fjord, it is possible to anchor both on the NE side and the W side of the island. When anchoring NE of the island, caution must be exercised of the reef protruding from the SE point of the island.
Vessels have anchored off the hut in 72º26'N 024º40'W, due W of a small islet, but the ground fell away steeply.

7.3.2.2.2 Arwidsson Ø
The chart shows an anchorage in the S part of the sound between Arwidsson Ø and Kap Mæchel. The bottom here is reported to be stony.

7.3.2.2.3 Alpefjord
In the inner part, a vessel has anchored in 50 m of water close to the coast on the E side of the fjord, directly S of Vikingebræ.

7.3.2.2.4 Forsblad Fjord
There are no known anchorages.

7.3.2.3 Narhvalsund 72º48'N 025º19'W
A vessel has anchored on the S side of Narhvalsund in the W part, W of Rytterknægten, in the little bay where 2 small glaciers almost reach down to the water. The 50 m and 10 m

contours here are found 140 and 40 m respectively from land. The depths seem to decrease steadily towards land.

7.3.2.4 Kempe Fjord

7.3.2.4.1 Solitærbugt (Ella Ø) 72º53'N 025º05'W, charts 2750 and 2701

The bay lies on the NW side of Ella Ø, close E off the little peninsula with Kap Oswald.

7.3.2.4.2 Maria Ø 72º58'N 024º51'W

On the E side, between two points, there is a good anchorage with depths of 18 m and good holding ground. There is also good shelter against all winds except from the E.
With an E wind, it is possible to anchor in a bay that lies on the NW side of the island, off a station hut.
Ruth Ø 73º00'N 024º55'W consists of a 530 m high, cone-shaped mountain with a reddish colour. There are no anchorages at Ruth Ø.

7.3.2.4.3 Rhedin Fjord

A vessel has anchored in the inner part of Rhedin Fjord in 50 m of water close to the E coast, 0.7 M S of the large stream discharge S of Snehætten.

7.3.2.4.4 Rhöss Fjord

There are no known anchorages.

7.3.2.4.5 Dickson Fjord

There are no known anchorages.

7.3.3 The Kangerluk Kejser Franz Joseph area

7.3.3.1 Kangerluk Kejser Franz Joseph

The shallow waters in most places along the coasts of Kangerluk Kejser Franz Joseph are very narrow steeply sloping and there are few anchorages in this area that have been used previously.

7.3.3.1.1 Margrethedal 73º18'N 022º41'W

The mountains on the E and W side of the valley are 1,190 and 1,070 m high respectively and there is a hut W of the stream delta. It is possible to anchor off where the stream discharges, 550 m from land and SE of the hut. The anchorage is approached on a heading of 355º, until the shallower area off the stream delta is reached. The holding ground is good in mud and sand.

7.3.3.1.2 Vinterøer

There is an anchorage on the S side of the westernmost island of Vinterøer (see under Dusén Fjord).

7.3.3.1.3 Kap Graah
”Antarctic” (1899) and ”Godthaab” (1929) have both anchored close to the coast W of Kap Graah.

7.3.3.1.4 Kap Weber
”Godthaab” anchored off Kap Weber in 1929.

7.3.3.1.5 Eleonore Bugt 73º27’N 025º25’W
Anchor close to the coast S of the stream that discharges approximately in the middle of the bay.

7.3.3.1.6 Blomsterbugten 73º20’N 025º20’W, charts 2701 and 2750
The bay is the best anchorage close to the W part of the outer section of Kangerluk Kejser Franz Joseph. A hunting hut is located on the beach in the innermost part of the bay. A valley, which is less than 1 M wide, separates Blomsterbugten from Noa Sø.

7.3.3.1.6.1 Approach
Keep mid-channel until a painted black rectangular on the mountain is on a bearing of 100º, then keep on a heading of 100º in towards the coast until the hut is on a heading of 047º, where it is possible to anchor in 60 m water, 300 m from land. There are good landing possibilities for boats along most of the beach, which rises steadily.

7.3.3.1.6.2 Tides
The normal tidal range in Blomsterbugten is 1.2 m.

7.3.3.1.6.3 Fresh water
There is fresh water available at a waterfall 0.5 M S of the anchorage. The waterfall is 8 m and a boat can approach all the way up to it at a depth of 5-6 m.

7.3.3.2 Nordfjord
It is probably possible to find an anchorage off Brogetdal. However, this coast is very often blocked by icebergs.

7.3.3.3 Moskusoksefjord
An anchorage has been used in the outer part of Moskusoksefjord off the westernmost hut. The bottom here falls away steeply and anchoring must occur so close to land that it is only possible to sway clear.
Anchorages are found close to the innermost part of Moskusoksefjord on its N side, at the E slope of Ankerbjerg and W of the shallow water formed by the stream delta on the N side of the fjord. It is possible to anchor here in 40 m of water, but care must be taken not to get too close to the coast, as the waters quickly become shallow from quite large depths. The holding ground is not good, however.
Some vessels have anchored within the narrows E of the anchorage mentioned above, but the channel through the narrows is narrow and winding and strong currents can flow here. However, no further information about this anchorage is available.

7.3.3.4 Geologfjord 73º32’N 024º33’W

There are no known anchorages in the fjord. It is reported that a vessel anchored midway inside the fjord close to the land to the E, but found very large depths close to the beach.

7.3.3.5 Isfjord

7.3.3.5.1 Renbugten 73º20’N 026º30’W

The 10 m contour along the coast here is 75 m from the stream delta and 50-75 m from land in the NE side of the bay.

The bottom is brownish sand mixed with mud and there is good holding ground.

7.3.3.5.1.1 Anchorage

It is possible to anchor 200 m from land in 35 m of water on the N side of Renbugten, but it is also possible to anchor further out in 90 m of water, 230 m from the coast. Off the actual stream delta, it is too shallow in some places for a boat to reach land. It is possible to land at one place in the middle of the bay, where there is a low gravel isthmus. Landing is easiest from one of the sides of the bay.

The approach from Isfjord to Renbugten occurs in the main direction of the bay.

7.3.3.6 Kjerulf Fjord

7.3.3.6.1 The mouth of the fjord

Vessels have anchored in the mouth of the fjord on both sides, on a strongly sloping bottom close to the land.

7.3.3.7 Antarctic Sund

In 1929, ”Godthaab” anchored close to the coast of Suess Land, 4.5 M from the N entrance to the sound.

Vessels are reported to have anchored on good, even ground SE of Kap Mohn, in the bay E of the point with the flat reef, 2 M SE of Kap Mohn.

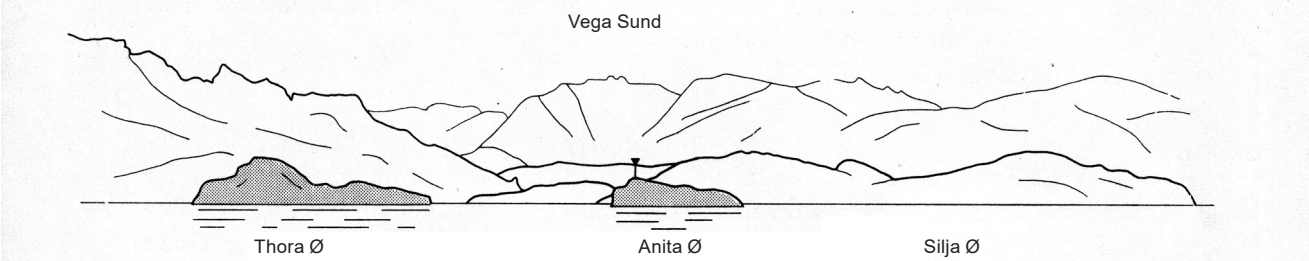

Fig. 7.2 - Vega Sund, seen from the channel between Kap Palander and Nordenskiöld Ø.

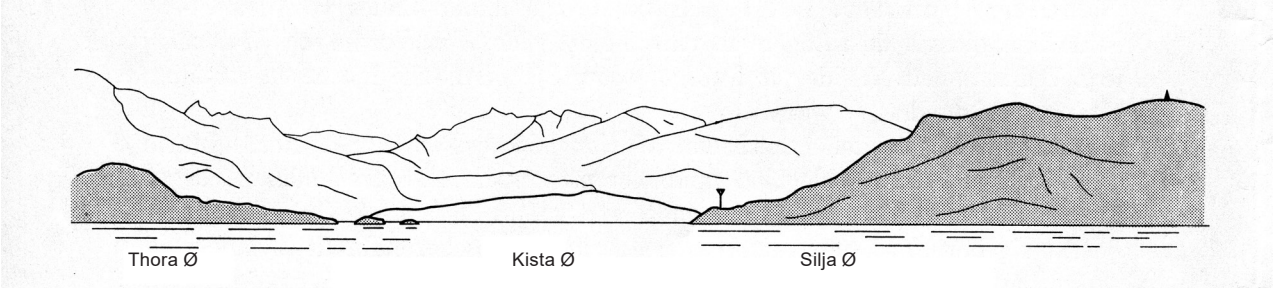

Fig. 7.3 - Vega Sund, seen from the position 400 m SW of Anita Ø.

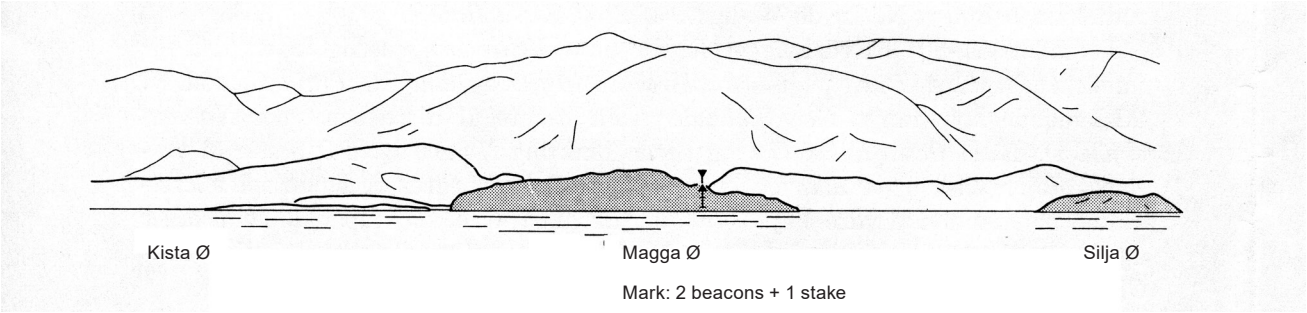

Fig. 7.4 - Vega Sund, seen from the position off the SW-part of Silja Ø. Beacons on Magga Ø in line.

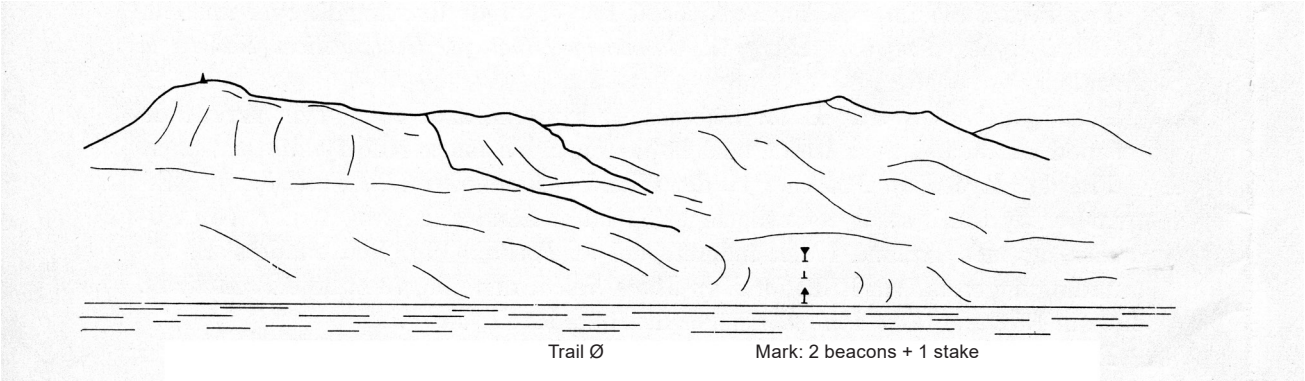

Fig. 7.5 - Vega Sund, beacons W of Snævringen in line, seen from the position 0,5 M SSE of Magga Ø.

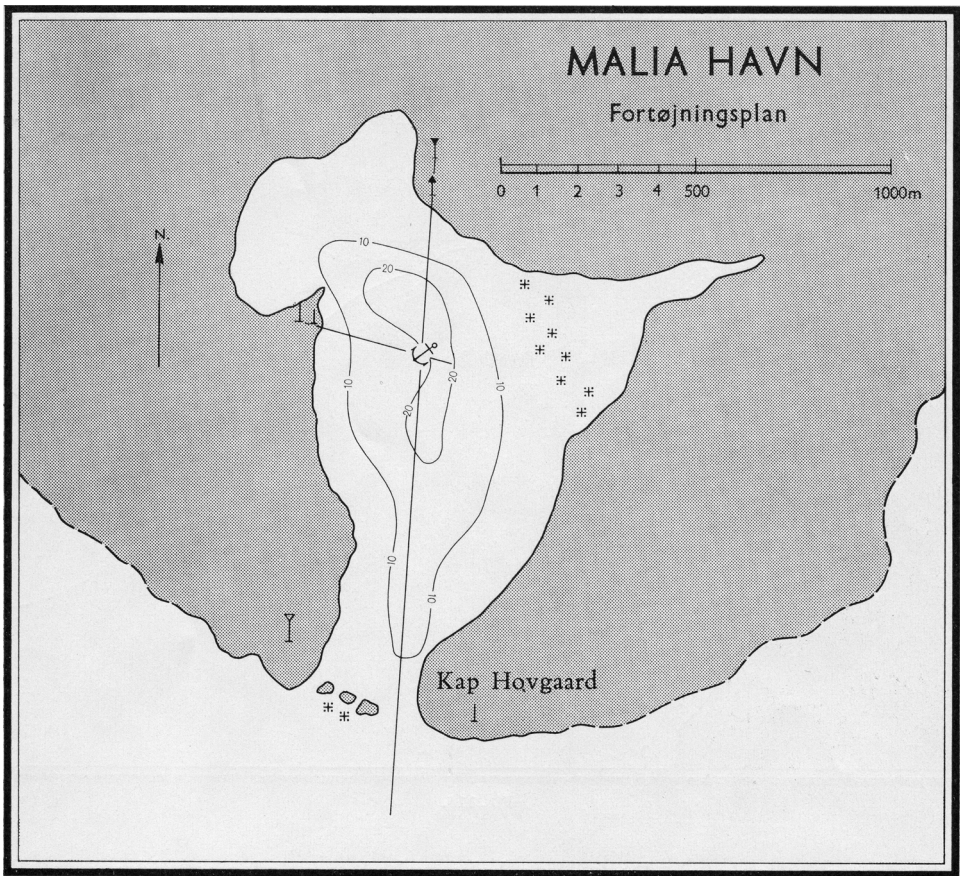

Fig. 7.6 - Malia Havn, mooring plan.

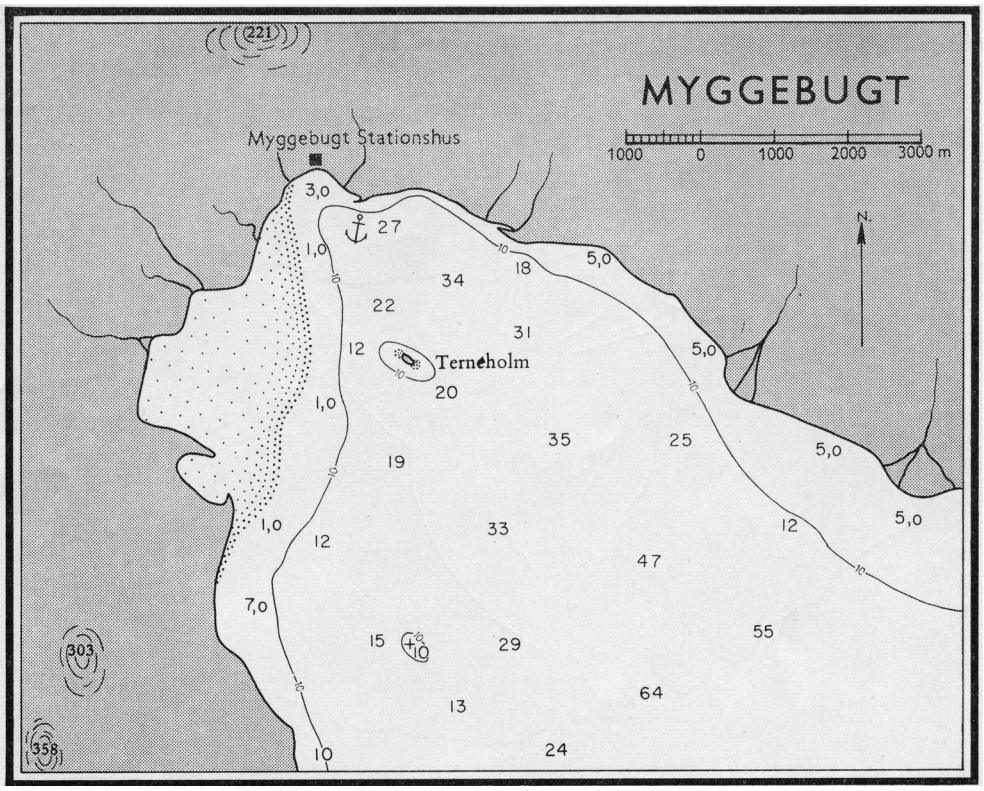

Fig. 7.7 - Myggbukta.

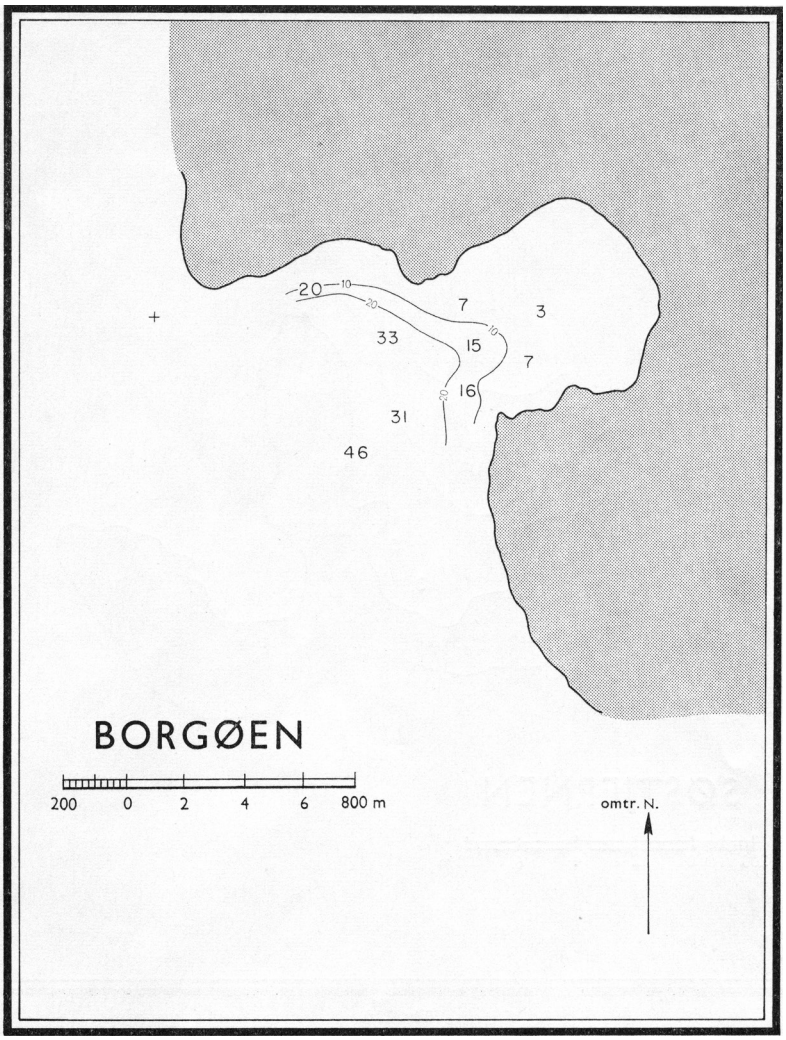

Fig. 7.8 - Borgøen.

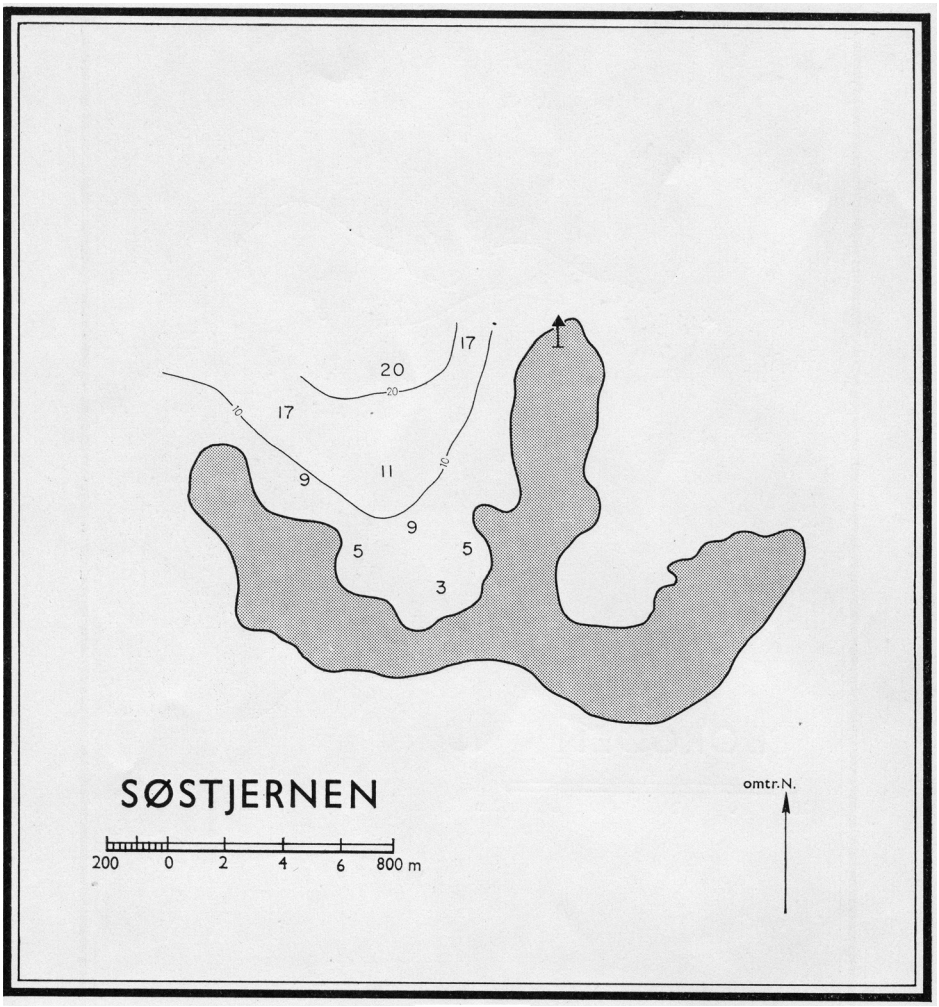

Fig. 7.9 - Søstjernen.

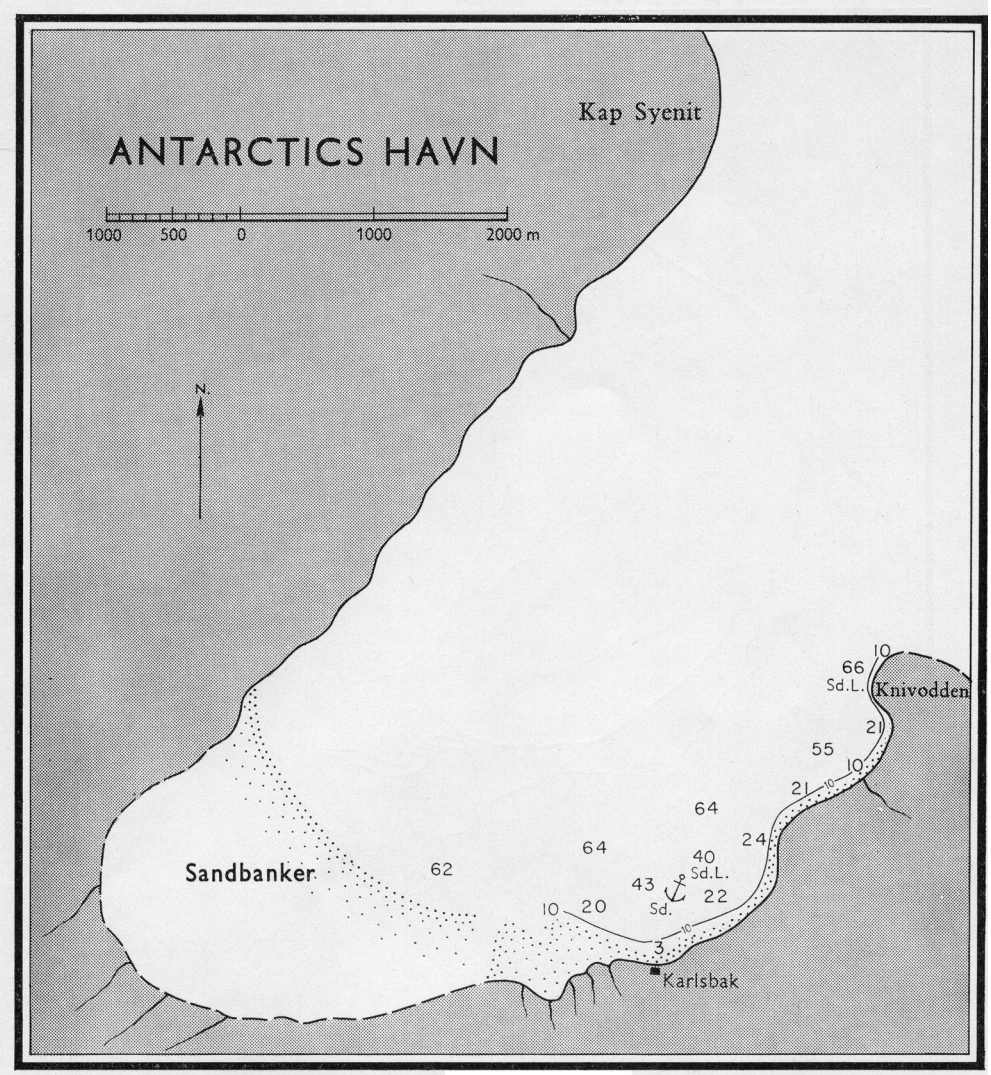

Fig. 7.10 - Antarctic Havn.

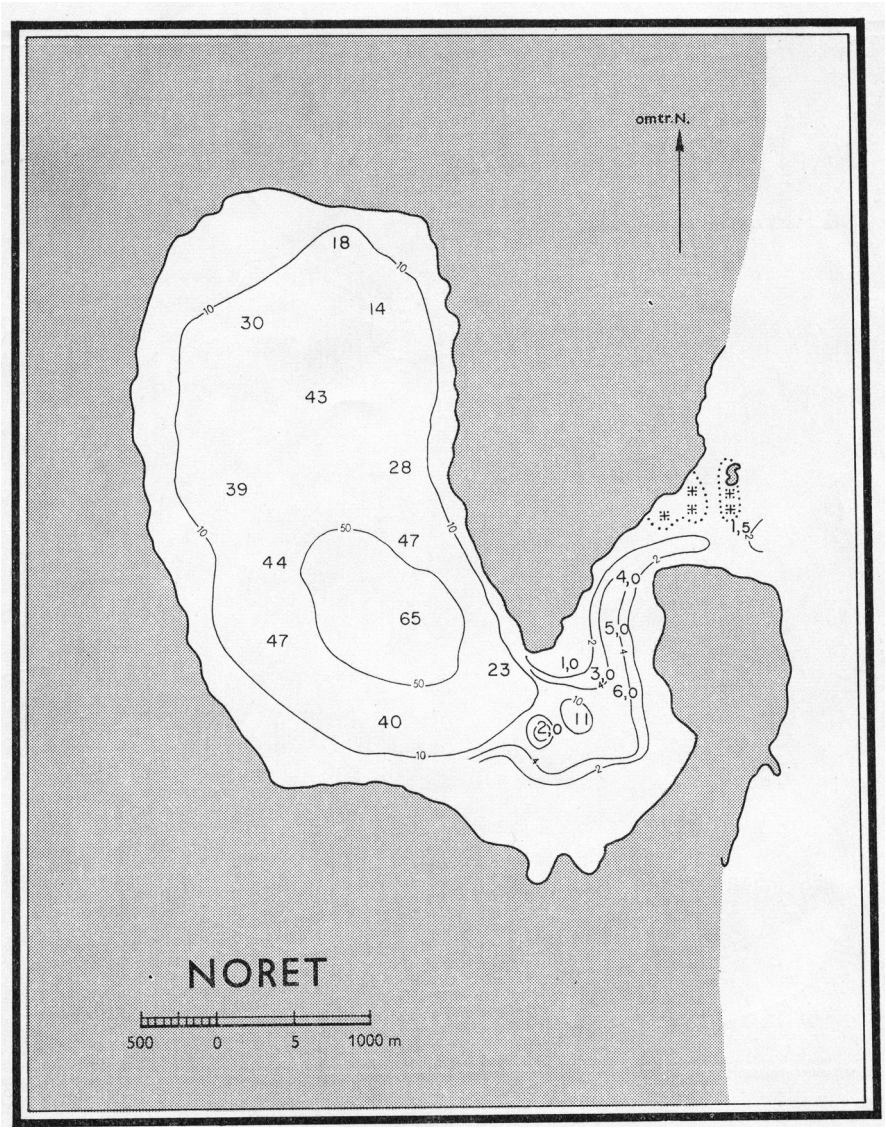

Fig. 7.11 - Noret.

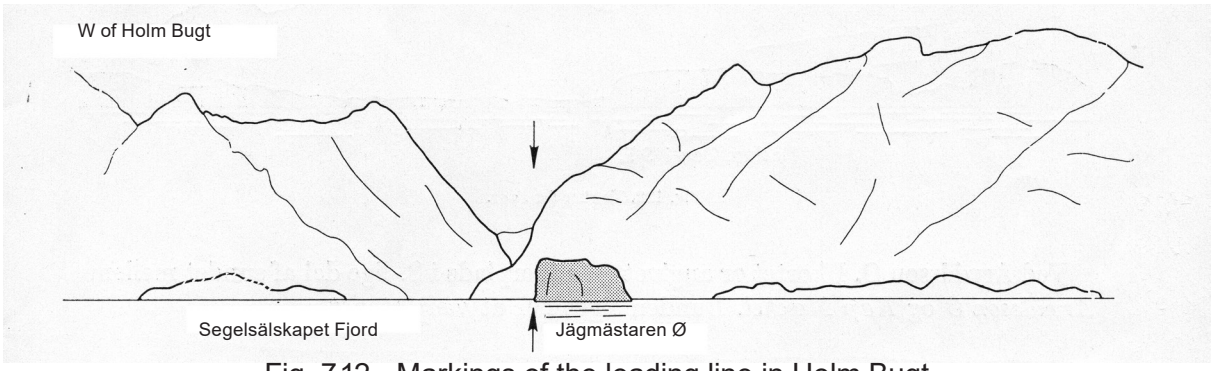

Fig. 7.12 - Markings of the leading line in Holm Bugt.
The marking is found on the W side of the fjorden.

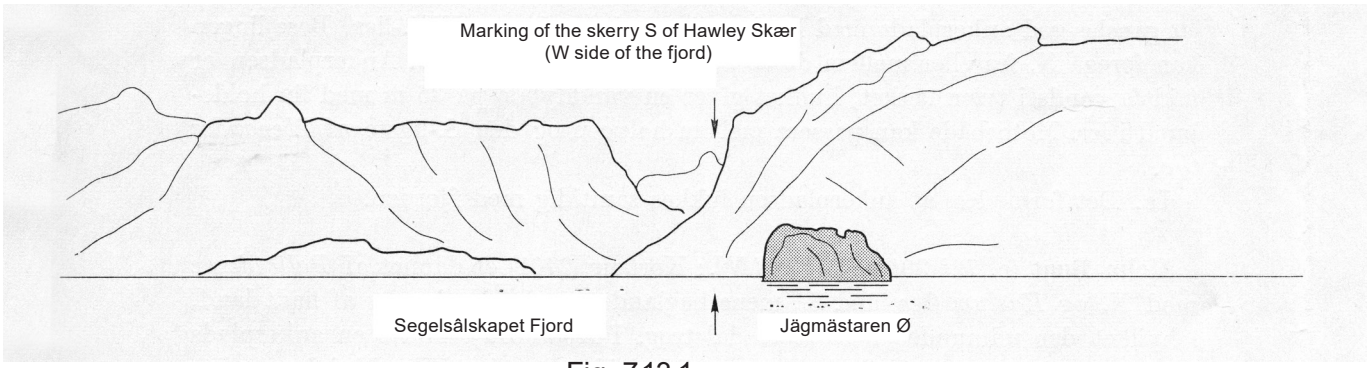

Fig. 7.13.1

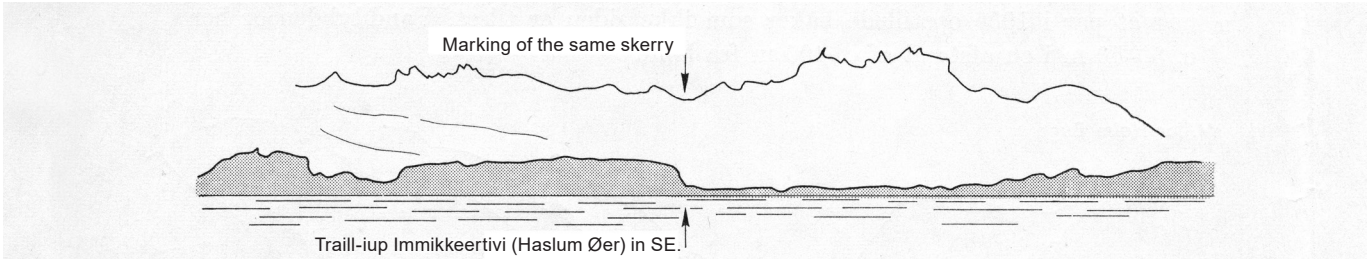

Fig. 7.13.2

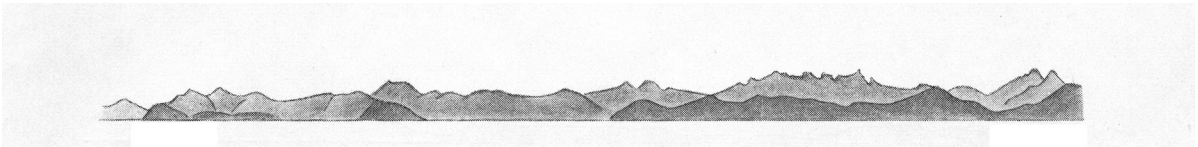

Fig. 7.14 - Kap Simpson bearing 260°, distant 25 M.

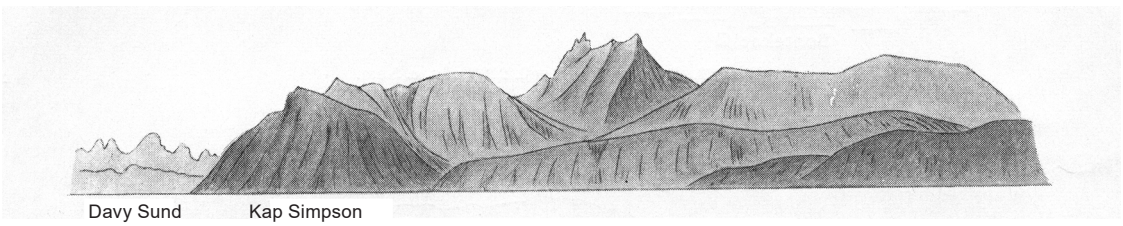

Fig. 7.15 - Kap Simpson bearing 295°, distant 10 M.

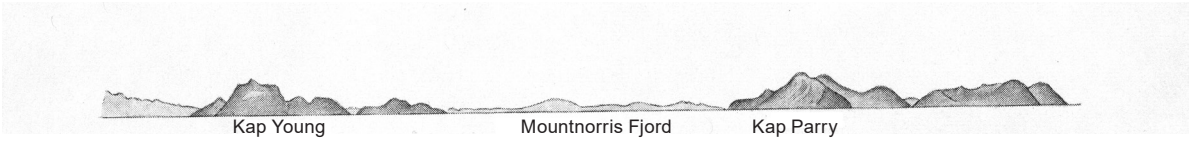

Fig. 7.16 - Kap Parry bearing 270°, distant 50 M.

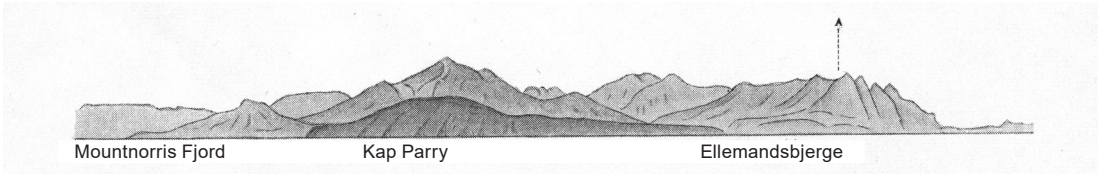

Fig. 7.17.1

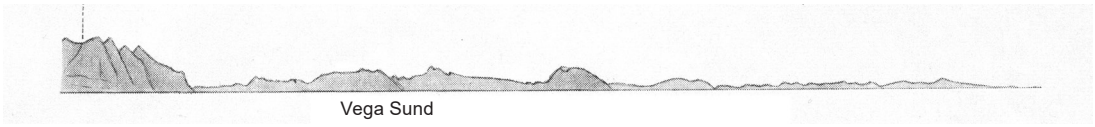

Fig. 7.17.2 - Kap Parry bearing 295°, distant 10 M.

