

Greenland Pilot

Sailing Directions for West Greenland

1st Edition, 2018

Danish Geodata Agency

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for
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Agency

Record of amendments – Danish Chart Corrections

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Preface

Greenland Pilot – Sailing Directions for West Greenland describes the west 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 Den Grønlandske Lods I, Vestgrønland, 1966.
The collection of accurate information about the West 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 West 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 publication Greenlandic place names are written with new Greenlandic orthography. On the charts covering the West Greenlandic waters, place names are written in old and new Greenlandic orthography. Old orthography can be found on charts based on Qornoq 1927 datum and on charts based on unknown datum. New orthography can be found on charts based on WGS-84 datum.
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 West Greenland** has been corrected to Danish Chart Corrections 51-52/2018, 11th January 2019

Danish Geodata Agency
11th January 2019

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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, Vandtårnsvej 83A, 2860 Søborg, Denmark, tel. +45 4322 7300, e-mail: distribution@rosendahls.dk, www.rosendahlsboghandel.dk.

Publishing

Danish Geodata Agency publishes charts covering Danish, Greenland and Faroese waters.
The following publications are published in Danish and English: Chart (INT 1)[1] (symbols, abbreviations and terms used on charts), Behind the Nautical Chart[1] (surveying, reliability and use) and Danish Chart Corrections[1], Greenland Pilot – General informaton about East Greenland[1], Greenland Pilot – Sailing Direction for East Greenland[1], Greenland Pilot – Sailing Direction for West Greenland[1].
The following publications are published in Danish only. Catalogue of nautical publications including Index Danish charts and Index Greenland and Faroese Charts, Sailing Directions concerning Danish and Faroese waters. Updated information (in Danish only) on all Danish harbours and bridges can be accessed on www.danskehavnelods.dk.
Updated harbour information (in Danish only) on all Greenlandic towns, settlements and stations can be accessed on www.gronlanskehavnelods.dk.
Information on current editions of charts and latest print of these is given continuously on www.gst.dk.
Publication of charts (new editions, updated reprints and new charts etc.) are announced in Danish Chart Corrections.
Updated reprints do not cancel the previous print of the same edition but due to the continuous correction work users are advised to order updated reprints. When extensive changes occur the charts will be published as new editions, which will cancel the previous edition. As updated charts are most important for safe navigation users are recommended to keep charts updated and always use the latest edition. Cancelled charts and publications should not be used as Efterretninger for Søfarende (EfS) (Danish Notices to Mariners)[2], Danish Chart Corrections and supplements to the publications only refer to the latest edition.
Please note that corrections to charts after the date of printing must be carried out by the user.

Updating

Danish Geodata Agency weekly publishes Danish Chart Corrections, 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.

1 Available as free publication on www.gst.dk.

2 Available as free publication on www.soefartsstyrelsen.dk.

EfS brings 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. EfS can be accessed on www.soefarts-styrelsen.dk. Users of Danish Chart Corrections with internet access can free of charge download the publication to their own PC or print corrections from the Danish Geodata Agency website.
The digital editions of Efterretninger for Søfarende and Danish Chart Corrections will normally be published every Friday, are free and can be received by email with attachment via subscription service. Registration and deregistration of subscription may be done on www.soefartsstyrelsen.dk.
Notifications of errors and/or omissions on charts and nautical publications are welcome and should be submitted to:

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Lindholm Brygge 31
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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 cor-responds 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	metre
km	kilometre	m/sec	metres per second
kn	knot(s)	UTC	Universal Time Coordinated
M	nautical mile(s)	ºC	degrees 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 West Greenlandic place names used on charts and in publications:

Greenlandic new orthography	Greenlandic old orthography	English
Ikeq, Ikerup *)	Ikeq	Bay, broad, sound
Ikerasak, Ikerasaa *)	Ikerasak	Sound (seaway)
Ikersuaq		Big bay, broad, sound
Ikkanneq, Ikkannera *)		Bank
Ikkarluit	Íkardluit	The skerries
Ikkarluk, Ikkarlui *)	Íkardluk, íkardlue *)	Skerry
Ikkarlunnguaq	Íkardlúnguaq	Small skerry
Ikkarlussuaq	Íkardlugsssuaq	The big skerry
Ikkattoq	Íkátoq	The shallows
Imaq, Imaa *)	Imaq, Imâ *)	Sea, ocean

Greenlandic new orthography	Greenlandic old orthography	English
Imarsuaq	Imarssuaq	Big sea area
Imartuneq	Imartuneq	Bay, broad, gulf
Inussuk	Inugsuk	Cairn
Isortoq	Isortoq	The turpid, muddy one
Itineq, Iterna *)		Trench
Kangaarsuk	Kangârssuk	Promontory, cape
Kangeq	Kangeq	Promontory, cape
Kangerluarsuk	Kangerdluarssuk	Small fjord
Kangerluk, Kangerlua *)	Kangerluk, Kangerlua *)	Fjord
Kangerlussuaq	Kangerdlussuaq	Big or long fjord
Kingittoq	Kingigtoq	Tower
Kinngaq	Kíngaq	Mountain
Kuuk	Kûk	River, stream
Kuussuaq	Kûgssuaq	Big river, stream
Marraq	Marraq	Clay
Nuna, Nunat, Nunaa *), Nunap *)	Nuna, nunat, nunâ *), nunap *)	Land, lands
Nuuk	Nûk	Foreland, promontory
Nuussuaq	Nûgssuaq	Big foreland, promontory
Palasip Qassuserfia		Stedet, hvor præsten sætter garn
Qaqqaq	Qáqaq	Mountain
Qeqertaq	Qeqertaq	Island
Qeqertarsuaq	Qeqertarssuaq	Big island
Qeqertat	Qeqertat	Islands
Sarfaq, sarfat	Sarfaq, sarfat	Current, currents
Sarfarsuaq	Sarfarsuaq	Strong current
Sineriak, Sineriaa *)		Coast
Sioraq	Sioraq	Sand
Talittarfik, talittarfiat *)		Berth, pier, quay
Tini	Tine	Low water
Umiarsualivik, Umiarsualivia *)		Harbour, port

*) 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

Kangerluarsussuaq (Grædefjord) – Sermersuut (Hamborgerland)

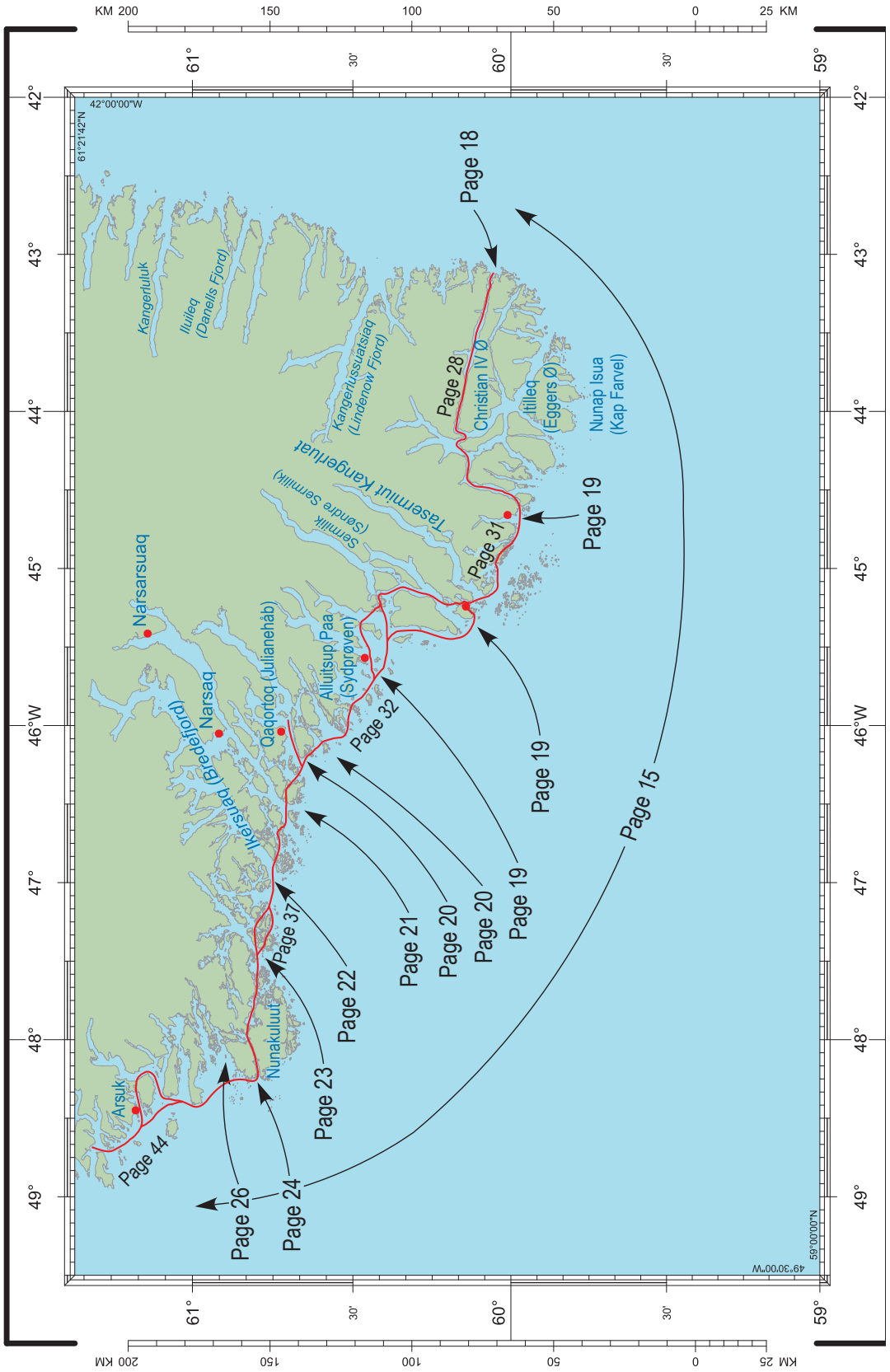


Fig. 1.1

CHAPTER 1

Nunap Isua (Kap Farvel) – Ilorput (Arsuk Fjord)

Area 60º04'N 043º02'W – 61º06'N 048º16'W

Charts: 1000, 1001 (Unknown), 1100, 1103, 1113, 1114, 1115, 1116, 1117, 1118, 1130, 1131, 1132 (Qornoq 1927), 1133, 1139 (WGS-84), 1145, 1146, 1150 (Qornoq 1927), 1151 (WGS-84), 1152 (Qornoq 1927), 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167 (WGS-84), 2100 (Qornoq 1927) and 2130 (Unknown)

1.1 Transit of the area
1.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
1.3 Inshore routes
1.4 Bird protection area

1.1 Transit of the area

The Qaqortoq (Julianehåb) area covers the entire area from the E entrance of Ikerasassuaq (Prins Christian Sund) to Ilorput (Arsuk Fjord). The area's S part consists of several larger islands, separated from the mainland by narrow sounds. The S tip of the southernmost of these islands, Itilleq (Eggers Ø), is called Nunap Isua (Kap Farvel). This promontory is only 300 m high, but N of here the land rises to considerably higher elevations that is alpine in nature. Fjords cut deeply into the coasts everywhere, and the N and W half of the area features an extensive archipelago. The S part of the waters off the coast between Kitsissut Kujalliit (Sydlige Kitsissut) and Kitsissut Avannarliit (Nordlige Kitsissut) and Nunakuluut is called Ikersuup Sioraa (Julianehåb Bugt) and the NW part is called Alanngorsuaq (Kobberminebugt).

1.1.1 Landmarks

If the land is passed at a distance, it is difficult to find landmarks in the S part of the area, which is quite high with a confused mass of mountain peaks. Naturally, Nunap Isua (Kap Farvel) itself cannot be seen from a large distance, whereas in clear weather, the mountains behind it can be seen from about 58º30'N (at a distance of 100 M from the coast).

Closer to land, however, it is relatively easy to find the characteristic mountains and points on Itilleq (Eggers Ø), including Nunap Isua (Kap Farvel), which can be seen as a small mountain peak in front of the rest of the land. The sounds between the larger islands to the S as well as the low Kitsissut Kujalliit (Sydlige Kitsissut) and Kitsissut Avannarliit (Nordlige Kitsissut) can also be seen. N of Ikigaat, the mountain Natsinnat can also be seen, with a

special shaped split top, from the W. S of Tasermiut Kangerluat, the mountain Kuinnginngeeq (Jakobinerhuen) can be seen, and on the N side of the inner part of Tasermiut Kangerluat, the awl-shaped Napasorsuaq (Kirkespiret) can be seen (Fig. 1.2). Qaqqarsuasik can be seen W of Nanortalik (steep slope to the W) and the high island Sermersooq can be seen N of here (Fig. 1.3). After entering the bay Ikersuup Sioraa (Julianehåb Bugt), the land inside decreases in height and the bay contains an archipelago with many large and small islands. At the same time, some characteristic mountains can be seen on the mainland to the E, such as Qaqortukuluup Qaqqaa (Qaqortoq Fjeld) (60º51'N 045º46'W), Killavaat (Redekammen) and Iviangiusat, all of which are ENE of Qaqortoq (Julianehåb) (Figs. 1.4, 1.5 and 1.11), the mountains N of here near Narsaq, including Ilimmaasaq (Figs. 1.4 and 1.5), as well as a lower, unbroken mountain mass to the N. To the NW, framed by darker, rounded mountains, part of the ice cap extends out over the lower mainland NE of Nunakuluut. Nunakuluut lies farthest to the NW, with its peaked and somewhat higher mountain masses, and is terminated to the W by Killavaat Nuugaatsiaat (Kap Desolation).

Landmarks on Nunakuluut also include the 472 m high Issilik (Malenefjeld) on the E point of the island, Alleruusat Kujalliit (Kap Thorvaldsen) on the S point of the island, and the mountain chain Killavaat on the W part of the island. Killavaat protrudes S out into Killavaat Nuugaatsiaat (Kap Desolation).
The low small islands of Qeqertat lie 10 M SSE of Issilik (Malenefjeld). Kitsissut (Ydre Kitsissut) and Kitsissut Tunorliit (Indre Kitsissut) lie W and NW of Nunakuluut. Among the islands in Kitsissut (Ydre Kitsissut), Uummannaq (Thorstein Islænder) is especially noticeable, which stands out from the other small islands due to its regular form and greater height. (Fig. 1.7).

From the sea, the land between Nunakuluut and Ilorput (Arsuk Fjord) has several landmarks. N of Nunakuluut, on Alanngorsuaq at the N side of Torsukattak, the 632 m high Alanngorsuup Qaqqaa and the recognisable, pointed, 625 m high Annikitsorsuaq can be seen. Just N of this, but only closer to land, a long, low section of the ice cap can be seen, Nordre Qipisaqqu Bræ, in the inner part of Alanngorsuaq (Kobberminebugt). The abandoned copper mine, Innatsiaat (Josvaminen), can be seen on the N side of Alanngorsuaq.

The tall, rugged, steep and brownish island of Sannerut lies N of Alanngorsuaq. Its protruding location and its small but pointed 903 m high peak is an excellent approach mark from the sea (Figs. 1.7, 1.8 and 1.9). Qeqertarsuaq (Storø) is also recognisable by its 3 peaks and, at a closer distance, by its small island, Uummannaarsuk, whose dark, cone-shaped peak can be seen at the W end of Qeqertarsuaq (Storø). The highest among all the mountains is the 1401 m high Kuunnaat, which in clear weather is also a good approach mark at larger distances.

1.1.2 Depths

In this area, the continental shelf with depths of less than 200 m extends 25 M from the coast. Outside the 200 m contour line, the depths increase rapidly to more than 3000 m.
It is only into Qaqortup Ikera (Julianehåbsfjord) and Ikersuaq (Bredefjord) that channels

penetrate from S with depths up to 500 m. The channels, which are very irregular, have widths ranging from 1 to 10 M.
Smaller channels penetrate from the S into Kangerluarsorujuk N of Saarloq and into Alluitsup Kangerlua (Lichtenau Fjord) and Uunartup Kangerlua (Uunartoq Fjord).
The only large bank with depths of under 100 m is Nanortallip Ikkannera (Nanortalik Banke), 15 M W of the island Sermersooq. There is a small area with a depth of 25 m 12 M S of Alleruusat Kujalliit (Kap Thorvaldsen). However, along parts of the coast there are many rocks and shallow depths whose positions are uncertain.

1.1.3 Ice conditions

Before passage through the Nunap Isua (Kap Farvel) area, the ship's master should obtain information about the extent of the ice, especially during the polar ice period, (mid-January to the end of July).
If the ship's destination is Paamiut (Frederikshåb) or farther north, ships should steer W of all observed ice.
Ice can be encountered in the Nunap Isua (Kap Farvel) area throughout the year. Icebergs and floes are often observed outside the polar ice period.
In the waters around Nunap Isua (Kap Farvel), where the polar ice apparently tends to accumulate somewhat when drifting from the E-coast, the ice belt can be over 100 M wide in May-June. Strong winds between N and E can push the ice far out into the Labrador Sea.
The waters between Nunap Isua (Kap Farvel) and Paamiut (Frederikshåb) can normally be navigated without obstacles outside the polar ice period. Access to the area may be blocked by polar ice at other times of the year.
Ships without special ice strengthening are advised not to navigate the area during the polar ice period. Even for ships with ice strengthening, navigating the area may be associated with major difficulties.
If they encounter significant quantities of polar ice, ships approaching the coastline Nunakuluut – Paamiut (Frederikshåb) should usually not enter the ice or steer E of it until after they have passed the latitude of Nunakuluut.
Ships should stay clear of the ice to the W, keeping along the ice edge as far as possible in order to take advantage of any opportunities to navigate through N of Nunakuluut.
If the ice is encountered far to the W, it is possible that its N extent is not located very far N. Ships wishing to approach the coastline can take advantage of this and navigate W and N of the ice.
If the end of the ice can also be seen S and E, there will be an opportunity to navigate in between the ice and the coast.
As it drifts northwards, on average the polar ice reaches Ilorput (Arsuk Fjord) in March. After passing Nunakuluut, the current carries it out from the coast somewhat and it is generally dispersed widely.
In exceptional cases, the stretch from Ilorput (Arsuk Fjord) to Kangerluarsussuaq (Grædefjord) may be blocked by polar ice in April and May. The blockage usually lasts for 2-3 weeks, and navigation then occurs in the shore lead from N.
Prolonged N wind conditions usually push the ice quite far W.

W and SW winds along the coast from Nunap Isua (Kap Farvel) to Paamiut (Frederikshåb) can push the ice hard against the coast, whereas winds from the N and E often result in shore lead.
The ice belt off the coast is usually widest in May and it reduces again in July. By the end of July, its N limit is at Nunakuluut.
In good summers, the ice does not extend further N than Nunakuluut.
It must be expected during the winter months (December – April) that fjords and inshore routes may be closed by winter ice. Along the coast, belts of new ice can be formed, which are often broken by the frequent storms.

(See also below under section 1.2.

1.1.4 Recording stations

In the waters SW of Nunap Isua (Kap Farvel) and E of Ikerasassuaq (Prins Christian Sund) a number of underwater recording stations with least depth between 50 m and 100 m have been deployed. These instruments are unmarked.
For more detail, see Danish Notices to Mariners, no. 39-774-18.

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

1.2.1 Ikerasassuaq (Prins Christian Sund) E approach
1.2.2 Ikerasassuaq (Prins Christian Sund) Weather Station
1.2.3 Narsarmijit (Frederiksdal)
1.2.4 Nanortalik and Tasiusaq
1.2.5 Alluitsup Kangerlua (Lichtenau Fjord) and Uunartup Kangerlua (Uunartoq Fjord) Alluitsup Paa (Sydprøven) and Ammassivik (Sletten)
1.2.6 Kangerluarsorujuk, Saarloq and Eqarlugaarsuit
1.2.7 Qaqortup Ikera (Julianehåbsfjord), Aniaaq (Igaliku Fjord), Qaqortoq (Julianehåb), Upernaviarsuk and Igaliku
1.2.8 Narluneq (Skovfjord) and Tunulliarfik, Narsaq, Narsarsuaq and Qassiarsuk
1.2.9 Ikersuaq (Bredefjord)
1.2.10 Qaqqaligaatsiaq Fjord
1.2.11 Torsukattak W approach and Torsukattak
1.2.12 Alanngorsuaq (Kobberminebugt)

1.2.1 Ikerasassuaq (Prins Christian Sund) E approach

60º04'N 043º02'W, charts 2130, 1103, 1100, 1150 and 2100
When approaching from E, the land N of the entrance is easily recognisable by a large, sloping white surface (which is a glacier), and the land S of the entrance has very jagged mountains. Furthermore, the easily recognisable, dark brown island of Aluk Avalleq

(Fig. 1.10), which lies 6 M N of the sound, and the reddish brown Toqulineq islands, which have been strongly scoured by the ice and lie S of Aluk Avalleq, provide good guidance for approach.
On course 260º, steer in towards the weather station's radio masts at the top of the terrain on the S side of the sound, in at least 100 m depth of water.
Since the S-flowing current occasionally reaches a fairly high speed, do not steer too far S during the approach due to underwater rocks, over which there are usually breakers, even with minor swell, and the current in the approach can also form deep eddies.

1.2.2 Ikerasassuaq (Prins Christian Sund) Weather Station, see charts 2130 and 1150.

Inshore route Ikerasassuaq (Prins Christian Sund) E approach – Narsarmijit (Frederiksdal), see section 1.3.1.

1.2.3 Narsarmijit (Frederiksdal) 60º00'N 044º40'W, charts 1130 and 1150

Ships that approach Narsarmijit (Frederiksdal) from S should sight Naajat, the island furthest SE in Kitsissut Kujalliit (Sydlige Kitsissut) and pass E of this island at a distance of 2 M. From here, steer NNW, W of the small island 1 M S of Oqaatsortalissuaq to Narsarmijit (Frederiksdal) W leading lights. This is also approached by ships from NW (Nanortalik) until it is possible to navigate mid-channel up into the fjord, well clear of the easternmost islet SE of Oqaatsortalissuaq.
The SSE route out from Narsarmijit (Frederiksdal) is usually used during navigation to the E coast and to the open sea and in the opposite direction.

1.2.4 Nanortalik and Tasiusaq

Nanortalik 60º08'N 045º15'W, charts 1150, 1131 and 1113
Ships that approach Nanortalik from S and W will, at a great distance, easily recognise the steep, W-sloping mountains on Sermersooq, as well as the 559 m high mountain Qaqqarsuasik, 2 M W of Nanortalik. To approach from S, steer W and N of the group of islands Kitsissut Kujalliit (Sydlige Kitsissut) and Kitsissut Avannarliit (Nordlige Kitsissut) and then either W of Uummannaarsuk, between Qeqertaq and Inussuttalik, or S of Inussuttalik and further N between this and Taateraakasik, then E of the islands and rocks E of Uummannaarsuk and up towards Qujanartup Qinngua (Kirkegårdsbugten). The channel W of Uummannaarsuk should not normally be used during the polar ice period, as the channel is easily blocked by ice. The channel E of Uummannaarsuk is marked with lights and in low-visibility weather is well recognisable by radar.
Tasiusaq in Tasermiut Kangerluat, see chart 1100.

1.2.5 Alluitsup Kangerlua (Lichtenau Fjord) and Uunartup Kangerlua (Uunartoq Fjord), Alluitsup Paa (Sydprøven), Ammassivik (Sletten)

and Qallimiut

The charts provide directions for navigation.
Alluitsup Paa (Sydprøven), 60º27.8'N 045º34.2'W, charts 1113, 1114 and 1150.
Ammassivik (Sletten), 60º35.8'N 045º23.7'W, chart 1114.
Qallimiut, 60º42.5'N 045º22.0'W, chart 1114.

1.2.6 Kangerluarsorujuk, Saarloq and Eqarlugaarsuit

The charts provide directions for navigation.
Saarloq, 60º32.3'N 046º01.9'W, charts 1114 and 1150.
Eqalugaarsuit, 60º37.4'N 045º54.8'W, chart 1114.

1.2.7 Qaqortup Ikera (Julianehåbsfjord), Qaqortoq (Julianehåb), Aniaaq (Igaliku Fjord), Upernaviarsuk and Igaliku

Qaqortoq (Julianehåb), 60º43'N 046º02'W, charts 1132 and 1151.
Qaqortoq (Julianehåb) is located at Qaqortup Ikera (Julianehåbsfjord), one of the outer branches of Aniaaq (Igaliku Fjord).

1.2.7.1 Approach

The previously mentioned very recognisable mountains serve as approach points for Qaqortup Ikera (Julianehåbsfjord): Killavaat (Redekammen), the mountains around Narsaq and others (Figs. 1.4 and 1.11). Due to their high altitudes, they are visible in clear weather at large distances. Viewed from S, Uummannarsuaq within Saarloq is also very recognisable (Fig. 1.11). Killavaat (Redekammen), however, is not seen in its most characteristic shape. An excellent approach mark when the mountain peaks are covered in clouds, which they often are, is provided by the large, 500 m high island of Tuttutooq (Langey), which resembles a long dark ridge, sharply prominent behind the lower archipelago in front. Isaarutip Nunaa (Hollænderø), which is easily recognisable from a short distance, especially because of the flat plateau that forms the SE part of the island, is not very striking from farther away because it blends into the hinterland.
The waters off Qaqortup Ikera (Julianehåbsfjord) are generally free of dangers. Due to underwater rocks, however, the waters off Saarloq and the distinctive island of Uummannaq should not be approached too closely. Surf has been observed in several places SW of Uummannaq. Approaching Killavaat (Redkammen) over the low W point of Akia or Ilimmaasaq over the highest peak of Naajarsuit Qaqqaat (Nordfjeld), the fjord can be approached in waters free of dangers (Figs. 1.12 and 1.13).
The fjord itself is also very free of dangers. Due to underwater rocks, keep 1 M W of the island of Ivissuartooq, located on the SE side of the entrance to Qaqortup Ikera (Julianehåbsfjord). Ikkarluit (Sorteskær) on the N side of the fjord can be approached closely. The waters between the islands E of Isaarutip Nunaa (Hollænderø), W of Paarliit, are less clear, but can be navigated with caution by smaller vessels.
After passing Paarliit, steer towards the lights of Inussuk (Hvidenæs) on the S point of the coast and from there to Qaqortoq (Julianehåb).
The mountains at Qaqortoq (Julianehåb), Naajarsuit Qaqqaat (Nordfjeld), Alanngorsuaq

(Harefjeld) and Saqqaarsuaq (Storefjeld) are significantly higher than the outer islands. A recognisable cave, Qaarusussuaq (Uglspils Hule) can be seen on the SW side of Naajarsuit Qaqqaat (Nordfjeld).

1.2.7.2 Choice of route

If navigation of Ikersuup Sioraa (Julianehåb Bugt) does not seem possible due to large masses of ice, a choice must be made between immediately trying to navigate through the ice, waiting for the ice to disperse and then sailing through it, or completely bypassing it. The first option is only recommended when the ice front is so narrow, the wind and weather conditions are so favourable, and the ice is so scattered that there is hope of getting through without too much delay. After several days of calm, the ice is generally well dispersed, but after strong NW winds, it is usually packed in strips with an E-W direction and with open water inshore and between the strips.

Even when the E part of Ikersuup Sioraa (Julianehåb Bugt) is filled with ice, it is often possible to meet favourable ice conditions closer to Nunakuluut when the drifting ice has not yet reached that far.

If this access is also blocked, it will be necessary to resort to the second or third option. The option that should be chosen depends first and foremost on the size of the blocking masses of ice, on the actual condition of the ice, and on the prospects of possible changes to the wind, weather, etc. The time of year also plays a role here. If it is so early in the year that the inshore route along Torsukattak (the sound between Nunakuluut and the mainland) to Qaqortoq (Julianehåb) is still frozen (until the beginning of June), a route must be chosen either straight in from Ikersuup Sioraa (Julianehåb Bugt) or possibly through the archipelago from Nanortalik to Qaqortoq (Julianehåb). Generally, if Ikersuup Sioraa (Julianehåb Bugt) is entirely blocked by a wide, impermeable mass of ice, and if the winter ice on the inshore route can be assumed to be broken up, one should immediately sail further NW around the ice in order to investigate the ice conditions N of Nunakuluut, off Ilorput (Arsuk Fjord).

It will often happen that it is already possible here to pass N through the entire mass of ice, and even if this is not the case, the ice may be so scattered that it is possible to reach Torsukattak.

Due to the very different ways in which the polar ice can occur near Ikersuup Sioraa (Julianehåb Bugt), one may be forced, when heading for Qaqortoq (Julianehåb), to choose between all the different channels that lead to the town through the archipelago area. You should also be aware of the harbour of refuge/anchorages that can be used to anchor or moor if you are surprised by polar ice approaching during navigation.

Qaqortoq (Julianehåb), see charts 1132 and 1151.

Upernaviarsuk, 60°45.0’N 045°53.8’W, see chart 1115.

Igaliku, 60°59.6’N 045°25.4’W, see chart 1115.

The chart provides directions for navigation of Upernaviarsuk and Igaliku respectively.

Inshore routes to Qaqortoq (Julianehåb), see section 1.3.

1.2.8 Narluneq (Skovfjord) and Tunulliarfik, Narsaq, Narsarsuaq and

Qassiarsuk

Narluneq (Skovfjord), approach, 60º41'N 046º31'W and Tunulliarfik, Narsaq, Narsarsuaq and Qassiarsuk, charts 1132, 11, 1116, 1115 and 1100.

1.2.8.1 Landmarks

In clear weather, the mountains Ilimmaasaq (at Narsaq), Alanngorsuaq (SSW of Narsaq), Nunasarnaasaq and Killavaat (Redekammen) (E of Narsaq) are excellent approach points for use at greater distances. If the high mountain peaks are covered with clouds, the long, dark ridge of the island of Tuttutooq (Langey) will provide good directions.
In the mouth of Narluneq (Skovfjord), in the direction of the fjord, there are a number of islands that divide the inlet to the fjord into a S and SW approach.

1.2.8.2 Breakers

Breakers have been observed, probably above underwater rocks, 6 M WSW and 6 and 7 M W of Angisit.

1.2.8.3 Navigation

The S approach, Qoornoq, between Simiutaq and Isaarutip Nunaa (Hollænderø) with the islets located S of this, is free of dangers mid-channel and is used by larger ships. When steering towards the SW side of the ridge on Tuttutooq (Langey), ships approaching from S will have sight of the islands SW of Simiutaq.
Two beacons on the W side of Isaarutip Nunaa (Hollænderø) lead from the sea to the entrance.
The SW approach should not be used, as it can often be blocked by ice and is otherwise very foul.
Ships approaching from W should not navigate closer than 2.5 M to the mouth of the fjord or navigate further N than 60º35'N, as there may be more rocks than the ones indicated on the chart. Furthermore, the underwater rocks that extend out towards the centre of the channel in the W part of the mouth of the fjord are only indicated approximately on the chart, and there are only breakers on them occasionally with a regular swell. A rock, which is dry at low tide, lies 3.4 M WSW of Angisit.
Narluneq (Skovfjord) and Tunulliarfik are also clear mid-channel.

1.2.8.4 Current

During the summer in mild weather, the surface current in Narluneq (Skovfjord) almost always runs at low speed out into the fjord.

1.2.8.5 Ice conditions

When the polar ice has reached Narluneq (Skovfjord) during its drift from S, the outer part of it is quickly filled with ice. The ice only extends in past Isaarutip Nunaa (Hollænderø) with a moderate breeze from S, and less ice can always be expected in Narluneq (Skovfjord) than

in Ikersuaq (Bredefjord).

Narsaq, Narsarsuaq, see charts 1115 and 1151.
Qassiarsuk, see chart 1115.

1.2.9 Ikersuaq (Bredefjord), approach, 60º44'N 047º00'W, charts 1100, 1116, 1161 and 1162

Ikersuaq (Bredefjord) is the widest and longest of the fjords in the Qaqortoq (Julianehåb) area, and is also distinguished by its large depth. The inner part of Ikersuaq (Bredefjord), Nordre Sermilik, contains one of South Greenland's largest glaciers, Eqalorutsit Kangilliit Sermiat. This glacier produces large quantities of bergy bits which can be quite troublesome on mid-summer days, when the winter ice has broken up. The icebergs from Eqalorutsit Kangilliit Sermiat are quite large, and it is common for them to rise to a height of 20-30 m above the water. The icebergs from the glacier consist mainly of white ice.