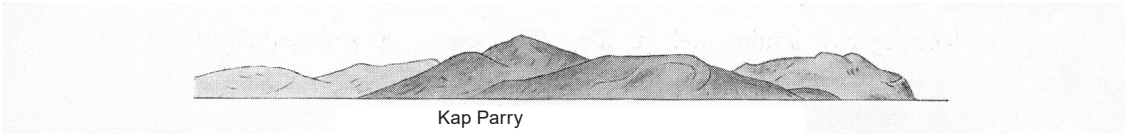

Fig. 7.18 - Kap Parry bearing 340°, distant 5 M.

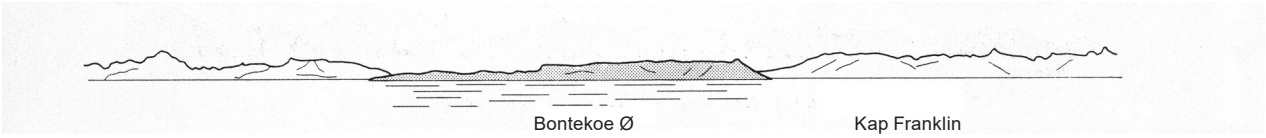

Fig. 7.19 - Bontekoe Ø bearing 270°, distant 12 M.

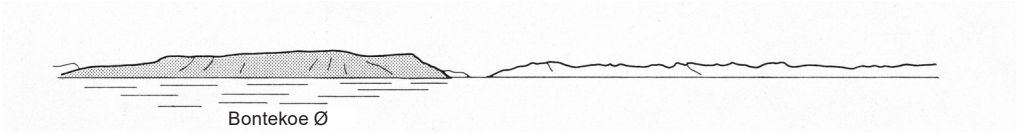

Fig. 7.20 - Bontekoe Ø bearing 270°, distant 5 M.

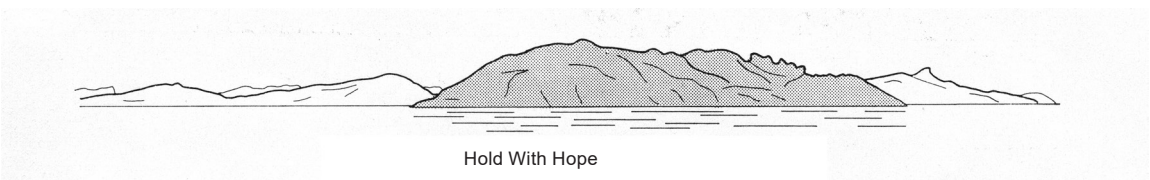

Fig. 7.21 - Hold With Hope bearing 360°, distant 7 M.

Map

Kap Broer Ruys – Kap Oswald Heer

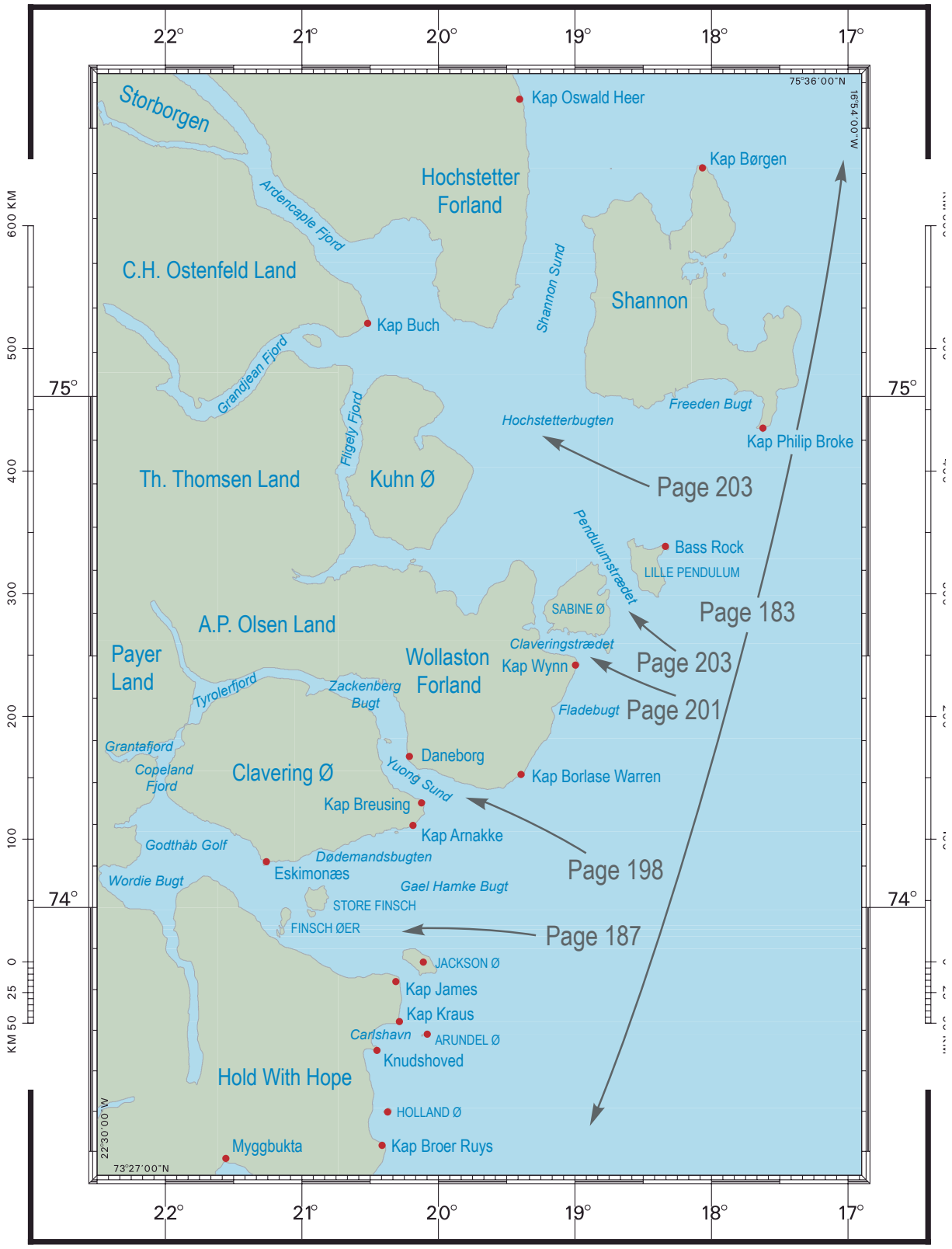

Fig. 8.1

CHAPTER 8

Kap Broer Ruys – Kap Oswald Heer

Area 73º32'N 020º23'W – 75º33'N 019º24'W, charts 2702, 2750 and 2000.

8.1 Transit of the area
8.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
8.3 Harbours and anchorages

8.1 Transit of the area

See views of the land between Kap Broer Ruys and Kap Oswald Heer.

8.1.1 Generally

On the stretch of coast between Hold With Hope and Hochstetter Forland, the 3 forelands mentioned below protrude E from the mainland itself:
Hold With Hope between Kap Broer Ruys and Kap James.
Wollaston Forland between Kap Borlase Warren and Kap Berlin.
Hochstetter Forland between Kap Rink and Kap Möbius.
Some islands lie E of these 3 forelands, of which only the largest are mentioned here. The islands Holland Ø, Irene Ø, Arundel Ø and Jackson Ø lie off Hold With Hope and Home Forland. Jackson Ø is separated from the mainland by the 2 M wide Gulmann Sund. Sabine Ø, Lille Pendulum, Hvalros Ø and Bass Rock lie off Wollaston Forland. Sabine Ø is separated from the mainland by Claveringstrædet, and Lille Pendulum is separated from Sabine Ø by Pendulumstrædet.
The island of Shannon lies off Hochstetter Forland and is separated from the mainland by Shannon Sund, and Kuhn Ø and Ulla Ø lie in the W part of Hochstetterbugten. The waters between Hold With Hope and Wollaston Forland are called Gael Hamke Bugt, from where Godthåb Golf extends W with Loch Fyne, Copeland Fjord and Grantafjord, and Young Sund with Tyrolerfjord to the NW.
The waters between Wollaston Forland, Hochstetter Forland and Shannon are called Hochstetterbugten, an area of water that to the NW turns into Ardencaple Fjord, which again divides into Bredefjord and Smallefjord, and to the W into Grandjean Fjord. From the SW part of Hochstetterbugten, the waters continue into Fligely Fjord and Lindeman Fjord. See also section 8.2.

8.1.1.1 The E side of Hold With Hope

8.1.1.1.1 Landmarks

Kap Broer Ruys 73º32'N 020º23'W. The ridges on the SE part of Hold With Hope are one of the most recognizable landmarks in this area and at the isolated location, the ridges can be

seen from N or S as a large, peaked island of rather dark appearance. The greatest height in the southernmost part rises to 798 m. Kap Broer Ruys is the protruding point furthest NE on this elevated area.
Kap Kraus 73º47'N 020º18'W lies 15 M N of Kap Broer Ruys, and between these two points, a bay protrudes 2-3 M into the Hold With Hope land.
Holland Ø 73º36'N 020º22'W is a small island which is 89 m high in the NE part. There are depths of less than 5 m between Holland Ø and the mainland, and there is a rock 2 M NW of the island's N tip.
Knudshoved is a narrow spit, which lies 7 M NNW of Holland Ø, and forms the SW point at Carlshavn. There is a rock close N off the NE point of Knudshoved and the small Irene Ø lies 4.5 M SE of the point. The island is 10 m high and extends 100 m in an E-W direction. It is easily recognisable by a crevasse in the middle, which seen from the S, seems to split the island in two.
Grytvika 73º43'N 020º30'W is a small bay on the SW side of Knudshoved. There is shallow water in Grytvika, and the largest depths do not exceed 7 m.
Carlshavn is the bay between Knudshoved and Kap Kraus. A stream discharges in the S part of the bay and this stream drains Tobias Dal, which extends W almost to Loch Fyne.
Home Forland is the NE part of Hold With Hope, and the E side extends from Kap Kraus to Kap James, which lies 6 M further N. Home Forland has two peaks that can be clearly seen from NE. The highest peak is 666 m and lies closest to Kap Kraus. The other is 515 m and lies directly W of Kap James.
Arundel Ø is a small, low, rocky island that lies 3.5 M ESE of Kap Kraus. There is a small islet close W off the island and there is a rock directly N. A shallow area extends 1 M out from the island in a N, S and WSW direction.
Kap James is the NE point of Home Forland, and the land behind it rises to a height of 515 m.
Jackson Ø is brownish in colour and lies 2 M NE of Kap James, from which it is separated by Gulmann Sund. The island is 5 M long and 2 M wide and appears as a peaked extension of Home Forland. It rises steeply from the sea on the N and E side to a maximum height 281 m and it slopes to the SW from there. There is a hut on the S side of the island and it is possible to anchor where the coastline recedes somewhat and forms a small bay, but it is deep N and NE of the island as soon as one is a little clear of the island's shelf, and it is not possible to anchor here.

8.1.1.1.2 Depths

The waters in the bay between Kap Broer Ruys and Kap Kraus are foul close along the land and are not adequately surveyed. Extreme caution shall therefore be exercised W of a line between Kap Broer Ruys and Arundel Ø. Outside Tobias Dal, a number of rocks lie across the mouth of Carlshavn and the depths here vary between 10 and 50 m. At Kap Broer Ruys, it appears to be free of dangers close to land. There are two rocks and a small island close SE off Kap Kraus.

8.1.1.1.3 The ice in the coastal area

8.1.1.1.3.1 Fast ice (winter ice)

From the start of the summer, the outer limits of the fast ice normally extend from the SE point of Shannon, Kap Philip Broke, to Pendulum Øer (often with an ice bay into Freeden Bugt), further close SE off Pendulum Øer, along the E coast of Wollaston Forland, across Gael Hamke Bugt (with a smaller or larger ice bay within it), across Jackson Ø and further to Kap Broer Ruys, E of the shoal waters E of the Hold With Hope land. During the summer, the ice breaks up to a larger or lesser degree, mainly through the effects of the sun and wind, and then drifts away from the outer edge. Simultaneously with the melting of the ice, open water forms in the innermost parts of the fjord. In the beginning of July, therefore, the S parts of Pendulum Øer, the SE and S coasts of Wollaston Forland as far as a little E of Sandøen, the SE part of Clavering Ø and the NE part of Jackson Ø may be free of winter ice. In the SW part of Gael Hamke Bugt, the fast ice limit then extends in an arc towards Finsch Øer. At the same time, there may be open water in the fjord's narrow, innermost branches. Under favourable conditions, the winter ice may be retained for a long time at the coast of Hold With Hope. In Claveringstrædet, the winter ice can sometimes remain unbroken until late in the summer and it has also occurred that it has remained unbroken all year round.
Frosnebugt on the E side of Shannon is almost always covered in ice or completely filled with drift ice from the sea.

8.1.1.1.3.2 Drift ice

It has been observed that the drift ice often lies as a continuous wide belt between the latitudes of 72º00'N and 74º00'N, whereas the ice belt at 74º30'N (Germania Havn latitude) is narrower with more dispersed ice in the direction of the N part of Wollaston Forland and Gael Hamke Bugt. In good ice years, however, it has been possible to navigate the ice belt on a latitude further S, but no matter how easy navigation may have been here, the conditions have always proved to be more favourable at 74º30'N. In Gael Hamke Bugt and Young Sund, the drift ice N and S of the E coast of Clavering Ø can be moved W by wind and current and then pressed against the fast ice, if this still exists. The tides move the drift ice inwards with the flood tide current and outwards with the ebb tide current. The drift ice can extend further in if the fjords are free of ice. In Young Sund, however, it rarely passes Basaltø, but it occasionally happens that it reaches Zackenberg. S of Clavering Ø, if the drift ice lies close to the land, it can extend past Finsch Øer and into Godthåb Golf, where, after passing Kap Stosch, it then normally melts in the sun-warmed fjord water around Jordanhill. This ice only rarely reaches Copeland Fjord. If, after passing in past Finsch Øerby, the drift ice is pushed E again by W winds, it moves along the N coast of Hold With Hope land and is trapped between this land and the southernmost Finsch Øer, where it melts. The ice normally blocks the coast between Kap Broer Ruys and Kap James for a long time, because the islands off the coast stop and hold the winter ice until long into the summer. With NE winds, the ice may be packed together against this coast. There is reported to be an emergency anchorage in Grytvika, see section 8.3. The drift ice often lies quite close to the coast on the E side of Kap Broer Ruys.

8.1.1.1.3.3 New ice

In the area described in this chapter, the new ice usually begins to form around 1 September and can then be an obstacle for navigation by motorboats without ice sheathing. Normally the waters freeze completely at Hochstetter Forland at the end of September, and S of Pendulum Øer at the beginning of October.

8.1.1.1.3.4 Icebergs

There are no iceberg producing glaciers in the area described in this chapter. The icebergs that can be seen off the coast come mainly from Dove Bugt. Some icebergs from the drift ice belt to the N probably also reach Shannon Sund with the current that flows to the W between Store Koldewey and Shannon W, and most of the icebergs that pass Shannon Sund and do not ground and are not held fast on the way, are carried on towards Hochstetterbugten, past Bass Rock and are then dispersed in the drift ice. Due to the small number of icebergs and their very dispersed nature, it is not expected in practice to meet icebergs in the actual drift ice belt.

8.1.1.1.3.5 Navigation

Navigation of the E side of the Hold With Hope land is made difficult by the islands and rocks lying off this stretch of coast and by the permanent winter ice that is often found here. The coast between Kap Kraus and Kap James appears free of dangers. However, there are several rocks in the area between Knudshoved and Kap Kraus.

The inner part of Carlshavn between the Knudshoved isthmus and Kap Kraus is also very shallow. The name Carlshavn is somewhat misleading, as the bay is not suitable as a harbour or anchorage. S of the Knudshoved isthmus is free of dangers, however, and it is possible to anchor in a number of locations here. Directly E of Knudshoved, it is possible to anchor in 10 m of water 0.8 M from the coast, see section 8.3. There is a rock 2 M E of the Knudshoved isthmus. Keep clear E of this rock with the marker Kap Broer Ruys in line with the E edge of Holland Ø on a bearing of 189º.

The waters SE of Knudshoved between Irene Ø and Holland Ø appear to be free of dangers. However, there is shallow water with a depth of 11 m 2 M NE of Holland Ø.

When approaching Knudshoved from SE, it is possible to keep between Irene Ø and the 11 m shoal with the N slope of the mountains on the S side of Tobias Dal on a bearing of 295º.

The coastal area between Kap Oswald Heer and Kap Broer Ruys is best approached from E at 74º30’ N latitude, but somewhat into the season it is sometimes possible, approaching from Illoqqortoormiut (Scoresbysund), to use the shore lead between the coast and the pack ice belt, but there is a risk of being stopped on the way, mostly on the stretch between Liverpool Land and Franklin Ø. During navigation in good visibility, it will be possible to identify landmarks on land, see views of the land. The position at which you reach shore lead depends on the distribution of the ice in the drift ice belt. The outer coast between Kap Borlase Warren and the SE part of Sabine Ø is without rocks, as far as is known, and in most places has quite evenly decreasing depths in towards the coast. There is a large shoal off Wollaston Forland. The 200 m contour here extends 20-35 M out from the coast. In 1943, a vessel was forced by the ice conditions to pass E of Wollaston Forland at a distance of 1 M from land. The smallest depth measured during this passage was 8.2 m. The depths

seemed to decrease evenly towards the coast without any dangers further out. From Kap Borlase Warren, a reef protrudes in a SE direction, on which there can sometimes be seen grounded icebergs and large drift ice floes. The depths over this reef and its extent are not known exactly, but are marked: ”Steinmannspids” (on Clavering Ø) midway between Kap Mary and Kap Breusing seems at least to go well S of the places where the icebergs ground. Navigation has however occurred much closer to Kap Borlase Warren. Compelled by the ice conditions, ”Godthaab” had to pass the point at 0.8 M distance in the beginning of July 1930.

8.1.1.2 Gael Hamke Bugt

8.1.1.2.1 Landmarks

Gael Hamke Bugt lies between Hold With Hope and Wollaston Forland, and the most recognisable parts are Home Forland with Jackson Ø, Kap Mary on the SE side of Clavering Ø and Herschell Bjerg on Wollaston Forland. S of Clavering Ø, Gael Hamke Bugt is limited by Finsch Øer. Godthåb Golf lies W of Finsch Øer, see section 8.2.

8.1.1.2.2 Depths

The depths along the coasts in Gael Hamke Bugt between Kap James, Finsch Øer, Kap Mary and Kap Borlase Warren do not cause any difficulties during navigation if vessels keep 2 M from the coast, and chart 2702 provides relatively good information about the depths everywhere in the bay.

8.1.1.2.3 Ice

Gael Hamke Bugt is among the most ice-free waters in Northeast Greenland. The bay can be open until late into the autumn and sometimes also in winter. The winter ice often breaks up so early that there is open water as early as June, while the inner fjords are still icebound. Young Sund, N of Basaltø, becomes ice-free rather earlier, some years at the end of June. The last belt of fast ice in the sound only disappears around the middle or end of July.
In the S part of Gael Hamke Bugt and in Godthåb Golf, the break-up of winter ice occurs from both E and W, until about the mid-July when there is only a belt of ice over the waters at Finsch Øer. In the winter, two narrow leads usually form in the ice. One lead extends from the NE point of Store Finsch to the E side of Dødemandsbugten, while the other extends from the NW point of Store Finsch to the W side of Dødemandsbugten. There is also a hint of a lead from the N point of Lille Finsch to Eskimonæs. As a consequence of the fact that these leads are formed, the ice in the area between the S coats of Clavering Ø and Store Finsch will break free in two large floes in the beginning of the summer, separated from each other by the lead from the NW point of Store Finsch to the W side of Dødemandsbugten. These floes are held in place for a long time by the surrounding coasts and are the last of the winter ice that disappears from the waters, but the time of the final disappearance of the ice from these waters varies strongly and normally occurs in the last week of July, although sometimes not until mid-August.

8.1.1.3 The E side of Wollaston Forland

8.1.1.3.1 Landmarks

Wollaston Forland is the large peninsula that lies between Gael Hamke Bugt and Hochstetterbugten. The peninsula is traversed in the SE part by two large valleys, of which Blæsedalen extends in a N-S direction and Dronning Augusta Dal in an approximately E-W direction. The land between the valleys is mountainous and near Sadelbjerg it rises to a height of 1,147 m.

Kap Borlase Warren 74º16'N 019º23'W is the SE point of Wollaston Forland and is a low, narrow, rocky point with long, sandy beaches on both sides.

Kap Borlase Warren has a basalt-like appearance and extends out into the sea in a long reef, on which there are often grounded icebergs and large ice floes. At the coast somewhat N of Kap Borlase there is an easily recognisable section that consists of a black stripe in the cliff at the beach and close N to here, there are two prominent, dark basalt cliffs.

Fladebugt lies 8.5 M N of Kap Borlase Warren and is a small bay off Dronning Augusta Dal.

Kap Wynn 74º29'N 018º58'W, 214 m high, is the E point of Wollaston Forland and lies 15 M NNE of Kap Borlase Warren. It is a steep, rocky point of dark colour and it falls steeply towards the sea from a height of 214 m. There are a number of small islets NE of Kap Wynn.

The most prominent mountain on Wollaston Forland, seen from the E, is Sadelbjerg, which lies 7 M W of Fladebugt and the double-peaked Nålene, 1,142 m, 2 M to the NW. From Fladebugt, Dronning Augusta Dal extends into the land in a WNW direction, N of Sadelbjerg and Nålene.

Kap Wynn is rather low seen from the E. Close N off Kap Wynn is another lower point, 20 m, and N of this point there is a grass-covered slope, which ends in a 7-8 m high cliff. S of Kap Wynn there is a low, sandy beach.

Pendulum Øer 74º38'N 018º30'W is of volcanic origin and of rather dark colour. They are only 600-700 m high, but seen from the sea, they are very noticeable due to their prominent location. From a distance they seem to have a very even surface. From a closer perspective, some extensive valleys can be seen that extend in from the coast. Lille Pendulum consists of a mountain ridge extending in a NNW-SSE direction, whose highest, central point is Sonnenkopf, 602 m. The island's northernmost part is rather low and ends to the NE with Kap Hartlaub, 239 m. Close E off Kap Hartlaub lies the small island of Bass Rock, 142 m, which seen from the SE has approximately the same shape as the ridges at Kap Hartlaub.

Sabine Ø rises at its N central part, Keferstein, to a height of 699 m. In the middle of the island's S side and somewhat isolated lies Harebjerg, 579 m, and directly N of the island's W point is the recognisable and isolated Kronebjerg, 544 m, which is a regular, cone-shaped mountain with a peak surrounded and terminated by a crown shaped ring, formed by a jagged layer of basalt with vertical sides. At the foot of the 302 m high Germania Bjerg on the island's SE part lies Germania Havn, a little E of the small indention of the same name, see section 8.3.

At the E side of Sabine Ø is Hansa Bugt, which indents 1.5 M SW into the land from Pendulumstrædet. There are a few small islets N of the low, protruding point on the S side of the entrance to the bay.

There are several islets and rocks in both Pendulumstrædet and in Claveringstrædet.

Heimland Havn indents the land on the W side of Sabine Ø. The 1.5 M long, shoal Falskebugt lies opposite this harbour on the W side of the strait.

8.1.1.3.2 Depths

The depths along the coast of Wollaston Forland, between Kap Borlase Warren and Bass Rock (NE of Lille Pendulum), does not cause difficulty during navigation if one stays 3-4 M from the coast, where the 100 m contour is found. As mentioned under navigation, a vessel was forced by the ice to follow the coast of Wollaston Forland at a distance of 1 M. A minimum depth of 8.2 m has been observed and the depth appeared to decrease evenly towards the coast. There were no rocks or submarine obstacles.

8.1.1.3.3 Ice

The drift ice off Wollaston Forland varies a great deal from month to month. Normally the ice concentration in August is only half of the average in July, and August is therefore perceived as the best month to reach the coast of Wollaston Forland. In August the ice mostly consists of broken floes with passable leads between them, and there seems to be a tendency for an open lead to form from Shannon and past Wollaston Forland, close to the coast. Smaller vessels have gone into the ice at 73º40'N 014º00'W and 74º06'N 014º00'W, respectively, and it appears that the approach of the ice edge at 74º06'N 014º00'W is most advantageous, as the concentration here is normally less. Keep to the W from this position. Generally the drift ice belt off Wollaston Forland is of considerable width, and it has occurred in particularly severe ice years that some vessels have had to give up sailing through the ice. On the other hand it has not occurred for many years, that not one or more of the attempting vessels have reached land. However, this only applies to the stretch S of Pendulum Øer, or rather to the stretch from Pendulum Øer to Gael Hamke Bugt, where experience shows that the best navigation possibilities can be found. The conditions are more difficult N and W of Hochstetterbugten.
The Hochstetterbugt's winter ice, which passes SE out between Shannon and Wollaston Forland, is bound to a major degree by Pendulum Øer with the rather rock-filled straits lying in between, and the ice is protected against the destructive effect of the drift ice current by the island Shannon, and by Shannon Sund's fixed ice cover, which will generally only be lead away when Hochstetterbugt's ice is broken and has begun to drift.
S of Pendulum Øer the winter ice can more easily disappear from the outer coast. An exception from this is the stretch from Kap Broer Ruys to Home Forland, where the many rocks in the rather shallow water W of the line from Arundel Ø to Kap Broer Ruys can, under unfavourable conditions, hold the winter ice fixed at the coast.
Some summers within the period 1936-1945, the ice outside the area described in this chapter has been open to such a degree that a strong swell has sometimes appeared at the coast, large parts of which were washed away by the water, such as at the former hunting hut, Nanok, on Hochstetter Forland, at Germania Havn and at Herschellhus. At these last two locations, it was necessary to move the station houses further inland.

8.1.1.4 Hochstetterbugten 74º50'N 018º00'W

The bay lies between Wollaston Forland, Kuhn Ø, Hochstetter Forland and Shannon.

8.1.1.4.1 Landmarks

At the low SW-point of Hochstetter Forland, Niels Hansen Næs, it is possible to see the two dome-shapped mountains, Nordre Muschelbjerg and Søndre Muschelbjerg, 365 m and 404

m, respectively, lying close together. In the inner part of the open, 4.5 M wide bay between the foreland's S point, the low Kap Rink and Niels Hansen Næs, the former hunting station Nanok, sometimes called the Hochstetter Station, is located close to the coast, From the low coastal land around the buildings, the terrain rises evenly towards the mountains NW of the station.
A former scientific station, Kulhus, lies close NW to Søndre Muschelbjerg and 3.5 M NW of Niels Hansen Næs. The coastal land that surrounds this location is formed by even slopes with low rocks and layers of coal with rather poor fuel value. Jarners Kulmine is close S of Kulhus. A narrow, sandy beach, 3-4.5 m lower than the coal layer, allows the breaking of the coal directly into smaller vessels.
NW of Søndre Muschelbjerg, the coastline forms a larger bay, the N part of which is called Peters Bugt. The land around the E and N sides of the bay is rather flat. The land W of Peters Bugt rises to considerable heights and surrounds Ardencaple Fjord and its inner branches with steep alpine mountains, traversed by a number of deep, extensive valleys. The N side of the easternmost 15-20 M long stretch of Ardencaple Fjord consists of a continuous, steep mountain wall over which high mountain peaks rise. 3.5 M W of Jónsbu there are peaks that rise to heights of 1,390 m. The N point of Kap Klinkerfues, at the entrance to Ardencaple Fjord, is also high and full of rocks. The two mountain peaks Wildspitze, 1,593 m, and Matterhorn, 1,624 m, are located 5 and 9 M, respectively, NW of Kap Klinkerfues in the so-called Barth Bjerge mountains, which extend in a NNE direction, W of the low E part of Hochstetter Forland.

8.1.1.4.2 Depths

There are only a few sounding tracks in Hochstetterbugten, see chart 2702, but the depth is over 200 m in mid-channel.

8.1.1.4.3 Ice

In Hochstetterbugten, the winter ice W of the line between Kap Rink and Kuhn Ø normally disappears around 20 July, but out towards Shannon, it often stays for longer. In mid-August, sometime by 5-10 August, it has been possible for vessels to get through the ice in the inner part of the bay. In Freeden Bugt on the S coast of Shannon, where the shoal water extends far out, the winter ice only disappears late in the summer.
In Ardencaple Fjord and its mouth, the ice is usually not difficult, as the land wind sweeps it out, but with an E wind and a strong current, both the fjord and the sea outside may be filled with drift ice.
The conditions in Hochstetterbugten can also vary a great deal. In some years the sea has been very full of ice, but at other times the bay has been almost free of ice. Some years, at the beginning of the navigation period, the best passage possibilities have been in the N part of the bay.

8.1.1.4.4 Approach and navigation

It has usually been possible, at least in the last half of August, for a strongly constructed vessel to get in to Hochstetter Forland. In 1939, when the ice was very close in Hochstetterbugten, the Norwegian vessel "Polarbjørn" reached Peters Bugt on 21 August by following a lead over towards Kuhn Ø.

8.1.1.5 Hochstetter Forland's E coast

8.1.1.5.1 Landmarks

S of the recognisable mountain, Haystack 75º43'N 019º25'W, the E coast of Hochstetter Forland forms a rather large bay, Roseneathbugt, from which a large extensive valley with the water-rich Langelv extends inland. The former hunting station, Mønstedhus, is located at Roseneathbugt. S of Roseneathbugt, the high mountians extend further W and the outer coast becomes gradually lower towards the S. Kap Oswald Heer, 10 M S of Haystack, is neither very high nor very prominent, but does however have a very steep appearance . The large stream, Agneteelv, discharges some M N of Kap Oswald Heer. A former Norwegian hunting station lies a little N of this stream. Towards Shannon Sund the coast of Hochstetter Forland is rather flat and looks very uniform. The land's even surface is only broken by the numerous small stream valleys. Landmarks further inland here include the isolated hill Ailsa, 196 m, at 75º18'N 019º38'W.

8.1.1.5.2 Depths

See under 8.2.5.0 Shannon Sund and Shannon.

8.1.1.5.3 Ice

The drift ice in the area's N section between Haystack and Pendulum Øer, which N and W moves into the waters between Kap Børgen and Haystack and then moves with the current further S through Shannon Sund, can even in relatively good ice years make navigation towards N through Shannon Sund difficult and unsafe.
The winter ice in Shannon Sund normally only breaks up after the ice in Hochstetterbugten is loose. N of Shannon Sund the winter ice often lies unbroken at sea, but a shore lead out over the wide shoal water can then be formed along Hochstetter Forland. This shore lead can be used with caution to navigate the coast until Haystack.

8.1.1.6 Recording stations

There are a number of sub-surface recording stations in the waters E of Gael Hamke Bugt, between position 74º00.20'N 014º02.80'W and 74º00.02'N 017º59.41'W. The recording stations are not marked. For details, refer to EfS no. 42/1027 2005.

8.2 Approaches and navigation of waterways (fjords), towns and settlements etc.

There are no towns or settlements between Kap Broer Ruys and Kap Oswald Heer, but Daneborg, which is navigated every year, is located here. See section 8.3.

8.2.1.0 Gael Hamke Bugt 74º05'N 019º45'W

8.2.1.0.1 Landmarks

The mouth of Gael Hamke Bugt lies between Kap James and Kap Borlase Warren. The bay stretches 40 M NW, and the largest part is taken up by the large Clavering Ø and the smaller islands, Finsch Øer, to the S. The W part of the bay is called Godthåb Golf, from where Loch Fyne extends S for a distance of 22 M. The NW part of Godthåb Golf, W of Clavering Ø, is called Copeland Fjord and to the N it extends to Revet (Tangen), a narrow, shoal part of the waters where Clavering Ø is almost landlocked with Payer Land to the W. N of the reef lies Rudis Bugt, which is adjacent to Tyrolerfjord.

The 7 M long Grantafjord extends W from Copeland Fjord between Blosseville Bjerg and Payer Land.

Young Sund, which in its continuation to the W is called Tyrolerfjord, extends from the N part of Gael Hamke Bugt.

Clavering Ø takes up most of the W part of Gael Hamke Bugt and is one of the best known locations and most frequently visited by hunters on the coast of East Greenland. The island is 30 M long and 20 M wide with the largest stretch in an E-W direction. It is not possible to navigate around the island, as the waters between the innermost part of Copeland Fjord and Rudis Bugt is shoal. The island consists of steep mountains, but along a large part of the coast there are narrow strips of land with vegetation and there are many small and unprotected bays. The S part of the island rises evenly from the coast to a height of 1,219 m 6 M from the coast and open valleys extend far inland. The previously manned scientific station Eskimonæs is on the S side of the island.

8.2.1.0.2 S side of Gael Hamke Bugt

The N coast of the Hold With Hope land is peaked and traversed by a number of crevasses. The land is rather light in appearance. Viewed from NE, the brownish Jackson Ø, NE

of Home Forland, has a longish appearance with the largest height, 238 m, in the NW part. Viewed from the S (from off Holland Ø), Jackson Ø appears as a peaked extension of Home Forland. The island rises steeply from the sea towards the N and E and slopes S and W towards Gulmann Sund.
From Kap James, the NE part of the coast of Hold With Hope extends 26 M in a WNW direction to Kap Stosch. The highest points along this part of the coast are Diener Bjerg, 797 m, Stensiö Plateau, 737 m, and Frebold Bjerg, 1,207 m.
The islands, Finsch Øer, lie 13 M NW of Kap James. The two largest of these islands are 376 and 224 m high, respectively. The small bay called Hirdhavn is on the N side of Store Finsch, the largest and highest of the islands. There are some rocks in the innermost part of the bay. Store Finsch has a very uneven surface. The small Terneskær lies S of Store Finsch, close to Hold With Hope land. See under depths at Finsch Øer, 8.1.1.2.2.

8.2.1.0.3 N side of Gael Hamke Bugt

Kap Mary 74º10'N 020º11'W is the SE point of Clavering Ø, and 1 M inland it rises to a height of 563 m. The point is prominent and steep with only a few indentions.
Dahl Skær, 67 m, is a small rocky island that lies close to the coast 2 M WSW of Kap Mary.
8 M W of Kap Mary, W of the N-S Baesdalen, Clavering Ø rises to a height of 1,300-1,400 m with numerous mountain peaks, of which the 1,332 m high Steinmannspids 74º10.5'N 020º49'W is easy to recognise from a great distance. This mountain has a rather regular shape and has a small, rather prominent natural cairn at the top. In a NW direction, it can be seen at a 25-30 M distance with the peak just over the island's mountain edge. From here, two peaks which look like each other can be seen, of which Steinmannspids is the furthest S.
Dødemandsbugten is a 4.5 M wide, minor indentation on the S coast of Clavering Ø, directly N of Store Finsch. From the middle of the bay, the deep Skrællingedalen extends NNW, E of the 900 m high mountain Jernhatten. At the point E of the bay there are some prominent cliffs at the beach and there are a couple of rocks close to the coast. A station house is erected at the bay W of a small stream that discharges at the W foot of the mountain E of Jernhatten. Close W of the station house there are two characteristic gravel embankments, the upper part of which is covered with grass. A large stream from Skrællingedalen discharges 0.5 M W of the station. There is a small rock close to the coast off the S point of Jernhatten.
S of the entrance to Young Sund, on Clavering Ø, is the prominent E part, whose N point, Kap Breusing, is steep but not very high, while the nearby Brisbane Bjerg rises to a height of 486 m. The high, rather pointed Magnetikerbjerg, 563 m, is at Kap Mary. The remains of a former hunting hut can be seen on the slope of land on the S side of Kap Borlase Warren.
1.5 M further SW, a small dark basalt rock forms a smaller headland 3 M SW of Kap Borlase Warren, the land protrudes out into a wide, low foreshore (moraine and delta formations), and Herschell Bjerg, 683 m, lies W of here, quite close to the coast. Herschellhus (former hunting station) is located at the foot of the mountain. Herschell Bjerg ends to the W at the wide, N-S-going Blæsedalen. A hut has been erected some kilometres W of Herschellhus, at the former Eskimo settlement.

8.2.1.0.4 Depths

Gael Hamke Bugt is deep and there are only few underwater obstacles, see chart 2702.

There is a 8 m high rocky island 1,400 m E of the SE point of Jackson Ø and 50 m off this small island there is a rock that is dry at low tide. The island and the rock are called Edla Skær. There may be a reef between the SE point of Jackson Ø and Edla Skær, as the ice always grounds at this location. Vessels should under no circumstances sail in around Edla Skær.
A reef extends in a SW direction from the S point of Jackson Ø. The most shoal sounding here, 0.7 M SW of the mentioned point is, however, 46 m. There also seems to be a reef off the island's NW point.
The coastal waters around Store Finsch are foul and rocks have been found S and W of the small island on the S side of Store Finsch. The depths also vary greatly in the waters S, SE and E of Store Finsch and up to 6 M SE and 5 M E of the island, although so far no dangerous rocks have been found here except for those already mentioned. However, a shoal with 5.5 m of water has been reported 3.8 M E of Store Finsch. A rather deep channel seems to go S of the shoal area at Store Finsch and N of Terneskær and further between the rocks that lie at the island S of Store Finsch and Lille Finsch. If one is forced to use this channel, it is probably not advisable to approach too closely to the NE coast of Lille Finsch.
The main waters in the channel N of Finsch Øer are deep and free of dangers.