1.2.9.1 Approaching Ikersuaq (Bredefjord)

In addition to the mountains on Nunakuluut, steering and approach points that are recognisable and useful from long range in clear weather include the high, distinctive mountains NE of Narsaq, Ilimmaasaq, Illerfissalik (on the S side of Tunulliarfik) and Killavaat (Redekammen) (Figs. 1.11 and 1.14), as well as the long, dark island of Tuttutooq (Langey) located in front of them. When approaching the lower mainland and the archipelago, the island of Upernivik is especially noticeable, with its fairly even surface, its smooth foreland sloping to SE and its brownish colour, which contrasts greatly with its surroundings. When approaching from E, keep clear of the mentioned breakers and rocks, see section 1.2.8.
Approaching from W, by keeping Ilimmaasaq in the middle of Upernivik (Fig. 1.14), it is possible to go clear S of the archipelago on the NW side of the entrance and get sight of an isolated, low and completely barren small rocky island, Avalleq, on the N-side of the entrance to the fjord.
ESE of Avalleq, at a distance of 6 M, Avalleq is located in the S part of the entrance, which in addition to the island of Arfiorfik, also has underwater rocks 1 M S.
As one approaches Ikersuaq (Bredefjord), keep further SE to stay well clear S of Avalleq. It is now possible to orientate oneself and find the most recognizable points in the part of the approach furthest W, such as Terianniaqqat (Rævefjeld) and Takisoq (lattice beacon) with surrounding islands, all of which are light in colour.
The light foreland on the S side of Upernivik must not be approached too closely due to a shoal. If the ice is densely packed here, steer along the W side of Upernivik and then N and E of this island. Beware of the four rocks between Qassimiut and Upernivik, but they are right at the water-line at high tide. However, the rock furthest E of the rocks E of Isilliaqqat is never visible above the water. If one has passed in around the island of Upernivik due to the underwater rocks in the part of Ikerasak furthest S, do not approach closer to the E side than

mid-channel. The rock is located well over after the SW tip of Apoqattaaq and is large in scale.

1.2.9.2 Inner part of Ikersuaq (Bredefjord)

The inner part of Ikersuaq (Bredefjord) is free of dangers everywhere when keeping a reasonable distance to the shore. In branches and coves, the depths are significantly smaller furthest in, see chart 1115. Caution is advised when navigating the area.

1.2.10 Qaqqaligaatsiaq Fjord, 60º42'N 047º41'W, charts 1100, 1117 and 1164

The inner continuation of the fjord is called Sermilik and is bounded to the NW by the E side of Nunakuluut, the islands N of here and Saqqarmiut Timaat, and to the SE by an extensive cluster of large and small islands called Qassimiut Skærgård, whose part furthest W consists mainly of low islets and rocks. The middle part, however, consists of larger and higher islands.

1.2.10.1 Landmarks

The island of Uummannai lies in the mouth of the fjord, ESE of Issilik (Malenefjeld). It is recognisable by its two sharp peaks (Fig.1.16). E of this lies Saattut, which is a small, isolated cluster of small islands. On the highest of them is a beacon with a globe.
In addition to Issilik (Malenefjeld) and the mountains located further SW with the promontory Alleruusat Kujalliit (Kap Thorvaldsen), ships approaching from S or SE have good guidance in the ice cap around the glacier in the inner part of the fjord Sermilik, as well as in the three low islets Qeqertat, about 8 M SSE of Issilik (Malenefjeld). Qeqertat must not be approached too closely S due to underwater rocks.

1.2.10.2 Ice conditions

The waters S of Nunakuluut and outside Qaqqaligaatsiaq Fjord will often provide fairly favourable ice conditions, even when the E part of Ikersuup Sioraa (Julianehåb Bugt) is filled with ice, and the ice only reaches the islands N of Issilik (Malenefjeld) during persistent S winds. One should therefore navigate into Qaqqaligaatsiaq Fjord when one approaches from outside and sees the ice extending all the way into Qassimiut Skærgård.

1.2.10.3 Approach

Enter the fjord W of Uummannai, but closest to Issilik (Malenefjeld). The fjord will now be seen to open inwards, and the islands E of Takisut will also be visible ahead, apparently as a low, humped unit. Steer up towards the E end of these, and to starboard one will pass a very scattered cluster of small islands and rocks, between which the waters are foul. The waters between Saattut and Qeqertasussuk also belong to the least investigated area on this stretch.

1.2.10.4 Current

The surface current almost always, both in summer and winter, runs out of the fjord Sermilik, and only runs inwards in stormy gales from S. The main reason for this outgoing current is the large quantities of melt water flowing into the fjord from the ice cap.

1.2.11 Torsukattak W approach, 60º48'N 048º17'W, charts 1100, 1117,

1145 and 1166

1.2.11.1 Landmarks

Approaching from W or NW in clear weather, there are excellent bearing marks and transit marks in the distinctive mountains around Ilorput (Arsuk Fjord). As one approaches Nunakuluut, this island's distinctive mountain range, Killavaat, which rises to a height of 706 m, and later the promontory Killavaat Nuugaatsiaat (Kap Desolation), will be easily recognisable. Finally, two groups of small islands appear, Kitsissut (Ydre Kitsissut) and Kitsissut Tunorliit (Indre Kitsissut). Among Kitsissut (Ydre Kitsissut), Uummannaq (Thorstein Islænder) (Figs. 1.7 and 1.15) is especially noticeable, as its greater height and its shape make it stand out from its closest surroundings, so that it cannot be mistaken for anything else. Once it has been sighted, it is easy to find out which islands belong to Kitsissut (Ydre Kitsissut). Keep N of these. The islands furthest NW of Kitsissut (Ydre Kitsissut) are two quite small, isolated islands that can be approached quite closely.
Among Kitsissut Tunorliit (Indre Kitsissut) is the island of Tulugartalik, which rises to a height of 58 m and is the only conspicuous island.

1.2.11.2 Approach

If approaching Torsukattak from N, keep N of Kitsissut (Ydre Kitsissut) while steering somewhat W of the two mentioned isolated islands furthest NW. This is due to underwater rocks W and S of Kitsissut Tunorliit (Indre Kitsissut). 2 M W of Tulugartalik is an underwater rock, on which the sea breaks at half low tide. The waters between Kitsissut (Ydre Kitsissut) and Kitsissut Tunorliit (Indre Kitsissut) are otherwise free of dangers. However, one should keep closest to Kitsissut (Ydre Kitsissut) during approach.
The S side of the mouth of Torsukattak is marked by a distinct, lower, protruding mountain with two recognisable little peaks. 3.5 M SSE of Tulugartalik, two small, quite low islets can be seen, of which the one furthest N is the smallest. Steer in close N or S of the furthest S of these islets (not N of both). Since there is also a shoal with a rock of 0.5 M E of the islet furthest N, do not sail too close to it. From here, keep mid-channel into Torsukattak between the island (with the underwater rocks to the W) on the S side and the 5 m shoal on the N side of the entrance. The entrance is marked with beacons.
If one approaches from S and intend going through Torsukattak, steer in between Kitsissut (Ydre Kitsissut) and Nunakuluut (with the islands close to the coast). The waters here are free of dangers mid-channel. There is a rock 0.7 M W of Naajatalik, over which the depth is 2.0 m.

1.2.11.3 Ice conditions

See below and section 1.1.3.

1.2.11.4 Torsukattak generally

Nature has divided the waters between the W entrance of Torsukattak and Ikerasassuaq into two sharply separated and different sections. The W part is rugged, foggy and bounded by steep sides. The E part is gentler, vegetated and with more sloping mountain sides. The gap between the two parts is Torsukattaap Ninninnera (Knækket), where the sound suddenly narrows to a width of 100 metres. It is this narrowing in connection with the high mountain

masses along the W part of Torsukattak that causes the difference between the E part and the W part of the sound, because the fog that is almost inseparable from the NW wind, is stopped by the W mountains of Nunakuluut. Only a long spit of fog manages to protrude into the W part, but without reaching further than to Torsukattaap Ninninnera (Knækket).
The waters are free of dangers fairly close to land all the way into Torsukattaap Ninninnera (Knækket). It is possible in many places to sail close along the coast, and it is only where the mountainsides are more sloping, or where there are small islands off the coast, that it is necessary to keep a distance of a ship's length.
When approaching from W, keep to the S side in order to maintain a view of the inner part of the sound and safeguard against any ice jams.

1.2.11.5. Anchorage

Illulinnguaq (Stærkodder Havn), 60º48.8'N 048º08.8'W, charts 1145 and 1166
The harbour is completely free of dangers. The E side is formed by a flat spit of land protruding SW, whose outer foreland is an island at high tide. Just inside the island is a gully and inside that there is a small cove. On the higher ridge, which forms the E side of the cove, there is a large, loose stone block. When this is drawn to the N side of the cove, it is possible to anchor in depths of 18-22 m (Fig. 1.17).
It is not possible to anchor within the anchor mark. It is better to anchor a little outside, because from point A (see Fig. 1.17) over towards a small foreland under the stone for stern moorings, there are a number of rocks and large cobbles with a minimum depth of 0.9 m. The seabed is somewhat soft, and since the depth diminishes rapidly, stern moorings must be established to the small headland on the NW side of the bay, where there are good mooring stones. If the ship is moored in this way, a N wind will come approximately straight aft, an E wind will be in front, slightly across the port side, and if the wind freshens from there, the port side's fore mooring line should be moved over to the low headland that forms the N side of the previously mentioned cove.

1.2.11.6 Ice conditions

Like described above regarding weather conditions, there are also major variations in ice conditions. Torsukattak is often filled with polar ice, while this is rarely the case in Ikerasassuaq, since the steadily outgoing current from Sermilik usually prevents the polar ice from penetrating N of the islands in the middle of the fjord. The winter ice, on the other hand, breaks up later E of the narrows than W of it, and Torsukattak is not open until the first half of June. However, a larger ship can usually already break the ice in early May.

1.2.11.7 Current

Throughout Torsukattak, the current flows W with rising water and E with falling water. The speed of the current can reach 3-4 knots in the narrow places, but otherwise is not much more than 1 knot.

1.2.11.8 Wind

When there is wind in Torsukattak, it can produce quite strong gusts, especially with E (South Greenland's well-known deceptive SE foehn) or N to NW winds, which, regardless of their

direction, tend to follow the main direction of the sound, where the valleys on the sides do not give gusts of wind unpredictable directions.

The inshore route Qaqortoq (Julianehåb) – Torsukattak W approach, see section 1.3.4.

1.2.12 Alanngorsuaq (Kobberminebugt), 60º55'N 048º20'W, charts 1100, 1117, 1145 and 1166

1.2.12.1 Approach from S

Steer towards Torsukattak (see approach to Torsukattak, section 1.2.11) at a suitable distance around the furthest N of the two small isolated islets outside the mouth of this sound, and from there further N between Qaatit and Quiartorfik. W and N of Siorarliit (with high stone cairn and 1.2 M 011º of Quiartorfik). From here, steer in towards the mark: "Sorttop Cairn in line with Lyse Næs on the N side of Alanngorsuaq" (charts 1145 and 1166) and finally onwards between Lyse Næs and the island of Kujalia (with high stone cairn). The channel inside of Quiartorfik is free of dangers, but the N part is often blocked by icebergs.

1.2.12.2 Approaching from N

Steer in towards the mark: "Qeqertarsuaq (Storø) highest in line with Sannerut SW point". If the mark cannot be seen, from Sannerut SW point steer towards the middle of Alanngorsuup Qaqqaa, which is flat on top. If there is ice in the waters, the channel between Alanngorsuaq and the islands, as well as the area between the islands, quickly becomes packed with ice. This also applies throughout the S part of Alanngorsuaq (Kobberminebugt), while the waters along Sannerut remain more navigable. Large icebergs often drift in through the channel between Sannerut and Kitsissut Tunorliit (Indre Kitsissut) and go aground around Ikermiut (3 M N of Lyse Næs) and the basin E of here and N of Qernertut (2.5 M ESE of Ikermiut and N of the abandoned Innatsiaat (Josvaminen)).
The channel N of Qernertut is free of dangers. With ice barriers, it is often more navigable N of Ikermiut and the rocks NW of Qernertut.
The mark shown in Fig. 1.18 can also be used.

1.2.12.3 Anchorages

1.2.12.3.1 Innatsiaat (Josvaminen), 60º52.5'N 048º07.5'W, chart 1145.

Due to sea and swell, the harbour cannot be used for longer stays.

1.2.12.3.2 Rink Havn, 60º54.3'N 048º00.6'W, chart 1167.

1.2.12.3.3 Sannerutip Umiarsualivia (Borg Havn), 60º58.2'N 048º09.2'W, chart 1152.

The harbour on the S coast of Sannerut is a good harbour for smaller vessels. The harbour

can only be navigated from E.

1.2.12.3.4 Iterlassuaq, chart 1145 and Qaleriit, charts 1145 and 1167.

Ships of a suitable size can also use the bays of Iterlassuaq and Qaleriit, which are located E of Sannerutip Umiarsualivia (Borg Havn). On the other hand, the entire bay W of Sannerutip Umiarsualivia (Borg Havn) is foul.

1.3 The inshore route Ikerasassuaq (Prins Christian Sund) – Ilorput (Arsuk Fjord)

1.3.1 Ikerasassuaq (Prins Christian Sund) E – Narsarmijit (Frederiksdal)
1.3.2 Narsarmijit (Frederiksdal) – Nanortalik
1.3.3 Nanortalik – Qaqortoq (Julianehåb)
1.3.4 Qaqortoq (Julianehåb) – Torsukattak W and Itilliatsiaq (Nyboes Kanal)
1.3.5 Torsukattak W – Ilorput (Arsuk Fjord)
1.3.6 Settlements, sheep farms, etc.

1.3.1 Ikerasassuaq (Prins Christian Sund) E – Narsarmijit (Frederiksdal)

60º04'N 043º02'W – 60º00'N 044º40'W, charts 1103 and 1130
For approach of Ikerasassuaq (Prins Christian Sund), see section 1.2.1.

1.3.1.1 Navigation

The route can be navigated by ships without special ice strengthening from mid-August to January. During the rest of the year, the sound is blocked by the polar ice. Before the beginning of July, it cannot usually be expected to be possible to navigate through Ikerasassuaq (Prins Christian Sund).
It should also be noted that even after the beginning of August, from when the sounds are generally somewhat free of ice, it may be necessary to turn around during attempts to navigate through them.
In the area S of Greenland's mainland, there are 8 large islands, of which the furthest S is Itilleq (Eggers Ø). The islands are separated by 1 M wide sounds, and experience shows that most of them are at least navigable for smaller ships and vessels, and are used for passage in sheltered waters from the E coast to Narsarmijit (Frederiksdal) and vice versa. For larger ships, they are usually of little importance. The distance through the sounds from the E coast to the W coast corresponds closely to the distance S of Nunap Isua (Kap Farvel) at a distance of 10 M from the coast. A ship that can maintain its speed in open sea, therefore, will gain no time by using the difficult sheltered waters route.
Smaller ships and vessels, on the other hand, regularly use the sounds.

1.3.1.2 Cables

Anchorage and fishing with demersal trawls is prohibited on the stretch Ikerasassuaq (Prins Christian Sund) E – Narsarmijit (Frederiksdal) due to cables laid in the sound. Anchoring is

allowed at the places on the nautical chart marked with an anchor.

1.3.1.3 The route through Ikerasassuaq (Prins Christian Sund) and Torsukattak

This is the usual route from the E coast to Narsarmijit (Frederiksdal). The route is marked with beacons and passes through Ikerasassuaq (Prins Christian Sund), Ilua, Torsukattak, Qoornoq and S of the mainland to Narsarmijit (Frederiksdal) or through the marked channel between Nunarsuaq and the small islands W of there. The minimum depth in the channel mentioned last is 25 m. Keep mid-channel through the entire stretch. In the W part of Ikerasassuaq (Prins Christian Sund), where the sound turns S, there is a small island that is normally passed to the N and W. However, if there are difficulties with the ice, it is possible to navigate between the island and Niaqornaq, where the minimum depth is 13 m. The settlement of Aappilattoq is located on the SW side of Ilua at the foot of a mountain that rises to a height of approx. 1000 m.
Aappilattoq, settlement, 60º09.6'N 044º17.2'W, see chart 1150.

1.3.1.4 Other inshore routes in the Nunap Isua (Kap Farvel) area, chart 1103

Some smaller ships have reported that, due to difficult ice conditions in the normal route, but during good weather conditions in the above-mentioned route (Ikerasassuaq (Prins Christian Sund) E – Narsarmijit (Frederiksdal)), they have used the following routes from the E coast to Narsarmijit (Frederiksdal) or vice versa:

1.3.1.4.1 Ikerasassuaq (Prins Christian Sund) – E and S of the island Annikitsoq, through the sounds Sivinganerup Imaa and Pamialluup Kujatinngua and then S of Nunarsuaq.

1.3.1.4.2 Ikerasassuaq (Prins Christian Sund) – Ilua – E of the island Pamialluk, through Pamialluup Kujatinngua and from there S of Nunarsuaq.

1.3.1.4.3 Ikeq – Imarsuaq – Sivinganerup Imaa – Pamialluup Kujatinngua and S of Nunarsuaq.

Because of rocks, do not get too close to the islands in the SE mouth of this sound when navigating through Ikeq. Otherwise, no rocks have been found mid-channel in any of the routes mentioned above.

1.3.1.4.4

When the sounds between the islands S of the mainland have been ice-filled, smaller vessels have navigated in good weather conditions from the E coast to the W coast, and vice versa, by sailing S of all the larger islands and around Nunap Isua (Kap Farvel) as close as possible, since the current here usually disperses the polar ice and forms passable shore lead.