8.2.1.0.5 Current

There is sometimes a strong current between Finsch Øer. Off Kap Mary, where the depths are otherwise great, there are a number of shoal places with less than 30 m of water close to the coast. There are probably several rocks around the point where the cliffs are penetrated by basalt channels. The previously mentioned Dahl Skær lies 2 M W of Kap Mary and an underwater reef is reported to lie 0.5 M S of Dahl Skær, but the position is noted as doubtful.

8.2.1.0.6 Ice

Under normal ice conditions, the coast off Gael Hamke Bugt can be navigated with ice-strengthened vessels from the end of July until the end of August and some years the coast can be navigated all the way up to 79º00'N in the month of August. Most attempts by vessels to reach the coast between 73º00'N and 79º00'N have also been in July and August. Otherwise, the sea off Gael Hamke Bugt seems to be among the most ice-free areas in Northeast Greenland. It can often remain ice-free far into the autumn and the winter ice often disappears as early as the beginning of June, while the inner fjords are still frozen. The drift ice off Gael Hamke Bugt is normally open and of such a concentration that it can be passed by vessels in July and August. With a NE wind however, the bay quickly becomes packed with drift ice.
Norwegian hunters and seal hunters, who have wintered in the area, have been of the opinion that late winter is the best time to get through the drift ice outside Gael Hamke Bugt. It is reported that March and April are particularly favourable, with open water from Jackson Ø to Lille Pendulum and even to Shannon. Then the ice breaks up as far W as Finsch Øer.

8.2.1.0.7 Approach

The best way to approach Gael Hamke Bugt is to go into the drift ice somewhat N of Gael Hamke Bugt at 74º20'N latitude and then work to the W, while the current will carry the vessel

S. This method can be used at the beginning of the season when there is still time to wait to get through, but later in the summer it is necessary when navigating to find leads and openings in the ice concentration in order to get through quickly. Help from DMI Ice Service in Narsarsuaq is of great importance for this purpose, and most ice-strengthened vessels rarely go into the ice until they have some information about the ice concentration at the latitude where the ice belt is to be navigated. The ice belt normally has a width of 100-200 M in E-W direction.

8.2.1.0.8 Anchorages

See section 8.3.

8.2.1.1 Godthåb Golf 74º02'N 021º15'W

8.2.1.1.1 Landmarks

Godthåb Golf lies W of Gael Hamke Bugt and is an extension of it. The fjord is 5 M wide at the E side, directly W of Finsch Øer, but further W it is 12 M wide.
Kap Oetker 74º15'N 022º00'W is the W point of Clavering Ø, and along the SW coast of Clavering Ø lies Hallebjergene, which rises to a height of 1,196 m.
Kap Stosch 74º04'N 021º43'W is the N point of Hold With Hope and consists of 2 promontories with 1 M in between. SE of the point there is a wide rock ledge 20 m above sea level. The actual point is a slope with vegetation and continues to a stony beach.
Jordanhill, 1,410 m, lies at the SW side of Godthåb Golf at the foot of Wordie Gletscher.
Wordie Bugt is a small bay S of Jordanhill and Wordie Gletscher protrudes out into the sea here. Anchorage, see section 8.3.
Hansen Havn is a small bay N of Jordanhill, see section 8.3.
Kap Ruth and Kap Eva are the S and NE points respectively of Jordanhill.
Kap Adam is the point N of Hansen Havn. Manley Land is the area between Hansen Fjord and Grantafjord. Blosseville Bjerg, 1,233 m, lies between Kap Adam and Grantapynt, which is the NE point of Manley Land. The S point of Clavering Ø, Eskimonæs, is a rather low, somewhat protruding and wide headland, whose E and W sides the so-called Østhavn and Vesthavn respectively are formed. Inland, the land rises to a height of more than 1,400 m. The scientific station Eskimonæs, which burned down in 1943, was located at Østhavn. 4 M NW of Eskimonæs, the deep Granatdal indents the land in a N direction. Between Blosseville Bjerg and Jordanhill, the nunatak Scotstounhill, 1,254 m, can be seen in on Mercanton Bræ. It is a large, massive mountain block, and C.H. Ostenfeld Nunatak is located further NW.
The glacier mainly protrudes out into Wordie Bugt S of Jordanhill. The land along the S side of Wordie Bugt consists of a 1,600-1,700 m high alpine landscape with a number of narrow, steep protruding glaciers.
From Wordie Bugt towards the entrance to Loch Fyne, the land decreases in height and is quite low at the W side of the entrance to this fjord. At the W side of the inner part of Loch Fyne, the terrain rises again to a height of 1,502 m at Nordhoek Bjerg. The land around the southernmost part of Loch Fyne is a low, wide, valley that partly leads S to Mackenzie Bugt, and partly W to the inner part of Moskusoksefjord. Streams discharge on both sides of Loch Fyne, and several of them send muddy water far out into the fjord.

The NW part of Hold With Hope land rises to a height of 1,509 m at Spath Plateau, NE of Nordhoek Bjerg. The 1,207 m high Frebold Bjerg is between the plateau and the foreland's N point, Kap Stosch. Kap Stosch itself is a low, somewhat extended isthmus. 1 M SW of the point is a former hunting hut. On a stretch of 5 M from Kap Stosch and further E, the coast consists of a 20 m high, vertical reddish mountain cliff, which is very remarkable when viewed from the sea.

8.2.1.1.2 Depths

W of Finsch Øer, the depth in the main water is generally large. A rock with 4 m water has been found 1 M E of the N point of Jordanhill. Bartletts Skær is a rock with 2 m of water close W off Kap Stosch.

8.2.1.1.3 Ice

The ice usually breaks up by the beginning of July and the fjord starts to freeze again in mid-October.

8.2.1.1.4 Approach

Approach to Godthåb Golf normally occurs by keeping 5 M S of Kap Mary from the mouth of Gael Hamke Bugt, and from here N around Finsch Øer, keeping a little closer to Clavering Ø than to Finsch Øer. The station at Eskimonæs can be seen shortly after passing Store Finsch, see section 8.3.

8.2.1.1.5 Wind conditions

At the end of July and for most of August, the following local wind conditions prevail in Godthåb Golf in periods with calm meteorological conditions:
Early in the morning the weather is normally calm. At 1000 the wind starts to blow from the E and the eastern wind gradually increases in strength until it reaches its maximum at 1500-1600, after which it decreases again. It is calm again at 2100-2200. This fjord wind, which E of Finsch Øer is only slightly noticeable, is strongest between Kap Stosch and Jordanhill. Around midnight, the calm weather can be broken by a W wind that blows out of the fjord, but this wind is rarely as strong as the E wind in the day time. When the W night-wind occurs, it culminates in strength between 0200 and 0300 and calms down completely by early morning. If there is a lot of drift ice in the outer part of Gael Hamke Bugt, the east wind is often accompanied by fog, which at night can fill all of Godthåb Golf.

8.2.1.2 Loch Fyne 74º01'N 021º59'W

8.2.1.2.1 Landmarks

Loch Fyne extends from it mouth 22 M to the S and ends 5 M from Moskusoksefjord. The entrance to Loch Fyne lies between Kap Stosch and Strømtangen, which is a narrow isthmus that extends out from Hudson Land. 6 M inside the fjord lies Strømmen, which is a bend towards the E, where it is only 0.25 M wide. The land is high along the W side of Loch Fyne, but it is considerably lower along the E side.

8.2.1.2.2 Depths

In the outer part of the fjord, depths have been found of around 8 m mid-channel. At the narrow part in Strømmen, the smallest depth is 12 m, whereas the depth in the inner part is from 50 to 180 m. Here it appears to be less water than indicated on the chart. The many streams that discharge here probably cause continuous and noticeable filling of the fjord bottom. A number of streams discharge on both sides of the inner part of Loch Fyne, carrying muddy, reddish-yellow water. A large stream discharges at the fjord's W side a little S of Strømmen. It sends light coloured, muddy water far out into the water, which may give the impression that there is a large area here with shallow water, but this is not the case.

8.2.1.2.3 Ice

Loch Fyne is ice-free much earlier than the large main fjords, as the ice melts at the beginning of the summer. Normally the break-up occurs at the beginning of July.

8.2.1.2.4 Approach and navigation

Passage of the narrows called Strømmen in Loch Fyne, 5-6 M S of the mouth of the fjord, should only be done at the turn of the tide. The shoal water in the fjord's outer part extends far out on both sides and narrows a channel that has a water depth of more than 10 m, to a width of almost 0.5 M. This channel lies approximately mid-water, but the width of the channel at Strømmen is further reduced to 200 m. While navigating Loch Fyne from NE, caution should be exercised with regard to the 2 m rock at Kap Stosch. While navigating in through the mouth of the fjord keep on course 177º, towards Nordhoek Bjerg. The land on the W side of the fjord's outer part, N of Strømmen, is rather low and sandy. The land along the fjord's E side is somewhat higher. However, there is not so much water close to the cliffs here as their appearance would suggest, but the coast on the fjord's E side offers several guiding points for orientation than the land on the W side. On approach, a long, narrow isthmus is passed first on the port side. A protruding headland with a large rock on the NW side will then appear on the starboard side. A shoal that protrudes far out and is dry at low tide will be passed further S on the port side. An isthmus with a high, pointy rock is then passed on the starboard side. It is possible to keep quite close to this isthmus. A lagoon-like stretch of sand is then passed further S. When this is passed, keep towards Strømmen closer to the fjord's W and SW side, as the shoal water on the fjord's E side 1.5 M N of Strømmen protrudes far into the water. 0.8 M N of Strømmen there is a low sand spit on the fjord's E side. The headland at the N side of Strømmen is relatively high and protruding, and between the low sand spit mentioned above and the headland, a large, greyish rock resembling a house with wide, red brown, vertical stripes can be seen on the ridge. Continue to keep closer to the land on the fjord's W side, until the approximately E-W part of Strømmen, has been passed. S of Strømmen it is deep until the S end of the fjord is reached, where it quickly becomes shallow.
Anchorage, see section 8.3.

8.2.1.3 Copeland Fjord 74º12'N 022º02'W

8.2.1.3.1 Landmarks
Copeland Fjord, whose mouth lies in the NW part of Godthåb Golf, extends 8 M in a N direction and NNE direction and at Revet it becomes Rudis Bugt. From Copeland Fjord, 6 M inside the mouth of the fjord, Grantafjord extends N around Blosseville Bjerg.

8.2.1.3.2 Depths
The depths mid-channel in the S part of Copeland Fjord vary between 100 m and 150 m, but in the N part the depth decreases quickly 2 M after that the mouth of Grantafjord has been passed.
Revet is a narrow, shallow section of water between Clavering Ø and Payer Land. From Revet, the waters continue N in Rudis Bugt and Tyrolerfjord. Eigil Elv forms a delta here through old moraine deposits and this delta has a narrowed channel and reduced depth so that the channel is dry at low tide and can only be navigated by small boats at high tide.
Anchorage, see section 8.3.

8.2.1.4 Grantafjord 74º18.5'N 022º03'W
The fjord extends 6 M in a W direction and is a branch of Copeland Fjord. The fjord is surrounded by steep mountains, which rise to heights of 1,300-1,400 m. In the fjord's innermost part, Grantagletscher extends down to the surface of the water.

8.2.1.4.1 Depths
There are depths of between 32 and 85 m, but there is shoal water, 2.7 m, over most of the mouth of the fjord from Grantapynt and further N.

8.2.1.4.2 Approach and navigation
Vessels can navigate Grantafjord, but the entrance is very shoal in the S part, as there is a large moraine at the mouth of the fjord. Along the fjord's N side there is a narrow channel with a water depth of up to 12 m.
The bay on the fjord's N side, 3.5 M W of the entrance, is also shoal. When approaching the fjord, keep in the channel that runs along the N side of the mouth of the fjord and, 350 m from Kap Astrid, pass an easily recognisable rocky headland and Kap Randi, a small, lower and sandy headland.
Anchorage, see section 8.3.

8.2.1.5 Young Sund 74º14'N 020º00'W

8.2.1.5.1 Landmarks
Young Sund is 4 M wide at the mouth, which lies between the SW coast of Wollaston Forland and Kap Breusing on Clavering Ø. The sound extends 18 M to the NW and NNW to Zackenberg, which is a 1,314 m high mountain on the S side of Wollaston Forland, where Tyrolerfjord begins.
Kap Herschell 74º14.5'N 019º42'W lies on the S point of Wollaston Forland, 5 M SW of Kap

Borlase Warren, and Herschell Bjerg, 683 m, lies N of the point and close to the coast.
Kap Breusing 74º13'N 020º06'W, which is the E point of Clavering Ø, rises to a height of 486 m.
Basaltø, which lies 9 M NW of Kap Breusing, is an 80 m high island.
Kap Berghaus 74º17'N 020º09'W, which is the SW point of Wollaston Forland, lies 4 M N of Kap Breusing.
Daneborg lies on Sandodden, 2 M NW of Kap Berghaus, see section 8.3.
The Sirius Sledge Patrol has its headquarter just S of Daneborg.
Sandøen lies 1 M S of Kap Berghaus. It is a low island of sand and there is shoal water, 10 m, all around the island at a distance of 0.5 M. The 20 m contour lies 1 M from the island all the way around, except for the N side, where the largest depth is 20 m at a distance of 450 m from the island. Passage N of the island is not advisable, and vessels that navigate in Young Sund shall pass S of Sandøen at a distance of 0.75 M from Clavering Ø and 1.25 M from Sandøen. Refer also to depths, 8.2.1.5.2.
The coast at the N side of the sound, on front of the high mountains is relatively low from the deep N-S extending Blæsedalen to Kap Berghaus, with sand and clay cliffs cut through by the mouths of several streams.
Kap Berghaus is a low sand spit that protrudes somewhat from the coast, and from a distance, the S slopes of a rather low coal cliff that extends 3 M N can be seen. It is separated from the higher mountains to the N by Lille Sødal. This section of cliff has a yellowish brown colour.
A hut has been erected at Kap Berghaus and the coast here turns NW and then N. A little N of this last turn is the Sled Patrol's station, Daneborg. 10 M N of Daneborg the coastline turns in a W direction towards the entrance to Tyrolerfjord, and 7 M W of this turn is the recognisable, 1,372 m high Zackenberg with the 1,342 m high, double peaked Orienteringsspids lying further S.
In Zackenberg Bugt, E of these mountains, a large stream discharges, outside of which there is a mud bank, which slopes steeply to large depths. There is shoal water a little out from the coast. The mouth of the stream is recognisable from a great distance by the dark, prominent clay cliff at the W side of the mouth. A smaller stream discharges close W of here, and 100 m further W lies the former hunting station Zackenberg. See also under depths. A scientific station has been established at Zackenberg.
The S side of Young Sund generally follows the turns of the N side and, S and W of Kap Berghaus and Daneborg, it forms the large Kirchenpauer Bugt. The small, 80 m high island, Basaltø, lies in the N part of this bay. Its N side descends steeply. W of the N part of Kirchenpauer Bugt can be seen the N continuation of the high land from the S side of Clavering Ø.
Anchorage, see section 8.3.

8.2.1.5.2 Depths

The depths in Young Sund and its branches vary from 50 to 347 m. The deepest depth was found in Tyrolerfjorden. While the water at the entrance to Young Sund between Kap Breusing and Wollaston Forland is free of dangers, there is a large shoal with depths of less than 10 m around the low Sandøen. Marker: "Westernmost indentation of Zackenberg in line with the vertical (uppermost) edge of the easternmost descent on Clavering Ø, see fig. 8.3,

leads clearly through the sound from Kap Breusing to past Sandøen". During navigation of Kap Breusing and past Sandøen, the marker may however be used as an edge mark.
Depths are reported to be 3.5 to 5.5 m in the 0.7 M wide channel N of Sandøen. The channel should not be used by larger vessels, as it is not straight.
The depths mid-channel are otherwise relatively deep and in most places, the 20 m contour lies quite close to the coasts. Caution is advised, however, if an attempt is made to approach the land at the E and N sides of Young Sund between Lille Sødal and Zackenberg, as otherwise there is a risk of grounding on underwater moraines or stream deltas. On a section of 2 M outside and E of the mouth of the large stream in Zackenberg Bugt, a large shoal extends about 0.5 M out from the coast. A marker, which in this location leads reasonably S of the shoal, is: "Brisbane Bjerg, at the SE point of Clavering Ø, just free to the left of Clavering Ø's NE descent".

8.2.1.5.3 Ice
The ice normally breaks up at the end of May or beginning of June and the sound remains open throughout the summer.

8.2.1.6 Tyrolerfjord 74º26'N 020º42'W

8.2.1.6.1 Landmarks
Tyrolerfjord is a continuation of Young Sund and, from the narrowing at Zackenberg, it extends 15 M W, where it divides into two arms, the southernmost of which is called Rudis Bugt and is the widest. The land around Rudis Bugt is flat. The other is a narrow fjord arm, which has kept the name Tyrolerfjord and extends 11 M NNW between A.P. Olsen Land and Payer Land. A stream discharges into its innermost part, which drains Pasterze (glacier). The coastal land on both sides of the fjord is high and steep.
As indicated by the name, Tyrolerfjord is generally surrounded by high alpine mountains. On the NW part of Clavering Ø, however, the coastal mountains are only 700 m high, but their steepness gives the impression that they are much higher than the mountains on the N side of the fjord. A smaller bay, Lerbugt, can be found on Clavering Ø at the S side of Tyrolerfjord. The 1,328 m high Giesecke Bjerg lies on the N side of the fjord, where it turns NNW.
Tyrolerfjord's inner part extends from here between high, steep mountains, cut through by many gorges through which small streams discharge into the fjord. 0.5 M from the fjord's N end, a small glacier descends on the W side. This is the only glacier in all of Tyrolerfjord. Large deposits fill the fjord's N part.
Tyrolerfjord continues into the land of Tyrolerfjord, whose southernmost part is almost totally blocked by the Copeland Gletcher coming from the W, and whose N end is filled by Pasterze (glacier).

8.2.1.6.2 Depths
The entire length of Tyrolerfjord can be navigated, but caution must be exercised in the fjord's innermost NW part, where the depth decreases evenly towards the land at the stream bed. In Rudis Bugt, it is possible for vessels to almost reach Revet from the N.

8.2.2.0 Claveringstrædet 74º31'N 018º55'W

8.2.2.0.1 Landmarks

Claveringstrædet is the water between Wollaston Forland and Sabine Ø, and from the entrance it extends 6 M WNW to Lars Jakobsen Pynt and then 8 M N to Hochstetterbugten.
Pendulum Øer lie NE of Wollaston Forland, and the two largest of the islands are Sabine Ø and Lille Pendulum. Sabine Ø reaches its greatest height of 699 m in Keferstein. Hvalros Ø lies on the N side of the entrance to Claveringstrædet, 1.5 M S of Sabine Ø. The island is 1.3 M long and 1 M wide. It rises on its N part to a height of 97 m and slopes evenly down to the S. Seen from E or W, the island is reported to resemble a large walrus lying on the ice.

8.2.2.0.2 The depths at Hvalros Ø

A point with a water depth of 5.5 m extends 0.5 M NW from the N end of Hvalros Ø, but otherwise there are depths of 9-14 m in the waters between Hvalros Ø and Sabine Ø.
Hühnerbjerg, 630 m, lies on Wollaston Forland 6 M NW of Kap Wynn.

8.2.2.1 Falskebugt 74º33.5'N 019º18'W

The bay on the E side of Wollaston Forland extends 1 M inland in a W direction and is surrounded by steep promontories, of which Falkebjerg on the N side of the bay rises to a height of 307 m. From Falskebugt, the E coast of Wollaston Forland extends 6 M N to Kap Berlin, which is the peninsula's N point and it rises to a height of 480 m.
The depths at Falskebugt. Most of the bay has very shoal water.

8.2.2.2 Germania Havn 74º32'N 018º50'W

The harbour is a small, almost circular harbour on the SE side of Sabine Ø. The harbour is protected by Hvalros Ø. See section 8.3.

8.2.2.3 Griper Red

lies W of Germania Havn. It is possible to anchor here, but the anchorage is unprotected and the part of Sabine Ø that lies outside the anchorage consists of low, rounded peaks compared to the steeper and higher W side of the island. See section 8.3.
Lars Jakobsen Pynt 74º33'N 019º12'W is the SW point of Sabine Ø and is a low narrow peninsula, which extends 1 M out from the coast. Close off the outermost point lies the small, low island and 0.5 M further SSW and there is a larger island in the middle of the strait. See section 8.2.

8.2.2.4 Heimland Havn

is a bay on the NW side of Lars Jakobsen Pynt. There are 2 small islands 1 M NNW of Lars Jakobsen Pynt. It is possible to anchor in the harbour at a depth of 45 m, where there is a mud bottom, see section 8.3.
Kap Neumayer 74º41'N 018º53'W is the N point of Sabine Ø.

8.2.2.4.1 Depths

In the S part of Claveringstrædet, a series of soundings show depths between 30 and 140 m,

and the greatest depths are apparently found closest to Sabine Ø.
There are no soundings from the actual part of Claveringstrædet N of Heimland Havn, but E of Kap Berlin, on the W side of the N part of the strait, a couple of soundings show that 1.5 M NE of the coast, there are depths of around 10 m.
The following known islands, rocks and shoals are found in Claveringstrædet:

8.2.2.4.1.1
At the S and W side of the strait.

8.2.2.4.1.1.1
The islets and rocks NE of Kap Wynn.

8.2.2.4.1.1.2
A number of small islands and rocks that are partly covered at high tide lay 3.5 M WNW of Kap Wynn and extend in a N direction from Wollaston Forland 1.5 M out from the coast. The depth is 25 m close N off the northernmost rocks. It is said to be shoal along the land between Falskebugt and Kap Berlin.

8.2.2.4.1.2
The N and E sides of the strait.

8.2.2.4.1.2.1
An island with a couple of islets close to the coast of Sabine Ø, approximately 4 M W of Germania Havn.

8.2.2.4.1.2.2
At Lars Jakobsen Pynt, close to the point, there is a small islet, and there is a somewhat larger island 0.5 M SSW of this islet. There is 15 m of water 200 m SW of the little islet, and the depth mid-channel between the islet and the island seems, judging from a series of soundings, to be 25-30 m, but Norwegian sealers that have passed Claveringstrædet report that Lars Jakobsen Pynt continues into a reef. The depth is 55 m mid-channel between the S island and Wollaston Forland.

8.2.2.4.1.2.3
There are two small islands off the point at the N side of Heimland Havn, of which the outermost lies 0.7 M from the point.

8.2.2.4.2 Sailing directions
From mid-channel in the strait S of Griper Red, keep mid-channel between the N part of the row of islands and rocks that extend N from Wollaston Forland, and Sabine Ø until about 0.9 M from Lars Jakobsen Pynt. From here, keep SW until abeam of the outermost, largest island off Lars Jakobsen Pynt. From there, keep W and round the island at a distance of 0.25 M. Then keep N and mid-channel, W of the small islands outside the N side of Heimland Havn. In the strait's N part, keep mid-channel or preferable a little to the W.

8.2.3.0 Pendulumstrædet 74º35'N 018º32'W

8.2.3.0.1 Landmarks

Pendulumstrædet, which is the water between Sabine Ø and Lille Pendulum, extends in a NNW direction and has a length of 6 M.
Lille Pendulum rises steeply on all sides and reaches a height of 602 m in the centre. The island can be seen from a great distance and is easier to identify than other points in its proximity. It is therefore a good approach mark for ships coming from SE.
Kap Stufenberg is the SW point of the island. A small island lies 2.5 M WSW of this point. There has been anchored in 8 m of water close S off Kap Stufenberg, but the area is not adequately surveyed.
Kap Desbrowe is the SW point of the island.
The island's NE point, Kap Hartlaub, is a steep, narrow peninsula.
Bass Rock, 142 m, is a rocky island, which lies 0.5 M E of Kap Hartlaub.
Kap Buchenau 74º44'N 018º34'W is the NW point of Lille Pendulum. Between these two points there is a wide, unnamed bay.
Hansa Bugt 74º38'N 018º46'W, see section 8.3.

8.2.3.0.2 Depths

There are a number of islands and rocks approximately in the centre of Pendulumstrædet, 1.5 M NE of the mouth of Hansa Bugt. These islands and rocks lie in a NE-SW direction and extend for 1 M. There is an island and some islets 1.5 M ESE of the S entrance point to Hansa Bugt. The S point of Lille Pendulum should not be approached too closely, as there is probably shoal water here.8.2.3.0.3 Ice
Pendulumstrædet is often closed by ice all summer and land-fast ice often extends here until 2 M E of Lille Pendulum.

8.2.3.0.3 Navigation

During passage of Pendulumstrædet from S to N, keep closest to Lille Pendulum, until after the southernmost of the small islands in the strait has been passed, after which vessels should stay mid-channel between the northernmost islands of the strait and the coast of Lille Pendulum. The route S and E of Pendulum Øer and Bass Rock to Hochstetterbugten is normally preferable if there is shore lead or open ice. There is a small rock close to the S side of Kap Hartlaub, but otherwise there are no known dangers E of the islands. The Americans recommend passing 3-4 M E of Lille Pendulum and Bass Rock.
There are probably only shallow depths between Kap Hartlaub and Bass Rock and larger vessels are warned against attempting to pass here.

8.2.4.0 Hochstetterbugten 74º48'N 017º46'W

Hochstetterbugten, whose E mouth lies between Bass Rock and Kap Philip Broke, is a large bay that is restricted by Pendulum Øer and Wollaston Forland to the S and by Shannon and Hochstetter Forland to the S. The large Kuhn Ø, from where Lindeman Fjord extends towards the W, lies in the SE part of the bay. Two large fjords, Grandjean Fjord and Ardencaple Fjord, extend deep inland to the W and NW from the NW part of the bay.

8.2.4.0.1 Landmarks

8.2.4.0.1.1 The S and W side of Hochstetterbugten

Kap Berlin 74º41'N 019º25'W is the N point of the peninsula on Wollaston Forland, which lies on the W side of Claveringstrædet. A little in from the coast, the land rises here to a height of 480 m.

Kap Schumacher lies 12 M W of Kap Berlin, and Albrecht Bugt lies between the two peninsulas, from where a number of large and small streams discharge through the broad plains that surround the bay. In the inner part of the bay, these streams have formed large deltas, outside of which there are extensive mud banks. A small island lies close to the coast 0.75 M E of Kap Schumacher. There is a rock off the E side of the island, but its exact position is not known. There is also a small island close N off Kap Schumacher.

Kuhn Ø, which lies in the SW part of Hochstetterbugten, is separated to the S from Wollaston Forland by a branch of Hochstetterbugten. This branch has a width of 2-4 M and extends 6 M W, after which Lindeman Fjord continues a further 10 M to the W. On the W side, Kuhn Ø is separated from Th. Thomsen Land by Fligely Fjord, which has a length of 20 M. The outer coasts of the island are rather steep, but a valley runs through the island in an N-S direction. E of this valley, the mountain peaks in Schwarze Wand rise to a height of 1,136 m, Sneryggen to 1,031 m and Ruthner to 1,066 m.

Kap Hamburg 74º42'N 020º04'W is the SE point of Kuhn Ø, and the land here rises to a height of 1,033 m.

Kap Maurer 74º52'N 019º44'W is the E point of the island and there is a flat sand beach and a hut here. A formerly used hunting hut is located 1.5 M SSW of Kap Maurer, on a slope from which the coast leads up to a low plateau. Another former hunting hut lies 3.5 M further SW. Otherwise, the E and N coasts of Kuhn Ø have even gravel slopes and stony terrain below.

Bastian Bugt 74º56.5'N 020º00'W is an L shaped bay, which extends 5 M inland on the E side of Kuhn Ø between Kap Maurer and Kap Bremen. The S side of the bay has a flat foreshore, while the N side has a more uneven beach consisting of gravel and rock surfaces. There is some vegetation around the stream bed, which extends NW from the NW part of the bay.

Kap Bremen, which is the high and steep NE point of Kuhn Ø, lies 8 M NNW of Kap Maurer. Immediately W of this point, the mountains rise to a height of 1,066 m.

Kap Mosle, which is the NW point of Kuhn Ø, lies 8 M WNW of Kap Bremen. The stretch of coast in between is very steep.

Kap Negri, the NE point of Th. Thomsen Land, lies 3.5 M WNW of Kap Mosle. Close SW of this point, the land rises to a height of 1,063 m. Kap Negri is the point between Fligely Fjord and Grandjean Fjord.

Kap Buch, which is the E point of C.H. Ostenfeld Land, is easily recognisable. The land close W of Kap Buch rises to a height of 1,121 m.

8.2.4.0.1.2 The N side of Hochstetterbugten

To the N, Hochstetterbugten is bounded on the S side by both the island Shannon and Hochstetter Forland. Shannon Sund extends W of Shannon.

Kap Philip Broke 74º56'N 017º37'W is the S point of Shannon, and the highest elevation of

the point rises to a height of 97 m.
Freeden Bugt 75º00'N 018º00'W is an open bay on the S side of Shannon between Kap Philip Broke and Kap David Gray. There are a number of streams that discharge into the bay.
Kap David Gray 74º58.5'N 018º28'W is the W point of the entrance to Freeden Bugt.
Tellplatte, which lies 3 M N of the point, rises to a height of 196 m. From Kap David Gray, the S coast of Shannon extends 7.5 M WNW to Kap Tramnitz, which is the SW point of Shannon. Along this coastline, a number of streams discharge into Hochstetterbugten.
Kap Rink 75º08'N 019º37'W is the S point of Hochstetter Forland.
Nanok, a former hunting station, 75º09'N 019º47'W, lies between Kap Rink and Niels Hansen Næs. The coast recedes somewhat at Nanok and forms a small bay, where the foreshore is flat and rises evenly towards the mountainous land NW of the station.
Nordre Muschelbjerg and Søndre Muschelbjerg lie 3 M NW of Nanok and they rise to heights of 385 m and 404 m respectively.
Ailsa, 196 m, has a cone shaped peak and lies 9 M NNE of Nanok.
Niels Hansen Næs is a narrow spit that extends out in a SE direction from Hochstetter Forland 2 M W of Nanok.

8.2.4.0.1.3 The NW part of Hochstetterbugten

A branch of Hochstetterbugten extends 12 M N and NW from a line between Niels Hansen Næs and Kap Buch on C.H. Ostenfeld Land. The N part of these waters is called Peters Bugt, while Ardencaple Fjord extends NW.
Peters Bugt 75º19'N 020º15'W lies between Karls Pynt, 3 M N of Kulhus, and Kap Klinkerfues.
Kulhus, a former Danish scientific station, lies 3.5 M NW of Niels Hansen Næs.
Lauge Koch Vig is a small cove that lies 3 M N of Karls Pynt.
Kap Klinkerfues is the point between Peters Bugt and Ardencaple Fjord. It is a high rock-filled point with the two peaks, Wildspitze, 1,593 m, and Matterhorn, 1,624 m, which lie 5 and 9 M NW of Kap Klinkerfues, respectively, at the S end of Barth Bjerge.

8.2.4.0.2 Depths

The soundings taken in Hochstetterbugten seem to show that the depth in the main waters are large, but Norway has reported that in the otherwise ice-free waters, quite a bit of ice has been observed grounded in mid-channel between the islands Shannon and Lille Pendulum.
Freeden Bugt is not adequately surveyed, but the depths are relatively small. It appears that the largest depths are in the W part, close to Kap David Gray, but when approaching Freeden Bugt from the S, the depth decreases quickly and extreme caution shall be exercised during navigation in this bay.
Kap Rink. Shoal water with a minimum depth of 30 m extends 3.5 M SE and 2.5 M SW from Kap Rink and it is advisable to pass the point at a distance of no less than 4 M.
The 200 m contour extends at a distance of 2 M from the coast between Kap Rink and Niels Hansen Næs, but the waters are not adequately surveyed, so caution shall be exercised and it is not advisable to approach closer than 2 M to the coast SW of Kap Rink. The difference between high and low tide at Nanok is estimated to be 1 m. There are reported to be some underwater dangers in Peters Bugt close to the land to the E, and it is reported that in the NE and N parts of the bay, the shoal water extends far out, especially outside the discharging

streams. The water in the NW part of the bay is free of dangers, but shoal. A series of soundings a couple of M from the coast in this part of Hochstetterbugten seems to show relatively large depths everywhere.
An area was reported (2009) in position 75º14.7'N 020º40.6'W, 30-40 m in diameter, with depths between 2-10 m.

8.2.4.0.3 Ice

The drift ice always drifts S through Shannon Sund, but it sometimes happens that the ice in the bay at Nanok does not break up, but remains there over the summer. The normal situation, however, is that the ice breaks up at the beginning of August and that the sea freezes again at the beginning of October. The ice conditions in Hochstetterbugten are also very similar to the ice condition in other places in the N part of Østgrønland, as the inner part of the fjord becomes free of winter ice at the beginning of the summer, but the mouth of the fjord and the waters outside remain so full of sea ice, that navigation is difficult. At the end of June or the beginning of July, the ice usually breaks up at Freeden Bugt and the bay does not freeze over again until around November.

8.2.4.0.4 Navigation

The route to be taken through Hochstetterbugten depends on the distribution of the ice in the waters, but vessels that have navigated Hochstetterbugten and its branches have usually approached Hochstetterbugten from the E by staying mid-channel between the islands Lille Pendulum and Shannon, but the bay can also be approached from the N through Shannon Sund, and from the S through Claveringstrædet or Pendulumstrædet.

8.2.4.1 Ardencaple Fjord 75º17'N 020º48'W

The fjord, whose mouth lies between Kap Klinkerfues and Kap Reinhardt, extends 15 M NW to Kap Daly, and here it splits into Smallefjord and Bredefjord, both of which extend 15 M in a WNW and NW direction respectively. The coasts along the fjord here are steep everywhere and in many places they rise to heights of over 1,500 m.

8.2.4.1.1 Landmarks

Kap Buch, the E point of C.H. Ostenfeld Land, lies between Ardencaple Fjord and Grandjean Fjord and is very noticeable. Inside the steeply sloping promontory, the mountains rise to heights of 1,200 m. The mountains on C.H. Ostenfeld Land from Kap Buch and further NW are steeply sloping and broken by 3 extensive valleys. The outermost of these valleys, S of Kap Klinkerfues, is an evenly rising, U-shaped valley with a large moraine bank at the mouth. The next valley, Kildedalen, SW of Kap Klinkerfues, is a wide extensive valley with a large stream, which has a mild rate of descent and flows between high gravel banks and small, pyramid-shaped small hills to the sea. In front of the entrance there is a wide deposit of clay and gravel.
The third valley, Femdalen, on the S side of the fjord is located 5 M S of the entrance to Smallefjord. There is also a deposit here outside the mouth of the steam.

8.2.4.1.2 Depths

A series of soundings in the middle of the fjord seems to show large depths everywhere, but Bredefjord has the greatest depths. Reports from both Denmark and Norway suggest, rather uncertainly, that there is a shoal section mid-channel in Smallefjord. In the first instance, it is described as an old moraine bank across the fjord. In another instance it is described as a shoal reef 6-8 M W of Kap Daly. The soundings indicated on the American chart, however, which are probably from an echo depth sounder, show no indication of smaller depths here. It may seem remarkable, however, that the depth indication, 82 m, at the fjord's narrowest place, 9 M W of Kap Daly, was set in the S part of the waters, unlike the other depth indications in the fjord, which are all located mid-channel.
N side of Kuhn Ø.
Vessels have passed along the N coast of Kuhn Ø in deep water free of dangers.
Special remarks.
There are a number of huts along the SW side of Ardencaple Fjord.

8.2.4.2 Bredefjord 75º28'N 021º20'W

The N side of Bredefjord has somewhat lower, more rounded mountain formations than the S side, which looks more like the coasts of Ardencaple Fjord. From the N side, two extensive valleys with streams penetrate the land.

8.2.4.3 Smallefjord 75º26'N 021º25'W

The fjord winds like a dark fjord arm in between steep mountains and small glaciers.

8.2.4.4 Grandjean Fjord 75º06'N 020º37'W

The fjord lies between Th. Thomsen Land and C.H. Ostenfeld Land. The mouth of the fjord lies between Kap Negri, 1,063 m, and Kap Buch, which is the E point of C.H. Ostenfeld Land. Kap Buch is a steep point, where the land rises to the W to a height of 1,200 m. The fjord extends 20 M W and SW, and then 17 M NW to Heinkel Gletscher.
Ulla Ø, which lies approximately in the middle of the fjord, 4 M inside the entrance, is a 875 m high and steep rocky island. W of this island, the fjord narrows and begins its SW course. The fjord is visited by "Den Danske tre års Ekspedition" [the Danish 3-year expedition]. The landscape around the fjord is mountainous and of great height. In the fjord's outer part there are steep mountains and rock debris on the N side, while the land on the S side of the fjord is more even and less sloping.

8.2.4.4.1 Depths

The landscapes around the outer fjord basin, Ulla Ø, Kap Negri and Kap Buch, give the impression that the waters here are of large depths and are free of dangers. There is only a single sounding line in the fjord, at the N part of the outer part of the entrance as far as N of Ulla Ø.

8.2.4.5 Fligely Fjord 74º42'N 020º07'W

8.2.4.5.1 Landmarks
The S entrance to Fligely Fjord extends between the high, steep Kap Hamburg on Kuhn Ø and the low Kap Schumacher that protrudes from the N part of Wollaston Forland. On the W side of Kuhn Ø, the land is lower to the NW and N and it continues as a broad lowland until the waters' N entrance.
On the fjord's W side, the coast along Th. Thomsen Land is low in the S part, but becomes steeper further N. On the westernmost part of Kuhn Ø, a low isthmus, Revet, protrudes out into the fjord, which is very narrow in this location.

8.2.4.5.2 Depths
Fligely Fjord cannot be navigated by vessels, as there is a shoal area across the fjord at Revet.

8.2.4.5.3 Rocks
An underwater rock *(PD)* has been reported off the E side of the small island that lies 0.75 M E of Kap Schumacher. There is also reported to be deep water, free of dangers, around Kap Hamburg, but along the low coasts in the S part of Fligely Fjord, the shoal water extends out as far as N of Revet. From the middle of the fjord towards Kap Negri, the deepest water is reported close to the W land.

8.2.4.6 Lindeman Fjord 74º40'N 020º44'W

8.2.4.6.1 Landmarks
The E part of the S side of the fjord is formed by large, slightly sloping plains, while the westernmost, 5 M long stretch, consists of steep, rocky foreland and slopes. Many streams discharges on the S side and several of them have deposited large sand banks outside their mouths. An extensive valley, Lindemansdalen, extends S towards Young Sund. The extensive valley of Slettedalen extends in a SSW direction from the fjord's southernmost part, and from the fjord's innermost part, which has shoal water a long way out, a flat extensive valley extends in a SSW direction. The fjord continues in Svejstrup Dal to Tvegegletscher.

8.2.4.6.2 Depths
The fjord is believed to be deep in its outer part, but otherwise the depths are unknown.

8.2.5.0 Shannon Sund and Shannon

8.2.5.0.1 Shannon Sund 75º05'N 019º20'W

8.2.5.0.1.1 Landmarks
The S entrance to Shannon Sund lies between Kap Rink on Hochstetter Forland and Kap Tramnitz on Shannon, and the N entrance is between Hochstetter Forland and Kap Copeland. The sound has a length of 20 M, a largest width of 13 M in the S part and a

smallest width of 6.5 M in the N part. On both sides of the sound the land has an even and regular appearance, which is broken on the W side, however, by the mouths of a number of streams. The cone shaped Ailsa, 196 m, is the most recognisable point on the W side of the sound.
Kap Oswald Heer 75º33'N 019º24'W. There is a hut 2 M S of Kap Oswald Heer, and 5 M NW of Kap Oswald Heer there was a former hunting hut called Roseneath.
Hochstetter Forland forms the W side of Shannon Sund and to the SW it borders Ardencaple Fjord. From Hochstetterbugten, the land extends 50 M N to Bessel Fjord. The small peninsula of Haystack lies 35 M N of Kap Rink, see chapter 9.

8.2.5.0.1.2 Depths

Sounding tracks taken approximately mid-channel in Shannon Sund show depths of 100 m NW of Kap Copeland. The depths decrease to 60 m mid-channel between Kap Rink and Kap Tramnitz. Judging by all of the soundings in the sound, there is probably a somewhat deeper channel in the E half of the channel. However, grounded icebergs have been observed NW of Kap Copeland up to 3 M from the point, which may indicate a reef protruding from the promontory. Groups of grounded icebergs can also be seen at other locations in the sound. From off Ailsa, the shoal water protrudes from the low coast of Hochstetter Forland out into the sound and increases in width towards the S. It is 2 M wide at Kap Rink.

8.2.5.0.1.3 Sailing directions

Through Shannon Sund, stay mid-channel and in most places it is probably possible to approach relatively close to the coast on both sides. From here, however, except Kap Rink and the coastal stretch from Kap Rink to Alisa, the coasts should be passed with a minimum distance of 2 M. Kap Copeland should be passed at a distance of at least 3 M.
On the stretch between Shannon Sund and Roseneathbugt, where the chart shows no soundings near the coast, the waters are said to become shallower further N along the coast around Kap Oswald Heer.

8.2.5.0.1.3 Ice

The ice in Shannon Sund normally breaks up in late August and the water begins to freeze again at the end of September. When the ice breaks up, it sometimes forms a 4-5 M wide lead along the E side of Shannon Sund between Kap Philip Broke and Kap Sussi, but it narrows somewhat the further N one gets and it sometimes closes 4 M N of Kap Børgen. There is often open water S of Kap Philip Broke as far as to Bass Rock at the end of August. The drift ice is sometimes compacting at Dagny Banke, NE of Shannon, but further N at the S end of Store Koldewey, open water often appears in August. Shannon Sund is normally open in mid-August and there may then be a number of grounded icebergs along the shoal water on the W side of Shannon. When the ice begins to drift, it can move S at a rate of up to 5 M a day and with strong, continuous winds from N, the ice's drift can be considerably more per day. With strong movements of ice, many open leads form and some years it has been possible to get to Shannon as early as mid-July.

8.2.5.0.2 Shannon 75º10'N 018º30'W

8.2.5.0.2.1 Landmarks

Shannon is a large island that is generally very low and flat. Large parts of the island rise only a few metres above sea level and change after the thaw in the summer to extensive swamps with a number of small islands. Seen from the E, the island appears to be long and low with a single small ridge that breaks the otherwise horizontal line. Shannon is of volcanic origin.

There are some ridges, however, of which Meyerstein Bjerg, 305 m, in the NE part of the island is the highest. A ridge of hills of 181 m lie S of Kap Pansch on the island's E part.

Tellplatte, 196 m, lies 3 M N of Kap David Gray on the W part of the island's S coast.

Kap Philip Broke 74º56'N 017º37'W is a 4 M long, rather low isthmus, which protrudes to the S from the island's SE part. There are a couple of smaller ridges on the isthmus, the furthest S of which is 97 m high. The isthmus ends in two points. There is a hut on the westernmost point.

Freeden Bugt 75º00'N 018º00'W indents the island's S coast between Kap Philip Broke and Kap David Gray, which lies 13 M further WNW.

Kap Copeland, Shannon's NW point, only rises to a height of 42 m and protrudes approximately 2 M out to the WNW with steep cliffs.

Kap Børgen 75º26'N 018º05'W, the NE point of Shannon, is the edge of the N-sloping highland around Meyerstein Bjerg.

Sengstacke Bugt is a bay on the N side of Shannon. The W point of this bay rises to a height of 112 m, and from here the N coast of Shannon extends 7 M WSW to Kap Copeland.

Kap Sussi, 8 M SSE of Kap Børgen, has an uneven appearance and the remains of a burned down wintering camp are on the point.

The house, "Alabama", erected by the Alabama-expedition is located 1.5 M SSW of Kap Sussi, at the foot of Meyerstein Bjerg. It is now used as a hut.

Between Kap Sussi and Kap Pansch 75º10'N 017º25'W, on the E side of Shannon, there is a large indention whose NW part, SW of Meyerstein Bjerg, is called Nordenskiöld Bugt, while the S part, W of Kap Pansch, is called Frosnebugt.

Kap Pansch is a low point and inside the point, the land increases evenly in height towards the S.

8.2.5.0.2.2 Depths

8.2.5.0.2.2.1 E side of Shannon

Off Kap Sussi there are depths of 82 m and more, 550 m from the coast. Norwegian sealers have passed E of Shannon at a distance of 1-2 M from land and have found large depths. However, the outer coast N of Kap Philip Broke is reported by the Americans to be foul with many underwater rocks, which can be seen from the crow's nest on the mast.

8.2.5.0.2.2.2 Shannon S side, Freeden Bugt

The waters quickly become shallow when approaching Freeden Bugt from the S. The depths in the bay are generally small. The deepest water is found in the W part, close to Kap David

Gray. There are many large rocks spread over the sea floor and extreme caution shall be exercised when navigating in the bay. A shoal is reported to lie 200 m SE of Kap Philip Broke.

8.2.5.0.2.3 Tides

In Alabama Havn, the difference between low and high tide is 1.6 m. Magnetic disturbances have been observed outside the E side of Kap Philip Broke.

8.3 Harbours and anchorages

Daneborg is the only harbour or anchorage that is used every year or every second in the area described in this chapter. The most important emergency harbours and anchorages within the area are:

8.3.1.0 E of Hold With Hope

8.3.1.1 Grytvika 73º43’N 020º30’W

A small bay on the S side of Knudshoved, which separates it from Carlshavn. There is a hut

on the coast on the S part of the bay 2 M SW of the point of Knudshoved. Here the mountain formations reach the coast for a short stretch and the hut is the former hunting station, ”Knudshoved”. There is a rather low and wide plain, Østersletten, on the coast between Knudshoved and Kap Broer Ruys.
The anchorage is not good for larger vessels, as the depth is only 7 m inside the bay.

8.3.1.2 Carlshavn 73º46’N 020º22’W

8.3.1.2.1 Landmarks
The name arises from a former hunting station that was located at the coast but has now burned down. The bay is formed by the coastline S of the somewhat protruding, but not very high, Home Forland and is a poor harbour due to rocks. From the W part of the bay at Carlshavn, the deep Tobias Dal cuts into the land in a W direction, and the low but protruding isthmus, Knudshoved, is located on the S side of the bay.

8.3.1.2.2 Anchorage
A stream discharges into the S part of the bay and there are a number of rocks across the bay between Kap Kraus and Knudshoved. The depth in the entrance varies between 12 and 44 m, but close to the coast the depth is only about 1-3 m. The anchorage is not good.

8.3.1.3 Arundel Ø 73º46’N 020º05’W

8.3.1.2.1 Landmarks
Arundel Ø is low and has a slightly curved shape, with the largest section running in an E-W direction. There is a small islet at the W end of the island, where a hut has been erected. There is a large shoal both N and S of the island, where grounded icebergs are especially common on the N side of the island.

8.3.1.3.2 Anchorage
A large vessel has been anchored on the shoal N of Arundel Ø, where the depth seems to decrease evenly in towards the island. The bottom is sandy and it is necessary to anchor a good distance from the island. There is a rock on the NW side of the island.
The depth conditions on the shoal S of the island are not accurately surveyed, but it is probably possible to anchor here in depths of less than 50 m.

8.3.1.4 Jackson Ø 73º53’N 020º05’W

8.3.1.4.1 Landmarks
The island lies 2.5 M NE of Kap James on Home Forland and is easy to recognise as it rises to a height of 283 m on its N side.

8.3.1.4.2 Anchorage
It is possible to anchor on the S side of the island, where the coast line recedes somewhat and forms a small bay. The depth here is 50 m at a distance of 0.5 M from land. On the N

and S side of the island there are larger depths close to land, and it is not possible to anchor here. Vessels have anchored in numerous places on sandy and rocky bottoms along the SW side of Jackson Ø. However, since ice often drifts back and forth in Gulmann Sund, the anchorage on the S side of the bay is preferable. Using the S anchorage also makes it easier to avoid getting too close to Edla Skær.

8.3.2.0 Gael Hamke Bugt

8.3.2.1 The N side of Store Finsch 74º04'N 020º55'W
There is a good anchorage here in the bay W of Hirdhavn.

8.3.2.2 The SE side of Lille Finsch 73º59.2'N 021º07'W
There is a small bay here, Tidevandsvigen, where there is an excellent anchorage for smaller vessels. There is shoal water far out in its innermost part.

8.3.2.3 Dødemandsbugten 74º06.5'N 020º52'W
The bay is a small indention in the S part of Clavering Ø, 11 M WSW of Kap Mary. A stream discharges into the innermost part and Skrællingedalen extends from here in a NNW direction.

8.3.3.2.1 Anchorage
It is possible to anchor in 36 m water, 0.5 M from the innermost part of the bay. There is also another anchorage in 25 m of water and with good holding ground. Its location is determined by the station house on a bearing of 000º. The crossing marker is the third indention in the profile of the land W of Jernhatten in line with a small rock in the water close to the point of Jernhatten on a bearing of 254º.

8.3.2.4 W of Dahl Skær 74º09'N 020º21'W
There is a good anchorage here, where vessels are less exposed to drift ice than otherwise at the E part of the S coast of Clavering Ø. The anchorage is close W off the rock.

8.3.2.5 Kap Borlase Warren 74º15'N 019º25'W
There is a reef in a SW direction from Kap Borlase Warren and W of this reef, there is an anchorage with shelter from N winds close to land. The markers for this anchorage are: 1) Kap Mary in line with a low sand spit, and 2) the left mountain peak on the foreland in line with a small basalt cliff at the beach. It is probably also possible to anchor closer to Kap Borlase Warren. See figure 8.4

8.3.2.6 Herschellhus 74º14'N 019º43'W
The waters along the S coast of Wollaston Forland are free of dangers, but there is a shoal with a sandy and rocky bottom. The depth is 4-8 m at a distance of 400 m from the coast and the depths increase steeply 1,000 m out. It is possible to anchor anywhere on the shoal S of Herschellhus, but the anchorage is exposed to the drift ice which is carried along the coast by the strong currents.

8.3.3.0 Godthåb Golf

Eskimonæs 74º05'N 021º16'W is the S point of Clavering Ø. Østhavn is on the E side of this point and Vesthavn is on the W side.

8.3.3.1 Eskimonæs, Østhavn, see figure 8.6.

8.3.3.1.1 Landmarks

The point of Eskimonæs.
There was a station in Østhavn for use during expeditions.

8.3.2.1.2 Anchorage and mooring

Østhavn can be approached by keeping to the middle of the cove on a NW course. The depth decreases evenly from 64 m in the middle of the entrance to the harbour towards the sandy bank in the inner part of the harbour.
Two white circles, 40 m apart, have been painted on the point at the mouth of the harbour's NW side for guidance during anchoring. Vessels have anchored 300 m from land with these circles in line on a bearing of 049º. The depths are between 38 and 51 m.
The best landing location for small boats is in the NW part of the harbour, W of a small, prominent cliff point. The radio station was located here. It is also possible to anchor in 27-28 m of water outside the stream, but from the 12 m contour the depth decreases rapidly towards the land.

8.3.3.1.3 Depths

See figure 8.6. S of Eskimonæs, the 10 m contour extends 200 m from the coast. On passage S of Eskimonæs, keep well clear of the dangerous rock that lies S of the SW point of Eskimonæs.

8.3.3.1.4 Ice

Sometimes the drift ice comes into the harbour and makes it dangerous to anchor here, but Vesthavn is almost always free of ice and it is recommended to anchor there.
Eskimonæs is normally free of ice from early August to mid-September.

8.3.3.2 Eskimonæs, Vesthavn, see figure 8.5.

8.3.3.2.1 Landmarks

The point of Eskimonæs.

8.3.3.2.2 Anchorage and mooring

Vesthavn shall be approached by keeping well clear of the rock SW of Eskimonæs. This rock is reported to lie 200 m from the SW part of Eskimonæs. The 20 m contour lies more than 200 m from the coast in many places.
Two white-painted leading beacons have been erected in the innermost part of the harbour at 100 and 275 m respectively from the coast in order to assist during approach. The beacons

should be in line on a bearing of 040º.
Two white crossing markers have been painted on the cliffs on the E side of the harbour. The leading beacons in line simultaneously with the two crossing marker in line gives a depth of 30 m. If you wish to lie further out, it is possible to anchor in the beacon line in 45 m of water, 450-500 m from the coast. There is a good landing place for small vessels at the E side of the harbour, 450 m S of the beacon line's front beacon, as there is a sand bank here with gravel. Fresh water can be obtained from Vesterelven, which does not dry out during the summer.

8.3.3.3 Loch Fyne 74º01'N 021º59'W

It is possible to anchor in 18 m of water in the mouth of Loch Fyne, W of Kap Stosch. Caution must be exercised here regarding the aforementioned 2 m rock close W off the point. It is possible to anchor anywhere close to the coast on the stretch from Kap Stosch to the mouth of Loch Fyne. It is possible to anchor anywhere in the outer part of the fjord, N of Strømmen. Vessels have anchored in 10-14 m of water 3 M SE of Strømtangen.
In order to anchor in the southernmost part of Loch Fyne, caution must be exercised to avoid coming too far S, where the fjord suddenly becomes shallow. There is a sandy bottom in the outer part of Lock Fyne and soft mud in its inner part.

8.3.3.4 Wordie Bugt 74º03'N 022º15'W

In order to anchor in Wordie Bugt S of Jordanhill, where the shoal water seems to extend far out from the coast in a number of places, keep into the bay a little closer to the N land than to the S land. There are reefs off both coasts.

8.3.3.5 Hansen Havn 74º10'N 022º16'W

The harbour is a small bay N of Jordanhill. For vessels to enter Hansen Havn, they must navigate along the coast on the N side of the harbour until Kap Adam has been passed. Then stay close to the S coast until the innermost part of the harbour, where the depth is deep enough to anchor. There is good holding ground.

8.3.3.6 Copeland Fjord 74º13'N 022º02'W

It is possible to anchor in the N part of Copeland Fjord a little S of the hut that stands on the W side of the reef. Caution must be exercised on the approach, as the depths decrease rapidly.

8.3.3.7 Grantafjord 74º19'N 022º02'W

It is possible to anchor in the innermost part of the fjord, where the bottom is reported to be mud.

8.3.4.0 Young Sund

8.3.4.1 Daneborg 74º18.2'N 020º14'W, charts 2750, 2702

8.3.4.2 Kap Berghaus 74º16.5'N 020º09'W
Early in the summer, when the winter ice is usually still in the sound a little E of Sandøen, it is possible to lie at the ice edge, but it will often be necessary to keep moving in the drift ice when it moves W with the rising water and presses against the fast ice. During storms from the N and W, the drift ice is kept away from the edge of the fast ice, which often breaks off in large or small floes. Safe anchorage can be found near the coast at the N side of the sound, where it is possible to anchor in 9-10 m of water 3 M E of Kap Berghaus. If Young Sund is ice-free, it is possible to anchor off Daneborg.

8.3.4.3 Lille Sødal 74º20'N 020º15'W
A good anchorage can also be found in 20 m of water near the mouth of a stream in Lille Sødal, 2-3 M N of Daneborg. The drift ice only rarely reaches as far into the sound as this location. It sometimes happens, however, that in difficult ice years, the drift ice has been pressed all the way in as far as Zackenberg.

8.3.4.4 Zackenberg Bugt 74º28'N 020º39'W
The anchorage in the W side of the bay is approached by sailing on a N course, keeping W of the westernmost of the former hunting station's huts, after which it is possible to anchor 300-400 m from the coast. An anchorage 1 M SW of the hunting hut has also been used.
Fresh water can be obtained from a stream that discharges 1 M E of the hunting hut and it is possible to anchor 200 m from the coast near the mouth of the stream in 50 m of water. Depths of 12 m have been reported up to 50 m from land and motorboats can go all the way to the beach, before running aground.

8.3.4.5 Rudis Bugt 74º24'N 021º45'W
There is a good anchorage in the innermost part of the bay near the stream delta, where vessels have anchored in 17 m of water. Norwegian ships have also reported anchoring N of the point on Clavering Ø, 250-350 m from land, where there was a sandy bottom. Vessels have anchored 2.5 M NNE from the N end of the reef at a depth of 55 m, and also in 17 m of water close N off the isthmus (the E entrance point on the N side of the reef).
In the inner NW part of Tyrolerfjord, a vessel has anchored at a suitable distance from the large clay deposit from Tyrolerdal. The depth at the reef between Rudis Bugt and Copeland Fjord is not sufficient to be navigated, even by motorboat.

8.3.4.6 Tyrolerfjord 74º26.5'N 020º47'W
There is an anchorage at the S side of the fjord in Lerbugt in the E part of Tyrolerfjord.

8.3.5.0 Claveringstrædet

8.3.5.1 Hvalros Ø 74º31'N 018º45'W
There is a shoal at the NE point of Hvalros Ø, and it is possible to anchor here in 20 m

of water. Large depths have also been reported close to land along the S and E side of Hvalros Ø.

8.3.5.2 Germania Havn 74º32'N 018º50'W

The rather shoal Germania Havn lies W of the former station of Germania Havn, where the German expedition ship "Germania" wintered in 1869-70, figure 8.7.

8.3.5.2.1 Landmarks

Hvalros Ø.

8.3.5.2.2 Depths

There is up to 3.6 m of water across the entrance to the harbour, but the depth decreases in towards the inner part of the harbour.

8.3.5.2.3 Approach

The harbour can be approached by keeping E and N of Hvalros Ø and in to the anchorage near the station. The holding ground is quite good. When anchoring further W, the ground seems to be more rocky and has large seaweed plants. Vessels have anchored further out in the strait between Germania Havn and Hvalros Ø, where good holding ground was found in 15 m of water.

8.3.5.2.4 Current

The rising tide, which flows N along this part of the East Greenland coast, flows past Germania Havn to the E and the falling tide flows to the W. During ice drift, the anchorage outside Germania Havn is not safe. A better anchorage under such conditions is reported to be found at the shallow area near Kap Wynn on Wollaston Forland, where a slip in the ice is possibly formed with strong, S-flowing water by the current from Claveringstrædet, which here moves towards the SE. There are some small islets and rocks close NE off Kap Wynn. The waters off Kap Wynn have not been adequately surveyed to be recommended for anchorage. The nearest usable anchorage when ice is drifting S is probably found close SE off Kap Borlase Warren, 20 M from Germania Havn.

8.3.5.3 Griper Red 74º32.5'N 018º53'W

8.3.5.3.1 Landmarks

Hvalros Ø, Kap Wynn and the point at Germania Havn.

8.3.5.3.2 Depths

The 40 m contour lies 1,000 m from land off Griper Red, and from there the depth decreases evenly towards the land. A stream bed extends out into the sea. There are probably no rocks.

8.3.5.3.3 Anchorage

It is possible to anchor 600-700 m from land near a stream in the NW part of Griper Red, but it is also possible to anchor anywhere close to this location where the sea floor is evenly sloping.

It is possible to anchor 1 M from land in the following location: The point at the W side of Germania Havn on a bearing of 075º, the N point of Hvalros Ø on a bearing of 104º, Kap Wynn on a bearing of 207º and the point of Sabine Ø, W of the anchorage, on a bearing of 334º. There is good holding ground here in soft mud. Griper Red has previously been used often by vessels approaching Sabine Ø.

8.3.5.3.4 Ice
The drift ice can be very hazardous at Griper Red. The waters are open from 15 July to 1 October.

8.3.5.3.5 Approach and navigation
Griper Red can be approached on a course of 308º between Hvalros Ø and Kap Wynn, but keep well E of the small islets near Kap Wynn. After getting well N of the line between Kap Wynn and Hvalros Ø, turn N towards the anchorage, which should be approached with caution. Both Claveringstrædet and Pendulumstrædet can be used to navigate from Griper Red and Germania Havn to Hochstetterbugten. They are both navigable, but they have many rocks and are not well surveyed. See under Claveringstrædet, 8.2.2.0 and Pendulumstrædet 8.2.3.0.

8.3.5.4 Heimland Havn 74º32.8'N 019º12'W

8.3.5.4.1 Anchorage
The outer island near the N entrance point on a bearing of 331º. Good holding ground. NE of the anchorage the depth decreases towards the harbour's inner part and there is shoal water in the harbour's inner half.

8.3.5.4.2 Ice
The ice conditions are generally similar to Griper Red.

8.3.5.5 Falskebugt 74º33.5'N 019º18'W
See section 8.2.

8.3.6.0 Pendulumstrædet

8.3.6.1 E side of Sabine Ø 74º36.5'N 018º45'W
A good anchorage in 20 m water can be found at the E coast of Sabine Ø in a small bay, 1.5 M S of the entrance to Hansa Bugt and 450 m ESE of the N side of the mentioned bay.

8.3.6.2 Kap Stufenberg 74º38'N 018º31'W
Close S off Terrassebjerg, at the SW point of Lille Pendulum, it is possible to anchor in 7-8 m of water on soft clay ("Germania" in 1869).

8.3.6.3 Hansa Bugt 74º38'N 018º46'W
The bay extends 2 M into Sabine Ø. A low cliff peninsula forms the E side of the bay and

separates it from Pendulumstrædet. There are two small islands directly N of this point.

8.3.6.3.1 Depths

Hansa Bugt is assumed to be navigable, but has not been surveyed and it is not advised to approach the harbour, except with extreme caution. 0.5 M E of the small islets at the S side of the mouth of the bay is shoal, although the depths are unknown. There is reported to be a wreck in the SW part of the bay.

8.3.7.0 Hochstetterbugten

8.3.7.1 Kap Maurer 74º52'N 019º44'W

The depth appears to decrease evenly towards land E and SE of Kap Maurer. It is possible to anchor in 40 m of water on an even, sandy bottom near the former hunting station S of Kap Maurer. The bearings are the SE point of Kuhn Ø on a bearing of 213º, the station hut on a bearing of 298º and Kap Maurer on a bearing of 357º. The anchorage is very open, but Kap Maurer provides shelter from winds from the N. There is good holding ground.

8.3.7.1.1 Sailing directions

From a location 5 M N of Bass Rock, keep on a W course towards the anchorage. The current in Hochstetterbugten will probably make it necessary to steer a little N, and a current has been observed flowing in a SE direction at 2-3 kn.

8.3.7.1.2 Fresh water

A small source of fresh water can be found 1 M S of the station.

8.3.7.2 Bastian Bugt 74º56.5'N 020º00'W

A vessel has anchored close to the land at the N of the entrance to Bastian Bugt, but found shoal and foul water inside the bay.

8.3.7.3 Kap Bremen 74º59'N 019º58'W

There is reported to be a possibility of anchoring in 18 m of water 200 m outside the mouth of the stream that lies 0.75 M S of Kap Bremen.

8.3.7.4 Freeden Bugt 74º56'N 017º40'W

Temporary anchorage can be found on the W side of Kap Philip Broke, but vessels are exposed to the ice here, which can continuously drift S around the point and W into Freeden Bugt. Vessels at this location should not approach closer to the coast than where they have 15 m of water.

A reef of 40 m in diameter with a depth of 2 m is reported (2009) in position 74º57.7'N 017º48.9'W, 3.5 M WNW of Kap Philip Broke.

8.3.7.5 Kap David Gray 74º58.5'N 018º28'W

An anchorage sheltered from N winds and not exposed to the ice from the E can be found 1.25 M E of Kap David Gray in 10-30 m of water. It is recommended to anchor at the following bearings: The point of Kap David Gray on bearing 270º, Tellplatte Pynt (2 M NE of Kap David Gray) on bearing 020º-030º.
The holding ground here, as generally along the S side of Shannon, is good in blue clay. When a vessel gets closer to the anchorage, it is recommended to keep the hunting hut NE of Kap David Gray on a bearing of 340º-350º. The landing conditions at the coast near the hunting hut are reported to be good.

8.3.7.5.1 Tides

The average difference between high and low tide at Kap Philip Broke is 1 m, or 1.3 m at spring tide.

8.3.7.6 Nanok 75º09'N 019º46'W

Vessels have anchored at the following position, 0.5 M from the coast at Nanok (former hunting station). Kap Rink on bearing 093º, Niels Hansen Næs on bearing 292º and the hunting hut on bearing 017º. The anchorage is very open and in case of poor weather, shelter must be found in Peters Bugt or Ardencaple Fjord.

8.3.7.6.1 Approach and navigation

From a position 3-5 M N of Bass Rock, keep towards Kap Buch to a position 4 M NNE of Kap Bremen. From here hold a course 017º directly towards the anchorage. In low-visibility weather, it is normally possible to see the peaks of Nordre Muschelbjerg and Søndre Muschelbjerg, as the fog is often low and the bearings of these mountains can then be useful for the approach.

8.3.7.7 Jarners Kulmine 75º12'N 020º01'W

An abandoned coalmine, which lies close N of Kulhus. It is possible to anchor close to land at Kulhus and near Jarners Kulmine.

8.3.7.8 Jónsbu 75º19.5'N 020º24'W

The station lies on the W side of Peters Bugt. There is a former hunting station that has been burned down. From a narrow foreshore, the land rises quickly in a NW direction and the highest peaks rise to heights of 1,388 m. Above the foreshore, there is strong drainage of melted ice from some small lakes and from the ice fields behind the beach.

8.3.7.8.1 Approach

During navigation from N of Bass Rock to Jónsbu, follow the same sailing directions as for navigation to Nanok, until the peaks of Nordre Muschelbjerg and Søndre Muschelbjerg are on a bearing of 000º. Then keep NNW to the anchorage off Jónsbu.

8.3.7.8.2 Navigation period
Regular navigation does not occur, but the anchorage has been approached in the first part of September.

8.3.7.8.3 Fresh water
There is a good fresh water supply 2 M SW of Jónsbu. This stream is easily visible during approach and it does not dry up in the summer.

8.3.7.8.4 Anchorage
It is possible to anchor off Jónsbu close to Kap Klinkerfues in 46 m of water.
Norwegian vessels have anchored near the station 300 m from land in 8-10 m of water. The bottom here is clay and sand.
It is also possible to anchor 2 M SW of Jónsbu. Vessels have anchored here in 55 m of water 200 m from land off the mouth of a stream. Boats can get all the way to the beach at the stream.

8.3.7.8.5 Current
There is a strong current off the coast and it flows with rising tide in a SE direction and in a NE direction with falling tide.

8.3.8.0 Grandjean Fjord

8.3.8.1 Betula Havn 75º01.5'N 022º00'W
The harbour is a bay in the SE side of Grandjean Fjord. From the inner part of this bay, a wide valley with a stream, Birkedal, extends far inland to the W and NW. It may be possible to anchor outside Birkedal at the S side of the fjord.
It may also be possible to anchor in a small bay 74º59'N 021º42'W on the N side of the fjord, 20 M inside the mouth of the fjord.

8.3.9.0 Fligely Fjord

8.3.9.1 S of Revet 74º47'N 020º34'W
Vessels have anchored in the inner part of the fjord between Kuhn Ø and Th. Thomsen Land. The anchorage's position was at the narrowing, Revet, SW of Kuhn Ø.

8.3.9.2 NW-side of Kuhn Ø 75º00'N 020º36'W
Vessels have anchored near the hut on the NW side of Kuhn Ø, where there was 20-25 m of water 600-700 m from land, but with suddenly decreasing depth.

8.3.10.0 Lindeman Fjord
N of Lindemansdalen have anchored at the S coast of Lindeman Fjord, a few hundred m E of the stream delta.

8.3.11.0 Shannon Sund and Shannon

8.3.11.1 Alabama Havn 75º15.5'N 018º04'W

The harbour has a small cove W of a small rocky point, which extends in a SW direction just inside the entrance to Nordenskiöld Bugt.
The cove was the base for the Alabama expedition from 1909-1912, but "Alabama" sank in the harbour in 1910 due to damage to the vessel from the drift ice E of Shannon the year before.
The coast around Alabama Havn is low except at the harbour's S part, where a basalt cliff rises straight from the sea.

8.3.11.1.2 Tides

The height of the tide is 1.6 m at mean springtime.

8.3.11.1.3 Ice

The harbour freezes over at the end of September and there is no open water until late August. There are years where the ice does not break up at all.

8.3.11.2 NE of Kap Philip Broke 74º57.7'N 017º29'W.

"Alabama" anchored in the bay 2.5 M NE of Kap Philip Broke, but the waters along the coast are foul, and there are a number of underwater rocks, which seaweed growth warns against approaching too close to them.

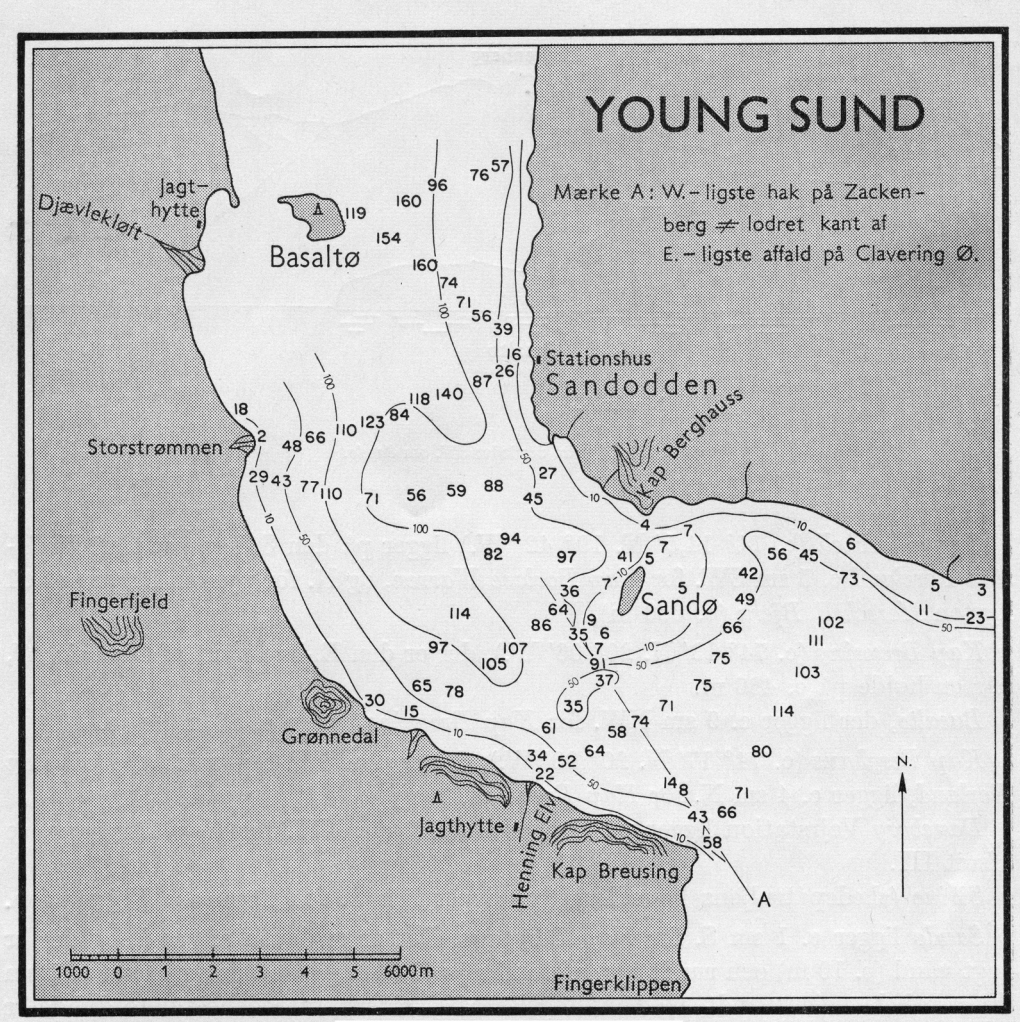

Fig 8.2 - Entrance of Young Sund.

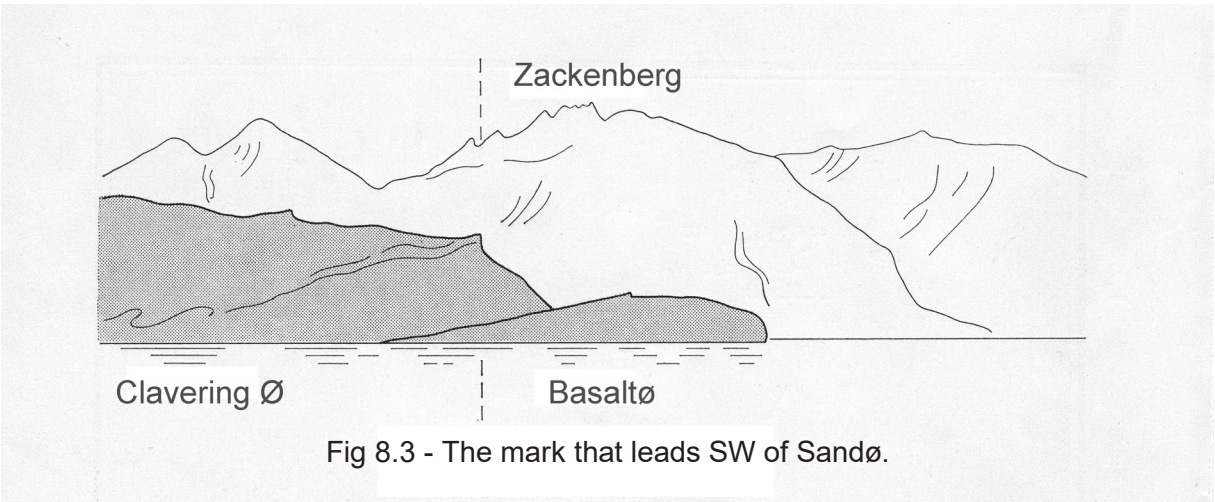

Fig 8.3 - The mark that leads SW of Sandø.

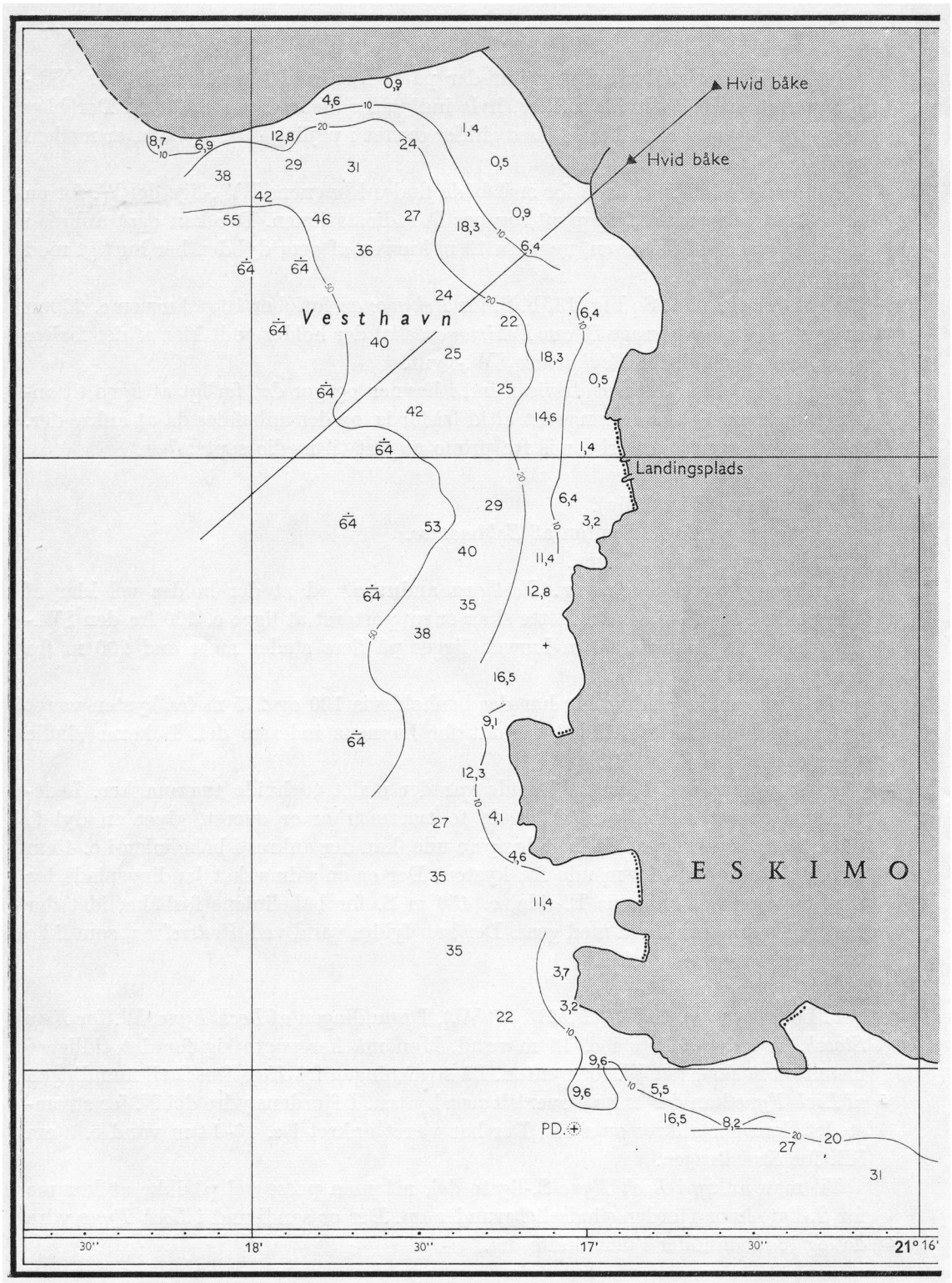

Fig 8.5 - Eskimonæs, Vesthavn.