1.3.1.5 Anchorages

1.3.1.5.1 Aqissiat, 60º05'N 043º12'W, chart 1103

The E part of Ikerasassuaq (Prins Christian Sund) has anchorage for smaller ships in the NE side of the bay N of the two small islands. The bottom rises steeply from 300 m to 20 m at the anchorage. Close to shore there is 18 m, and 80 m from the anchorage there is 60 m. The bottom consists of stone, sludge and seaweed. The anchorage should only be used in good weather (Fig. 1.19).

1.3.1.5.2 Puiattoq, 60º08'N 043º37'W, chart 1103

Ikerasassuaq (Prins Christian Sund) N side and 15 M W of the weather station on the SE side of Kangerluk. Depth 28-55 m, clay bottom, but the ground falls away steeply. The depth 30 m from the coast is 15 m all around the entire anchorage. It is reported that the anchorage is not good in a SE wind.

1.3.1.5.3 Sværdfisken Havn, 60º09'N 043º44'W, chart 1103

There is an anchorage for all ships on the N side of the sound, 18 M W of the weather station in Ikerasassuaq (Prins Christian Sund).
The anchorage can be found as follows: Between the W side of Kangerluk and the narrows, there are two smaller glaciers that do not extend down to the water. Immediately below the glacier furthest W, there is a steadily rising shallow, where there is good holding ground. The depth decreases evenly to 20 m from the terminal moraine's large stones, where the water is 10 m deep. The type of bottom is clay and mud. Water filling can be done from two streams.

1.3.1.5.4 Illorsuit Havn, 60º12'N 044º04'W, chart 1103

There is a wide glacier in the W part of Ikerasassuaq (Prins Christian Sund), off the point Niaqornaq. There is a terminal moraine in front of the foot of the glacier, from where the depth falls steadily out towards the sound.

1.3.1.5.5 Kangerluk, 60º13'N 044º18'W, chart 1103

On the W side of Ilua, it is possible to anchor W of the shallow area that extends out from the S side into the middle of the fjord.
Caution should be exercised, as there is a very strong deposition of material from the streams.

1.3.1.5.6 Kangikitsoq, 60º19.5'N 044º16.7'W, chart 1103

It is possible to anchor at the bottom of the fjord in 30-35 m of water. The anchorage, which is one of the best in the S part of Greenland, provides shelter in all winds and has a very good holding ground consisting of a mixture of clay, sand and gravel. The waters are foul W of the stream delta and in the NW part of the anchorage cove. There is a "threshold" across the fjord at the stream bed off the 66 m sounding.

1.3.1.5.7 Stordalen Havn, 60º09'N 044º27'W, chart 1103

The anchorage is located on the W side of the N part of Torsukattak, in a cove in which there is a glacier. The innermost part of the bay is quite shallow (the ground rises steeply) and it is possible to anchor in 65 m of water. Do not sail further W than when the points on both sides of Torsukattak blend into one.

1.3.1.5.8 Qoornoq, approximately 60º00'N 044º34'W, chart 1130

There is an anchorage N of the NE part of Qoornoq, in the W side of Torsukattak, which provides good shelter from winds and protection if there is ice drifting in the sound. Cable area, see section 1.3.1.2.

1.3.1.5.9 Qasigissat, 60º06'N 044º06'W, chart 1103

The bay Qasigissat, 5 M SSE of Ilua, has an anchorage with shelter in all winds. The ground has a soft bottom and at the anchorage it rises evenly from 300 to 28 m. There can be strong gusts through the valley at the anchorage, but no swell.

1.3.1.5.10 Current and ice drift

The current, which flows W with rising tides and E with falling tides, can be particularly strong during spring tide and can form deep eddies. The ice drift can be extremely strong, especially during storms from NE on the E coast, when the polar ice from the outside drifts in and is pushed through the relatively narrow waters at a speed of 3-4 knots.

1.3.1.5.11 Wind conditions

Mountain gusts. The southeast wind, which can blow hard in the summer in the Nunap Isua (Kap Farvel) area, causes very strong mountain gusts in the sounds between the islands.

1.3.2 Inshore route Narsarmijit (Frederiksdal) – Nanortalik

60º00'N 044º40'W – 60º08'N 045º15'W, charts 1130, 1113, 1131 and 1133

1.3.2.1 Navigation

Depending on the ice conditions in the waters and the size of the ship, it is possible to either navigate through the channel marked with beacons between Illukasik and the islands further W, or in the open waters through Kitsissut Tunuat, N of the groups of islands Kitsissut Kujalliit (Sydlige Kitsissut) and Kitsissut Avannarliit (Nordlige Kitsissut).

1.3.2.1.1 The route between Illukasik and the islands to the W

It is advisable for smaller ships to use this route in case of N or SW gales. There is only one rock on the route. It is possible to pass on either side of the rock, which is dry at low tide. There is a beacon on the coast S of the rock, and there is a natural mark here for the position of the rock, in that two mushroom-shaped protrusions are kept in a line. The safest way to avoid the rock is by keeping S of it at a distance of 75 m from the coast.

1.3.2.1.2 Anchorages

1.3.2.1.2.1 Illukasik Havn, 60º01'N 044º51'W, chart 1130

The harbour is good and has depths of 12-16 m and good holding ground. South-easterly and northerly winds can blow strongly in the harbour, but these are rare. There is a small islet inside the channel. It is possible to pass on either side of it and then navigate mid-channel through the harbour entrance to avoid shallow water on both sides. There may be a strong current across the entrance, especially after passing the small islet in the entrance.
The W entrance into the Illukasik channel at Qeqertasussuk (60º03'N 045º06'W) is very narrow, but since the cliffs on both sides descend steeply into the sea, it is possible to steer in with complete safety, even in a very strong swell.
S of the Taateraakasik land are two small isolated islets, Qeqertarsuit, which are very scoured. These islets can be passed on either side, but it is not possible to pass E of the island located 1 M NW of here because there are rocks.
The route from here proceeds as stated for Nanortalik, see section 1.2.4.

1.3.2.1.2.2 Tasiusaq, 60º12'N 044º49'W, chart 1100.

1.3.2.2 Route in open waters

The route goes from Narsarmijit (Frederiksdal) and 1-1.5 M S of Ikigaat, steering 1-1.5 M S of Avalleq and then NW through Kitsissut Tunuat between the groups of islands Kitsissut Kujalliit (Sydlige Kitsissut) and Kitsissut Avannarliit (Nordlige Kitsissut) and the islands W of Illukasik and further on to Nanortalik, as described above.

1.3.2.2.1 Ice conditions

It can sometimes be difficult to navigate the route Narsarmijit (Frederiksdal) – Nanortalik when the polar ice blocks Kitsissut Tunuat.
(See also under Narsarmijit (Frederiksdal), section 1.2.3).

1.3.2.2.2 Current

The current is noticeable in the relatively shallow waters of Kitsissut Tunuat.

1.3.3 Inshore route Nanortalik – Qaqortoq (Julianehåb)

60º08'N 045º15'W – 60º43'N 045º02'W, charts 1113, 1114, 1131, 1132, 1133 and 1150

1.3.3.1 The route Nanortalik – Alluitsup Paa (Sydprøven)
1.3.3.2 The route Alluitsup Paa (Sydprøven) – Saarloq
1.3.3.3 The route Saarloq – Qaqortoq (Julianehåb)

1.3.3.1 The route Nanortalik – Alluitsup Paa (Sydprøven)

From Nanortalik to Alluitsup Paa (Sydprøven), there are 3 routes, chart 1113, which are marked with beacons.

1.3.3.1.1 The route E of Nanortalik island, through Ikerasaarsuk, E or W of Qeqertasussuk (Thomsen Ø) and E and N of Sermersooq

1.3.3.1.2 The route S of Qaqqarsuasik (S point of Nanortalik island) and E and N of Sermersooq

1.3.3.1.3 The route S of Kangeq (Kap Egede), W of Sermersooq and E and N of Qeqertarsuatsiaq

1.3.3.1.1

The route, which has been used by ships with a depth of 4 m, goes N from Nanortalik in the waters, S and W of Aakkat, off whose S side there are underwater rocks, and rocks that are dry at low tide. The current can flow very strongly in these waters.
See also chart 1133 for navigation in the area.
After passing Qeqertasussuk (Thomsen Ø), the route continues N, see chart 1113. N of Sermersooq, the coast should not be approached too closely due to large stone slides and large boulders, which lie close to the shore.
Steer N or S of all the small islands in Kanajormiut Ikerasaat. If the ice conditions make it necessary to steer N of the islands, keep well in under Kanajormiut due to the rocks N and W of Portusoq.
N of Qeqertasussuk, steer W towards Qeqertaaruk, which should be passed to the S. From here, steer up towards the channel between the islands W of Alluitsup Paa (Sydprøven).
From the waters N of Sermersooq, it is also possible to steer N of Tuttutuuarsuk.

1.3.3.1.1.1 Ice conditions

The polar ice has easy access to what, for the outer islands, is the rather exposed bay N and NW of Sermersooq, especially since the inner fjords of Uunartup Kangerlua (Uunartoq Fjord) and Alluitsup Kangerlua (Lichtenau Fjord) are not ice fjords, and therefore do not generate sufficient outflow to keep the ice out.
In the area between the N side of Qeqertarsuatsiaq and the island of Inuarulligaq 6 M further W, W of the Arnaaqqat group of islands, there is a larger area with rocks and shallow depths called Ikkarlussuit. A large number of stranded icebergs can often be seen in this area.
Between Inuarulligaq and Arnaaqqat and between Ikkarlussuit and Qeqertarsuatsiaq there are sounds 1 M and 1.5 M wide respectively with large depths.

1.3.3.1.1.2 Anchorages

1.3.3.1.1.2.1 Aakkat
Anchorages at Aakkat, and NE of Nanortalik, see chart 1133.

1.3.3.1.1.2.2 Qeqertasussuk (Thomsen Ø), 60º13'N 045º12'W, chart 1133
On the N side of the channel E of Qeqertasussuk (Thomsen Ø), where there is good shelter.

1.3.3.1.1.2.3 Kangerlua, 60º22'N 045º16'W, charts 1113 and 1114
There is good anchorage on the N side of Sermersooq. It is possible to anchor in the SE part of the bay in 12 m of water. The type of bottom is mud. The anchorage is not good with N winds. Water filling can be done from 3 streams.

1.3.3.1.1.2.4 Qunnermiut and Marraarsuit, 60º26.5'N 045º14.5'W, charts 1113 and 1114
The anchorages are located at the abandoned settlement of Qunnermiut. The entire bay at the anchorage and the inlet N of Innaarsuttalik is considered to be free of rocks. The anchorage, which has been used by ships up to approx. 70 m in length, with a draught of approx. 5 m, is considered to be good in all wind conditions. Good holding ground. The polar ice does not prevent navigation.

1.3.3.1.1.2.5 Kanajormiut, 60º25.0'N 045º10.5'W, charts 1113 and 1114
Smaller ships can anchor on the E side of Kanajormiut. Caution should be exercised.

1.3.3.1.1.2.6 Niaqornarsuaq, 60º25.8'N 045º11.7'W, charts 1113 and 1114
Smaller ships can anchor in a small cove on the S side of the Niaqornarsuaq peninsula. Caution should be exercised.

1.3.3.1.1.2.7 Ippik, 60º30.8'N 045º18.7'W, chart 1114
On the island of Uunartoq near Ippik, it is possible to anchor in the bay opposite the abandoned settlement in depths of 14-20 m. The bottom is sand and clay. The anchorage is good in all wind conditions between SW and N.

1.3.3.1.1.2.8 Akuliaruseq, 60º28.5'N 045º30.5'W, chart 1114
It is possible to anchor in the bay NW of the abandoned settlement in depths of 20-30 m. In the bay off the settlement, the depth is only 1 m. The anchorage is navigable throughout the year. The polar ice is no obstacle to anchoring. The bottom is stone. Water can be filled with a boat from a stream.

1.3.3.1.1.2.9 Kangerluluk, 60º33'N 045º31'W, chart 1114
There is a good anchorage for larger ships in the SW side of Kangerluluk, in Alluitsup

Kangerlua (Lichtenau Fjord). Caution should be exercised.

1.3.3.1.1.2.10 Ammassivik (Sletten), 60º35.8'N 045º23.7'W, see chart 1114.

1.3.3.1.1.2.11 Qallimiut, 60º42.4'N 045º22.0'W), see chart 1114.

1.3.3.1.2 The route S and W of Qaqqarsuasik (the S point of Nanortalik island) and E and N of Sermersooq, charts 1131 and 1113.

From Nanortalik, keep S and W of Uummannaarsuk and between the islands Majoraffik and Ortusussuk, but it is also possible to sail between Majoraffik and Oqquitsoq. Then keep W, S and W of Qiioqi. From here, steer N along the E side of Sermersooq up to the route, as described in section 1.3.3.1.1.

1.3.3.1.3 The route S of Kangeq (Kap Egede), W of Sermersooq and E and N of Qeqertarsuatsiaq, charts 1131 and 1113.

From Qaqarssuasik, steer well S and W of Kangeq (Kap Egede). Then keep to the sounding track N between Sermersooq, Salliit and Qeqertarsuatsiaq and N of this island up towards Alluitsup Paa (Sydprøven).

1.3.3.1.3.1 Anchorages

1.3.3.1.3.1.1 Niaqornaq, 60º17.5'N 045º23.5'W, charts 1113 and 1114

It is possible to anchor S of Niaqornaq on the W side of Sermersooq. Caution should be exercised.

1.3.3.1.3.1.2 Qeqertarsuatsiaq, 60º20.8'N 045º26.3'W, charts 1113 and 1114

Smaller ships can anchor on the E-side of Qeqertarsuatsiaq in a small cove. Caution should be exercised.

1.3.3.1.3.1.3 Alluitsup Paa (Sydprøven), 60º27.8'N 045º34.2'W, see chart 1150.

1.3.3.2 The route Alluitsup Paa (Sydprøven) – Saarloq

1.3.3.2.1 Navigation of the waters between Alluitsup Paa (Sydprøven) – Saarloq

1.3.3.2.1.1 The original route

The route is marked with beacons and lights at Saarloq and proceeds thus in chart 1114: S of Sallia and N of Ujarattarfik Tunorleq, S of Qeqertarsuaq and Qussassat respectively. The route continues through Qaarsup Ikerasaa, where all three channels can be navigated, but usually through the one furthest S. From here, N of Tukingasoq. When the N tip of this has been passed, keep the beacon with a triangle with downward facing tip on this island in line with a yellow-painted barrel with a spar located 50 m to the W. This mark leads free of the rocks on the SW side of the small islands off Kangeq. From here, steer NNW up into the sound to the settlement of Saarloq.

1.3.3.2.1.2 Alternative routes

Depending on the ice conditions, the size of the ship, wind and weather conditions, it may be appropriate to use other routes in the archipelago, see chart 1114.
Larger ships can steer S and W of Imilik and from there NW and W of Kingittuarsuk. On this stretch, beware of the rocks SW of the route.
If Ikerasak (the channel immediately S of Saarloq) is blocked, steer out into the sound S and W of Saqqarliit and Akinnguarput, see chart 1150, Panel Saarloq.
From SE of Saarloq there is a channel, Torsukattaa, between Qaarusuk and Inussuk, which continues NE and further N to the waters N of the Saarloq archipelago. Caution should be exercised.
When there is a heavy sea at Tukingasoq and Saarloq, it is recommended for smaller ships and boats to use the route E of Talerua, through Uummannarup Tunua and through the sound Allaangasoq, N of Simiutaq.

1.3.3.2.1.3 Anchorages

1.3.3.2.1.3.1 Tunulliit (Zacharias Havn), 60º29.0'N 045º34.5'W, chart 1150

The harbour, located 1.5 M N of Alluitsup Paa (Sydprøven), is an excellent anchorage. From the S side of Kingittoq, steer E towards the entrance between the beacon point and some small islands on the N side of the entrance. Keep 75-100 m from the coast on the S side of the harbour. Anchor in 12-14 m of water off the inner point. The holding ground is sand and clay. There is good water filling from a stream in the harbour's N side next to the anchorage. Close W of the stream there is a rock that is dry at low tide.

1.3.3.2.1.3.2 Uummannarsuup Tunua, 60º33'N 045º56'W, chart 1114

On the N side of Talerua, there is a good anchorage for larger ships in 60 m of water.

1.3.3.2.1.3.3 Saarloq, 60º32.3'N 046º01.9'W, see chart 1150.

1.3.3.3 The route Saarloq – Qaqortoq (Julianehåb)

From the water N of Saarloq, three routes lead to Qaqortoq (Julianehåb), chart 1114.