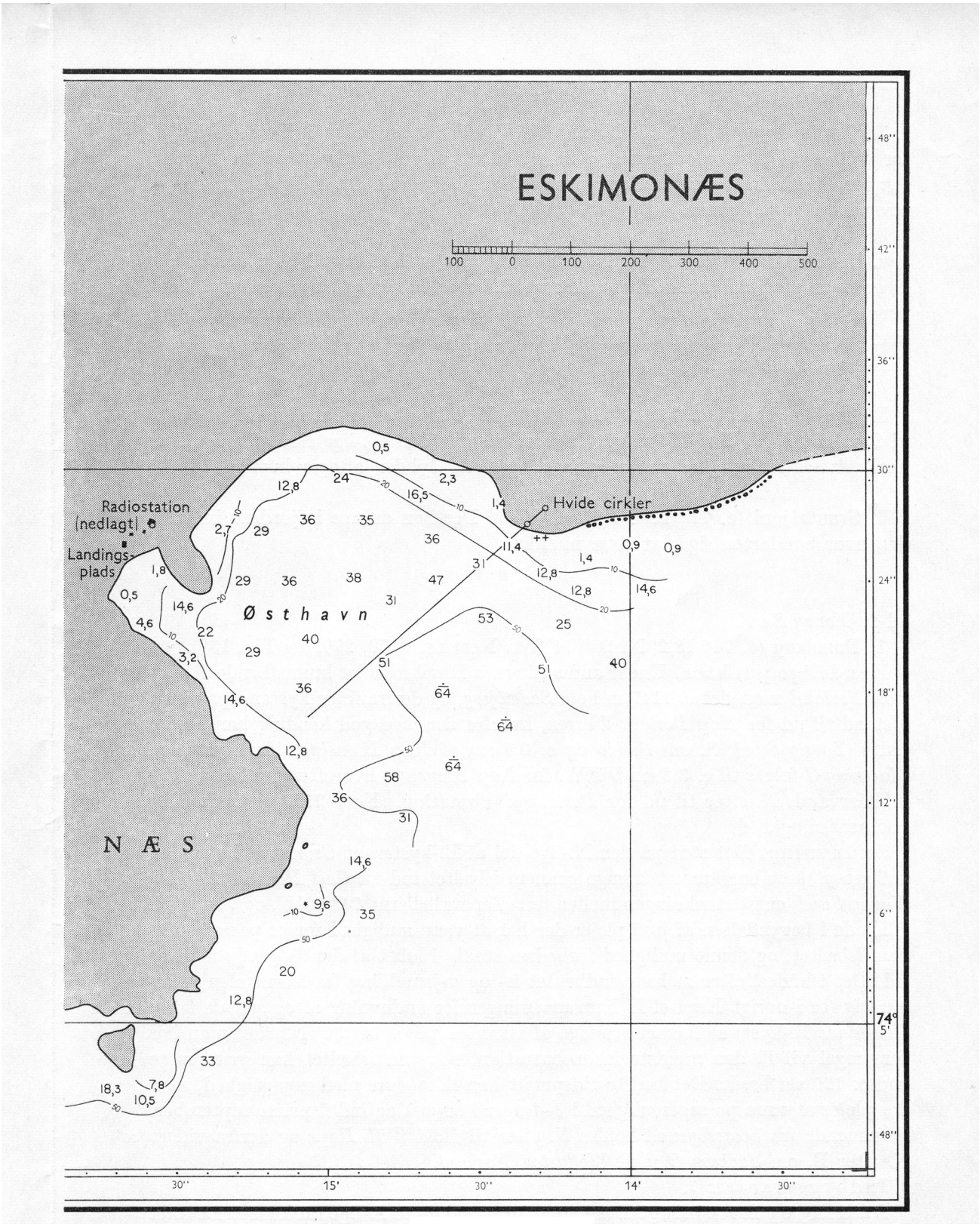

Fig 8.6 - Eskimonæs, Østhavn.

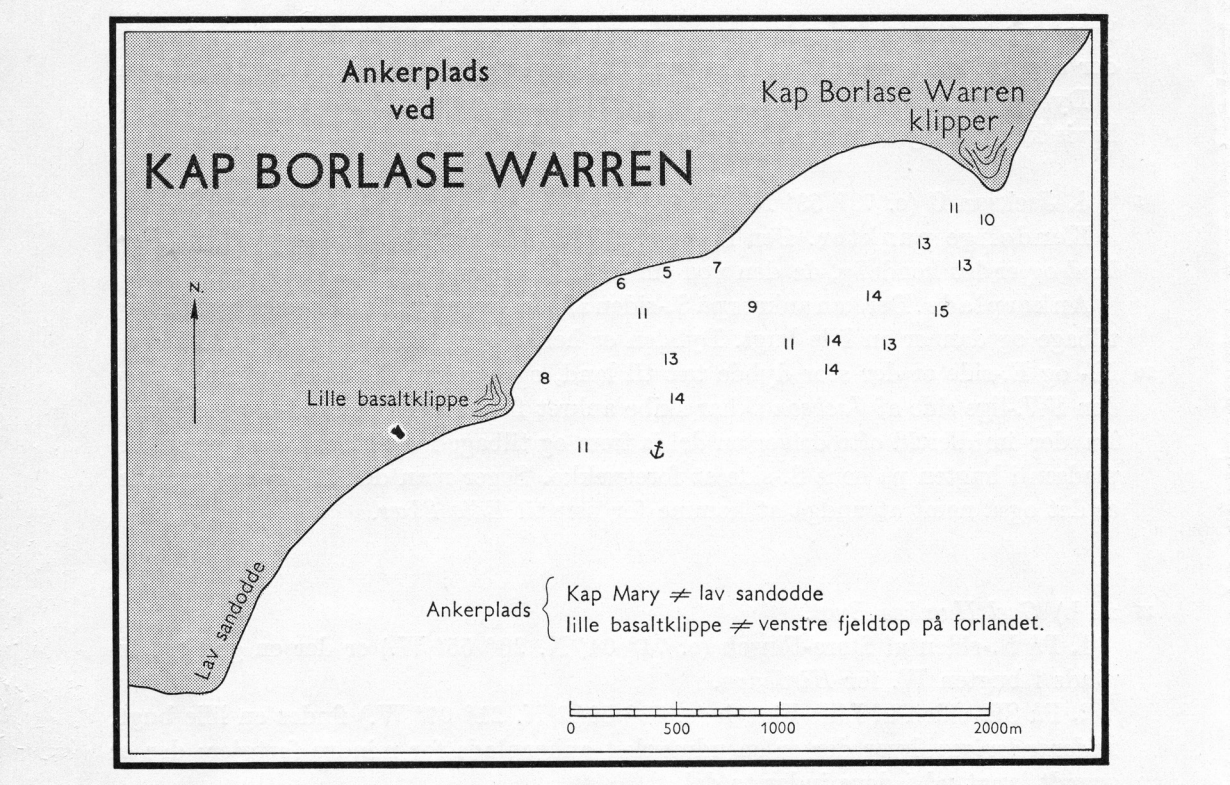

Fig 8.4 - Anchorage of Kap Borlase Warren.

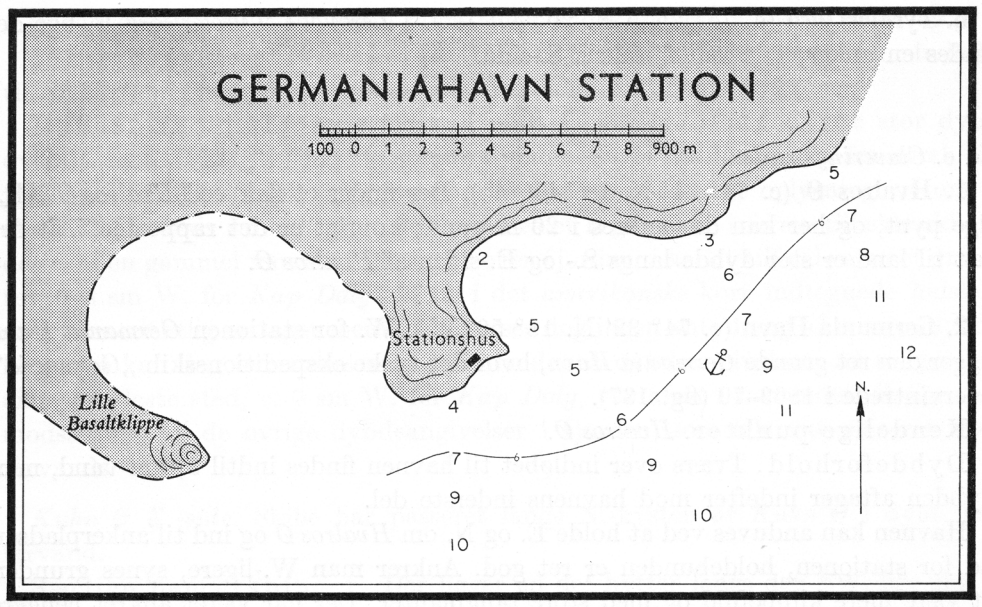

Fig 8.7 - Germania Havn.

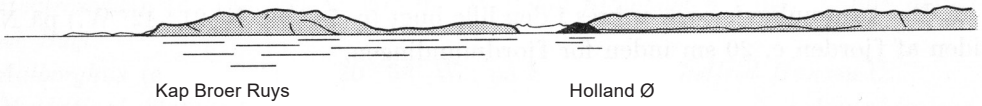

Fig 8.8 - Kap Broer Ruys bearing 220º, distant 10 M.

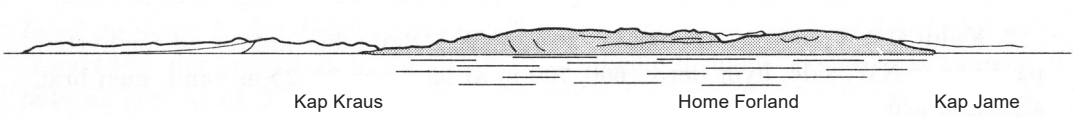

Fig 8.9 - Home Forland bearing 270º, distant 8 M.

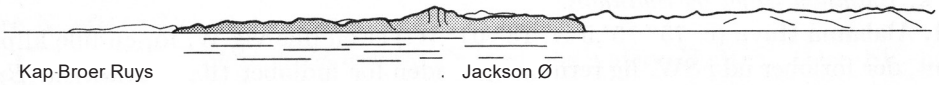

Fig 8.10 - Jackson Ø bearing 220º, distant 8 M.

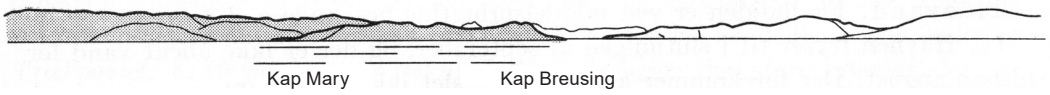

Fig 8.11 - Kap Breusing bearing 337º, distant 12 M.

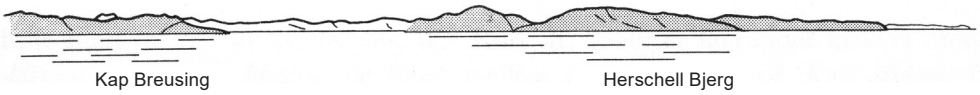

Fig 8.12 - Wollaston Forland bearing 015º, distant 13 M.

Map

Kap Oswald Heer – Depotnæsset

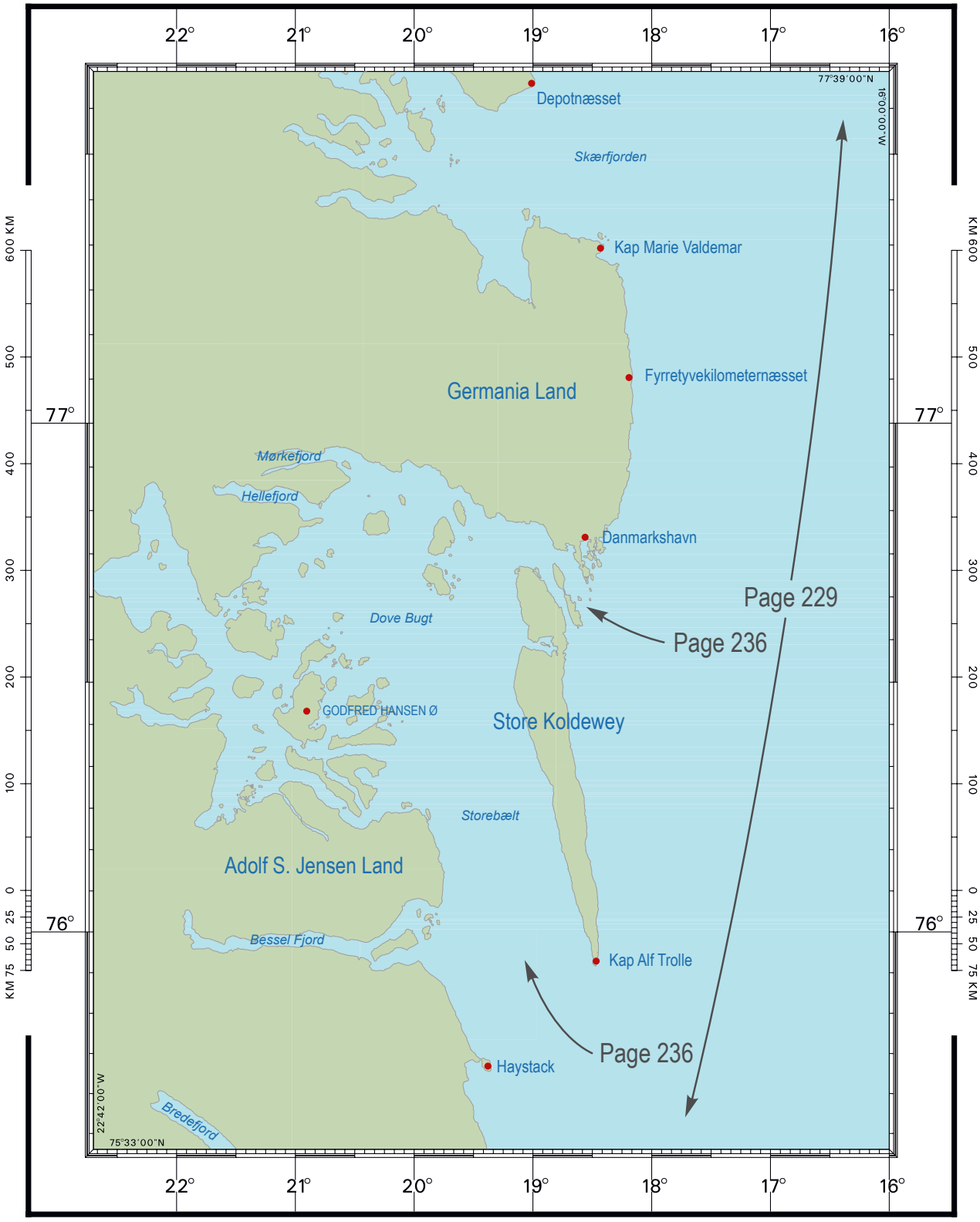

Fig. 9.1

CHAPTER 9

Kap Oswald Heer – Depotnæsset

Area 75º33'N 019º24'W – 77º38'N 019º00'W, charts 2000, 2801 and 2750.

9.1 Transit of the area
9.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
9.3 Areas with sheltered waters (harbours and anchorages)

9.1 Transit of the area

See views of the land between Kap Oswald Heer and Depotnæsset.

9.1.1 Generally

From Kap Oswald Heer on the E side of Hochstetter Forland to Depotnæsset on Stormlandet, the outer coastline extends along the islands Store Koldewey and Lille Koldewey and the peninsula Germania Land.
On this stretch of coast, Bessel Fjord indents in a W direction between the N side of Hochstetter Forland and Adolf S. Jensen Land, while Dove Bugt is a large bay on the S side of Germania Land and Skærfjorden is a similarly large bay between Germania Land and Stormlandet.

9.1.1.1 Landmarks

Haystack 75º43'N 019º25'W lies on Hochstetter Forland and is a 305 m high peninsula that is connected with the mainland by a low isthmus than rises only a few metres above sea level. The peak of the mountain is cone shaped and a cairn has been erected on it. Haystack resembles an island that lies close off the coast, but there are no prominent points or islands along this stretch of coast with which the mountain can be confused. Seebach Bjerg, 677 m, lies NW of Haystack. There is a small hut on the isthmus that connects Haystack with the mainland.
From Haystack, the coast extends 16 M NW to the entrance at Bessel Fjord. This part of the coast is steep and rises evenly to a height of 1,115 m 5 M inland.
Roseneathbugt lies S of Haystack, see section 9.2.
Kap Alf Trolle 75º57'N 018º38'W, the S point of Store Koldewey, is a low point, from where the land rises evenly towards Kap Arendts.
Kap Arendts 76º05'N 018º40'W lies 8 M N of Kap Alf Trolle and is easy to recognise as the furthest S of 3 domes on the 700 m high land, see views of the land.
S of Berg Fjord 76º34'N 019º06'W, Store Koldewey is almost plateau-shaped and rises to a great height, which mainly decreases towards the S, however. The coasts are rather steep, although the W side is less steep than the E side. A number of valleys traverse the island, of

which the valley at Trækpasset and Berg Fjord is especially easy to recognise from the sea. The N part of Store Koldewey and the long and low island on its NE side, Lille Koldewey, have a glaciated appearance. Lille Koldewey rises to a height of almost 100 m, while the N part of Store Koldewey reaches heights of 970 m.
The N and S parts of Lille Koldewey are connected to each other by a low, narrow isthmus, but there is no channel. The S point is called Kap Christian and the N point is Kap Bornholm. Sonja Havn 76º36'N 018º40'W is a small bay in the S part of Lille Koldewey, close W off Kap Christian. See section 9.3.
Bjørn Pynt lies on the E side of Lille Koldewey, 1 M NNW of Kap Christian. Olrik Pynt lies 1.5 M further NNW, and there is a small island here off the point.

Rocks

An underwater rock that is a danger to navigation lies 0.8 M NNE of Bjørn Pynt and 1 M SE of Olrik Pynt, but the waters are deep and free of dangers between this rock and the coast of Lille Koldewey.
There is a rock 150 m E of Kap Christian, and a shoal area extends 200 m out from the point in a SE direction.
I.P. Jacobsen Ø is 25 m high and lies 0.5 M NE of Olrik Pynt. It is the largest of an island group called Simonsen Skær, which lies close E off Lille Koldewey. There is a small islet close off the SE point of I.P. Jacobsen Ø, and the shoal extends 200 m out from the island.
Kap Bornholm is the N point of Lille Koldewey and is rather steep. A foul area extends 1.3 M S from Wendel Pynt on Germania Land, 1.7 M N of Kap Bornholm. Just off Wendel Pynt lies Bådskæret, around which it is shoal and full of rocks.
Kap Bismarck 76º42'N 018º36'W is the SE point of Germania Land and lies on the outermost point of the long, narrow peninsula that lies between Yderbugten and Øresund. The outer part of Kap Bismarck is flat land and the small island, Måtten, lies close S off the point. The small bay, Loddevig, lies 1 M NNW of Kap Bismarck on the W side of the peninsula. W of Loddevig there is a bank with a depth of at least 29 m. This bank extends 2 M in a NNW direction from Kap Bismarck. Østre Havnenæs lies 2.5 M further NNW. Renskæret 76º41'N 018º34'W lies 0.6 M SSE of Måtten and is a rocky, 15 m high island. There is often open water around the island in the summer and it is a breeding ground for many birds. The waters between Renskæret and Måtten are free of dangers, with depths of at least 25 m. A depth of 7.3 m has been measured 200 m S of Renskæret. There is a small, 1 m high islet 0.5 M SE of P.K. Larsen Pynt on Renskæret, and a shoal area extends 200 m out from this islet.
The island Maroussia lies 1 M S of Renskæret. The waters between these two islands are free of dangers, with depths of at least 25 m, and are considered the best passage between Greenland Sea and Dove Bugt. It is necessary, however, to keep clear of the coastal shelf on the S side of Renskæret and of the shoal area around the small, low islet. It is also necessary to keep closer to the island Maroussia than to Renskæret. The waters W of Maroussia, between this island and I.P. Jacobsen Ø, are also free of dangers, but due caution must be exercised regarding the rock NNE of Bjørn Pynt, as this rock has a rather large extent.
Germania Land 77º00'N 018º30'W is a large, ice-free peninsula between Dove Bugt and Skærfjorden and like Stormlandet, it consists between Skærfjorden and Jøkelbugten of

glaciated, evenly rounded mountains, which rise to a maximum height of 300-600 m and look like pale stone deserts.
Germania Land is very indented by fjords and, to the W, it is adjacent to the two large glaciers Storstrømmen on the S and Kofoed-Hansen Bræ on the N. W of a line between the high and steep Kap Récamier 77º24'N 019º52'W in Skærfjorden and the mouth of Hellefjord 76º50'N 020º50'W in Dove Bugt, the W part of Germania Land forms an almost horizontal plateau of 800 m, which to the E has a rather steep border to Slædelandet, the low middle part of Germania Land that runs in an approximately N-S direction. There are 3 large gorges in the plateau, the two furthest N of which continue along Annekssøen and Sælsøen, while the gorge furthest S extends from Dove Bugt along Mørkefjord. E of Sælsøen is a large plain, Hvalsletten, which is the southernmost part of Slædelandet. From Sælsøen, the 3.75 M long and 60 m wide Lakseelv extends out to the SE. It has a depth of 3-5 m at its mouth.
Germania Land seems to be a large island, whose W side from Jøkelbugten to Dove Bugt is blocked by glacier ice from the two large ice streams Kofoed-Hansen Bræ and Storstrømmen. The N and E part of the land consists of more uneven areas with heights ranging from 305 m to 610 m. The S part of Germania Land forms the N side of Dove Bugt.
Joh. G. Guildal Ø 76º42'N 018º33'W lies a little NE of Kap Bismarck. The island's S point is called S. Thomsen Pynt. There is a small island close to the island's NW point. Ørnen Ø is a somewhat larger island and its S point, which is called Kap Udkiggen, lies 1.75 M NNE of S. Thomsen Pynt. The entrance to Yderbugten lies between these two islands. Kap Udkiggen is a small rocky point that is connected to Ørnen Ø by a low isthmus that is covered at high tide.
Øksebladet is the easternmost point of an elongated peninsula and lies 2.3 M N of Kap Udkiggen. The peninsula extends 2 M S from the mainland and forms the E side of the narrow little cove, Hønsetarmen, in whose innermost part there are a number of small islands. From Øksebladet, the coast extends in a NNE direction for a distance of 4 M to Syttenkilometernæsset. There are two small bays on this stretch of coast, both of which have a number of small islands and rocks at their entrance. The depths are unknown.
Syttenkilometernæsset ends in a 12 m high rocky point, and on the S side of this point there is a small, unnamed bay, where the depths are probably small, as large ice blocks have never been observed in the bay.
Kap Steensby 76º56'N 018º17'W lies 6 M N of Syttenkilometernæsset and is an easily recognisable point on the E side of Germania Land. There is a hut close S off Kap Steensby. From Kap Steensby, the coast extends N for a distance of 5 M to Fyrretyvekilometernæsset.
Edams Kulle 77º00'N 018º26'W lies 2 M WSW of Fyrretyvekilometernæsset and is a peak that is easily recognisable from the sea.
Micardbu lies 2 M N of Fyrretyvekilometernæsset and is the former radio and weather station, which was decommissioned in 1941, see section 9.3.
Thomas Thomsen Næs 77º14'N 018º16'W lies 12 M N of Fyrretyvekilometernæsset and is a wide, low and rocky point. There is a wide bay both S and N of the point. There is a hut on the outer end of the point, sheltered by a large rock.
Kap Marie Valdemar 77º16'N 018º24'W lies 5 M NNW of Thomas Thomsen Næs, and there is a wide bay between these two points.
Rosio is the largest of a number of small islands and islets that lie close N off Kap Marie Valdemar. The island is a bare rocky island that resembles an iceberg when it is covered with snow.

Kajkap 77º20'N 018º56'W is the N point of the peninsula and lies 8 M NW of Kap Marie Valdemar.
Rekvedøen, 168 m, is a small island that lies close NW off Kajkap, and the waters between this island and the mainland are called Vågesund.
Kap Amélie 77º32'N 019º20'W is the S point of Stormlandet and it rises from the sea to a height of 500 m. Seen from the sea, Kap Amélie is very prominent and there are two streams close NE off the promontory.
Depotnæsset lies 6 M NE of Kap Amélie and is the SE point of Stormlandet.

9.1.2 Depths

The waters along the E side of Germania Land are not adequately surveyed, but they appear to be free of dangers if one stays at least 5 M from the coast. The depths here are 100-250 m, but there are not many soundings. It appears that the depth decreases evenly inwards, and there are probably no dangerous rocks.
Sealers have passed along the E side of Store Koldewey at a distance of 1-2 M without encountering underwater obstacles.
The depths in Yderbugten and between the islands NE of there are unknown.

9.1.3 Ice

9.1.3.1 E side of Germania Land

The S-going current carries enormous masses of ice past the coast of Germania Land, and wide, ice-free areas of water are often formed here. Storms from the W can drive the ice away from the coast, but it always returns as soon as the weather improves. The ice along this stretch of coast is always moving and the ice-free areas often lie quite close to the land. The width of the drift ice belt E of Germania Land can often be more than 150 M and it cannot be predicted beforehand where leads will form in the heavy drift ice, but it seems that it is easiest to navigate through the ice from a position of 75º30'N 007º00'W and navigating from here to the S point of Store Koldewey. The large ice fields must be navigated around, but there are often areas between them with broken ice of concentration 5-7/10 and a strong vessel can penetrate this ice with caution. Then it is often possible, at a distance of 10-15 M from Store Koldewey, to find broken ice to Danmarkshavn.
New ice may form on the water between Shannon and Stormlandet at any time of the year. This new ice normally melts away quickly in the summer from the effect of the sun when the air temperature rises above freezing, or it may be broken by light winds. In September, the open water is covered by a more permanent layer of ice and is only kept open where there are currents. In October, the ice is so hard that it is possible to travel on it by sledge.
The snow slowly begins to melt in May, but the streams do not break up until late May or early June and they then contribute greatly to melting the coastal ice, especially in the inner fjords. During the thaw, the wind helps to clear out the inner waters. In July, the ice breaks up from the coasts, but in the outer parts of the fjords it can remain covered and sheltered by the snow. July is the warmest month, although the temperature is often below freezing. In the second half of August, the new ice can be so hard that it may remain for many days.

9.1.3.2 Dove Bugt

The observation material gathered over time from the areas around Dove Bugt shows that the ice wholly or partly remained in the bay's main basin in the following years:
1906, the ice broke up but did not drift out.
1907, motorboat navigation was possible from Danmarkshavn to Stormnæs, but from there to Snenæs the ice remained unbroken all summer.
1912, the ice broke up on 26 July.
1920, the ice broke partly up, but some of the winter ice continued to drift around in the basin.
1939, the actual bay was ice-free, but the ice prevented navigation S at the end of August.
In the following years, Dove Bugt became ice-free at the indicated times:
1932 – 10. August, 1933 – 16 August, 1934 – between 20 and 22 August and 1938 – second half of August.
In 1919, the bay was reported to be ice-free on 19 August, but this may only have applied to the N part. In 1935 there was open water at Danmarkshavn and along the N coast of Store Koldewey on 15 July.
There is always a period in normal ice years with open water in the N and W parts of Dove Bugt and 13 August is the average date for when the ice leaves Dove Bugt, but this does not occur every year.
As mentioned earlier, Dove Bugt is sheltered to the E by Store Koldewey, which usually keeps the bay free of the East Greenland drift ice, but on the other hand, it contributes to a significant degree in preventing the winter ice in the bay itself from breaking up and drifting away.
While the N and W parts of Dove Bugt will probably remain ice-free each summer from the end of July, this is not the case every year for the central and outer parts of the bay or for the entrances to the bay. In order for the water to be completely cleared of ice, it seems to be necessary for the following 3 main condition to occur simultaneously:

1. Sufficient amount of heat has been transferred to the winter ice for its partial break-up.
2. Strong and continuous winds from the direction between N and W, especially that the Foehn winds shall occur in August, i.e. at the time when the ice is breaking up most.
3. The drift ice must not be closely packed at the S point of Store Koldewey and between this and Shannon.

Calm weather conditions in August will result in the last large ice floes failing to break up completely, even if they are brittle, and when new ice forms, everything will then quickly freeze up again into a solid mass.
In order for the bay to be cleared, the remainder of the winter ice must be carried by the wind S around Store Koldewey and either further E out to sea or S through Shannon Sund. During years when the drift ice is pressed close to the outer coast and lies as a barrier between Store Koldewey and Shannon, therefore, the winter ice is unable to leave Dove Bugt.

9.1.4 Navigation

From the way in which the ice drifts from Dove Bugt, it appears that there should normally be a better chance of accessing and navigating the N part of the bay. It also seems to appear from the observation material that the possibilities to navigate in Dove Bugt have improved in recent years, so that it has been possible to navigate in these waters since 1932. This is also due to better vessels, flight recognisance, helicopters with the vessel and also to better

knowledge about the ice conditions here. However, this improvement of the navigation conditions is also connected to the rise in temperature that has occurred in arctic and sub-arctic areas. In 1966, a ship left Copenhagen on 20 July and arrived at Danmarkshavn 29 July.

9.2 Approaches and navigation of channels (fjords), towns and settlements

There are no villages or settlements between Kap Oswald Heer and Depotnæsset, but Danmarkshavn Vejrstation can be navigated every second year, see section 9.3.

The most important fjords and large bays in the area described in Chapter 9 are:

9.2.1 Roseneathbugt 75º42’N 019º30’W

The bay lies SW of Haystack and is 3 M wide at its mouth. Two of East Greenland’s largest streams that drain Langsø and Agnete Sø, respectively, discharge into the bay SW of Haystack.

Mønstedhus is a former hunting station, which consisted of several buildings and was located on the NW side of the bay. SW of the station is a part of a mountain mass, 25 m high, and the plateau’s steep decent to the N is a good point to approach from the E. Langelv, which comes from the inland lake, Langsø, discharges close S of the station. A smaller stream discharges into the NW part of the bay.

9.2.1.1 Depths

The depths in the E part of the bay are generally greater than 55 m, but they decrease evenly towards the W. There is a large shoal near Mønstedhus with shallow and rather varied depths. On a bearing of 079º from the house, on the N side of the mouth of Langelv, the 10 m contour seems to lie 0.75 M from land. In the NW part of the bay, the 10 m contour lies 0.5 M from the coast.

9.2.1.2 Ice
Some years the bay remains icebound all summer, but it is more usual for the ice to break up at the end of July or the beginning of September and it forms again in September.
Anchorage, see section 9.3.

9.2.2 Bessel Fjord 76º04'N 019º49'W

9.2.2.1 Landmarks
From Storebælt, Bessel Fjord extends inland about 30 M in a W direction and divides into two branches in its inner part. The mouth of the fjord lies between Kap Möbius and Kap Beurmann, which lies 8 M further NNE. The sides of the fjord are generally steep and this applies especially to its N side, where a number of glaciers have formed deep gorges. Trums Ø and a number of smaller islands, islets and rocks lie in the mouth of the fjord and inside theses islands, the fjord narrows to a width of 2 M.
Trums Ø is the largest of the islands in the mouth of Bessel Fjord and it is 6 M long. Its E part rises to a height of 606 m, while its W side only rises to a height of 335 m.
Depotskærene lies between the E end of Trums Ø and Kap Beurmann. The southernmost of these islands is called Grouchs Snack. It is 57 m high and lies close ENE off Trums Ø.

9.2.2.2. Depths
The waters are not adequately surveyed, but a series of soundings shows that the fjord has relatively large depths on a route that goes close to Kap Beurmann and N of the islands in the mouth of the fjord and otherwise mid-channel. In the inner, SW part of the fjord, the depths decrease quickly and it is possible to anchor here. See section 9.3. There are two channels leading into the fjord. As already mentioned, one channel goes N of the islands in the mouth of the fjord, while the other channel, Eigtvedsund, goes S of Trums Ø. As far as is known, the passage through Eigtvedsund has not been navigated by larger vessels.

9.2.2.3 Ice
The ice in Bessel Fjord normally leaves rather early, as strong currents in the fjord causes it to freeze quite late.
A number of small icebergs come from glaciers in the inner NW part of the fjord. The fjord has been navigated in mid-August without ice obstacles, but the number of icebergs may possibly block the W part of the fjord when there is an E wind.

9.2.2.4 Current
The tidal stream in Bessel Fjord has an average speed of 1 kn.

9.2.2.5 Approach and navigation
The main waters in Dove Bugt between Store Koldewey and the mainland and the waters S of Dove Bugt as far as the line between Kap Alf Trolle and Haystack, seem to be deep and free of dangers. When approaching Bessel Fjord from the S, keep 3 M from Haystack and from here towards Kap Beurmann. During navigation into the fjord, keep mid-channel through

the channel between the N side of the fjord and the islands located in the entrance, but between Kap Beurmann and Trumsdalen, do not get closer than 0.5 M to the N side of the fjord, as there are rocks at the coast a little W of Kap Beurmann. In the inner part of the fjord, keep well clear of all points with the small islets located off these points, as there may be rocks in their immediate vicinity. Keep 0.5 M from the N coast until the E-side of Trums Ø is on a bearing of 145º. During approach to the SW bay in the inner part of Bessel Fjord, keep closest to the NW side of the waters.
There is a 15-20 m high waterfall (Hawkins Vandfald) on the N side of the fjord, NW of Trums Ø, where fresh water can be obtained. Another stream, from where fresh water can also be obtained, discharges 5 M SW of the waterfall.

9.2.3 Dove Bugt 76º30'N 019º30'W, charts 2000, 2801 and 2750

9.2.3.1 The channels to Dove Bugt

At the SE point of Germania Land lies Danmarkshavn 76º46.2'N 018º45.5'W, see section 9.3. There are also a number of former hunting stations at Dove Bugt and at Bessel Fjord, but these are no longer manned. The most important former hunting stations and scientific stations were:
Hvalrosodden 76º55'N 020º09'W at Slambugten in the N part of Dove Bugt,
Ålborghus 76º23.5'N 020º58'W on the S side of Godfred Hansen Ø,
Mørkefjord Station 76º56'N 020º20'W, which was a station erected in 1938 for scientific use on the N side of the entrance to Mørkefjord, and
Besselfjord Station 76º04'N 019º55'W at Bessel Fjord in Trumsdalen, see section 9.3.
Only a few vessels have navigated N along the coast of Germania Land and the islands E of Jøkelbugten. August is the best time for navigation of these waters.
Dove Bugt can be approached by 3 different routes:

1. The route through Lillebælt or Øresund. Transit of the drift ice, see section 9.1.3. (The N route).
2. The route through Shannon Sund between Shannon and Hochstetter Forland, and further N. (The S route).
3. The route between Store Koldewey and Shannon and further N. (The SE route).

9.2.3.1.1 The route through Lillebælt or Øresund (The N route)

This route is considered to be the best and the drift ice is approached and passed as described in sections 9.1.3 and 9.14. On the way through the ice in clear weather, it should be possible to see Shannon far to the S as a large, relatively low and flat island with 3 peaks or isolated mountain ridges. The long, high and flat-topped island Store Koldewey can be seen to the W, with the various transverse valleys described above and 3 easily recognisable peaks around Trækpasset. The large transverse valley that extends to Berg Fjord on the W side of the island is located 10 M from the island's glaciated N end. At a distance from the coast, it resembles a continuous sound. Lille Koldewey lies close N off this transverse valley. It is a long, low island, whose N and S parts are connected by a low and narrow isthmus. Due to the low height of Lille Koldewey relative to the high Store Koldewey, which lies nearby

to the W, it is difficult to spot Lille Koldewey unless one is quite close to the island. The sooty, elongated, gray peaks of Germania Land can be seen N of Lille Koldewey. Its most prominent point is Edams Kulle.