1.3.3.3.1 The route W of Akia.
1.3.3.3.2 The route SE of Akia.
1.3.3.3.3 The route S and E of the island of Kangeq.

1.3.3.3.1 The route W of Akia

From NW of Saarloq, steer between Uummannaq and Illutalik and further E of Pinguiarneq. There is a light on the island of Paggivik, 1 M NW of Pinguiarneq. From Pinguiarneq, steer NW up into the channel between the largest of the islands SW of Akia, where there is a beacon, and the island W of here with three very visible cairns. The channel is free of dangers, which is not the case for the channel SW of here between the small islands. The channel between Akia and the largest of the islands SW of Akia can also be used, but the ice often

blocks this channel.
When the channel has been passed, steer W and N of Akia to Qaqortoq (Julianehåb).

1.3.3.3.2 The route SE of Akia

Steer between Uummannaq and Illutalik and mid-channel up into the Ikerasaarunnut sound between Akia and Uummannalik. N of Uummannalik, there are two larger islands, Sanningasua and Ikerasaarsuup Qeqertaa, which divide the waters into two channels, as well as into a channel running NW between the two islands. At the NW end of the latter channel is a small, low islet, of which only two very small peaks can be seen at high tide. Steer SW of these. Caution should be exercised.
Ikerasaarsuk Kujalleq, the sound between Kangeq and the two large islands of Sanningasua and Ikerasaarsuup Qeqertaa, is free of dangers mid-channel. Caution should be exercised.
In Ikerasaarsuk Avannarleq, NW of Ikerasaarsuup Qeqertaa, when the long spit of land on the NW side of Ikerasaarsuup Qeqertaa has been passed, steer to the N side of this flat and indented island due to rocks. From here, steer E and N close of Akia and close to Karrarmiut (Kobbermineøen) in order to avoid underwater rocks with 2.6 m and 1.7 m located 0.1 and 0.3 M N of the NE point of Akia respectively, and 0.4 M S of Karrarmiut (Kobbermineøen). Smaller vessels can steer close to the E point of Akia and N of Qeqertat Marluk, but caution should be exercised.

1.3.3.3.3 The route S and E of the island of Kangeq

On this route, ships coming from S, E and N of the Saarloq islands should not steer too close to the coast on the starboard side, as there is shallow water approx. 300 m from Upernivik. From here, steer NE up through Kangerluarsorujuk, which is marked with beacons, and further up past Qimatulivissuaq and from here up to the waters S of Niaqornatsiaq. The route goes E and N of all the small islands and an island in the middle of the waters. Steer mid-channel between the point and the island.
Smaller vessels can steer close to the N side of Qimatulivissuaq, where there is reported to be 12 m of water, but steer clear of the island (with spurs) in mid-channel. The current is noticeable in the narrow waters.
From here, steer NW towards the E point of Akia and further, as indicated in section 1.3.3.3.2.

1.3.3.3.4 Anchorages

1.3.3.3.4.1 Tasiluk, 60º40.5'N 045º49.5'W, chart 1114

In the W bay on the N side of Tunu, N of Kangeq, next to Tasiluk, there is a good anchorage with shelter from the south-easterly winds.

1.3.3.3.4.2 Upernaviarsuk (Agricultural Research Station), 60º45.5'N 045º53.8'W, see chart 1115.

1.3.4 Inshore route Qaqortoq (Julianehåb) – Torsukattak W

60º43'N 046º02'W – 60º48'N 048º15'W, charts: 1132, 1116, 1117, 1145, 1151, 1161, 1162,

1163, 1164, 1165, 1166 and 1167.
The route can also be used by larger ships (from the end of May by ships that can break the winter ice in the narrow channel).
From Qaqortoq (Julianehåb), steer between the islands Kilattoq and Paarliit and further S of Qatsiitit into Ikerasaarsuk. Steer well clear of the rocks at the NE point of Isaarutip Nunaa (Hollænderø). In Ikerasaarsuk, keep to the S side of the channel due to the rocks on the N side of the W part. From here, steer N of Simiutaq. Ikerasaarsuk can sometimes be unnavigable because of packed polar ice. Ships can then attempt to get through Matu Løb (Fig. 1.24) and into Narluneq (Skovfjord). From here, either steer through Tejsteløb or steer SW into the fjord N of Simiutaq or NE in Narluneq (Skovfjord), through Narsap Ikerasaa (Narsaq Sund) and SW in Ikersuaq (Bredefjord).
From the waters NW of Simiutaq, it is possible to steer through three channels:
Qingartuup Ikerasaa (Hvide Humpel Løb), Ikerasatsiaq (Nordlyset Løb) or Avatarmiut Løb
The first two channels are marked.

1.3.4.1 Tejsteløb, chart 1161

The channel is surveyed and marked with beacons, and there are leading beacons in the E entrance. The leading beacons lead between Ilaffaat and an unnamed small island W of here. There are three rocks across the narrow part of the channel, of which the rock furthest W is dry at low tide. A single growler can block the channel here.

1.3.4.2 Qingartuup Ikerasaa (Hvide Humpel Løb), chart 1161

There is a set of leading beacons on Niaqornaq (Hvide Humpel), in the SE part of the channel. By keeping these in line, they lead free of the rocks in the SW side of the channel, as well as the underwater rocks under the low, rounded point of Niaqornap Nunaa in the NW part of the channel.
From NW, the leading beacons are visible throughout the navigation, but not for ships approaching from SE, because the beacons are hidden by Niaqornaq (Hvide Humpel) until close to the rocks. Ships that approach from SE must therefore steer towards a point slightly in on the reddish, steep point of Niaqornap Nunaa until the beacons become visible. The islands in the SE entrance should not be approached too closely.

1.3.4.3 Ikerasatsiaq (Nordlyset Løb), chart 1161

Ikerasatsiaq (Nordlyset Løb) has the disadvantage that it can be blocked by a single growler and that the current runs quite strongly through it. For quite a while after high and low tide, the current flows NW and SE respectively as a result of the narrow width of the channel relative to the rather large water areas on both sides. If a ship is forced to steer close to one of the sides when approaching from SE, choose the N side, since the small island on the S side should not be approached closer than 50 m. The channel itself is free of dangers until the rock at the NW entrance. Steer along the NE side of Avatarmiut at a distance of only 10-15 m to keep well clear of the rock that is located in the middle of the NW entrance. The top of this rock is visible even at high tide, and then appears as two separate small rocks, a larger one to the NW and a smaller one to the SE. At low tide, the rock is visible to a large extent, but caution must be exercised even then, as it protrudes far out below the water towards NW and

WNW. Steer close to Avatarmiut to keep well clear of the rock. Depths increase more abruptly to the E.
It is also possible to navigate SE and E of the rock. However, since there is not much water between the rock and the aforementioned foreland, it is necessary to steer quite close to it.
In addition to the rocks mentioned above, a rock was reported in 1984 with 0.7 m of water on the S side of the channel, 36 m from the coast.
From the NW end of Qingartuup Ikerasaa (Hvide Humpel Løb), steer S or N of Oqaatsortalik and N of the rocks S of Pullatit. From here, steer out into Indre Qarmat Løb or Ydre Qarmat Løb and out into Ikersuaq (Bredefjord).

1.3.4.4 Avatarmiut Løb, chart 1161

From the waters NW of Simiutaq, steer W and S of Avatarmiut and then NW through Avatarmiut Løb. From there, steer E and N of Takisoq out into Indre Qarmat Løb.
Another channel SW of Avatarmiut Løb leads S of Takisoq and out into Ydre Qarmat Løb (S of Qarmat).
Avartarmiut SW – Avalleq S, charts 1116, 1161 and 1162
There is also a channel from Avatarmiut SW and S of the outermost large islands, Eqalussuarfik and Kiisermiut on the S side of Ikersuaq (Bredefjord). From Kiisermiut, continue SW and S of Aappalaartut, N of Nasiffik to about due S of Inussuttuut, after which it is possible to steer more W until S of Avalleq.

1.3.4.5 Indre Qarmat Løb (N of Qarmat), chart 1161 (Fig. 1.25, 1.26 and 1.27)

Many of Sermilik's icebergs run aground in the W approach to Indre Qarmat Løb. However, one can squeeze quite close to the points, but the following should be noted: Qarmat Pynt should not be approached closer than 40 m. It is shallow a little distance out from the NW point of Unerteeq. The SE point of the same island must not be approached closer than 100 m, and from the S side of Qarmannguit, on the N side of the channel, a few reefs protrude due E of the old house sites near the W point.

1.3.4.6 Ydre Qarmat Løb, (S of Qarmat,) charts 1161 and 1162

Ydre Qarmat Løb, which runs S of Qarmat and Unerteeq, can be navigated as shown on the charts. Areas that have not been surveyed or areas with multiple rocks are found on both sides of the leading line that leads into the channel from W. Do not steer S of the leading line.
From Qarmat Løbene, steer W, S of Upernivik and Portusoorsuannguaq, and into Naaja Avannarleq and Naaja Kujalleq (Nordlige Mågeløb) or Ikerasak (Sydlige Mågeløb), both of which are marked with beacons.
Another option is to steer up through Kuannit Saavat or the channel slightly further W, Ikerasak, and onwards through Qoornoq and to Akulleq.

1.3.4.6.1 Ice conditions

Polar ice can sometimes be found in large quantities in the waters from the E entrance of Mågeløbene to Ikersuaq (Bredefjord), and the E entrance to Naaja Avannarleq and Naaja Kujalleq (Nordlige Mågeløb) can be blocked by a large iceberg that is stranded and has blocked the entrance. Naaja Avannarleq and Naaja Kujalleq (Nordlige Mågeløb) are rarely

blocked by polar ice, but this happens easily at the E entrance to Ikerasak (Sydlige Mågeløb).

1.3.4.6.1.1 Winter ice

Mågeløbene are the places on this route that freeze up first. Torsukattapp Ninninnera (Knækket) in the E part of Torsukattak will be covered at approximately the same time as Mågeløbene.
Avoidance of Mågeløbene and Akulleq, if they are blocked, see charts 1116 and 1117.

1.3.4.7 Naaja Avannarleq and Naaja Kujalleq (Nordlige Mågeløb), charts 1116, 1117, 1162, 1163 and 1164

From Portusoorsuannguaq, steer S of Qassimiut and Uulaaki and from there N of Pinguiarneq and Nunakajaat, where, on the NW side of this island, there are a number of islets and shoals that can be avoided as shown in chart 1164 (Fig. 1.28). It is also possible to steer between the 3.2 m rock and the N point of Nunakajaat.

1.3.4.7.1 Current

In the W part of Naaja Avannarleq and Naaja Kujalleq (Nordlige Mågeløb), the current flows in the opposite direction to what would normally be expected. With rising water, it flows E and with falling water it flows W.

1.3.4.8 Ikerasak (Sydlige Mågeløb), charts 1116, 1117, 1162 and 1164 (Fig. 1.29)

The channel should only be used when it is necessary to take this route, for example if the winter ice is still intact in Naaja Avannarleq and Naaja Kujalleq (Nordlige Mågeløb). From the waters S of Portusoorsuannguaq, steer W between Tulugartalik and Qarsaartalik and well clear of the two rocks W of these islands. It is possible to steer close to Oqaatsormiut until Qoornua. From there along the coast S to around Nulia, and steer from there more N to the SE point of Sulussugutit Nunaat. From there, steer close to the S coast of this island. Once the islands in the middle of the channel have been passed, steer between Qeqertatsiaq and Ilupaarusiiarfik and onwards to the W.

1.3.4.8.1 Rocks

There are rocks at the following locations:
Approx. 0.5 M S of Qaraartoq,
Approx. 0.1 M NE of the E point of Qoornuata Nunaa,
Approx. 0.7 M NW of the NW point of Qoornuata Nunaa,
Approx. 0.15 M S of the SE point of Sulussugutit Nunaat,
SW of the mountain Sulussugut, 0,1 M from the coast, as well as between the SW point of Sulussugutit Nunaat and Ilupaarusiiarfik.

1.3.4.9 Qoornoq, Akulleq and Sermilik, charts 1163 and 1164

The channels can be navigated as shown in the charts. Smaller vessels and boats can also pass S of Pallisaa, but beware of the rocks in the middle of the channel.
Ships can pass the 1.4 m shoal by using the leading beacons. Smaller vessels and boats can

also pass N of the shoal.

1.3.4.10 Ikerasassuaq, Torsukattaap Ninninnera (Knækket) and Torsukattak, charts 1164, 1165 and 1166

From the W end of Mågeløbene, steer W towards Qaqqaligaatsiaq Fjord, S of Qarsussat, S of the small islands N of Ikkattup Nunaa and N of the three islands S and W of Niviukkat Umiarsualiviat (Aurora Havn). Steer close, 50 m, to the centre island (beacon 236) due to the underwater rocks W of the entrance to Niviukkat Umiarsualiviat (Aurora Havn). The depth over the rocks is 2.3-4 m. Keep a greater distance, approx. 0.1 M, to the island furthest W due to underwater rocks N of the island. The depth over the rock is 3.4 m.
From there, continue W, N or S of the 4.4 m shoal approx. S of Qilluakitsup Nuua, through Oqaatsorsuit Qoornuat, past Bang Havn and well clear of the rocks N and NE of Emma Havn. The direction to the rock furthest W outside Emma Havn is marked by two beacons. Two beacons have been raised on the point Aammaartajaaq on the coast NE of Emma Havn. If they are kept in line, they lead N of the rocks.
From here, steer through Torsukattaap Ninninnera (Knækket) into Torsukattak, whose E part is very narrow. There is a shoal with 5.0 m of water in the W approach to Torsukattak. It is possible to steer on both sides of the 5.0 m shoal.

1.3.4.10.1 Current

The current flows strongly in Oqaatsorsuit Qoornuat outside Bang Havn.

1.3.4.11 Qaqqaligaatsiaq Fjord – Kitsissut (Ydre Kitsissut), charts 1164, 1117, 1166 and 1145

From Qarsussat, steer SW between the islands SE of Uummannai. The route is important for ships and vessels when Torsukattak is blocked by winter ice between Torsukattaap Ninninnera (Knækket) and Bang Havn, and Mågeløbene are free of ice (Fig. 1.32 and 1.33). The charts provide directions for navigation.

1.3.4.12 Itilliatsiaq (Nyboes Kanal) – Ilorput (Arsuk Fjord), charts 1162, 1167, 1118, 1145 and 1146

From the bay N of Emma Havn, a marked channel leads up to the 4 m wide Itilliatsiaq (Nyboes Kanal), which is used by motorboats between Qaqortoq (Julianehåb) and Ilorput (Arsuk Fjord). The canal can only be navigated at high tide in the days around spring tide. The depth of the canal is 2.7 m at spring high tide and 0.8 m at neap high tide.
Cotidal hour 5h. 30 min.
The beacons, counted from the beacon N of Qeqertarsuannguaq (60º51.0'N 047º59.5'W) through Itilliatsiaq (Nyboes Kanal), Assaannguit and Qipisaqqu to the beacon on Quiartorfik (61º05.6'N 048º06.9'W) will not be maintained until further notice.
Note: Danish Geodata Agency does not have detailed information about this route. Caution should be exercised.

1.3.4.13 Anchorages

1.3.4.13.1 Singiitsut, 60º45'N 046º13'W, charts 1132 and 1151

There is a good anchorage in the bay E of Matu.

1.3.4.13.2 Naajarsuit, 60º43.4'N 046º11.0'W, chart 1132

In the innermost part of the bay Naajarsuit, NNE of Paarliit, there is a good anchorage, where ships can anchor and stern moor to a large rock, which is equipped with wire and marked R.B. (Mooring ring). Drop the anchor in 20 m of water and haul in close to shore. From here, it is possible to get a good overview of the ice conditions from Qaarusussuaq (Uglspils Hule), both at sea and in through Matu Løb.
Note: The wire and the mark cannot be relied upon to be in place and in order.

1.3.4.13.3 Simiutaq, 60º41'N 046º35'W, charts 1132 and 1151

There is a good anchorage in the deep bay on the SE side of Simiutaq.

1.3.4.13.4 Eqalugaarsuit Killiit (Eqalugaarsuit Havn), 60º46.5'N 046º10.4'W, chart 1132

The anchorage, (Fig. 1.34 and 1.35) lies in the innermost part of the rather large bay, which forms the continuation of a long, deep valley on the NW side of Qaqortoq (Julianehåb). There is a small, round hummock on the W side of the mouth of the harbour. On the E side there is a fairly low, elongated point. The entrance is quite narrow, but quite free of dangers when steering in the W side, whereas it is somewhat shallow off the low foreland to the E. The anchor must be dropped immediately after the harbour has opened. The holding ground is good. There are good mooring stones on the low shore to the SW. There are a few underwater rocks in the E part of the harbour, and the depths are small in the W part. The harbour should therefore only be entered at low speed.

1.3.4.13.5 Kangerlussuannguaq (Mathæus Havn), 60º48'N 046º19'W, chart 1132

There is a good anchorage with 40 m of water in Narluneq (Skovfjord). However, the anchorage should not be used in S winds and especially not in SE winds.

1.3.4.13.6 Qassiisaa (Stephensen Havn), 60º56.2'N 046º12.2'W, charts 1151 and 1116

At the NE end of Tuttutooq (Langey), there is an anchorage 5 M WNW of Narsaq. There is good holding ground in the entire bay. It is possible in the outer part to swing at anchor with a 50-55 m chain and in the inner, NW part of the bay, it is possible to anchor and stern-moor towards NW.

1.3.4.13.7 Pullatit (Constance Havn), 60º44.2'N 046º46.6'W, charts 1116 and 1161

The anchorage (Figs. 1.36 and 1.37) is the most spacious and best of the harbours in Indre Qarmat Løb. Among other things, the harbour has the advantage of being clear of ice drift. From the W, the harbour is easily found with the aid of some old house sites on the flat foreland, W of the harbour. Follow the coast until the entrance cairn appears on the W foreland of the harbour shortly thereafter. Do not steer too close to this foreland, and drop anchors

with the entrance cairn approximately to the SW. Moor the stern towards NW, as shown on the drawing. A good mooring stone for the starboard stern rope can be found a little way towards the mountain in a gorge, W of the valley at the bottom of the harbour. If the harbour is approached from the E, a good landmark is the protruding E foreland, which ends in two hummocks, one outside the other, with deep hollows in between.
There is a bay with a good anchorage in 20 m of water a little NE before the two hummocks at Pullatit (Constance Havn).

1.3.4.13.8 Qassimiut 60º46.9'N 047º09.8'W, see charts 1116, 1162, 1163 and 1151 and (Fig. 1.31).

1.3.4.13.8.1 Umiarsualivia (Skibshavn), 60º46.99'N 047º10.05'W, chart 1151

The best protected anchorage for smaller ships. Drop the anchor in the middle of the cove in 11 m of water, well over past the mid-channel shoal. The holding ground is good. Haul the stern well up into the cove, where there is 4.7 m further in. Secure stern moorings inside the valley at the bottom of the cove, and the starboard bow rope can be secured to the mooring rock on the W point. It is deep close to shore on both sides.

1.3.4.13.9 Alannguvut, 60º47.2'N 047º10.5'W, chart 1163

The best anchorage in the area is at the W end of the sound Alannguvut, between Qassimiut and Timerput. Drop the anchor NE of the two small islets in the entrance. However, take care of the rock on the S side of the channel.

1.3.4.13.9.1 Current

The current flows in the usual way through the waters in this area. The greatest difference between high and low tide is 2,8 m. Large icebergs do not enter the channel between Akinnguarput and Qassimiut.

1.3.4.13.10 Peru Havn, 60º48.5'N 047º22.5'W, chart 1164

On arriving somewhat inside the narrow part of Naaja Avannarleq and Naaja Kujalleq (Nordlige Mågeløb) from W, a cairn can be seen on a fairly high point on the land to the N. There is a spacious bay to the E of this, into the centre of which a low spit with a cairn protrudes from the N. It is possible to anchor both W and E of the cairn. Mooring shall be with the stern N. The holding ground is good, with a depth of 18 m to the W and 13 m in the E of the bay. At the bottom of the bay the land is quite low and narrow, and a lake almost completely penetrates the land.

1.3.4.13.11 Niviukkat Umiarsualiviat (Aurora Havn), 60º48.5'N 047º42.2'W, charts 1117 and 1165 and (Fig. 1.38)

The entrance to the harbour is E of a small low island with a cairn. W of this island, the waters are too shallow for ships. The cairn island should not be approached too closely, as it is shallow 45 meters out from its E side. Therefore, steer in about mid-channel or along the higher land to the E and N until the cairn island has been passed. Then turn NW up towards the cairn on the protruding foreland to the S at the NW end of the harbour.

Drop the anchor in 18 m of water. There is good holding ground in the middle of the harbour. Stern ropes can be secured to the NW, but there is also space here to swing at anchor. In the inner part of the harbour there is an enclosed bay with the possibility of water filling. The holding ground is not particularly good outside the entrance of the harbour.

1.3.4.13.12 Bang Havn, 60º49.7'N 047º56.5'W, charts 1165, 1145 and 1117

The harbour is a spacious, elongated bay. The bay is bounded to the W and S by ordinary low rocky land and towards the E by a low, narrow, sandy arm that connects a small rock with the shore, thereby forming an excellent natural harbour. Just W of the rock, which has a cairn on the top, lies a small islet that is connected to the rocky island at low tide. In the middle of the harbour entrance is an island with a beacon on the top. The harbour therefore has two entrances, one to the E and one to the W. From the beacon island, an underwater rock protrudes SSE. The entrance furthest E is therefore narrowed considerably, so that during approach, the previously mentioned islet that is connected with the mainland at low tide must be followed until the beacon island has been passed and the harbour has been entered. The west channel is wider and freer of dangers. Close inshore, however, it is somewhat shoal on both sides. In order to anchor at the E end, it is necessary to moor with a stern rope on shore to the E or SE. At the W-end of the harbour, it is possible to swing at anchor when the anchor is secured in the middle of the harbour and next to the W entrance. If anchoring further W in this part of the harbour, stern moorings can be secured to the mooring stones at the W end. There is good water filling on the S side of the harbour.
In the narrows off Bang Havn, there is 35-37 m of water with seaweed and stones.

1.3.4.13.13 Kangerluluup Paava (Disko Havn), 60º49.2'N 047º54.0'W, chart 1165

The harbour is located 1 M SE of Bang Havn. The holding ground is good.

1.3.5 Inshore route Torsukattak W – Ilorput (Arsuk Fjord)

60º48'N 048º15'W – 61º06'N 048º16'W, charts 1166, 1145, 1146, 1117 and 1100
After passing W of two small islets on the N side of the entrance to Torsukattak, steer N and W of Quiartorfik and a further 0.5 M W of Siorarliit and NW and E of Oqaatsortalik, which viewed from N has three recognisable peaks. From here, steer NW 0.5 M W of Sannerut and between the group of islands Qeqertaarsuit (Camilla) and Helen and N of Tallorutit into Ilorput (Arsuk Fjord).

1.3.5.1 Anchorages

See Alanngorsuaq (Kobberminebugt), section 1.2.12.3.

1.3.6 Settlements, sheep farms, etc.

The following inhabited places can be found in the Qaqortoq (Julianehåb) area, which can be navigated with smaller ships, but for which there are no available directions for navigation etc.

Name	Position	Inhabitants (2005)
Akuliaruseq (Sheep farm)	60°28.4'N 045°30.5'W	4
Eqaluit (Sheep farm)	60°45.7'N 045°34.0'W	1
Iterlak (Sheep farm)	60°55.5'N 045°17.5'W	2
Issormiut (Sheep farm)	61°03.5'N 045°33.0'W	5
Qaarsutsiaq (Sheep farm)	60°34.2'N 045°48.5'W	0
Qanisartuut (Sheep farm)	60°50.0'N 045°29.2'W	4
Qorlortoq (Sheep farm)	61°12.5'N 045°31.0'W	6
Igaliku Kujalleq (Søndre Igaliku) (Sheep farm)	60°53.5'N 045°17.0'W	2
Tasiluk (Sheep farm)	60°41.2'N 045°49.0'W	5
Qorlortorsuaq (Sheep farm) *)	60°45.6'N 045°13.3'W	
Ikersuaq (Bredefjord) inner part:		
Kangerlua (Sheep farm) *)	61°04.8'N 045°41.6'W	
Tasiusaq (Sheep farm) *)	61°08.6'N 045°37.6'W	
Nunataq (Sheep farm) *)	61°07.6'N 045°37.5'W	
Eqaluit Ilua (Sheep farm) *)	60°56.0'N 046°03.8'W	5
Tunulliarfik:		
Uummannartiivaraq (Sheep farm) *)	60°59.9'N 045°28.3'W	
Inneruulalik (Sheep farm) *)	61°06.5'N 045°29.0'W	3
Ipiutaq (Sheep farm) *)	60°50.0'N 046°09.0'W	0

*) Has been called at by ships 40 m long, 9.5 m wide and with a draught of 3.5-4.0 m.

1.4 Bird protection area

An area around the group of islands Kitsissut (Ydre Kitsissut) is subject to the Government of Greenland's Order No. 12 of 16 June 2016 on the internationally designated wetlands and protection of certain aquatic species and Order No. 1 of 5 January 2017 on the protection and capture of birds. The areas are shown on relevant charts.

During the period from 1st May to 31st August, it is not permitted to go ashore or approach within a distance of 500 metres of the coast. According to the Government of Greenland's Order on the protection and capture of birds.

During the period from 1st July to 30th September, there is a speed restriction of maximum 10 knots within the nature reserve limits. According to the Government of Greenland's Order on the protection of Greenland's internationally designated areas and protection of certain aquatic birds.

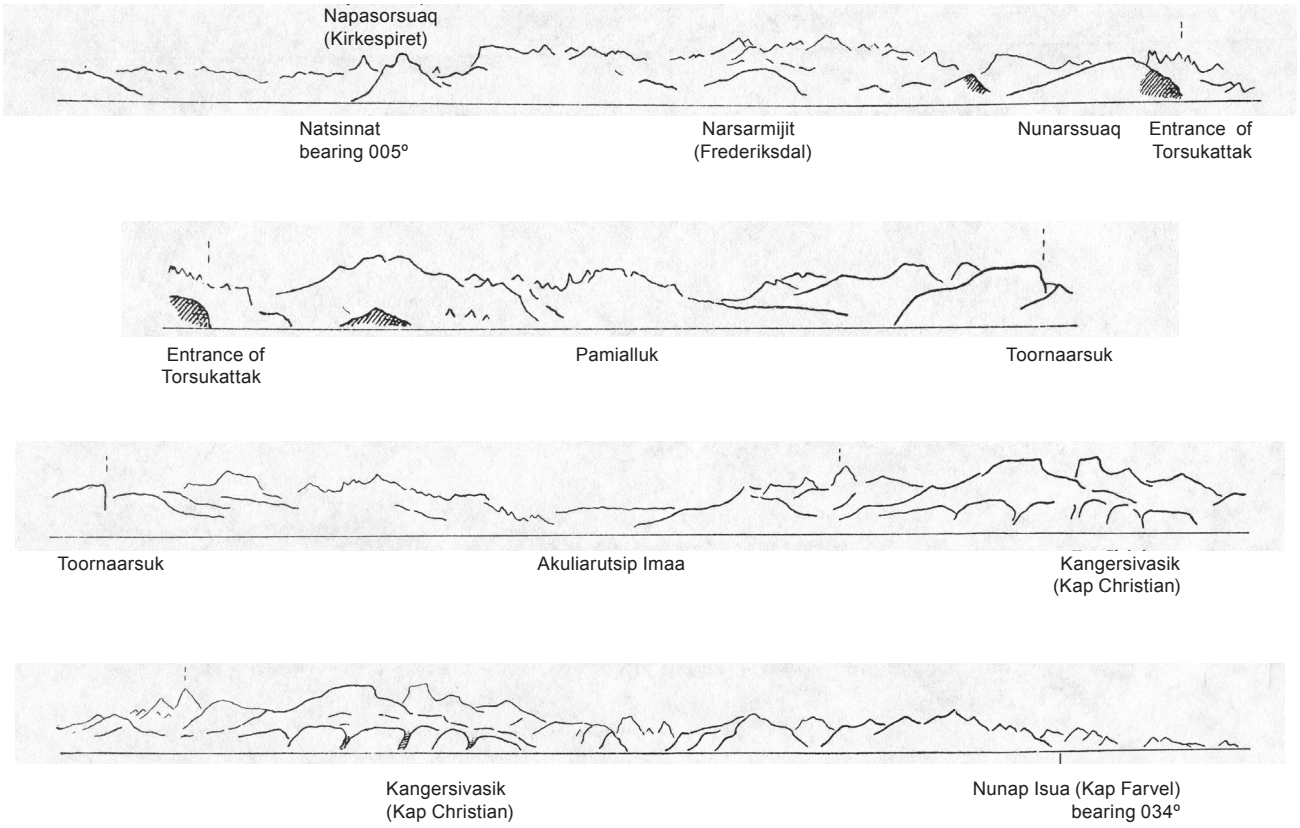


Fig. 1.2. - The coastal area Narsarmijit (Frederiksdal) – Nunap Isua (Kap Farvel).



Fig. 1.3 – Sermersooq bearing 090º, distant 50 M.

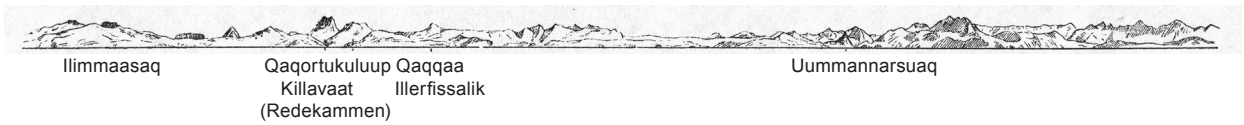


Fig. 1.4 – The coastal area from Ilimmaasaq to Alluitsup Paa (Sydprøven), seen from 60º18'N 046º35'W.

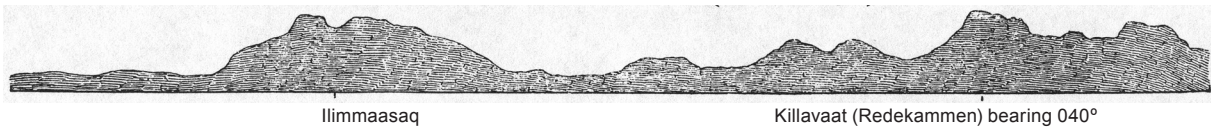


Fig. 1.5 – Drawing from a position 20 M off Isaarutip Nunaa (Hollænderø) in misty weather.

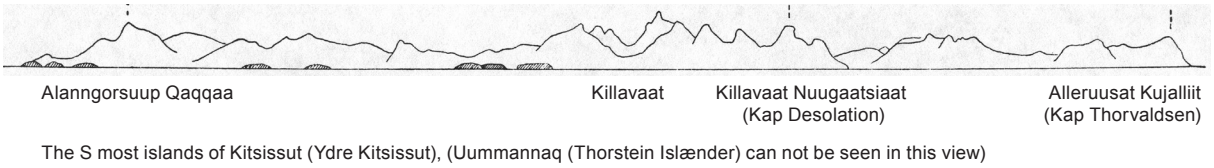


Fig. 1.6 – Nunakuluut SW coast, seen from a position about 10 M bearing 266° from Killavaat Nuugaatsiaat (Kap Desolation).

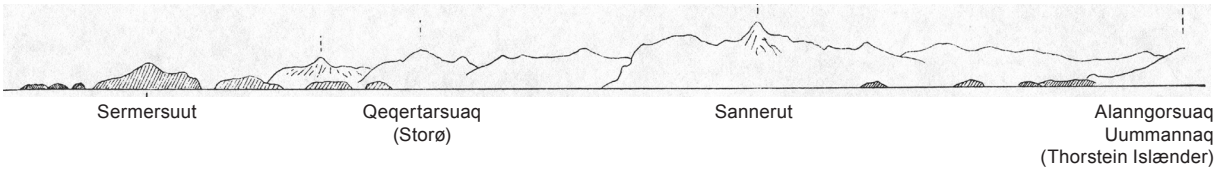


Fig. 1.7 – The coast N of Nunakuluut, seen from a position about 6 M bearing 239° from Killavaat Nuugaatsiaat (Kap Desolation).



Fig. 1.8.

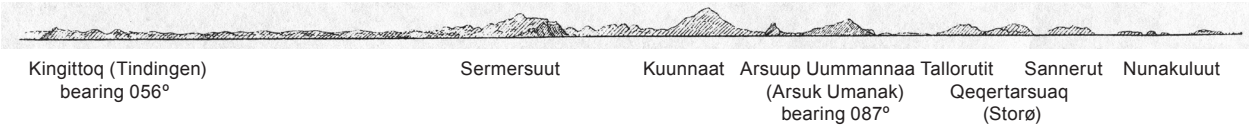


Fig. 1.9.

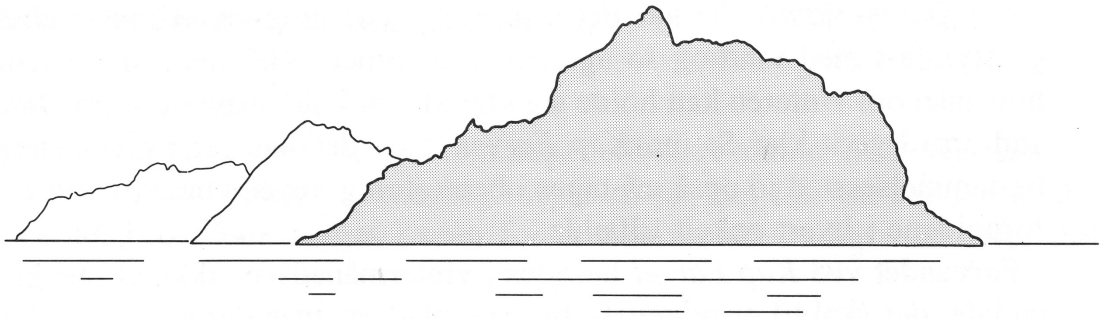


Fig. 1.10 – Aluk Avalleq bearing 270º, distant 3 M.