9.2.3.1.1.1 Lillebælt 76º40'N 018º50'W, chart 2750

The waters between Store Koldewey and Lille Koldewey and the channel between Lille Koldewey and Kap Bismarck are called Øresund.

9.2.3.1.1.1.1 Depths

Lillebælt is 0.5-1 M wide, 8 M long and has generally larger depths than Øresund, as the least depth mid-channel is 95 m, but otherwise the depths vary between 95 and 195 m. Lillebælt is free of dangers close to the coasts on both sides, but there are some islets and rocks close to the NE coast of Store Koldewey.

9.2.3.1.1.1.1 Sailing directions

It is recommended to stay mid-channel or on the E side of the channel during passage of Lillebælt. The N point of Lille Koldewey, Kap Bornholm, must be passed at a distance of 300 m if the vessel is on the way to Danmarkshavn.

9.2.3.1.1.1.2 Ice

Lillebælt is the most reliable of the channels that leads to the N part of Dove Bugt, but it is often more filled with ice than Øresund.
Dagmar Havn, Absalon Havn and Sonja Havn are all located in Lillebælt and were surveyed during the Denmark Expedition, 1906-1908. There are small indentations in the coast and there are no facilities at these so-called harbours.
Anchorages, see section 9.3

9.2.3.1.1.2 Øresund 76º40'N 018º36'W, chart 2801 and 2750

There are a number of islands and rocks at the entrance to Øresund, the most important of which are: Måtten, which rises to a height of 15 m and lies close S off Kap Bismarck. Renskæret, which rises to a height of 15 m, lies SSE of Måtten. There is a small, low islet 1,000 m SE of P.K. Larsen Pynt, and the waters are foul 250 m in a S direction from this low, small islet. The island Maroussia rises to a height of 25 m and lies S of Renskæret. It is a small, round island, whose S point is called Kap Curly Lillie and there is a small, stone cairn on the island's highest peak. I.P. Jacobsen Ø, which rises to a height of 25 m, lies between Maroussia and Lille Koldewey.

9.2.3.1.1.2.1 Depths

The channel between Måtten and Renskæret appears to be free of dangers and the least depth measured here in a WSW-ENE is 29 m, 0.3 M N of Renskæret. The waters between Maroussia and the low rock SE of Renskæret are free of dangers, with a minimum depth mid-channel between Maroussia and the rock of 25 m. It is foul around the low rock. The depths appear to be great on the W side of Maroussia if vessels keep at least 100 m from the island. There is a foul area from 0.3 M NW of Kap Bismarck to 1.3 M S of the entrance to

Danmarkshavn. From Loddevig, it extends 0.7 M out from the coast. The depths here vary so much that there may be rocks, but no depths of less than 30 m have been found so far. The least depth measured in the channel in Øresund is 30 m.

9.2.3.1.1.1.2.2 Rocks

Simonsen Skær lies along the E side of Lille Koldewey, NW of I.P. Jacobsen Ø. A rock of rather large extent that represents a danger to navigation lies 1 M from I.P. Jacobsen Ø on a bearing of 169º and a good 0.9 M from the E side of Lille Koldewey.

9.2.3.1.1.1.2.3 Approach and navigation

When approaching Øresund, it is possible to use:
9.2.3.1.1.1.2.3.1 The channel between Renskæret and Maroussia
9.2.3.1.1.1.2.3.2 The channel between Maroussia and I.P. Jacobsen Ø
9.2.3.1.1.1.2.3.3 The channel between Måtten and Renskæret

9.2.3.1.1.1.2.3.1 The channel between Renskæret and Maroussia

During passage of the channel between Renskæret and Maroussia, keep on a WNW course mid-channel between Maroussia and the small rock SE of Renskæret, and continue on this course until the vessel is mid-channel between Renskæret and I.P. Jacobsen Ø. Then keep mid-channel towards the entrance to Danmarkshavn, or continue W, close past Kap Bornholm.

9.2.3.1.1.1.2.3.2 The channel between Maroussia and I.P. Jacobsen Ø

Stay closest to Maroussia if using the channel between Maroussia and I.P. Jacobsen Ø. From mid-channel between I.P. Jacobsen Ø and Renskæret, continue as described in 9.2.3.1.1.1.2.3.1. When approaching the channel from the S, exercise caution with regard to the underwater rock 1 M from I.P. Jacobsen Ø on a bearing of 169º. This rock extends 400-500 m.

9.2.3.1.1.1.2.3.3 The channel between Måtten and Renskæret

When using the channel between Måtten and Renskæret, keep mid-channel as far as possible through the channel on a course WSW until mid-channel between Måtten and Simonsen Skær, and then continue as described in 9.2.3.1.1.1.2.3.1.
This cannel has also been passed several times mid-channel on a course of 280º until the middle of Øresund.

9.2.3.1.0 Stormbugt 76º48’N 019º00’W

The waters between Wendel Pynt (1.5 M W of the entrance to Danmarkshavn), Stormnæs and Kap Helgoland are called Stormbugt. Lillebælt and Øresund join N of Lille Koldewey, and the waters then turn NW to Stormbugt and later W to the NE part of Dove Bugt.

9.2.3.1.0.1 Depths

The depths in the E part of Stormbugt are generally large in continuation of the deep channel in Lillebælt, and they exceed 200 m in some places. Otherwise, the bay is not adequately surveyed, but it is known that the bay is foul, with many islands and rocks.
From Wendel Pynt, a foul area extends 0.3 M S from Kap Bornholm. The depths in the

foul area vary, and rocks must be expected. The least depth measured here is 12 m. Approximately midway between Wendel Pynt and Kap Bornholm, the foul area extends 0.6 M in an E-W direction. At Kap Bornholm, the waters are free of dangers close to land.

9.2.3.1.0.2 Rocks

Among the small islands and islets are Bådskæret (at Germania Land), some smaller islets SE of Wendel Pynt and some islets and rocks near the coast of Stormnæs. Terneskæret lies 1 M E of Stormnæs, and is the easternmost of these islets. N of Kap Helgoland, which is rather high and steep, there are some islands and islets close to the coast. There are 3 small islands, Trip, Trap and Træsko, 1 M N of Store Koldewey and there are 2 small islets, Tøflerne, close SE off these islands.

9.2.3.1.0.3 Navigation

If the ice conditions will allow it during passage through Øresund and Lillebælt N of Lille Koldewey, maintain a distance of not more than 250 m from Kap Bornholm in order to keep S of the foul area, see chart 2750.
Anchorages, see section 9.3

9.2.3.1.2 The route through Shannon Sund between Shannon and Hochstetter Forland and further N. (The S route)

It is assumed that the best option to reach Danmarkshavn and the N part of Dove Bugt by the N route, and the S routes should not normally be attempted unless there is reliable information that the ice in the S part of Dove Bugt is gone and, for the S routes, that the ice in Shannon Sund is also passable. The S entrance to Dove Bugt lies between the E coast of Adolf S. Jensen Land and the S end of Store Koldewey, and the waters shall be approached midway between Haystack and Kap Alf Trolle. It can sometimes be recommended to use the S route in good ice years, when navigating S from Dove Bugt.

9.2.3.1.2.1 Depths

The depths are relatively large mid-channel in the S entrance to Dove Bugt.

9.2.3.1.3 The route between Store Koldewey and Shannon and further N. (The SE route)

The SE route to Dove Bugt should probably only be attempted rather late in the season, but on the other hand, like the S route it can sometimes be advantageous to use it when returning home from Dove Bugt. It has been used when both the N and S navigation exits were blocked by ice. A course was then from off Haystack in an ESE direction between Store Koldewey and Shannon.
A wreck, 0.5 M ENE of Kap Alf Trolle (S point of Store Koldewey), lies in 42 m of water.

9.2.3.2 Dove Bugt areas

9.2.3.2.1 Generally

Dove Bugt is a large bay that indents the land between Kap Beurmann, the SE point of Adolf

S. Jensen Land, and Kap Bismarck, the S point of Germania Land. The bay extends 38 M W between Adolf S. Jensen Land and Germania Land. On its W side it borders glaciers and mountain peaks, W of which lie Carlsbergfondet Land and Dronning Louise Land. A number of fjord arms lead from the W part of the bay to glaciers in the hinterland. These large glaciers discharge a large number of icebergs.
The glaciers Storstrømmen, L. Bistrup Bræ and Soranerbræen discharge S of Germania Land and within the islands between Germania Land and Kap Peschel 76º15'N 020º00'W. It is especially the first two, which partly connect in Bredebræ, that produce many icebergs.
Dove Bugt includes the waters W of the line from Stormnæs to Kap Helgoland and W of Store Koldewey as far as Kap Peschel, latitude 76º15'N. The N side is formed by the S coast of Germania Land, in whose W part lie the fjords Mørkefjord and Hellefjord, which extend in a W direction.
The S side of Dove Bugt is partly shaped by Adolf S. Jensen Land. The waters between Store Koldewey and the mainland S of Dove Bugt are called Storebælt.
The W part of Dove Bugt, W of a line from Spydodden on the S side of Hellefjord to Kap Peschel, is partly filled by large and small islands, between which there are a several deep channels.

9.2.3.2.1 S and W part of Dove Bugt

9.2.3.2.1.1 Landmarks
There is a hut at Kap Carl Ritter, which lies 3 M N of Kap Beurmann.
Påskenæsset 76º09'N 019º50'W lies 5 M N of Kap Beurmann and is 10 m high. The ice here is often screwed up by the tidal current. Between Påskenæsset and Kap Carl Ritter, a bay indents the coast and a wide stream bed leads inland. Otherwise, the land is flat NW of the bay. There are ruins here from an earlier Eskimo settlement.
Kap Peschel lies 7 M NW of Påskenæsset and is a peninsula that is connected to Adolf S. Jensen Land by a narrow isthmus. There is a small island close to the coast 1.5 M SE of the point and a number of small islands lie close NW off Kap Peschel. From Kap Peschel, the S coast of Dove Bugt extends 7 M WSW, and then a further 11 M NW to a point, which forms the NE side of Syttendemajfjorden, where there is a hut. On the latter stretch, a narrow channel, Trangsund, separates the mainland from the island, which is called Tvillingerne. 4 M W of the entrance to Syttendemajfjorden, an unnamed point forms the E side of a bay, in whose inner part the large, active Soranerbræen protrudes.
The mountains on the N side of Adolf S. Jensen Land are quite high and the N side descends steeply. The E coast of the land towards Storebælt is not very high, however. It is almost snow-free in the winter and consists mostly of gravel slopes and stone scree.
Kap Ullidtz 76º16'N 021º45'W lies on the W side of the bay, 7 M W of the entrance to Syttendemajfjorden. There is a small island outside and there is a hunting hut at Kap Ullidtz.
Tvillingerne is divided in two approximately uniform, high parts by a transverse valley. The island lies just N of Adolf S. Jensen Land, from which it is separated by a narrow strait. Tommelen rises to a height of 671 m and is the SE point of the island.
Nanok Ø is the angle-shaped island that lies close NE of Tvillingerne. The island is high and steep towards the E and has a dark appearance. The dark appearance also applies to

Tvillingerne and Djævleøen.
Orgelpiberne is the 740 m high point on the SE end of Nanok Ø.
Bælgen is the NE point of Nanok Ø, and Roon Bugt lies between Orgelpiberne and Bælgen.
Djævleøen lies close N off Nanok Ø and is separated from this by A. Stelling Sund. The E part of the island is called Teufelkap and is 870 m high. There is a V shaped gorge close to the top of the point and the land has a reddish colour.
Licht Øer is a group of islands that lies close N off Djævleøen.
Godfred Hansen Ø lies NW of Djævleøen. There is a bay called Gefion Havn on the S side of Godfred Hansen Ø, see section 9.3. A. Stelling Sund, 9.2.3.3.1, and Søndersund, 9.2.3.3.2, see under these.
Carl Heger Ø lies 3.5 M NW of Godfred Hansen Ø. Edvard Ø lies 3 M N of Carl Heger Ø, and the waters between these two islands are called Isfjeldsund.
Kap Niels Juel lies 11 M N of Kap Ullidtz and 3 M SW of Carl Heger Ø. It is an easily recognisable point in the SW part of Dove Bugt and there is a hut at the point.
Dronning Louise Land lies NW of the inner part of Dove Bugt, and Carlsbergfondet Land lies SW of the bay. These land areas are very mountainous and many of the mountain peaks rise to great heights, like Gefiontinder, 2,682 m.
Storstrømmen and L. Bistrup Bræ protrude N and S E of this land area, respectively, and they meet at Borgfjorden in Bredebræ, where the edge of the glacier towards the sea rises to a height of 40 m. This glacier produces many icebergs which often fill the entrance to Borgfjorden while they float out into Dove Bugt.
Daniel Bruun Land is the peninsula between Borgfjorden and Hellefjord, and its E point is called Spydodden. There are a number of small islands at the SE side of the peninsula, of which Flade Teltø, Rødeø, Midterholmen and Ringøen are the most important. Hellefjord extends 13 M W from Spydodden. There are some small islands at both the S and the N sides of the mouth of the fjord.
Vædderhornet is the SE point of the peninsula Vædderen, which lies between Hellefjord and Mørkefjord. The highest point on Vædderen is 793 m.

9.2.3.2.2 The N part of Dove Bugt

9.2.3.2.2.1 Landmarks

Stormbugt 76º48'N 019º00'W is the bay between Wendel Pynt, Stormnæs, which lies 5.5 M NW of Wendel Pynt, and Kap Helgoland, see section 9.2.3.1.0.
Stormkap lies 2 M ENE of Stormnæs and Stormelv discharges close NE off Stormnæs.
Snenæs lies 3 M NW of Stormnæs and the W point of a small, unnamed bay that lies between these two points.
Moskusoksefjeldene lies NW of Snenæs and rises to a height of 579 m.
Orienteringsøerne consists of 3 large and 5 small islands, which extend 12 M SSW from the coast (Winge Kyst). Both the furthest N and furthest S of the islands rise to a largest height of 305 m.
Farsund 76º51'N 019º34'W is the waters between the furthest N of Orienteringsøerne and Winge Kyst. These waters have a width of 1-2 M and can be navigated, but the depths are very irregular. No depths of less than 40 m have been found, however, and the largest depth

is closest to Orienteringsøerne.
Lille Snenæs lies at the NW end of Winge Kyst, 7 M NW of Snenæs.
Lumskebugten lies directly W of Lille Snenæs. Hvalrosodden, see section 9.3.
The following islands, islets and rocks are located in the central part of the N part of Dove Bugt:
1) 7 M W of the line between Stormnæs and Kap Helgoland, the 3 islands, Orienteringsøerne, lie in an approximately N-S direction, and some smaller islets on their E side.
2) The flat 2 M long island Pladen lies 2 M S of Hvalrosodden.
3) Vindseløen lies 2.5 M SW of Pladen.
4) The dark-looking Sorteskær 76º39'N 020º22'W lies approximately midway between the southernmost Orienteringsø and Bratskæret, 76º38'N 020º43'W.
Passage between the islands in the N part of Dove Bugt.
There are 3 passages from the S part of Dove Bugt to the N part of the bay.
1) Between Store Koldewey and Orienteringsøerne,
2) W of Orienteringsøerne between these and Vindseløen,
3) Between Vindseløen and Spydodden.
The channels have not been surveyed and great caution mus be exercised here as there may be underwater rocks.

9.2.3.2.3 E part of Dove Bugt

9.2.3.2.3.1 Landmarks

Store Koldewey extends along the E side of Dove Bugt. The island is 50 M long, relatively narrow and its greatest height in the S part is the area directly N of Trækpasset 710 m, while the area in the N part S of Berg Fjord rises to a height of 970 m. The island's S point is called Kap Alf Trolle 75º57'N 018º38'W and the N point is called Kap Helgoland 76º44'N 019º09'W. Many gorges traverse the island. The W coastline of Store Koldewey has a regular appearance from Kap Alf Trolle to Berg Fjord, which lies 40 M further N. Trækpasset, 76º10'N 018º35'W, is a gorge through Store Koldewey and the gorge is so deep that is gets close to sea level.

9.2.2.2.3.2. Depths

The E part of Dove Bugt is inadequately surveyed, but the depths identified in the actual bay W of the island Store Koldewey are relatively large. Further W between the many islands, the depths decrease steeply, but are nevertheless sufficiently large for vessels of any size to pass. Most of the main waters from a suitable distance from the land are probably navigable for large vessels and this is important because fast and drift ice can prevent navigation of routes that have been navigated previously. However, if vessels venture outside of the navigated routes, they must naturally be prepared to encounter unknown shoals and rocks. A large, continuous area with rocks and foul water lies N of Kap Peschel in the E part of Roon Bugt, where the foul area extends to the N until E of the S side of the entrance to A. Stelling Sund.

9.2.3.2.4 Navigation routes in Dove Bugt

Experience shows that the channels described below seem to be the safest channels between the different stations and anchorages in the area.

9.2.3.2.4.1 Stormbugt – Hvalrosodden

The route through Farsund between the northernmost of the Orienteringsøerne and Winge Kyst on Germania Land appears to be free of dangers. The least depth measured mid-channel in Farsund is 40 m, midway between the N point of the northernmost of the Orienteringsøerne and Winge Pynt. The largest depths in the sound are possibly closest to the northernmost of the Orienteringsøerne, so that when passing the N point of this island, vessels shall keep SW of the mid-channel line.

Snenæs can probably be passed quite close. On the NE side of the northernmost of the Orienteringsøerne, close to the coast, there is a small rock above the water. The depths SW of Lille Snenæs increase to more than 200 m and then decrease again quite evenly towards Hvalrosodden until some way away from the station on the S side of Lakseelven, where it suddenly becomes shallow from 20 m depth.

Anchorage, see section 9.3.

Mørkefjord is navigable until close E off the recognisable mountain Danmarksmonumentet, which lies on the headland between the actual Mørkefjord to the N and the smaller Pustervig, which extends in a WSW direction S of the headland. There is a former terminal moraine at Danmarksmonumentet, which is described as two wide, parallel bars, which extend across the N branch of Mørkefjord at a depth of only 1-2 m.

Kalven lies close to Vædderen, the southernmost point of Mørkefjord. There is a former lateral moraine off Vædderen, so it is not possible to get close to this point.

Rocks: See under Mørkefjord, section 9.2.4.

Entrance to Mørkefjord occurs either:

1) from the E between the low Hvalrosodden and the previously mentioned island, Pladen, where the depth mid-channel appears to be 100 m, or

2) from the SSE on a course 340º towards Mørkefjord Station, mid-channel between Pladen and Vindseløen, which lies to the SSW of here. The course goes approximately 1.5 M E of the underwater rock that lies 2.5 M ESE of Vædderen. The depths mid-channel between Pladen and Vindseløen are 110-120 m and they decrease to 34 m 1.5 M E of the underwater rock.

Anchorage, see section 9.3.

9.2.3.2.4.2 Hvalrosodden – Port Arthur 76º46’N 021º12’W

From Hvalrosodden, keep SE to midway between Pladen and Orienteringsøerne and then at an appropriate distance SE and S of Vindseløen and the 3 small islands SW of this, the furthest NE of which, Ringøen, lies 4.5 M SW of the SW point of Vindseløen. There is a small rock above water close SW off the centre island, Midterholmen. Keep S of Rødeø and then mid-channel between Rødeø and the islands that lie W of here on a NNW course towards Port Arthur, see section 9.3.

The waters NW of the chain of islands Vindseløen to Rødeø are relatively wide and can possibly be navigated by large vessels, but there are a number of small islets and rocks.

9.2.3.2.4.3 N part of Dove Bugt to S part of Dove Bugt

SW of Stormnæs, the water is free of dangers and deep W of a line through Wendel Pynt, Trip, Trap, Træsko and Store Koldewey and over to a line 5 M E of Orienteringsøerne. The waters along the W side of Store Koldewey also seem to be free of dangers.

9.2.3.2.4.3.1 From Hvalrosodden, keep S mid-channel between Pladen and Vindseløen and the two Orienteringsøer furthest N, then between the southernmost Orienteringsø and the previously mentioned Sorteskær. The E side of Sorteskær can be taken rather close.

9.2.3.2.4.3.2 From Mørkefjord, proceed through the previously mentioned entrance to Mørkefjord. Set the course from off Mørkefjord Station, 76º56'N 020º20'W, mid-channel between Pladen and Vindseløen and towards the W edge of the southernmost of Orienteringsøerne, until the vessel is mid-channel between Vindseløen and the centre Orienteringsø.

9.2.3.2.4.3.3 From the water at Rødeø, keep N and E of Sorteskær.

Krogh-Johansen Isfjeldbanke lies between the E point of Edvard Ø, Kap Bjarne Nielsen, and Bratskæret. Icebergs from Storstrømmen (Bredebræ) ground on it in large numbers. A rock can be seen above the water close off Kap Bjarne Nielsen. Grounded icebergs are also found on the line from Bratskæret towards Sorteskær and between this line and the islands to the S. This may indicate shoal or foul waters in this area.

9.2.3.2.4.3.4 In the S part of Dove Bugt, N of Kap Peschel's latitude, the waters appear to be free of dangers between Store Koldewey and 020º W. Larsen Skær lies W of this meridian, 76º25.5'N 020º07'W. 2 M, NE of Teufelkap. Christian Skær (a small, low rock just at the surface) lies at 76º20.6'N 020º09.7'W, 2 M E of the promontory Kap Bælgen on the S of the entrance to A. Stelling Sund. There is another rock 1.5 M on a bearing of 174º from Christian Skær.

Many grounded icebergs can also be seen in the waters S of Christian Skær (E part of Roon Bugt), which seems to indicate that the area is shoal or foul. The waters along the land on the N side of Roon Bugt are also reported to be shoal, stony and foul up to 0.6 M from land. The same applies along the land around Kap Peschel.

9.2.3.2.5 The ice in Dove Bugt

August is normally the best month to navigate Dove Bugt, as the ice is usually ejected in mid-August and the bay and the waters E of Store Koldewey may then have wide, open leads. It happens, however, that the ice fails to break up in mid-August and it has been impossible to navigate Danmarkshavn some years. The sea freezes over again during September, but there have been years where it was possible to use motor boats in Dove Bugt until well into October. Drift ice from the sea never enters Dove Bugt.

9.2.3.2.6 Current in Dove Bugt

A SE current running at about 1-2 kn has been observed in the S entrance to Dove Bugt in August.

9.2.3.3 Central part of Dove Bugt

A. Stelling Sund, Søndersund with Gefion Havn and Inderbredningen constitute the central part of Dove Bugt, and the previously used route to Gefion Havn was from the E through A. Stelling Sund between Djævleøen and Nanok Ø.

9.2.3.3.1 A. Stelling Sund 76º22'N 020º12'W

The sound is the waters that separate Nanok Ø and Tvillingerne from Djævleøen and Godfred Hansen Ø. The W part of A. Stelling Sund is also called Søndersund.

9.2.3.3.1.1 Depths

The sound can be navigated with due caution, but the waters have not been surveyed. A minimum depth of 150 m has been observed mid-channel, but depths of 50 m have been found 1.5 M E of Kap Bælgen and somewhat S of the channel's centreline.

9.2.3.3.1.2 Ice

Under certain wind conditions, the ice is compacting in the sound so that navigation becomes impossible. The ice conditions are usually best in August, and it has sometimes been possible to reach Gefion Havn before Hvalrosodden could be approached. None of these locations are currently used and the buildings are not maintained.

9.2.3.3.1.3 Current

A current of 1 kn has been observed in A. Stelling Sund.

9.2.3.3.1.4 Approach and navigation

A. Stelling Sund is approached from the S by keeping 3 M E of Adolf S. Jensen Land, and after passing Kap Peschel, continue on course 348º until Teufelkap is on a bearing of 305º. Then keep towards the NE side of Teufelkap, keeping it on a bearing of 305º until the meridian at 020º00'W has been passed. Kap Bælgen on a bearing of 258º and the sound fully open.

It is now possible to enter A. Stelling Sund N of Christian Skær, which lies 2 M E of Bælgen. Teufelkap can probably be passed quite close. An American description of the area recommends that, after passing Adolf S. Jensen Land, vessels should keep towards Teufelkap with this promontory on a bearing of 321º, as this course should pass 1 M NE of Christian Skær and then, when Kap Bælgen is on a bearing of 241º, keep W towards A. Stelling Sund. This report is probably correct, but there are no soundings to confirm whether it is advisable to keep so close to the rock-filled W part of Roon Bugt.

The NE approach to Gefion Havn, see section 9.3.

9.2.3.3.2 Søndersund 76º22'N 021º00'W

The sound extends between Godfred Hansen Ø and Tvillingerne and is a continuation towards the W of A. Stelling Sund. The depths in Søndersund decrease towards the W and its W part has an iceberg bank across the waters. W of the iceberg bank, the depths increase again towards Inderbredningen.

9.2.3.3.3 Inderbredningen 76º18'N 021º16'W

Inderbredningen extends in a SSW direction from the waters W of the NW end of Tvillingerne towards Soranerbræen. There are some smaller islands 3 M W of the NW point of Tvillingerne.

9.2.3.3.3.1 Depths

A number of soundings have been taken on both sides of this small island, which lies 3 M W of the NW point of Tvillingerne. It appears to be deepest N and W of this small island, but the waters are assumed to be foul. Hydrographic surveys have not been carried out in this area. Kap Ullidtz 76º16'N 021º40'W lies on the W side of Inderbredningen, 1.5 M from the glacier edge. A hut has been erected here, but there are no soundings closer to the hut than 1.5 M NE of it. The least measured depth here is 40 m. N of Søndersund's latitude, a number of rocks have been observed from motorboats and these waters must be regarded as foul.

9.2.4 Mørkefjord 76º55'N 020º27'W

The fjord extends 17 M W and reached approximately as far as Storstrømmen. Mørkefjord Station, a former metrological station, lies 3 M NE of Vædderen, see section 9.3. An island, Kalven, lies close inside the entrance to the fjord, 0.5 M NE of the NE coast of Vædderen. 5 M into Mørkefjord, the fjords divide into two branches, the S of which is called Pustervig and the N is called Mørkefjord. The inner part of Mørkefjord narrows and extends in between the high mountains, which rise to a height of 762 m. The fjord here is filled with mud banks.

9.2.4.2. Depths

The depths in the inner part of Mørkefjord and in Pustervig are not adequately surveyed, so mariners are urged to exercise due caution. The depths mid-channel are 10-20 m. There is a rock 2.5 M SSW of Mørkefjord Station 76º53'N 020º22'W, and another rock lies 1.5 M NW of Vindseløen. Pustervig appears to be free of dangers mid-channel.

9.2.4.2 Current

A 4 kn current has been observed in the mouth of Mørkefjord.

9.2.4.3 Ice

The ice conditions at Mørkefjord are the same as at Hvalrosodden, and S winds can cause the ice to set strongly on shore.

9.2.4.4 Approach

See also under Hvalrosodden, section 9.2.3.2.4.2. Vessels that approach from the S, however, can keep either E or W of Orienteringsøerne. If keeping E of these islands, Snenæs can be kept on a bearing of 000º, until holding a course through Farsund.
If keeping W of Orienteringsøerne, hold a course further between Pladen and Vindseløen. The waters between Vindseløen and Spydøen have not been surveyed.

9.2.5 Hellefjord 76º51'N 020º45'W

The fjord is 14 M long and 2 M wide. It indents the E side of Daniel Bruun Land. The mouth of the fjord lies between Vædderhornet and Spydodden, and there are 2 small islands here at the mouth of the fjord, Spydodden on the S side and an unnamed island on the N side. The depths are unknown.

9.2.6 Syttendemajfjorden 76º18'N 021º00'W

The fjord is 15 M long, but rather narrow. From Fangersund the fjord indents Adolf S. Jensen Land and extends in a SE direction for its entire length. W and N of the mouth of the fjord there are some unnamed islands that border Inderbredningen. The depths are unknown.

9.2.7 Borgfjorden 76º33'N 021º35'W

The fjord is 20 M long and is 4 M wide at its mouth, which indents into the land in a NW direction between Lindhard Ø and Edvard Ø. To the W, the fjord borders the 40 m high and vertical glacier edge of Bredebræ, which lies where L. Bistrup Bræ and Storstrømmen meet. The mouth of Borgfjorden is always filled with large irregular icebergs, which come from the large glaciers and drift out to the SE.

9.2.8 Berg Fjord 76º35'N 019º06'W, chart 2000 and 2801

The fjord lies 9 M S of Kap Helgoland and indents 4 M into the W side of Store Koldewey. It is only separated from the E side of the island by a low, narrow isthmus. Approximately in the middle of the fjord, there is a large island with two islets close to the W point and two islets close to the N side. Another smaller island with an islet on the SE side lies E of the aforementioned large island, from which it is separated by a channel with depths of 5-25 m.
The land on both sides of the fjord rise steeply to great heights, and at the point of the S side of the mouth of the fjord, Kap Kuhre, the largest mountain peak, which lies 0.7 M S of the coastline at the entrance, rises to a height of 760 m. A cairn, Westbrook Varde, whose NW side is painted yellow, was erected on this peak in 1941. Another cairn has been erected 150 m from the coast at a height of approximately 50 m.
The mountain peak at the point of the fjord's N side rises to a height of 300 m. From the W, the entrance to the fjord can easily be found with the aid of these points.
Westbrook Varde can also be seen from the waters E of Store Koldewey, over the low land between Berg Fjord and the E side of the island.

9.2.8.1. Depths

A sounding track taken between the entrance to the fjord and W and N of the large island to the anchorage between this island and the N side of the fjord shows rather even depths midchannel of over 54 m. There are depths of over 64 m in the inner part of the harbour.

9.2.8.2 Ice

The ice in the fjord does not break up every year, but only every third year on average. When the fast ice in the fjord has broken up, icebergs may enter the fjord, mainly in the SE part.

9.2.8.2 Current
A current of 1-2 kn has been observed in the entrance to Berg Fjord.

9.2.8.4 Fresh water
A stream with good water flows down over the cliffs on the S side of the fjord, approximately 1 M E of Kap Kuhre. It is possible to anchor close to the coast off the stream and the depth is 80 m 360 m from land.

9.2.8.5 Approach and navigation
Approach Berg Fjord from the S by holding along the coast of Store Koldewey at a distance of at least 1-2 M, until off Kap Kuhre. When the entrance is well open, keep mid-channel or a little further S towards the large island. Then turn on a NNE course and later a NE course, mid-channel between the large island and the N side of the fjord to the anchorage in the inner part of the fjord.
Anchorages, see section 9.3

9.2.9 Skærfjorden 77º25'N 018º45'W
The entrance to this fjord lies between Kajkap and Kap Amélie (a point on Stormlandet, which rises from the sea to a height of 503 m). Skærfjorden is a large bay with many fjord arms. It indents the E coast of Germania Land. Two large islands and some smaller islands lie in the inner part of Skærfjorden, where 4 fjords indent the W coast of the land.
Fladebugt is the S part of Skærfjorden and extends 8 M into the land in a S direction. The entrance to the bay lies between Kajkap and Kap Li, which lies 11 M further W.

9.2.9.1 C.F. Mourier Fjord 77º24'N 019º50'W
The fjord is the furthest SW of the fjord arms and it extends 7 M into the W coast of Skærfjorden. The mouth of the fjord lies between Kap Li and Kap Récamier, which lies 3 M further NW. Kap Récamier is 607 m high and is the easternmost point of a narrow peninsula that separates C.F. Mourier Fjord from V. Clausen Fjord.

9.2.9.2 V. Clausen Fjord 77º28'N 020º00'W
The fjord extends 7 M NW. The mouth of the fjord lies between Kap Récamier and Kap Ellen, which lies 5 M further WNW.
Kap Bergliot, 370 m, is the SW point at the entrance to Assutsund and lies 2.5 M W of Joinville Ø, which is a 5 M long island with a maximum height of 395 m.
Theodolitskær 77º27'N 019º48'W is the largest rocky island in a small group of islands that lies 3 M NE of Kap Récamier, and there are several small islands and rocks between Theodolitskær and the entrance to V. Clausen Fjord.
Langholmen lies 6 M W of Theodolitskær, N of the peninsula with Kap Récamier, and there is also a small island called Kongsholmen 2 M further N.
C. Silfverberg Ø is the largest island in Skærfjorden. It lies close NW off Joinville Ø, between Assutsund and Penthievre Fjord. The island's S point is called Kap Nax. From here, the island extends 6.5 M NW and at its N point it rises to a height of 335 m.

9.2.9.3 Assutsund 77º34'N 020º10'W

The sound extends 5 M in a NW direction between C. Silfverberg Ø and the mainland. The S entrance to the sound lies between Kap Bergliot and Kap Nax. At the NW end, Assutsund turns into an unnamed area of water that connects Assutsund with Penthievre Fjord.
Klægbugt 77º40'N 020º45'W is a bay in the NW part of these waters, and C. Drost Ø lies in the middle of the entrance to Klægbugt. Konrad Bjerg lies in the inner part of the bay and it rises to a height of 549 m. Violent storms are reported to occur in Klægbugt.
Campanulavig is a small cove on the N side of Klægbugt, and its SE entrance point is called Kap Ingrid.

9.2.9.4 Penthievre Fjord 77º33'N 019º30'W

The fjord extends 14 M in a NW direction from the mouth of the fjord, which lies between Joinville Ø and Kap Amélie. A group of islands called Storskærene lies a little inside the fjord.
Hakkemandstoppene lies on the N side of the inner part of Penthievre Fjord, where it rises to a height of 610 m.
The depths are unknown.

9.3 Harbours and anchorages

Danmarkshavn is the only inhabited site on the coastal stretch between Kap Oswald Heer and Depotnæsset, but there are a few anchorages that have been used in the past. The most important harbours and anchorages are:

9.3.1 Danmarkshavn 76º46.2'N 018º45.5'W, chart 2750

9.3.2 Roseneathbugt 75º43'N 19º30'W, fig. 9.2

9.3.2.1 Approach

The anchorage is best approached from the E, keeping 0.3 M S of the S point of Haystack, and from there hold a course directly towards the anchorage.

9.3.2.2. Anchorage
When the bay is free of ice, it is possible to anchor in a number of places, but keep outside the 20 m contour. A vessel has anchored in a position determined by the following bearings: Mønstedhus at 282º, the cairn on Haystack peak at 051º and the SE point of Haystack at 077º. It is known that Norwegian vessels have anchored 550 m from land off the S station house in Roseneathbugt. The depth was 8-10 m with a clay bottom.

9.3.3 Bessel Fjord. There are anchorages at:

9.3.3.1 Alf Bruuns Red 76º04'N 019º58'W
The anchorage lies 2 M W of Kap Beurmann and is quite good. It is possible to anchor in 8 m of water with good holding ground of sand mixed with clay.

9.3.3.2 Besselfjord Station 76º04'N 020º03'W
It is possible to anchor outside the abandoned station.

9.3.3.3 Gåseholmhytten 75º58'N 021º53'W, fig. 9.3
It is possible to anchor in the SW inner part of Bessel Fjord, where it turns in both a NW and SW direction. The anchorage lies E of the hut and 450 m and 575 m from land, the respective depths are 30 m and 45 m. The holding ground is good and there are no known rocks in the vicinity of the anchorage. Just N of the hunting hut, it is possible for boats to approach all the way to the beach, which consists of gravel. There are a number of rocks in the bay S of the hut and at the N side of the small isthmus. A large stream discharges in the SW part of the bay and the depth decreases from 100 m in the actual Bessel Fjord near the hut, to 10 m at a distance of 250 m from the SW and W sides of the bay.

9.3.4 SW part of Dove Bugt

9.3.4.1 Gefion Havn 76º23'N 020º56'W
The harbour, fig. 9.4, is a small bay that extends 600 m inland on the S side of Godfred Hansen Ø. Ålborghus is a former hunting station on the W side of the bay.

9.3.4.1.1 Depths
The depths mid-channel in the mouth of the bay are 60-70 m and they decrease evenly to the N towards the inner part of the harbour. It is deep almost all the way to the beach.

9.3.4.1.2. Anchorage
It is possible to anchor 200 m from the S side of the harbour, where the depth is 30 m with good holding ground. A vessel has also anchored in 82 m of water, 550 m SSE of Ålborghus, where there was good holding ground of soft mud. The harbour is well sheltered from all wind directions. An expedition vessel, "Gamma", was banked for repair of the propeller in 1938 in the N part of the harbour. Due to the surrounding closed waters, there will be no rough conditions encountered in the harbour, and towards the W it seems to be further sheltered by the iceberg bank over the W part of Søndersund.

9.3.4.1.3 Approach

Gefion Havn is approached from the S by keeping 3 M from Adolf S. Jensen Land between Kap Beurmann and Kap Peschel. When Teufelkap is on a bearing of 321º, hold a course towards that until Kap Bælgen is on a bearing of 241º and A. Stelling Sund can be seen open. From here, keep mid-channel through A. Stelling Sund. When approaching from the S, do not get W of the described routed due to Christian Skær.
The NE approach to Gefion Havn should begin from 76º34'N 020º00'W.
From here, keep 235º mid-channel between the islands N of Djævleøen, and keep NW of Licht Ø. When Licht Ø has been passed, keep on a course of 190º towards the channel between Djævleøen and Godfred Hansen Ø to Søndersund.

9.3.4.1.4 Depths

The least depth measured mid-channel in the waters that lead NE to Gefion Havn is 71 m, but the depths are very varied and the waters must be considered as inadequately surveyed.

9.3.5 N part of Dove Bugt

9.3.5.1 Hvalrosodden 76º55'N 020º05'W

This site is a former hunting station and radio station, which was situated on a point at the W side of Slambugten. A stream, Lakseelven, discharges a little N of the point. It drains the large Sælsøen, but there is shoal water at the mouth of the stream.

9.3.5.1.1. Anchorage

A vessel has anchored in 51 m of water, 0.5 M SE of Hvalrosodden point.

9.3.5.1.2 Ice

With S winds, the ice can be pushed forcefully into the bay and shelter can then be found in Mørkefjord, 7 M further W and N of Kalven. Hvalrosodden is usually ice-free from 10 August until 25 September.