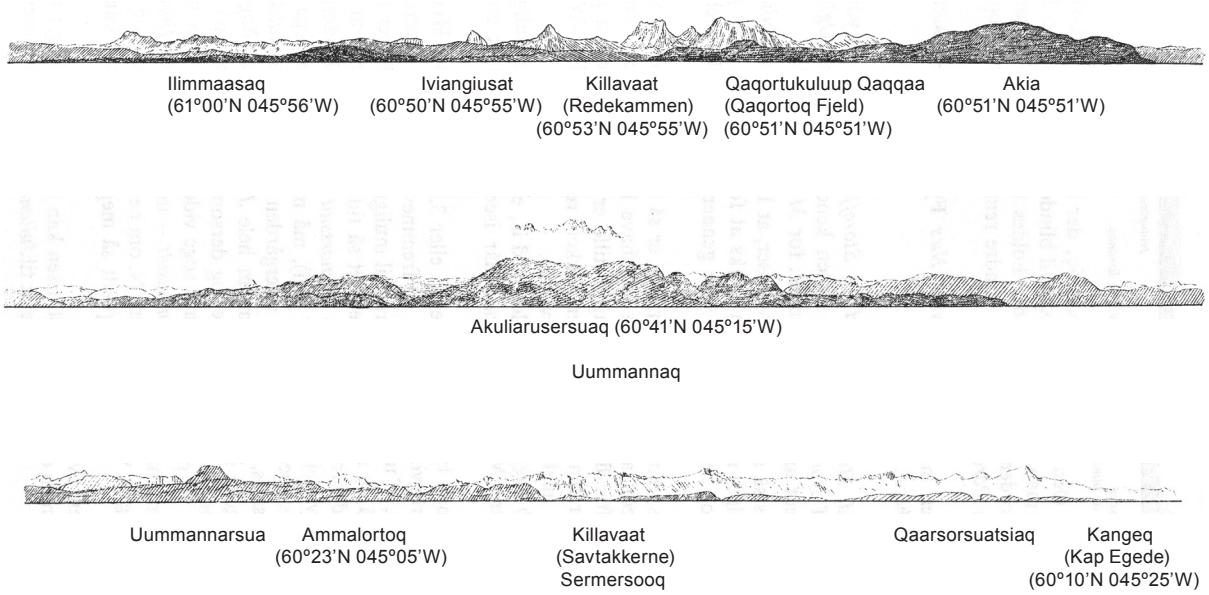


Fig. 1.11 – The coastal area from Qaqortup Ikera (Julianehåbsfjord) to Kangeq (Kap Egede), seen from the rock Nunannguaq (60º34.5'N 045º13.5'W).

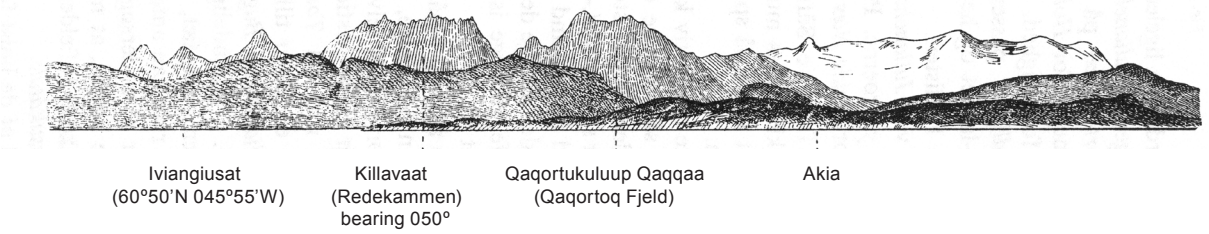


Fig. 1.12 – Killavaat (Redekammen) free of Akia's low point make good passage SE of Ikkarluit (Sorteskær).

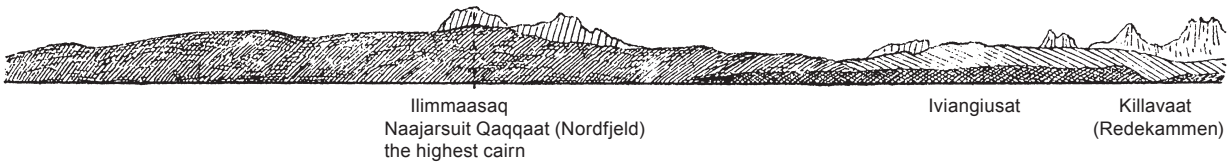


Fig. 1.13 – Marking free W of the rocks W of Uummannaq.

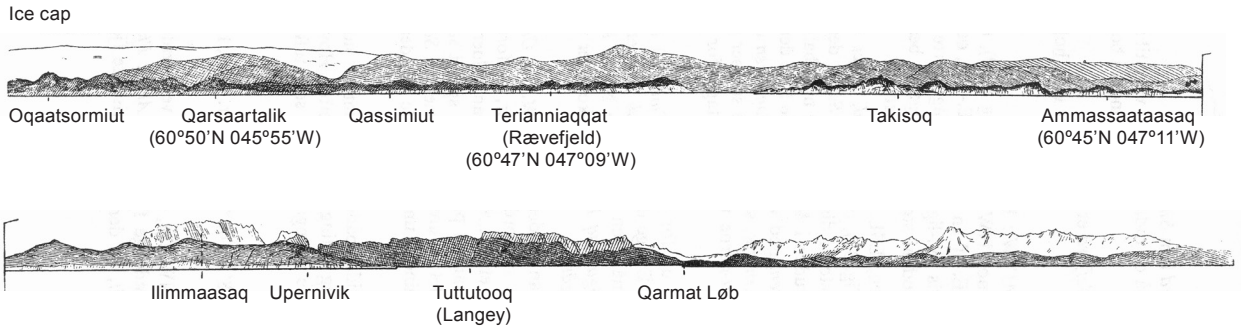


Fig. 1.14 – The coastal area of Ikersuaq (Bredefjord),
seen from the waters SW of Avalleq in the mouth of the fjord.

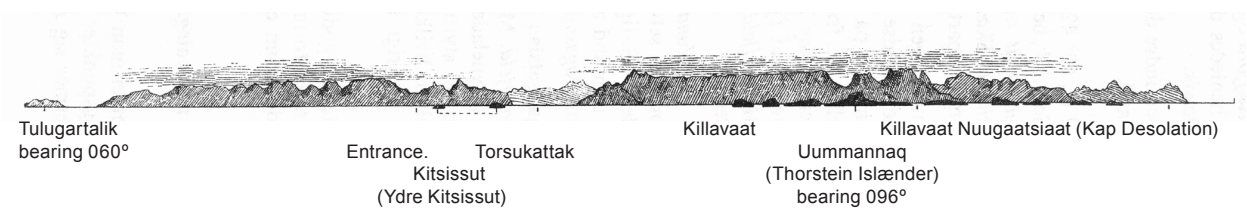


Fig. 1.15 – View S of the entrance of Torsukattak seen from W.
(Clear weather with fog on the peaks).

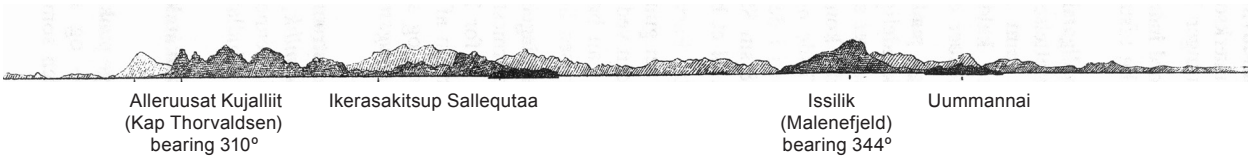
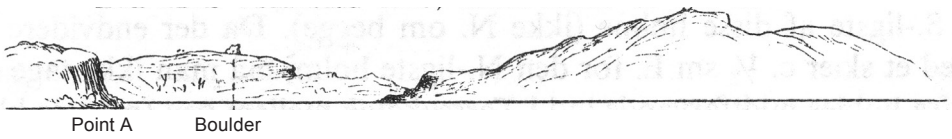


Fig. 1.16 – View of Nunakuluut SE side. Rainy/misty weather.



Anchor marking in Illulinnguaq (Stærkodder Havn). The boulder should be "pulled" in line with point A.

Fig. 1.17 – Illulinnguaq (Stærkodder Havn).

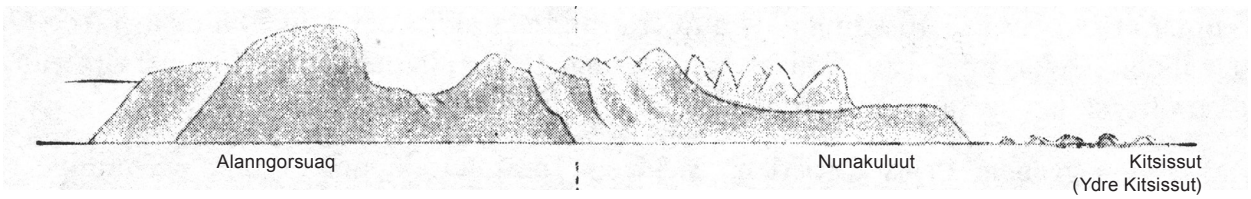


Fig. 1.18 – View of the coastal area of Alanngorsuaq (Kobberminebugt) SE part.
Seen 0,5 M W of Sannerut SW point.

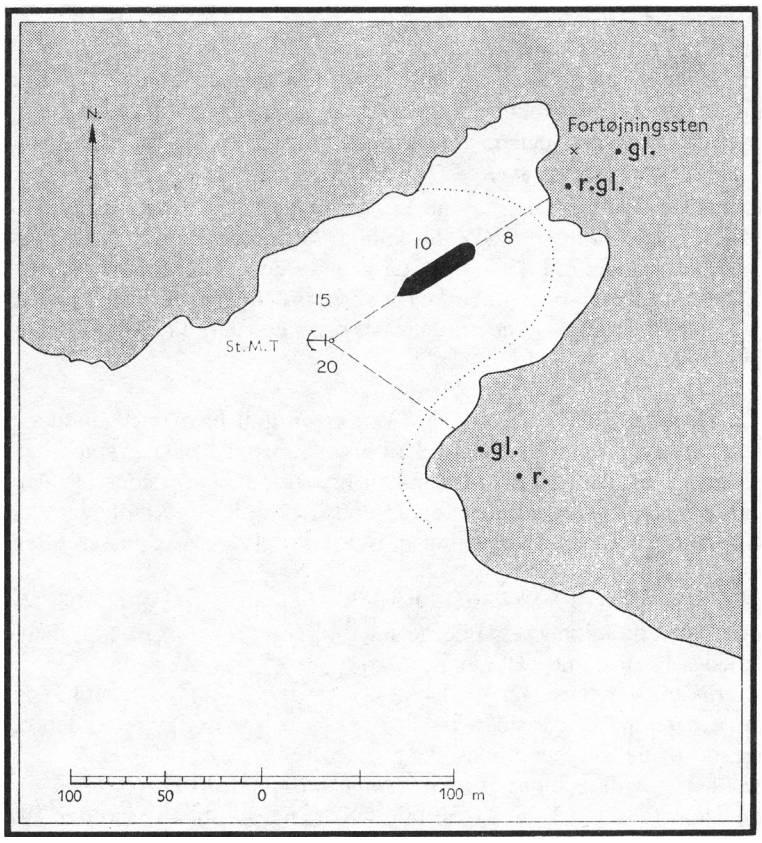


Fig. 1.19 – Aqissiat anchor berth in Ikerasassuaq (Prins Christian Sund) E part.

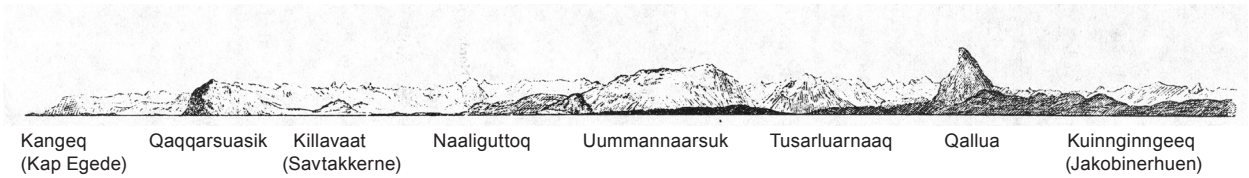


Fig. 1.20 – The coastal area between Nunap Isua (Kap Farvel) and Kuinnginngeeq (Jakobinerhuen), seen from the island Ulattalik, in the archipelago of Kitsissut Avannarliit (Nordlige Kitsissut).

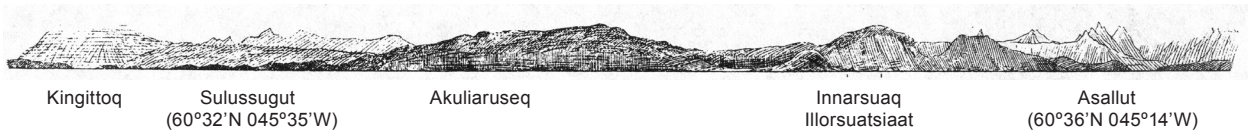


Fig. 1.21 – The coastal area of the W side of Alluitsup Kangerlua (Lichtenau Fjord), seen from the mouth of the fjord.

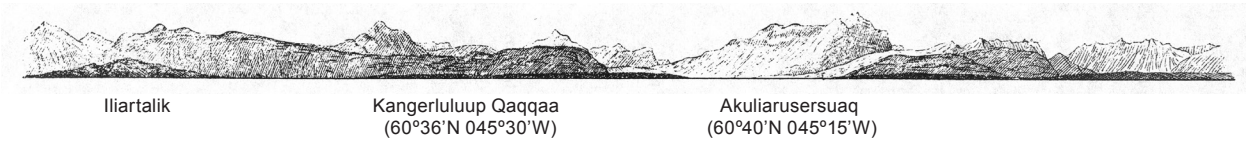


Fig. 1.22 – The coastal area of Alluitsup Kangerlua (Lichtenau Fjord), seen from the island of Inuarulligaq (60°23'N 045°39'W).

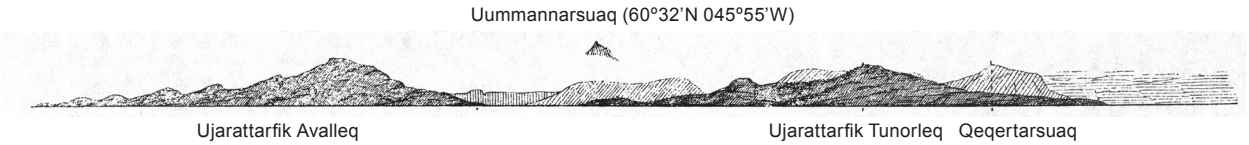


Fig. 1.23 – Turning mark, when navigating W of Sallia and Uigorleq at Alluitsup Paa (Sydprøven).



Fig. 1.24 – Entrance of Ikerasaarsuk, seen from Narluneq (Skovfjord).

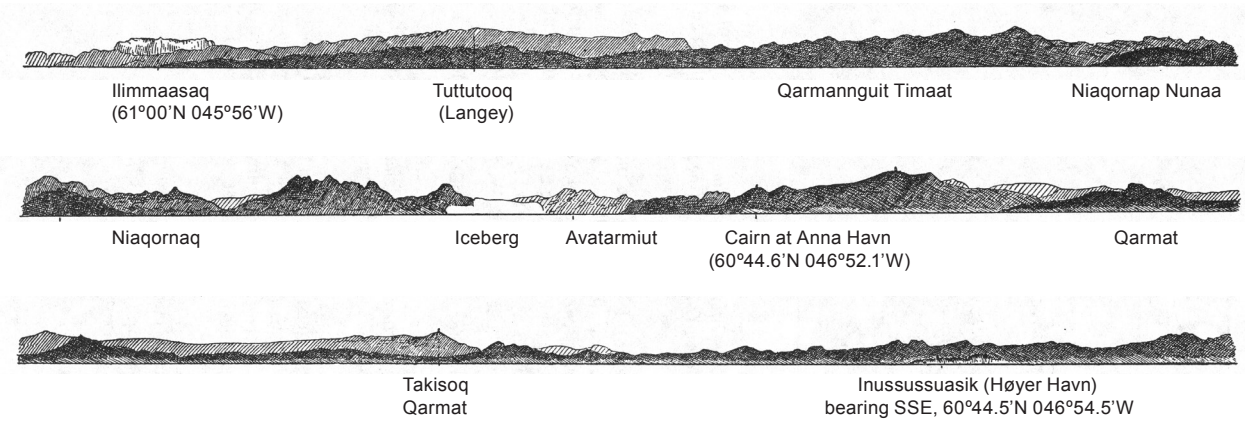


Fig. 1.25 – The S side of Ikersuaq (Bredefjord), seen from the fjord abeam of Indre Qarmat Løb.