9.3.5.1.3 Approach

From a position 300 m from Kap Bornholm, steer 297º to Snenæs is on a bearing of 045º at a distance of 1.25 M. From there, continue through Farsund, keeping further S than the mid-channel line. When the northernmost of the Orienteringsøerne has been passed, steer directly towards Hvalrosodden.

9.3.5.2 Snenæs 76º49'N 019º22'W

It is possible to anchor in 25 m of water near the former station building, and smaller vessels can go all the way into the mouth of the stream NE of Snenæs.
Two cairns have been erected at a distance of 50 m from each other and these two cairns in line showed the way into the boat harbour.
The depth outside the mouth of the stream is reported to be 2-5 m, but it is not known exactly as the stream continuously deposits loose material.

9.3.5.2.1 Ice
If there is ice in the waters, one must be prepared that onshore winds will push this into the anchorage, even though the water flowing out from the stream normally keeps the area ice-free.

9.3.5.3 Mørkefjord 76º56'N 020º20'W
In 1938, a scientific station was erected at the N side of the entrance to Mørkefjord, close to Gravelven at the foot of Rypefjeld. The station has been closed again. A plateau rises to a height of 250 m behind the location of the station and there is a wide valley E of the plateau.

9.3.5.3.1 Anchorages
It has been reported that it is possible to anchor near Mørkefjord Station at the following bearings: Kalven (probably the island's S edge) at 266º, the station house at 342º and Hvalrosodden at 098º. The bottom is gravel. Marked on the chart, these bearings do not seem to be correct. The anchorage is poorly protected from S winds, when the ice can be quickly pushed towards the coast outside the station. It is possible to anchor at the NW end of Kalven, where there is better protection from the ice.

9.3.5.4 Port Arthur 76º45'N 021º10'W
The harbour shall be approached on a NNW course by keeping mid-channel between Rødeø and the islands that lie SW of here. The depths in the harbour are large and the depth at the entrance is 118 m. It is possible to anchor in the NW part of the harbour. The bottom slopes strongly close to land, and the holding ground is not good, as there are many large seaweed plants.

9.3.5.5 Berg Fjord 76º35'N 019º06'W, fig. 9.5
9.3.5.5.1 It is possible to anchor between the large island and the N side of the fjord, where the greatest depth surveyed is more than 64 m. The holding ground is poor, soft mud, but the waters at the anchorage are free of dangers. The depths are large until close to shore and it is possible in most places to land directly on the beach with motorboats, but there are several places along the beach where there are large stones in the water.

9.3.5.5.2 A vessel has anchored near the mouth of the fjord in the area that to the W is limited by the line between the mountain top on Kap Kuhre and the top of the point at the N side of the mouth, and by the line between the latter top and another point at the S side of the fjord. The depths here are unknown, but assumed to be large.

9.3.6 E side of Store Koldewey

9.3.6.1 Trækpasset 75º10'N 018º35'W
There is no harbour at Trækpasset, but a vessel has anchored on an open roadstead at the following position: Miami Bjerg (N of Trækpasset) on a bearing of 268º, St. Petersburg Bjerg (S of Trækpasset) on a bearing of 242º. It is deep almost all the way in to the coast and there is good anchor hold of mud on evenly upward sloping ground. The anchorage is approached on a W course, keeping well clear of the coast until the latitude of Trækpasset.

9.3.7 Lillebælt

9.3.7.1 E of Kap Helgoland 76º43'N 019º04'W, chart 2801 and 2750

The expedition ship, "En Avant", wintered at the given position E of Kap Helgoland in 1938-1939. The ship left the harbour at the end of July.

9.3.7.2 Dagmar Havn 76º41'N 018º56'W, chart 2750

The harbour is a small bay on the E side of Store Koldewey. Due to its small size, the harbour is only usable for small vessels and boats. There is a small island in the inner part of the bay and there are good landing options by boat on the otherwise rock-filled coast at the harbour.

9.3.7.2.1 Ice

As the harbour faces ENE, it can often be filled with ice, but it is normally free of ice in the summer. The harbour cannot be considered an actual harbour and there is no good anchorage. In 1938, three small ice-classed vessels sought shelter in the harbour at the same time.

9.3.7.3 Absalon Havn 76º40'N 018º53'W, chart 2750

The harbour is a small bay on the E side of Store Koldewey. There is no actual harbour or any good anchorage], but it is easy to approach and can be used in an emergency by smaller vessels seeking shelter from the drift ice.

9.3.7.3.1 Depths

The waters E of Absalon Havn has depths of between 95 m and 155 m, but the harbour itself has not been surveyed. There are two small islands close N off the harbour and the waters are probably free of dangers all the way into the harbour.

9.3.7.3.2 Ice

As the harbour faces NE, it can often be filled with ice, but it is normally ice-free in the summer.

9.3.7.4 Sonja Havn 76º36.6'N 18º40.5'W, chart 2750

The harbour lies on the S side of Lille Koldewey. The harbour is considered to be usable as an anchorage for smaller vessels. There is a small isthmus on the W side of the harbour.

9.3.8 E side of Germania Land

9.3.8.1 Micardbu 77º03'N 018º16'W

There was a metrological station at this location. It was established in 1938, but the station was closed down again in 1941.

There is no harbour at the station, not even the slightest hint of a bay. The station buildings were erected on the S side of a prominent cliff and it is easiest to spot them when the site is approached from the S.

9.3.8.1.1 Depths

There are depths of more than 35 m off Micardbu and along the stretch of coast S of the station, at a distance of 1-2 M from land.
The navigation options along the E side of Germania Land are to a large extent dependent on the presence of ice.

9.3.8.1.2. Anchorage

If there is no drift ice at the coast, it is possible to anchor near the station, where the depth decreases steadily towards the shore and there are probably no rocks near Micardbu. The American ship, “Northland”, anchored on 2 August 1941 in 35 m water with the station on a bearing of 313º, 0.5 M from land, where there was good holding ground. However, the anchorage is very exposed to the ice drifting past.
When approaching the station, it is recommended to keep at least 5 M from the coast, until one has the station on the correct bearing. Aboard “Northland” they had the impression that similar anchorage conditions as off Micardbu probably exist along the entire stretch of coast between Thomas Thomsen Næs and Syttenkilometernæsset.

9.3.8.1.3 Ice

In the summer, large floes of drift ice drift S along this part of the coast, making it difficult for ships to get further N. In the winter, the ice drift is considerably less and the period from February to May is when there is least ice along this coast.

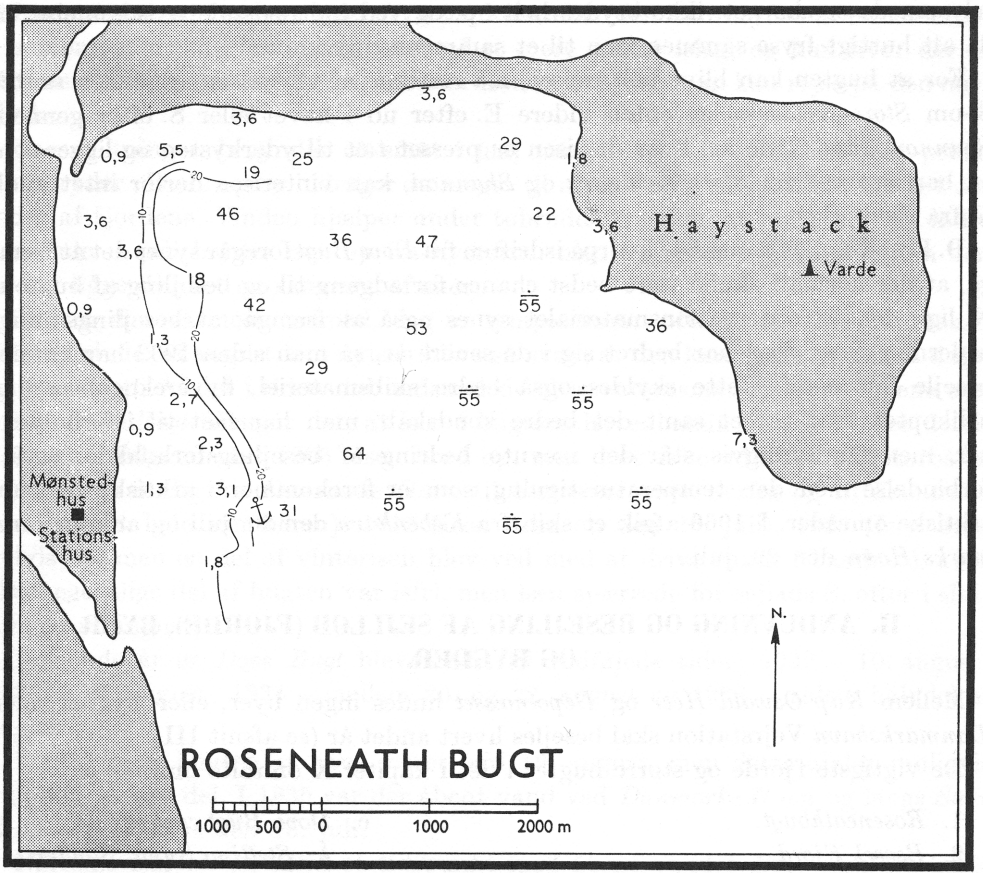

Fig. 9.2 - Roseneathbugt

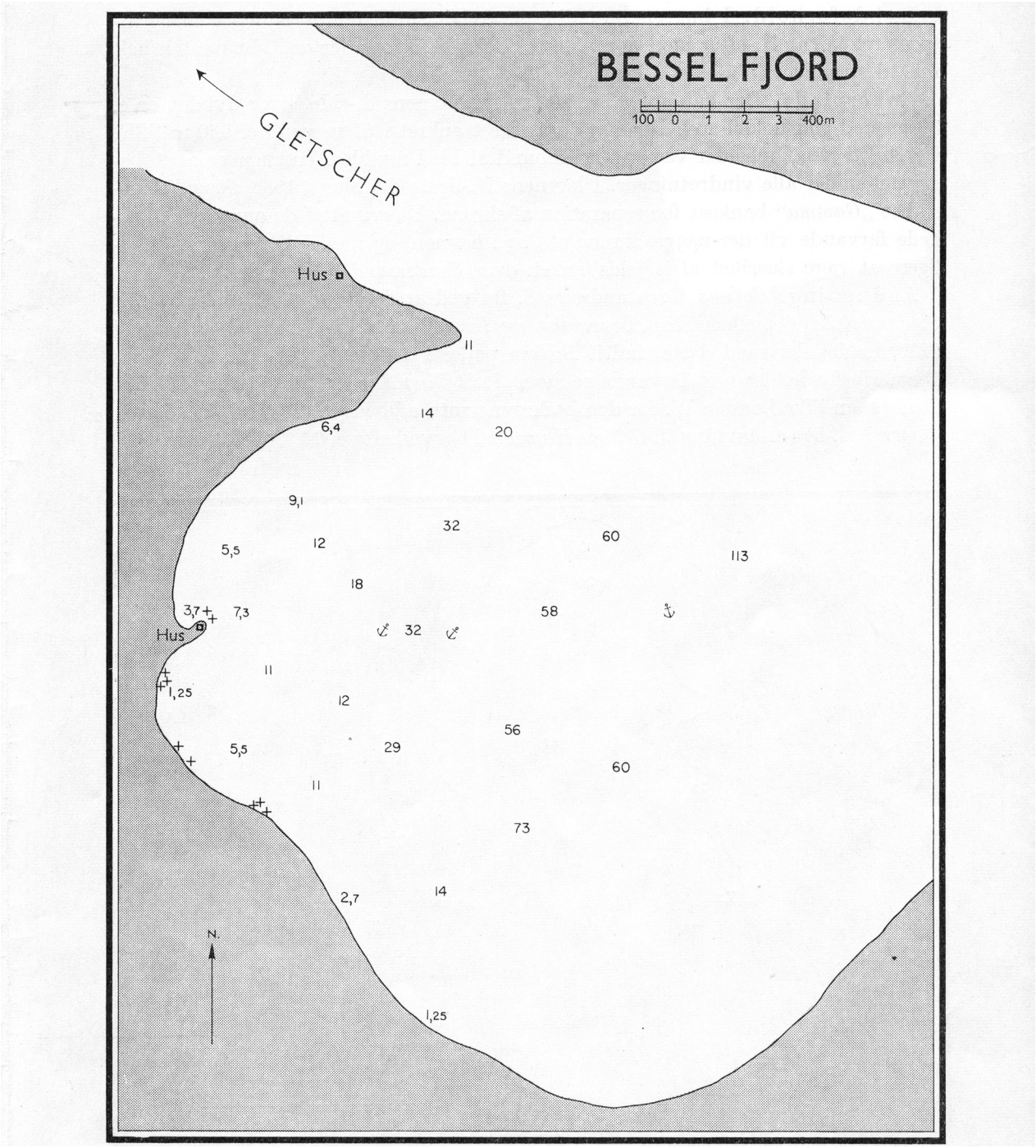

Fig. 9.3 - Bessel Fjord

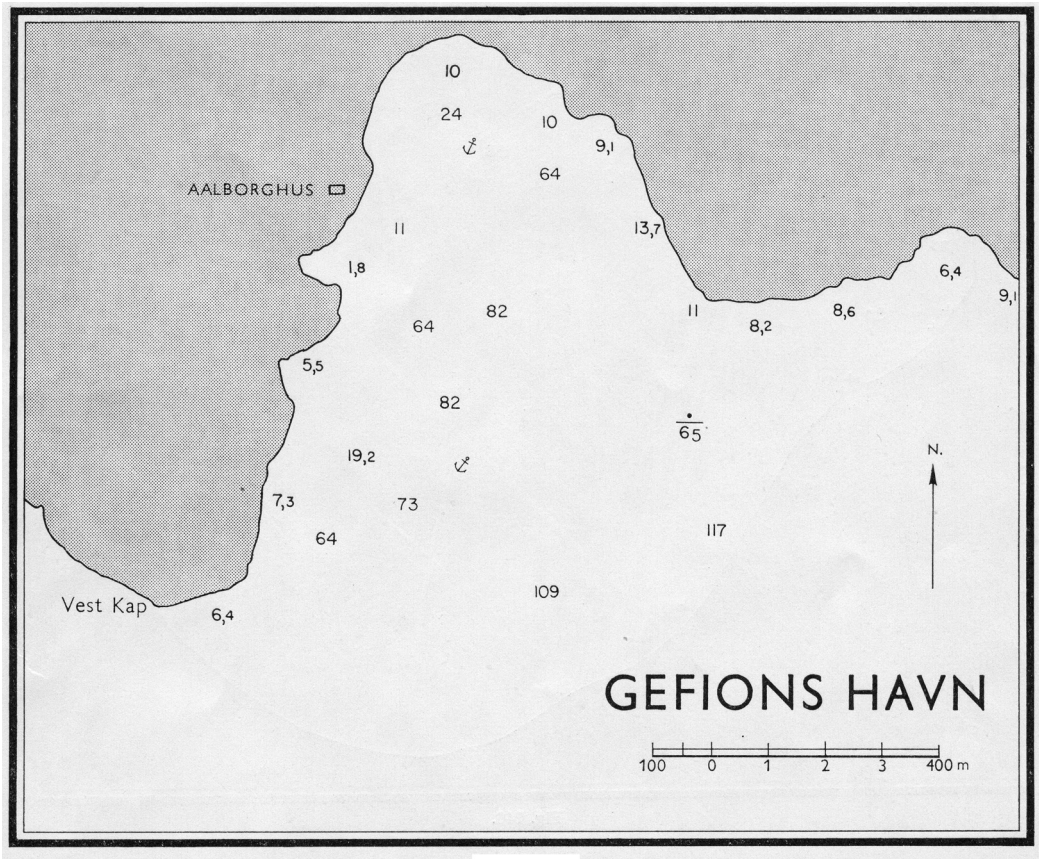

Fig. 9.4 - Gefion Havn

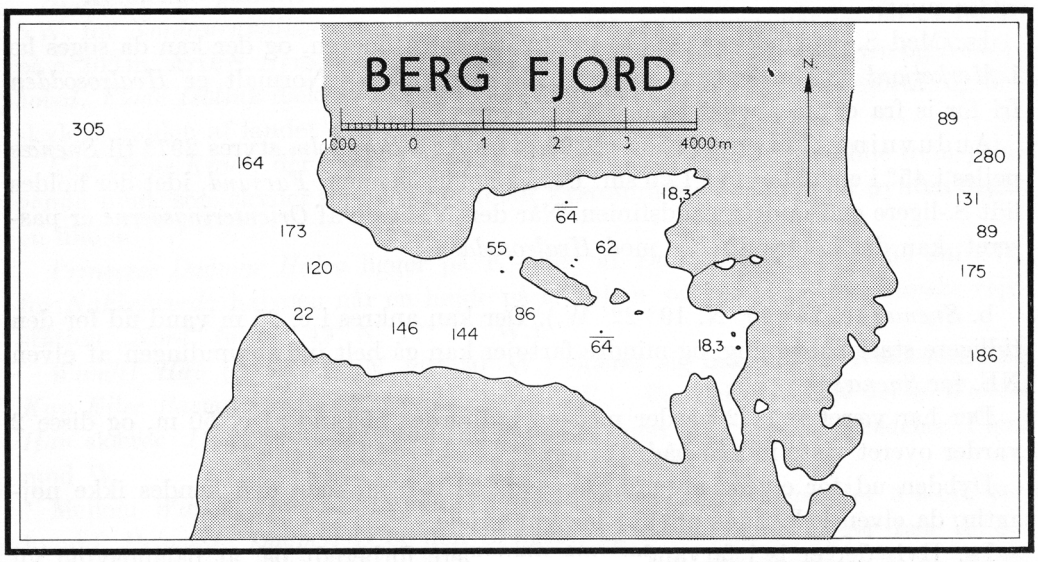

Fig. 9.5 - Berg Fjord

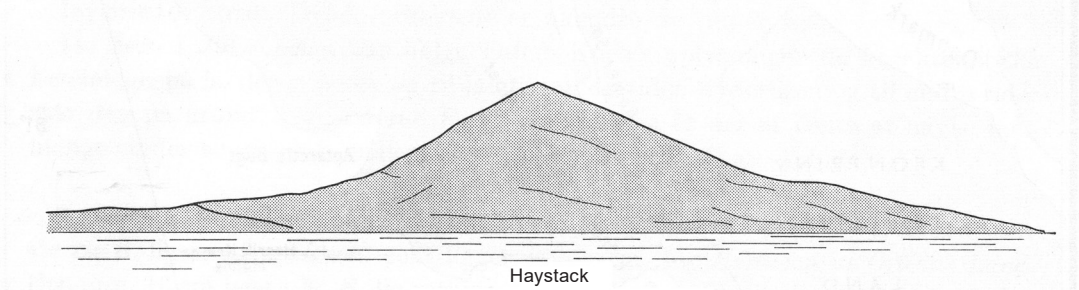

Fig. 9.6 - Haystack seen from N.

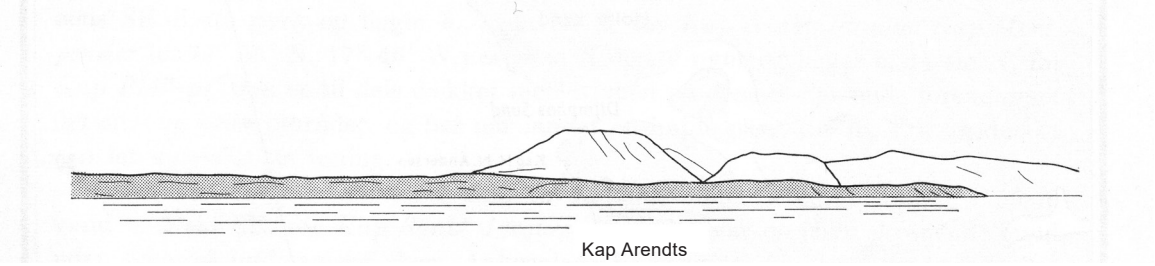

Fig. 9.7 - The S part of Store Koldewey seen from SE.

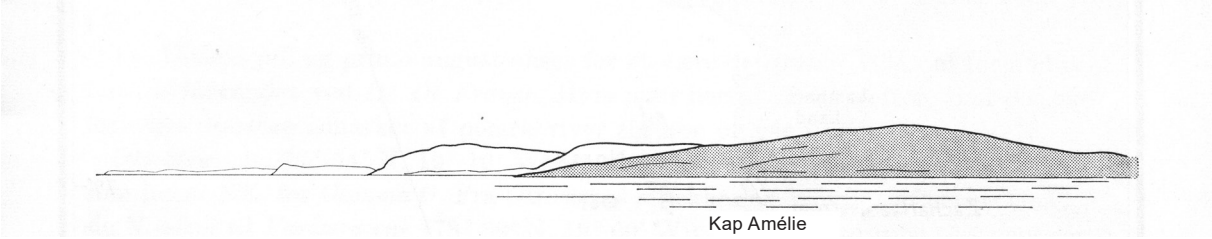

Fig. 9.8 - The coastal area of the the N side of Skærfjorden.

Map

Depotnæsset – Nordostrundingen

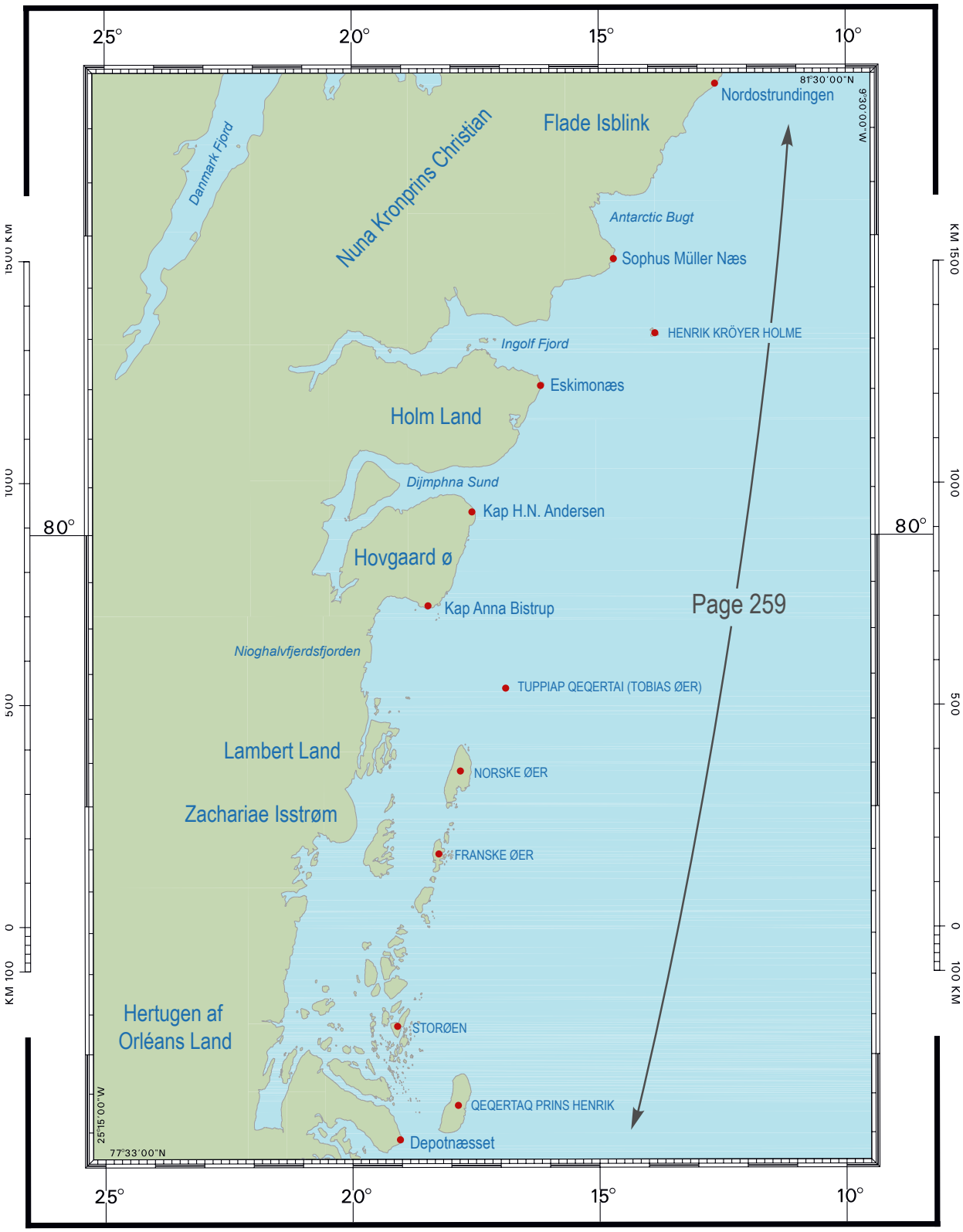

Fig. 10.1

CHAPTER 10

Depotnæsset – Nordostrundingen

Area 77º38'N 019º00'W – 81º36'N 012º10'W, charts 2000 and 3000.

10.1 Transit of the area
10.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
10.3 Harbours and anchorages

10.1 Transit of the area

See views of the land between Depotnæsset and Nordostrundingen.

10.1.1 Landmarks

Nuna Kong Frederik VIII is the coastal area of the NE part of Greenland between Dove Bugt and Nuna Kronprins Christian, which is the peninsula that protrudes out to the NE and ends in Nordostrundingen. The stretch of coast between Kap Bismarck and Nordostrundingen is more than 300 M long and extends in a N and NNE direction, but does not have deep indentations like the fjord area between Kap Bismarck and Kangikajik (Kap Brewster).
The islands along this part of the coast are generally smaller than the islands off the fjord area further S, and in many places the ice cap extends all the way down to the coast, where the ice-free land mostly consists of isolated peninsulas and mountain peaks. It is still uncertain in most cases whether these peninsulas are connected with the mainland, or if they are islands connected to the mainland by glacier-filled channels.
Between Germania Land and Lambert Land, the coast is indented by two large fjord complexes, Skærfjorden, see Chapter 9, and Jøkelbugten, and there are numerous islands and rocks off the actual coast.
From Lambert Land, figure 10.3, to Nordostrundingen, the outer coast extends in an approximately straight NNE direction and has 4 large indentations, Nioghalvfjerdsfjorden, between Lambert Land and Hovgaard Ø, Dijmphna Sund and Hekla Sund between Hovgaard Ø and Holm Land, Ingolf Fjord between Holm Land and Amdrup Land and Antarctic Bugt between Amdrup Land and Nordostrundingen. The only islands off this stretch of coast are Tuppiap Qeqertai (Tobias Øer), 79º20.5'N 015º50.4'W and Henrik Kröyer Holme, three small islands that lie 15 M SE of Sophus Müller Næs.
Between Dove Bugt and Nordostrundingen there is only Germania Land and the coast between 79º40' and 81º00'N latitude that are actually ice-free coastal land. On long stretches of the rest of this coast, especially N of Germania Land from 78º00'N to 79º40'N and in the N part of Nuna Kronprins Christian, there are no coastal mountains, and so the ice from the icecap can force its way out relatively unhindered. Where this glacier ice reaches the coast, it normally spreads out evenly and gradually turns into fjord ice and sea ice without forming

actual icebergs. In other places, the land area extends evenly and ice-scoured towards the sea and is often so covered with snow that the line between the land and the sea ice can only be identified by the ice foot and tide crack off the coast.
Of the islands between Skærfjorden and Lambert Land, Qeqertaq Prins Henrik has a height of 200 m, while the largest of Norske Øer has a height of 500 m. Like the islands within Jøkelbugten, both of these islands are ice-scoured with rounded peaks. The E part of Lambert Land and the E side of Hovgaard Ø are ice-scoured gneiss and further W the land rises in both places to quite large heights. Some parts of Holm Land and Amdrup Land are plateau-shaped sandstone areas with steep outer mountains such as Mallemukfjeld, 500 m, on the SE side of Holm Land and Kap Jungersen, 400 m, on the SE side of Amdrup Land.
Kap Louise 77º46'N 019º15'W is the NE point of Stormlandet and forms the S entrance point to Orléans Sund, 9 M NNW off Depotnæsset.
Kap Isabelle 77º48'N 019º12'W is the SE point of Gamma Ø and forms the N entrance point to Orléans Sund.
Orléans Sund 77º47'N 019º15'W is the name for the waters between Gamma Ø and the peninsula N of Skærfjorden. The sound is 25 M long and 1-1.5 M wide and it leads into Jøkelbugten. The depths here are unknown.
Lambert Land is apparently a large island, which borders Zachariae Isstrøm to the S and Nioghalvfjerdsfjorden to the N. The land is steep and has heights of 701-975 m on the NE side. W of the island, the inland ice lies on Nuna Kong Frederik VIII. Lambert Land was discovered in 1670 and the name is Dutch.
Kap Drygalski 79º09'N 019º10'W is the SE point of Lambert Land. This peninsula is a promontory that is almost separated from the rest of the land by an 11 M long bay, which indents S into Lambert Land.
Brønlunds Grav 79º09'N 019º10'W lies on the E point of the peninsula, SE of Lambert Land and a little N of Kap Drygalski.
Holm Land 80º25'N 016º30'W is a large peninsula that protrudes to the E from the mainland. Holm Land borders Hekla Sund and Dijmphna Sund to the S and Ingolf Fjord to the N. The S coast of the peninsula out towards Dijmphna Sund consists of steep cliffs, the most prominent of which is Mallemukfjeld, which rises to a height of 500 m. Depotfjeld is a peak that lies close S of Mallemukfjeld, and they are separated by a small active glacier, which is called Depotgletscher. On the E side of Mallemukfjeld there is a similarly small glacier, called Mallemukgletscher.
The coastal area W of Depotfjeld becomes lower and is called Sortebakker, because coal deposits have been found here with many layers of good coal.
From Mallemukfjeld, the coast extends NNE for a distance of 19 M to the NE point of the peninsula, Eskimonæs 80º31'N 016º05'W, which is a low point. This coastal stretch is low and even and is up to 4 M wide on the N part. To the S it becomes somewhat narrower. W of Eskimonæs the land rises quickly to a ridge with the mountain Mågefjeldet, 396 m, which is the highest point.
Mågegletscher lies 4 M W of Mågefjeldet. This is an active glacier that discharges large icebergs out into the outer part of Ingolf Fjord.
Firndalen is a low valley that extends in a N-S direction across Holm Land. This valley divides the peninsula in two, of which the E part rises to a height of 1,097 m in the central part. The

W part has an alpine appearance with many pointed peaks and is called Prinsesse Caroline-Mathilde Alper.
Nuna Kronprins Christian is a wide peninsula that lies between Ingolf Fjord and Danmark Fjord. From Kap Jungersen on Amdrup Land, the coast extends 60 M NE to Nordostrundingen.
Amdrup Land is the SE part of Nuna Kronprins Christian between Ingolf Fjord and Antarctic Bugt. To the W and N, the land borders Bagdalen, which extends NNE and E between the N side of Ingolf Fjord and the inner part of Antarctic Bugt.
Prinsesse Elisabeth Alper lies on the W side of Bagdalen. From Kap Jungersen, the coast of Amdrup Land extends 23 M in a NE direction to Sophus Müller Næs 80º55'N 014º40'W.
Dværgfjorden is a small bay S of Sophus Müller Næs.
Henrik Kröyer Holme consists of three small islands that lie 16 M SE of Sophus Müller Næs.
Kilen 81º17'N 013º40'W is a long and narrow strip of land that extends 20 M from the coast in a NW direction into Flade Isblink. There are some mountains with flat peaks in the inner part of Kilen, but otherwise the land extends into Flade Isblink.
Nordostrundingen 81º36'N 012º10'W is Greenland's easternmost point. Flade Isblink protrudes here all the way to the sea and discharges small icebergs, which often ground along this part of the coast at some distance from the glacier edge. Large icebergs have not been observed along this stretch of coast.

10.1.2 Depths

When "Belgica" was on the way from Svalbard to the coast of East Greenland in 1905, it was discovered at 78º10'N 005º00'W that the depth quickly decreased from 2,700 m to 2,107 m and later to 1,425 m and 366 m, which indicated a marked rising of the sea floor on the W side of Greenland Sea between Svalbard and Greenland. Further W, at 78º10'N 016º00'W, minimum depths of 58 m were found, but somewhat W of this bank, which is called Belgica Banke 78º10'N 014º05'W, depths from 395 to 400 m were found between the bank and the edge of the ice. From the latitude of Illoqqortoormiut (Scoresbysund), the 1,000 m contour runs 50-60 M from Greenland's coast to near Shannon, from where it has an uneven course in a NE direction to 78º10'N 006º00'W, 150 M from the coast of Greenland. On the E side of Greenland Sea, the 1,000 m contour extends from Lofoten in Norway to 30-35 M W of Svalbard and then N along the meridian on 003º00'E to 81º00'N latitude. N of Belgica Banke, the depths from Greenland's coast and 150 M out into the sea are relatively unknown.

10.1.3 Ice

From latitude 80º00'N to Nordostrundingen, the belt of land-fast winter ice is considerably narrower than further S. The E coast of Amdrup Land can sometimes be almost free of winter ice and the ice belt along the coast all the way down to Hovgaard Ø is often only a few M wide. There is often a strip of open water N of Nordostrundingen along the NE coast of Nuna Kronprins Christian. The waters at Nordostrundingen have never been navigated by surface vessels and sledge teams are warned against getting too far out to sea on the sea ice in this area, especially in the winter, as NW storms are frequent then and can make the ice break loose close to the coast. There are numerous iceberg-producing glaciers in the area, but

large icebergs do not occur. During flights between Svalbard and northeast Greenland in May, stretches of fast ice have been observed extending 15 M out from the coast and there were open leads here. There is often low fog over the drift ice in this area, but the fog often disappears in a belt, which stretches, from the coastal area to 12-15 M out.

10.2 Approaches and navigation of waterways (fjords), towns and settlements etc.

There are no towns or settlements between Depotnæsset and Nordostrundingen. A Danish vessel has never navigated the sea between Norske Øer and Nordostrundingen, but American and Russian icebreakers have navigated as far N as Nordostrundingen's latitude. American submarines have passed under the ice in Issittup Imaa (Arctic Sea) and Greenland Sea as early as 1957-58. On 12 August 1933, the Royal Greenland Trade vessel, "Gustav Holm", was in the vicinity of Norske Øer 79º03'N.
The area is otherwise charted by personnel who have travelled through the coastal area on sledges or on foot. Aerial photography has also been used and some inaccuracies must be expected in the charts.

Fjords and bays in the areas described in this chapter are discussed below:

10.2.1 Jøkelbugten 78º30'N 020º00'W

The bay is the sea area between Germania Land and Lambert Land, E of Hertugen af Orléans Land. To the S, the bay borders Kofoed-Hansen Bræ, which protrudes from Storstrømmen out between Germania Land and Hertugen af Orléans Land. To the NW, the bay borders Zachariae Isstrøm and Lambert Land, and to the E the bay is restricted by an island chain that extends from Gamma Ø in the S to Norske Øer in the N.

10.2.1.1 Depths

The depths are unknown, see 10.2.1.2.

10.2.1.2 Ice

According to Lauge Koch, a Danish geologist, the ice in Jøkelbugten has the characteristics of ice that is adjacent to land ice. Sometimes the ice floats and other times it grounds. There is a belt of sea ice along the islands E of Jøkelbugten, but in many places it is impossible to identify the border between sea ice and land ice.

10.2.2 The islands E of Jøkelbugten

10.2.2.1 Qeqertaq Prins Henrik 77º40'N 018º00'W

The island is the largest and furthest S of the group of islands that lie E and SE of Hertugen

af Orléans Land. The island is 16 M long in a N-S direction and the width varies from between 2.5 M at the N end and 5.5 M at the S. The island's SW point is called Kap Skt. Jacques and lies 10 M NE of Depotnæsset on Stormlandet. Kap Philippe, figure 10.2, is the island's SE point and lies 7 M ENE of Kap Skt. Jacques. Kap Montpensier 77º55'N 017º46'W is the island's northernmost point and lies 14 M N of Kap Philippe. The island is partly covered by ice, but on its S end there are areas free of snow and ice and the land here rises to a height of 198 m. The island is easy to recognise from the sea, see views of the land.

10.2.2.1.1 Anchorage

The American vessel, "Northland", anchored in 55 m of water 2 M SE of Kap Skt. Jacques, where there was an evenly sloping bottom without any sign of underwater rocks. The position of the anchorage was Kap Skt. Jacques on a bearing of 328º and the land on the N side of Skærfjorden on a bearing of 252º. A vessel has also anchored with the land at the N side of Skærfjorden on a bearing of 248º, Kap Skt. Jacques on a bearing of 290º and Kap Philippe on a bearing of 073º.

10.2.2.1.2 Ice

Late July and early August is assumed to be the best time to approach the waters at Qeqertaq Prins Henrik. If vessels intend to proceed N from here, this must occur before the large floe giants of polar ice break loose and begin drifting S.

10.2.2.2 Oktoberø 77º54'N 019º10'W

The island is a 10 M long group of small islands and rocks that lie NE of Gamma Ø. From Oktoberø, a labyrinth of islands and small islets extend N to Pariserøerne 78º30'N 019º00'W, which is a group of islands consisting of 3 small islands. This group of islands is called Franske Øer, and the largest islands in the group of islands, listed from the S, are as follows: Storøen, Stigbøjlen, Ambolten and Hammeren, which lies W of Ambolten. Mellemfortet lies N of Hammeren. Pariserøerne lie NE of Ambolten.

10.2.2.3 Hagen Ø 78º00'N 020º10'W

The island lies 15 M NW of Kap Isabelle on Gamma Ø and is the middle island in a group of islands in the S part of Jøkelbugten.

10.2.2.4 Boxøerne 78º07'N 020º21'W

The islands are a considerably smaller group of islands that lie 8 M NW of Hagen Ø. Some larger unnamed islands lie 8 M NW of Boxøerne.

10.2.2.5 Franske Øer 78º43'N 018º30'W

The islands are a group of islands that extend almost 25 M NNE from 5 M N of Pariserøerne.
Kap Koefoed 78º37'N 018º30'W is the SE point on the largest of the S Franske Øer.
Kap Bergendahl 78º39'N 018º22'W and Kap Bourbon 78º48'N 018º10'W are points on the E side of Franske Øer.

10.2.2.6 Schnauder Ø 78º50'N 019º30'W

The island lies at the N side of Jøkelbugten, 13 M NW of Franske Øer on the same latitude as Zachariae Isstrøm, which is a large glacier that separates Lambert Land from Hertugen af Orléans Land.

10.2.2.7 Achton Friis Ø 79º00'N 019º15'W

The island lies 2 M N of the N point of Schnauder Ø.

10.2.2.8 Norske Øer 79º04'N 017º50'W

The group of islands consists of one large island and some smaller islands and lies 12 M E of Lambert Land. In the NW part, the largest of the islands rises to a height of 500 m, but the island's NE part is flat coastal land.

10.2.2.8.1 Ice

It sometimes occurs in August that the ice breaks up so much that it is possible for vessels to reach the islands along the E side of Jøkelbugten W around the drift ice. In July and August, the drift ice usually extends 5-10 M E of all the islands between Norske Øer and Qeqertaq Prins Henrik, and from here it follows the E side of Qeqertaq Prins Henrik. Apart from an arc into Skærfjorden, the limit of the drift ice extends to the E coast of Germania Land. There may be shore lead or reduced ice concentration within the drift ice, but navigation in this area is not possible with surface vessels during the rest of the year.

10.2.3 Nioghalvfjerdsfjorden 79º35'N 019º00'W

The fjord is both a glacier and a large bay between Lambert Land and Hovgaard Ø. The bay is 33 M wide between Brønlunds Grav and Kap Anna Bistrup 79º44'N 018º25'W, which is the SE point of Hovgaard Ø. The inner part of the bay is filled by a glacier that has an arm extending in a N direction towards Dijmphna Sund. There are no icebergs or bergy bits that mark the line between land ice and sea ice, but somewhat in on the land ice there are many fractures that run in a N-S direction.

Hovgaard Ø is a large island that lies on the N side of Nioghalvfjerdsfjorden. The island's S point, Kap Anna Bistrup, lies 30 M N of Norske Øer. From Kap Anna Bistrup, the island's S coast extends 19 M W to Kap Adolf Jensen, the SW point which rises steeply to a height of about 700 to 1,050 m. There are some small islands close SE off Kap Anna Bistrup that are called Bagatellerne. 5 M N of Kap Adolf Jensen, a small fjord indents Hovgaard Ø in a NE direction.

10.2.4 Dijmphna Sund 80º11'N 017º30'W

The sound extends 40 M W and SW from the NE entrance to the foot of Spaltegletscher. The NE entrance lies between Kap H.N. Andersen and Mallemukfjeld. At its entrance, the sound has a width of 8 M, but it narrows somewhat further W, where the sound extends between Hovgaard Ø and Lynn Ø.

Kap H.N. Andersen 80º06'N 017º35'W is the NE point of Hovgaard Ø and lies 23 M NNE of Kap Anna Bistrup.

Kap Povl is a point on the N side of Hovgaard Ø and lies 4 M NW of Kap H.N. Andersen. Kap Marie Dijmphna is also a point on the N side of Hovgaard Ø and lies 5 M W of Kap Povl.

10.2.4.1 Depths

It is assumed that the depth in Dijmphna Sund is not great, as small grounded growlers have been observed across the sound. Depths of 2.5 m have been measured 2 M from land S of the steep Mallemukfjeld and the bottom appeared to be even and sandy.

10.2.4.2 Ice

Open leads have been found in the ice in July and August. The ice was also filled with slush and melt water. Water has been observed in Dijmphna Sund as late as mid-October.
Lynn Ø is a triangle-shaped island that lies NW of Hovgaard Ø, and the island's NE point lies 7 M WNW of Kap Marie Dijmphna.
Hekla Sund is the fjord that extends N and W of Lynn Ø.

10.2.5 Ingolf Fjord 80º37'N 016º00'W

The fjord separates Holm Land from Amdrup Land. The mouth of the fjord lies between Eskimonæs and Kap Jungersen, and from here the fjord extends first WNW and then WSW for a total distance of 30 M to Brede Spærregletscher, which protrudes out at the S coast of the fjord. The N part of this glacier floats on the water and it was previously assumed that the fjord ended here. The Danish Northeast Greenland Expedition in 1938-39 observed that the fjord continued a further 25 M W. At the fjord's inner part there are two short fjord arms that extend W and SW, respectively. A stream discharges in the W arm. It drains Romer Sø, a long, narrow lake whose N end extends 20 M from Prinsesse Ingeborg Halvø. Another stream flows from the W into the same fjord arm.
Wegener Øer 80º40'N 017º14'W consists of some small islands that lie off the small peninsula at the S coast in the outermost part of Ingolf Fjord, 13 M WNW of Eskimonæs.

10.2.6 Antarctic Bugt 81º05'N 014º30'W

The bay extends 11 M NW from the line connecting Sophus Müller Næs and the bay's N point, which is unnamed, but lies 11 M further NE. The bay's SW side forms the NE side of Amdrup Land, but its inner part and the N part are adjacent to Flade Isblink. The edge of Flade Isblink, where it borders Antarctic Bugt, is in such strong movement in the winter, that the sea ice is strongly hummocking several M from land and can therefore produce a more uneven surface for travel by sledge.

10.3. Harbours and anchorages

The area between Depotnæsset and Nordostrundingen cannot be navigated and there are no harbours.

10.3.1 Depths

The depths are partly unknown.

10.3.2 Anchorage

There has been anchored SE of Kap Skt. Jacques, see section 10.2.2 The islands E of Jøkelbugten.

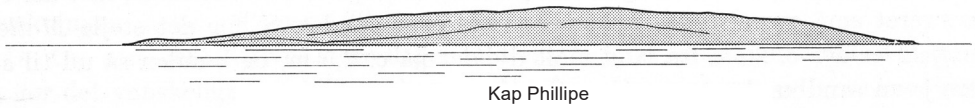

Fig 10.2 - The S part of Qeqertaq Prins Henrik bearing 315°.

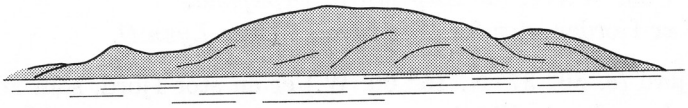

Fig 10.3 - The E branch of Lambert Land bearing 315°.

Map

Nordostrundingen – Kap Morris Jesup

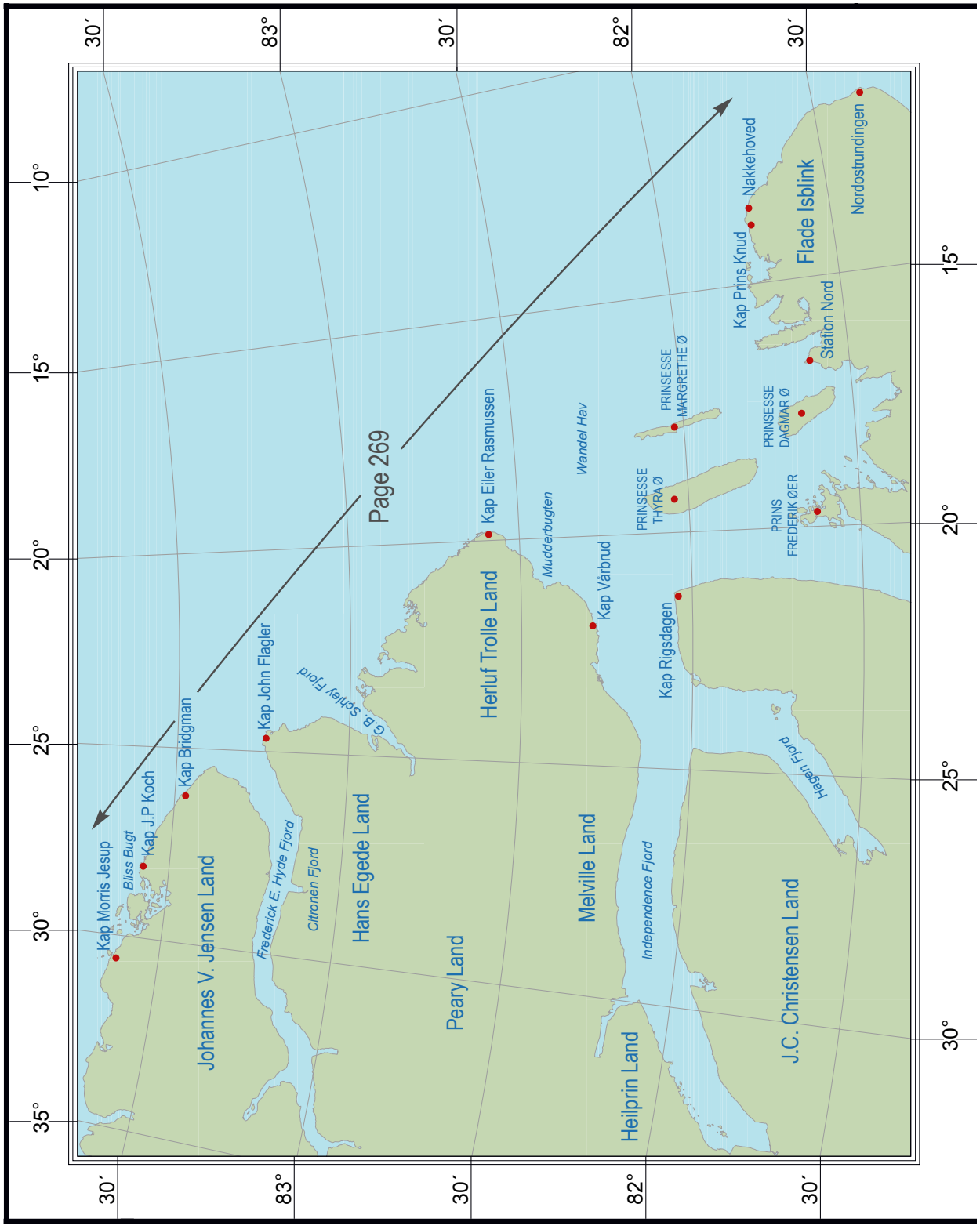

Fig. 11.1

CHAPTER 11

Nordostrundingen – Kap Morris Jesup

Area 81º36'N 012º10'W – 83º38'N 032º35'W, chart 3000.

11.1 Transit of the area
11.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
11.3 Harbours and anchorages (airfields)

11.1 Transit of the area

See views of the land between Nordostrundingen and Kap Morris Jesup.

11.1.1 Landmarks

Nakkehoved 81º53'N 014º30'W lies 25 M NW of Nordostrundingen, and in the area SW of Nakkehoved the land rises to a height of 305 m. Erik S. Henius Land is the coastal land between Nordostrundingen and Nakkehoved. Flade Isblink covers the coastal area both SE and W of Nakkehoved, and it is due to the height of the land at Nakkehoved that it is not covered with ice.
Kap Prins Knud, which lies 8 M WNW of Nakkehoved, is a small point that protrudes out from a narrow costal area. There is a small island close off the point.
Prinsesse Ingeborg Halvø lies on the E side of Danmark Fjord, 35 M SW of Nakkehoved. The peninsula rises to a height of 101 m and Station Nord 81º43'N 017º45'W is located here.
Wandel Hav 82º20'N 020º30'W protrudes in between Nakkehoved and Kap Eiler Rasmussen 82º36'N 021º20'W. From the SW part of Wandel Hav, Danmark Fjord protrudes into the land to the SW and Independence Fjord, figure 11.2, to the W.
There are 3 large islands between Wandel Hav and the mouth of Danmark Fjord, of which Prinsesse Dagmar Ø is the furthest S and its S end lies close W off Prinsesse Ingeborg Halvø. The island is 10 M long and rises to a height of 91 m. Prinsesse Thyra Ø lies 5 M NW of Prinsesse Dagmar Ø, and it is 20 M long and extends in a N-S direction. A large part of the island is covered with ice and it is very low, so when the area is covered with snow, it is difficult to ascertain when you pass from sea ice onto the land.
Prinsesse Margrethe Ø lies with its S end 6 M N of Prinsesse Dagmar Ø. It is a low island that extends for approximately 20 M in a N-S direction. This island is also so low that when the area is covered by snow, it is difficult to ascertain where the line goes between sea ice and the coast of the island.
Kap Ringkøbing 81º34'N 019º30'W lies 12 M SW of the N end of Prinsesse Ingeborg Halvø, and it is the W entrance point to an unnamed bay, which stretches 6 M in a S direction.
Romer Sø 81º05'N 019º45'W lies 12 M SE of the innermost part of this bay. There are a number of islands N and W of Kap Ringkøbing, and between Kap Ringkøbing and the N end of a

long and narrow point, 8 M further NNW, an unnamed fjord extends 15 M SSE.
Prins Frederik Øer 81º41'N 020º40'W is a group of islands close W off the long and narrow peninsula that lies 8 M NNW of Kap Ringkøbing.
Valdemar Glückstadt Land is a wide peninsula, which extends E and N from Mylius-Erichsen Land and separates Danmark Fjord from Hagen Fjord. Kap Rigsdagen 82º05'N 022º15'W, figure 11.2, is the NE point of Valdemar Glückstadt Land and lies 15 M W of the N end of Prinsesse Thyra Ø.
Nuna Knud Rasmussen covers the entire NW part of Greenland.
Peary Land, figure 11.7, is an extensive, ice-free area in the N part of Nuna Knud Rasmussen, and the large peninsula is only connected with Nuna Knud Rasmussen by a narrow strip of land between Jørgen Brønlund Fjord and the inner part of J.P. Koch Fjord. The N part of Peary Land, N of Frederick E. Hyde Fjord, is also a large peninsula, which is only separated from the land to the S by a 9 M long valley between Frederick E. Hyde Fjord and O.B. Bøggild Fjord. Peary Land is again divided into different areas, which are called Melville Land to the S, Herluf Trolle Land to the E and Hans Egede Land to the N.
N of Frederick E. Hyde Fjord lies Roosevelt Fjelde, Amundsen Land and Nansen Land lies to the W. Melville Land is the S part of Peary Land and borders Independence Fjord. Compared to the land S of the fjord, this area is relatively ice-free and there is a land area with vegetation, where musk ox, hares and lemmings live and there is also a rich bird life.
Mudderbugten 82º26'N 022º30'W is a 5 M wide, open bay where a number of streams discharge. The bay lies N of Kangeq Eigil Knuth (Kap København), figure 11.3.
Kap Eiler Rasmussen 82º35'N 021º20'W is the low, E point of Peary Land.
Herlufsholm Strand, figure 11.4, is the low land between the coast and the mountains and it extends from Kangeq Eigil Knuth (Kap København) to Kap Henry Parish 82º46'N 022º20'W, figure 11.5.
Herluf Trolle Land is the mountainous land W of Herlufsholm Strand, and there are 2 small local ice caps here.
Clarence Wyckoff Bjerg 82º50'N 023º30'W, which lies 10 M NW of Kap Henry Parish, is a wide point that rises to a height of 853 m. Hellefiskefjord extends S on the W side of Clarence Wyckoff Bjerg.
Kap Isak Glückstadt 83º00'N 024º45'W lies 14 M NW of Clarence Wyckoff Bjerg. From here the coast extends 10 M in a NNW direction to Kap John Flagler 83º10'N 025º00'W on the S side of the entrance to Frederick E. Hyde Fjord. The area between G.B. Schley Fjord and Frederick E. Hyde Fjord, figure 11.8, is known by the name Hans Egede Land. It is a mountainous area with heights of up to 1,067 m in the N part.
Kap Bridgman 83º25'N 027º10'W lies 11 M NW of the N entrance point to Frederick E. Hyde Fjord. The coast here is flat and extends out to the sea in a similar fashion as at Peary Varde. The beach is covered with pebbles. From here the coast extends 45 M NNW to Kap Morris Jesup, and on this stretch of coast the mountains are somewhat inland and low gravel plains form the foreshore. There are only a few, relatively small glaciers, but the mountains rise to considerable heights in Roosevelt Fjelde and H.H. Benedict Bjerge has the largest height of 1,463 m.

Daly Bjerge lies SW of Kap Bridgman and is part of Roosevelt Fjelde. The maximum height is 1,311 m.
Kap J.P. Koch 83º29'N 027º50'W lies 10 M WNW of Kap Bridgman and is the E entrance point to Bliss Bugt. Some of the largest glaciers in Peary Land lie S of Kap J.P. Koch. These are typically valley glaciers and the largest is Moore Gletscher, which protrudes out NW and SE. Borup Gletscher and Bertelsen Gletscher lie W and E respectively of Moore Gletscher, but they both end on the wide foreshore on the N side of the coast.
Bliss Bugt 83º30N 028º20'W is a 4 M wide bay, whose E entrance point is Kap J.P. Koch. The bay has a wide and flat foreshore and a stream that drains both Borup and Moore Gletscher discharges in its S part. Somewhat W of here, another stream discharges into the bay through a wide delta.
Constable Bugt 82º35'N 031º00'W is a 7 M wide indentation in the N coast of Peary Land. Kap James Hill 83º36'N 030º15'W lies at the E side of the bay, 18 M WNW of Kap J.P. Koch. A stream discharges into the bay through a wide valley.
Inuit Qeqertaat (Kaffeklubben Ø) is a small island that lies close off the coast, 4 M E of Kap James Hill.
Oodaap Qeqertaa (Oodaaq Ø) 83º48.53N 030º40.17W is the northernmost land that exists.
Kap Morris Jesup 83º40'N 033º24'W can be recognized by a stream flowing out through a small delta at the point.

11.1.2 Depths
The depths are unknown.

11.1.3 Ice
Along the low coast between the mouth of Frederick E. Hyde Fjord and Kap Morris Jesup, it is often difficult to distinguish the coastline, as it borders a shallow area of considerable size. In the spring and early summer, the ice is sometimes pressed up onto the slightly sloping land, and between the edge of this pack ice and the high water mark, there is a belt of shallow water that is often less than 0.6 m deep, but is held in by the ice barrier. As there are not sufficient ice observations taken from this coast in late summer, it can only be assumed that the majority of the ice will disappear in the autumn so that a wide area with open water is formed between the coast and the drift ice outside.

11.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
Between Nordostrundingen and Kap Morris Jesup, 3 large fjord complexes reach deep into the NE part of Nuna Knud Rasmussen, but there are no other inhabited locations in the area except for Station Nord.

Fjords and bays in the area mentioned in this chapter are described under the following points:

11.2.1 Danmark Fjord 81º50'N 021º20'W

11.2.1.1 Landmarks

The mouth of the fjord lies between Prins Frederik Øer and Kap Kronborg 81º37'N 022º00'W. The fjord extends 90 M SSW and, in its innermost part, it becomes Fyn Sø, a large lake that is really an extension of Danmark Fjord, as it is connected with the fjord by a narrow, shallow passage. At its mouth, the fjord is 15 M wide and this width continues for 55 M SSW to Kap Viborg, where the fjord narrows to a width of 4 M and then continues 30 M in a SSW direction.

Between Prins Frederik Øer and Kap Viborg, the coastal land on the E side of the fjord is low and only slightly indented. There is an ice-free foreland and behind this lies Alexandrine Bjerg, which rises to a maximum height of 305 m. These mountains are mostly ice-free, but from the fjord, Flade Isblink can be seen between the mountain peaks at a number of places. Between Kap Viborg and Fyn Sø, 25 M further S, there is a mountain range, Sjælland Fjelde, which rises steeply from the sea to a height of 305 m. The land around Fyn Sø is low with relatively rich vegetation.

Kap Kronborg 81º37'N 022º00'W lies on the E side of Valdemar Glückstadt Land, 25 M S of Kap Rigsdagen. Jyske Ås is an ice-covered ridge that lies close W off Kap Kronborg and extends across the peninsula to Hagen Fjord. The rest of Valdemar Glückstadt Land is ice-free. From Kap Kronborg, the W side of Danmark Fjord extends 8 M S to Gundersteddal at the mouth of a short stream. Kap Renaissance lies 15 M S of Gundersteddal and forms the NE entrance point to a bay, which extends 7 M SW.

Pinseskæret 81º16'N 022º45'W is an island that lies close N off the coast on the S side of the bay and 1.5 M SSW of Kap Renaissance. A valley, which connects a number of lakes, winds W from the coast at Pinseskæret, and the stream discharges into the fjord through a wide delta. On the N side of the stream valley lies a plateau, Sjællandsletten. S of the stream bed, the coast is covered with gravel for a distance of 10 M and there is a small bay here with some islands. This area is called Hjertefjeldsdal. Fynske Alper rises steeply to a height of 488 m and forms a rather unbroken coast line between Hjertefjeldsdal and a rather large stream, which lies 10 M further SSW.

Kap Holbæk 80º48'N 023º50'W lies 5 M S of the mouth of the above-mentioned stream. It is a promontory, which rises steeply on the S and E sides to heights of 183 m and 244 m respectively. The N side is lower and descends evenly to the water.

The coast between Kap Holbæk and the innermost part of the fjord consists of a flat ridge, which is 92 m high and separated by a wide valley from the land to the W.

11.2.1.2 Depths
The depths have not been surveyed.

11.2.1.3 Ice
Under normal conditions, the inner part of Danmark Fjord is ice-free in August.

11.2.1.4 Tides
There is only a slight difference between high tide and low tide in the inner part of Danmark Fjord.

11.2.2 Independence Fjord 82º12’N 022º15’W

11.2.2.0.1 Landmarks
The mouth of the fjord lies between Kap Rigsdagen and Kangeq Eigil Knuth (Kap København), and the fjord has a width here of 15 M, but the average width is about 10 M, and it extends 100 M to the W and WSW.

The S coast of Independence Fjord.
Kap Ludovika 82º00’N 024º00’W is the NW point of Valdemar Glückstadt Land. It is a low and flat point, which lies 14 M W of Kap Rigsdagen.
Kap Peter Henrik 82º00’N 025º10’W is the NE point of J.C. Christensen Land, which forms the S coast of Independence Fjord between Kap Peter Henrik and Astrup Fjord, 45 M further W. S of this land lies Mylius-Erichsen Land.
Kap Grundloven 82º025’N 027º10’W lies 20 M W of Kap Peter Henrik, and rises to a height of 305 m. Two streams discharge into Independence Fjord between these two points.
Kap Stadil 82º00’N 028º20’W lies 10 M W of Kap Grundloven. The ice-free part of the coast is narrow between these two points, but the land rises to a height of 607 m. Close W of Kap Stadil there is a small glacial tongue called Josephine Bræ, and 4 M further W there is a somewhat larger glacial tongue, Hugh Lee Bræ, which protrudes into Independence Fjord.
Kap Værslev 81º51’N 031º00’W lies 12 M SW of Kap Bøgebjerg 81º56’N 029º40’W, and the land between these points is called Ubberup Land. It rises to a height of up to 671 m.
Academy Land lies W of Ubberup Land, and it is separated from it here by Saxifragadal, through which a stream flows into the fjord.
Mylius-Erichsen Varde is 5 M SW of Kap Værslev on the SE side of Saxifragadal.
Kap Glacier lies 6 M SW of Mylius-Erichsen Varde and rises to a height of 610 m, but the coastal mountains NE of here rise to a height of up to 1,067 m. The northernmost of the two local ice caps that cover Academy Land lies E of the high coastal mountains.
Academy Gletscher lies in the inner part of Independence Fjord between Academy Land and Vildtland. Nansen Nunatakker lies where the glacier becomes part of the ice cap and rises to a height of up to 915 m. Other nunataks are Sadlen, between Nansen Nunatakker

and Vildtland, and Hjertet and Nyren close W off the S part of Academy Land. The N part of Academy Gletscher floats and is full of crevasses and at Kap Glacier it discharges icebergs out into Independence Fjord.
Vildtland lies W of the inner part of Independence Fjord and it borders Academy Gletscher to the S and Marie Sophie Gletscher to the N. The land rises to a height of up to 610 m in the N part, while in the S part it rises to heights of up to 915 m.
Navy Cliff 81º38'N 033º10'W lies on the E side of Vildtland and rises to a height of 854 m. There are a number of lakes in the NW part of Vildtland that are drained by several streams on the N side of the land 9 M W of Kap Lundbohm.
Kap Lundbohm 81º45'N 033º05'W lies 9 M N of Navy Cliff and is the NE part of Vildtland, but the point is difficult to discern. Between Kap Lundbohm and Kap Glacier, which lies 9 M further E, Academy Gletscher protrudes N. Marie Sophie Gletscher protrudes E out into the fjord between Kap Lundbohm and Kap Schmelck.
Støvlen 81º46'N 034º20'W lies 11 M W of Kap Lundbohm and is a glacier-filled indentation in the N side of Vildtland. Several streams discharge here. They drain the area and the lakes, the largest of which is Langesø.

The N coast of Independence Fjord.
Kangeq Eigil Knuth (Kap København) 82º24'N 022º10'W lies on the N side of Independence Fjord, directly S of Mudderbugten. From here to Kap Vårbrud 82º17'N 023º00'W, which lies 10 M further SW, the coast is low and has many streams.
Kap Caroline Marie 82º09'N 025º45'W lies 28 M WSW of Kap Vårbrud, and the coast between these points also has a number of streams.
Kap Harald Moltke 82º08'N 029º50'W is the N entrance point to Jørgen Brønlund Fjord, and from here the coastal area along Melville Land is a characteristically low and even area. The point itself is a low peninsula that faces S. The land N of this rises in terraces towards the highlands further N. On the peninsula, there is an easily recognisable pyramid-shaped mountain peak that rises to a height of 305 m.
Heilprin Land lies on the N side of Independence Fjord and S of Jørgen Brønlund Fjord. The central part of the land is covered by an ice cap and the land along the coast is steep and mountainous. The highest peak is 1,057 m on the SW side.
Kap Knud Rasmussen 82º06'N 029º55'W is the E point of Heilprin Land, and Kap Ejnar Mikkelsen lies 17 M further SW. The coast between these is called Blomsterstranden. This strip of coast has some vegetation and a rich fauna.
Diabasnæs is a small island that lies 3 M SW of Kap Knud Rasmussen. 15 M further SE there are two small islands, the largest of which rises to a height of 122 m.
Kap Schmelck 81º49'N 033º10'W is the S point of Heilprin Land and lies 10 M SW of Kap Ejnar Mikkelsen. On the stretch of coast between these two points, the ice cap protrudes close down to the coast and leaves only a narrow strip of land, which rises steeply to a height of 915 m. Valmuedal lies 7 M NW of Kap Schmelck and extends N between Heilprin Land and Adam Biering Land.
Lyngeholme is a small group of islands that lie 3-5 M E and NE of Kap Schmelck. The largest of these island rises to a height of 62 m.

11.2.2.0.2 Depths
The depths in Independence Fjord have not been surveyed.

11.2.2.0.3 Ice
In Independence Fjord, like most places in North Greenland, the line between the ice foot along the coast and the sea ice is difficult to discern, because there is only 0.5 m difference between high and low tide. In the outer part of the fjord, where the coasts are flat, the ice foot is broad and low and probably disappears in the summer, while in the inner part of the fjord, where the coasts are steep, it becomes more narrow and stationary, except in areas where streams discharge. Densely packed ridged ice has been observed in early June 1 M from Kap Rigsdagen, while the ice further out was flat and level. There are often many icebergs in the mouth of the fjord as well as further in. They originate from the glaciers in the inner part of the fjord. Palaeocrystic ice (sea ice that is several years old) has also been found in the outer part of the fjord, although mostly in the inner part.
However, ice has also been found along the coast at Kangeq Eigil Knuth (Kap København) which is only a single year old, and this shows that there has been open water during the previous year. Independence Fjord is almost ice-free in some summers. Many small icebergs have been found in Jørgen Brønlund Fjord in mid-June, but they were blown by the wind into the fjord from the SE side of Independence Fjord. A wide belt with open water between the ice and the coast was observed at the same time along Heilprin Land. Many seals have been observed in the area.

11.2.2.1 Hagen Fjord 82º00’N 024º30’W
The mouth lies between Kap Ludovika and Kap Peter Henrik, which lies 12 M further W. The fjord extends 13 M in a S direction from Independence Fjord and then 20 M to the WSW, where it ends in a glacier.
The point on the W coast where the fjord turns to the WSW is called Kap Bernhard.

11.2.2.1.1 Depths
The depths are unknown.

11.2.2.2 Astrup Fjord 81º57’N 029º35’W
The mouth of the fjord lies between Hugh Lee Bræ and Kap Bøgebjerg, 3 M further SW, and it extends 5 M S.
There are a number of small islands in the middle of Astrup Fjord.

11.2.2.2 Depths
The depths are unknown.

11.2.2.3 Jørgen Brønlund Fjord 82º06'N 029º50'W

The mouth of the fjord lies between Kap Harald Moltke and Kap Knud Rasmussen, which lies 2.5 M further S. The fjord extends 15 M NW and W and in its inner part it becomes Wandel Dal, which extends W to J.P. Koch Fjord. This valley contains Midsommer Sø, a large and long lake, whose W side is only separated from J.P. Koch Fjord by a 12 M wide isthmus.

11.2.2.3.1 Depths

The depths are unknown.

11.2.3 Hellefiskefjord 82º51'N 023º45'W

The fjord, which extends 5 M S and SSW, lies on the W side of Clarence Wyckoff Bjerg. Wyckoff Land is a peninsula between Hellefiskefjord and G.B. Schley Fjord. Peary Varde is on the NW side of the peninsula.

11.2.4 G.B. Schley Fjord 82º57'N 024º40'W

The mouth of the fjord lies between the point of Peary Varde, 5 M NW of Kap Clarence Wyckoff, figure 11.6 and Kap Isak Glückstadt, 7 M further NW. The fjord extends 20 M to the WSW and a number of streams discharge into its inner part.
Ormen is a short fjord branch, which extends 3 M inland in a WSW direction at the NW side of G.B. Schley Fjord.

11.2.5 Frederick E. Hyde Fjord 83º14'N 025º30'W

The mouth of the fjord lies between Kap John Flagler and an unnamed point 10 M further NW. The fjord itself extends 85 M WSW to Nordpasset, a valley that extends a further 9 M W to O.B. Bøggild Fjord. On the S side of the fjord between 40 and 75 M WSW of Kap John Flagler lies Nordkronen, a ridge, 1,219 m, from where a number of glaciers protrude out into the S side of the fjord. There are many gorges here with steep sides.

11.2.5.1 Citronen Fjord 83º08'N 028º20'W

The fjord is a small fjord on the S side of Frederick E. Hyde Fjord. It extends 3 M in a S direction. Several streams discharge at the head of the fjord.

11.2.5.2 Freja Fjord 82º55'N 031º40'W

The fjord is a small fjord on the S side of Frederick E. Hyde Fjord. It extends 4 M in a S direction and in its inner part becomes Balder Gletscher, which originates from Nordkronen. Wistar Bjerg, 1,737 m, is the highest point on Peary Land and lies 70 M WSW of Kap John Flagler. The mountain formations along the S side of Frederick E. Hyde Fjord rise steeply to large heights and reach a height of 1,100 m outside Hans Egede Land.

11.2.5.3 Thor Fjord 82º55'N 033º50'W

The fjord lies 15 M WSW of Freja Fjord and is a similarly small fjord arm, which extends 12 M in a S direction and is surrounded on both sides by high, steep mountain formations.

11.2.5.4 Odin Fjord 82º54'N 035º15'W

The fjord lies 10 M W of Thor Fjord and extends 9 M to the S, where it ends in Ymer Gletsher. The N stretch of coast along Frederick E. Hyde Fjord is very different from the S side and is characterised by long mountain ranges with many peaks. There are only a few glaciers and, with the exception of Drivhuset, the mountain ranges are indented by only a few small, narrow valleys.

11.2.5.5 Frigg Fjord 83º03'N 032º20'W

The fjord lies on the N side of Frederick E. Hyde Fjord and 50 M inside the entrance. The fjord extends 10 M in a NW direction and ends at a large delta. There are two islands in the inner part. Drivhuset is a wide, flat valley that extends N and NW from the inner part of Frigg Fjord. The valley is surrounded by mountains on both sides and 4 glaciers protrude from the mountains on its N side.

11.3 Harbours and anchorages (airfields)

The area between Nordostrundingen and Kap Morris Jesup has never been navigated and no exact depths are available.

Station Nord 81º43'N 017º57'W

The station is a Danish military station under Joint Arctic Command (AKO). There is a good airfield here that can be used all year round in an emergency. The airfield is used to supply Station Nord, which is easiest in the spring, before the snow on the runway melts. All larger provisions are sent via Pituffik (Thule Air Base), from where everything is flown to Station Nord. Outside of the supply period, there are usually flights to Station Nord once a month, or when required by the conditions and when the weather allows for take-off and landing in the area.

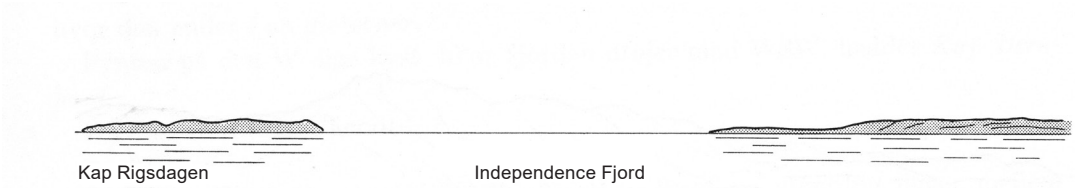

Fig. 11.2 - The entrance of Independence Fjord.

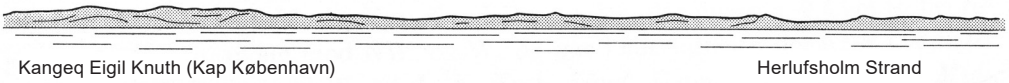

Fig. 11.3 - Kangeq Eigil Knuth (Kap København) bearing 315°, distant 12 M.

Fig. 11.4 - Herlufsholm Strand, seen from 12 M E of E part of Peary Land.

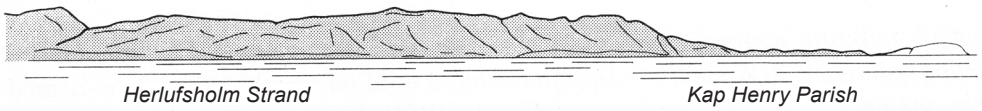

Fig. 11.5 - Herlufsholm Strand – Kap Henry Parish, seen from 12 M E of E part of Peary Land.

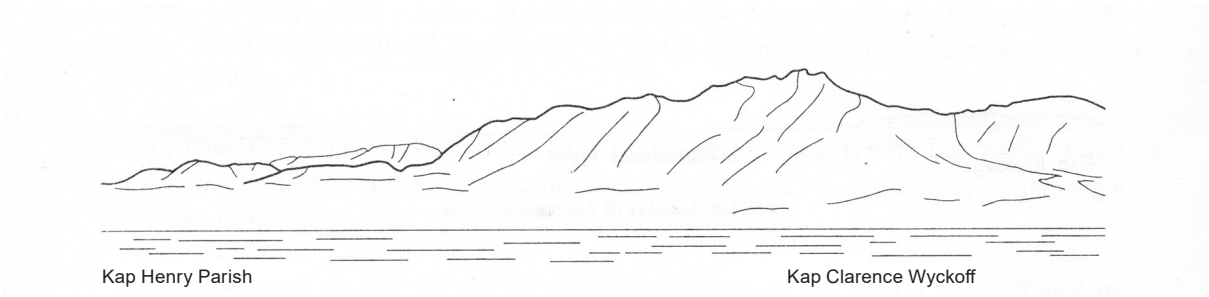

Fig. 11.6 - Kap Clarence Wyckoff bearing 270º, distant 4 M.

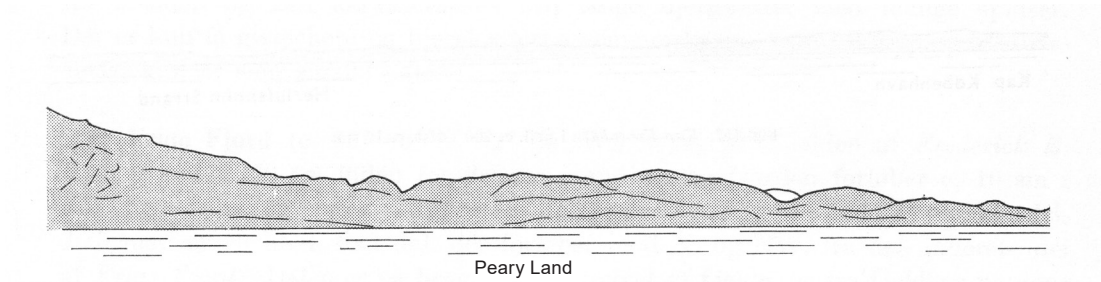

Fig. 11.7 - The N coast of Peary Land, seen in SW direction.

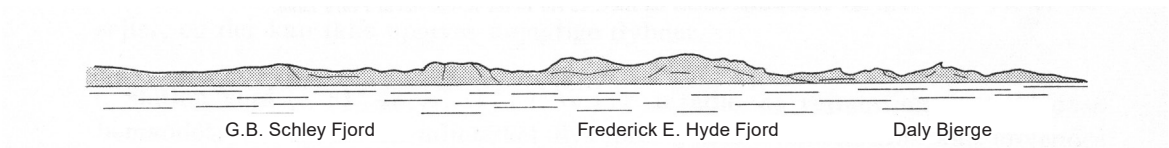

Fig. 11.8 - The coastal area of Peary Land from G.B. Schley Fjord - Frederick E. Hyde Fjord bearing 225º.

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