Fig. 1.26 – Tulukkat free of the low headland at Pullatit (Constance Harbour) makes clear S of the rock of Indre Qarmat Løb.

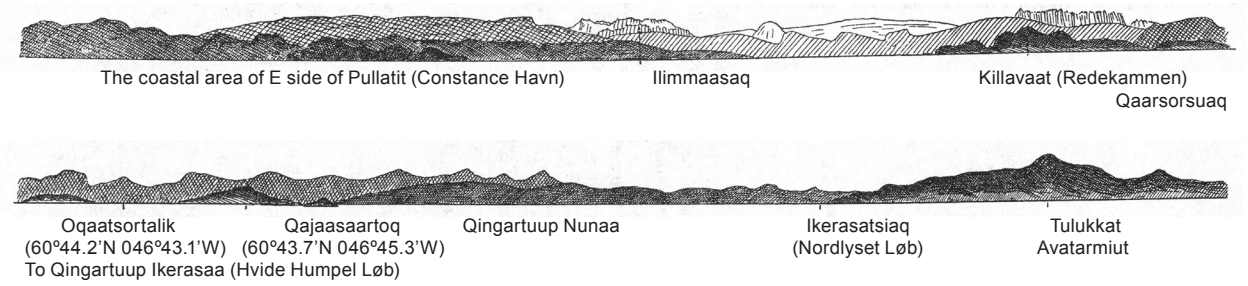


Fig. 1.27 – View of the coastal area SE of Pullatit (Constance Havn), seen from the rock Umiiarfik, S of Pullatit (Constance Havn).

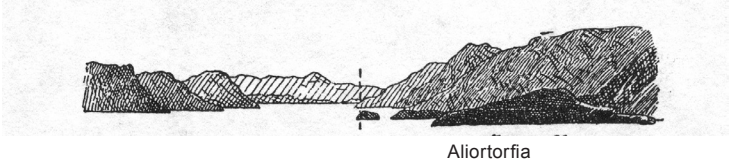


Fig. 1.28 – Marking N of the rock off Nunakajaat.

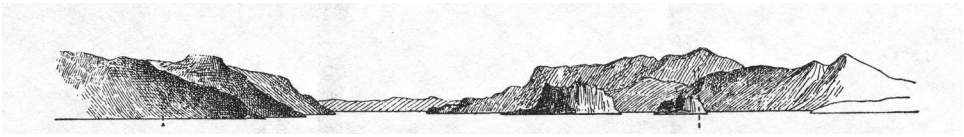


Fig. 1.29 – W entrace of Ikerasak (Sydlige Mågeløb).

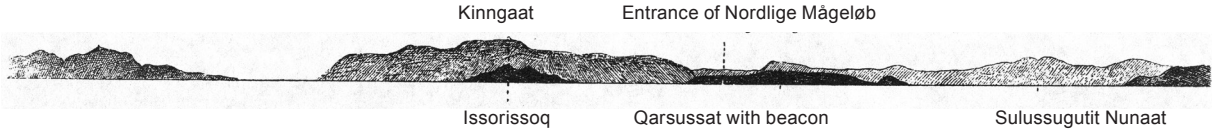


Fig. 1.30 – Entrance of Nordlige Mågeløb seen from W.

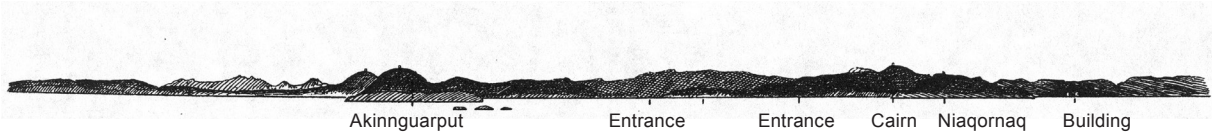


Fig. 1.31 – The coastal area of Qassimiut seen from the S mouth of the entrance.

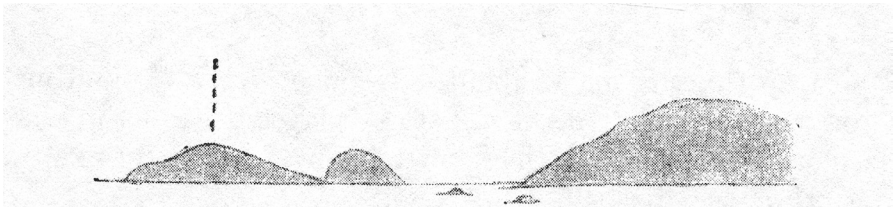


Fig. 1.32 – Marking from Qarsussat beacon towards S between the islands.

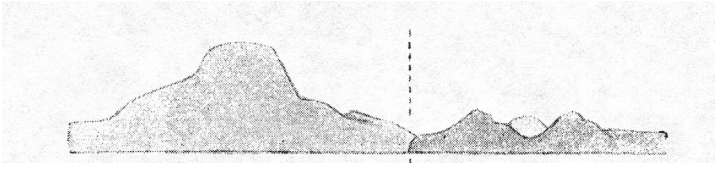


Fig. 1.33 – Marking S and E of Issilik (Malenefjeld).

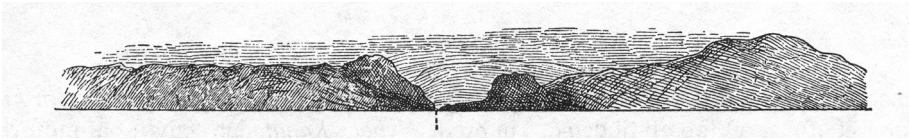


Fig. 1.34 – Eqalugaarsuit Havn bearing 135º.

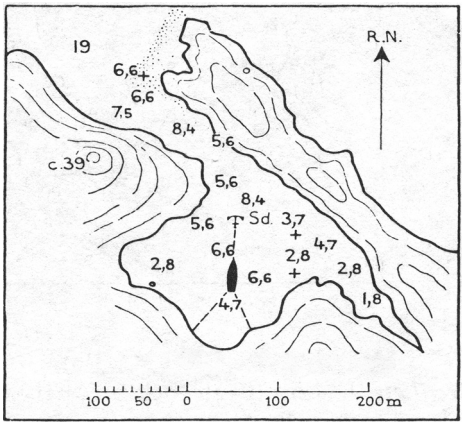


Fig. 1.35 – Eqalugaarsuit Havn.

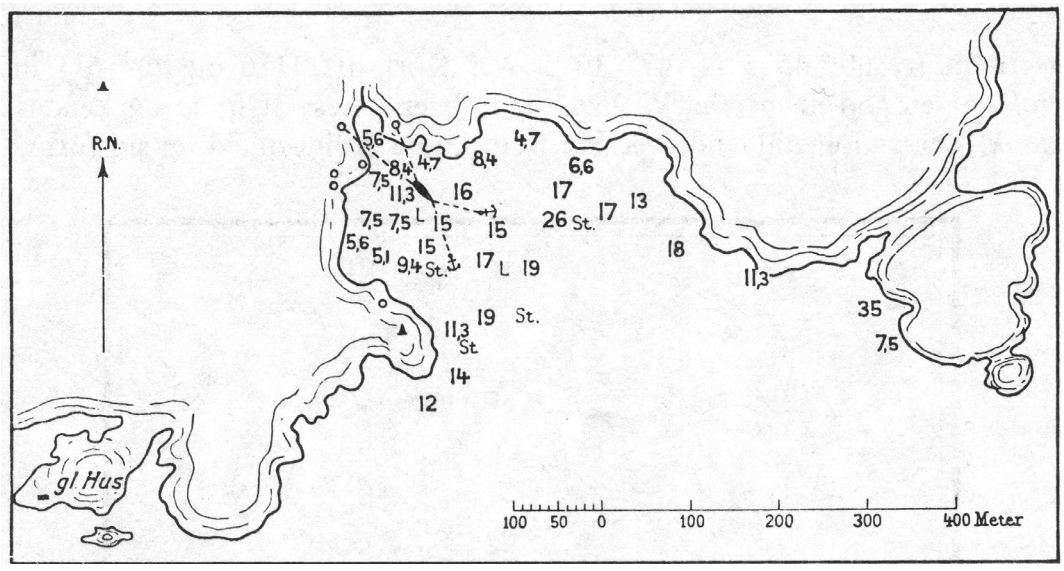
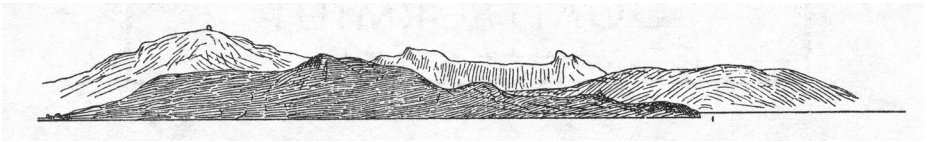


Fig. 1.36 – Pullatit (Constance Havn).



Entrance of Pullatit (Constance Havn) bearing 000°

Fig. 1.37.

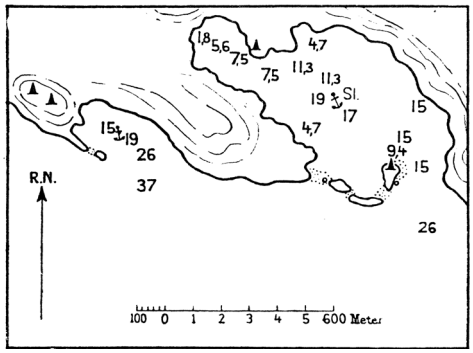


Fig. 1.38 – Niviukkat Umiarsualiviat (Aurora Havn).

Map

Ilorput (Arsuk Fjord) – Kangerluarsussuaq (Grædefjord)

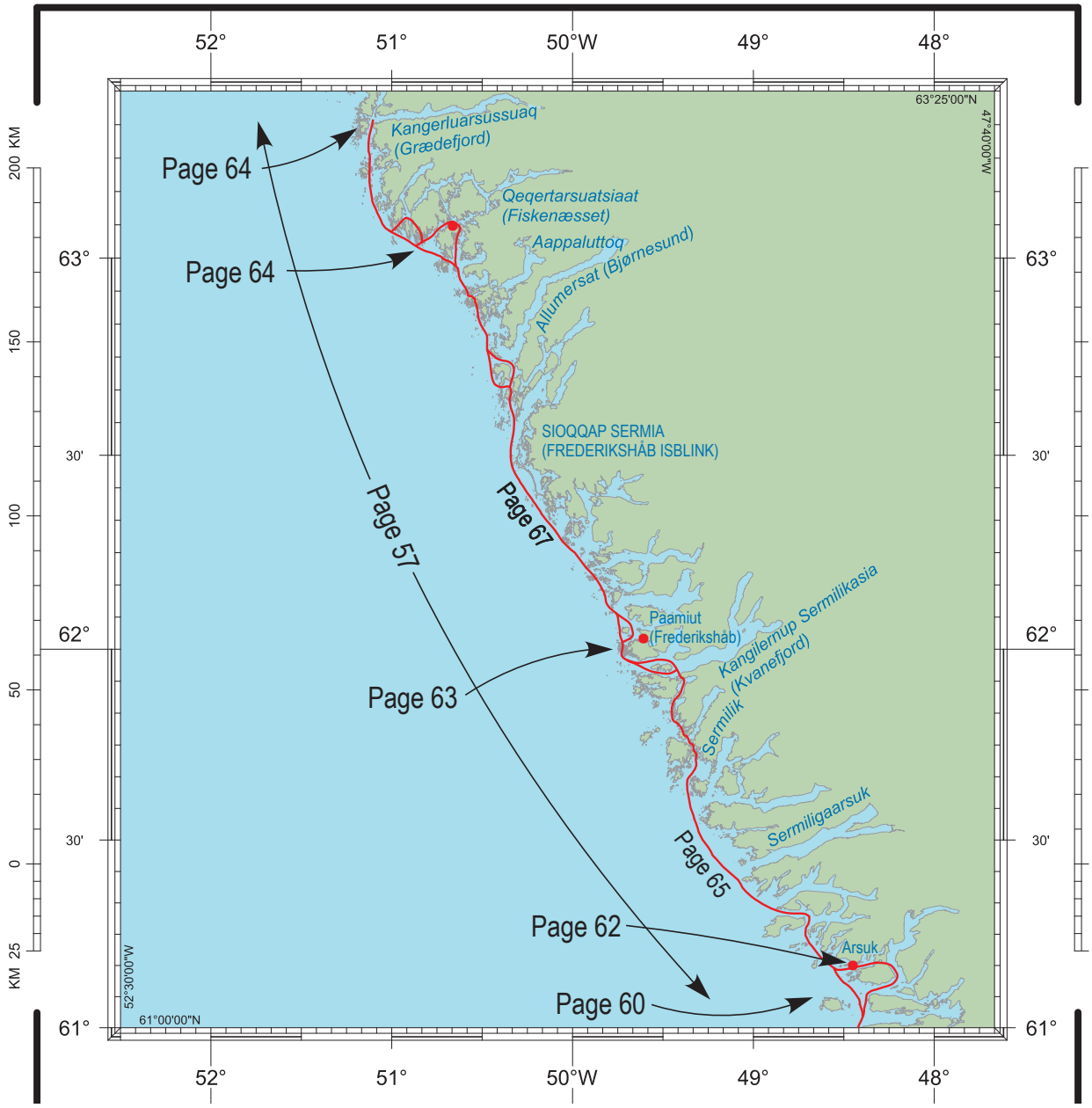


Fig. 2.1

CHAPTER 2

Ilorput (Arsuk Fjord) – Kangerluarsussuaq (Grædefjord)

Area 61º06'N 048º16'W – 63º18'N 051º10'W

Charts: 1000, 1001 (Unknown), 1200, 1146, 1118, 1210, 1211 (Qornoq 1927), 1212, 1213 (WGS-84), 1230 (Qornoq 1927), 1231 (WGS-84), 1250, 1251 (Qornoq 1927)

2.1 Transit of the area
2.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
2.3 Inshore routes
2.4 Nature reserves, conservation areas, etc.

2.1 Transit of the area

The coast is very indented, but since the mainland almost reaches the open sea, the archipelago is rather insignificant, although there are a number of larger and smaller islands close to the entire coast, between which there are navigation channels for smaller vessels.

2.1.1 Landmarks

N of Alanngorsuaq (Kobberminebugt) the tall, rugged, steep and brown island of Sannerut can be seen. Its prominent location and 903 m top, Kangeq, with an easily recognizable small peak, makes it an excellent approach mark, (Figs. 1.7, 1.8 and 1.9). Qeqertarsuaq (Storø), which rises to a height of approximately 750 m, is also recognisable by its three peaks and by the island Uummannaarsuk, which is located nearby to the W and whose dark, cone-shaped peak can be seen at the W end of Qeqertarsuaq (Storø). The highest of all the mountains is Kuunnaat, which rises to a height of 1401 m, which is also a good approach mark from a long distance in clear weather.
At the S foot of Kuunnaat lies the settlement of Arsuk. The former cryolite quarry, Ivittuut, and the naval station Kangilinnguit (Grønnedal) are located in the inner part of Ilorput (Arsuk Fjord). The islands of Tallorutit and Arsuutaa (Arsuk Ø) are less recognisable, whereas the 516 m high, steep rocky island of Arsuup Uummannaa and the high, mountainous, jagged island of Sermersuut, with its 932 m high dome, are among the best landmarks on the coast. The SW side of Sermersuut is formed by an isolated, steep, dark cliff, Sermersuut Uummannaarsuat, which rises to a height of 341 m. Seen from a distance from NW or SE, it appears to be a separate island and may be confused with Uummannaarsuk. In addition to the 516 m peak, Arsuup Uummannaa has another peak further N, which rises to a height of approximately 300 m. Between the two peaks, a broad dip extends across the island.
15 M NNW of Sermersuut is the 815 m mountain Kingittoq (Tindingen) and 20 M NE of this is

the 1545 m mountain Norsaarserfik. Close to shore, the island of Kangaarsuup Uummannaa can also be seen in the middle of the mouth of the fjord Sermiligaarsuk and SSE for Kingittoq (Tindingen), as well as the small protruding island of Qiioqi, W of Kingittoq (Tindingen).
Further N, the most prominent points are the island of Frederikshåb Umanak, rising to a height of 273 m, 13 M S of Paamiut (Frederikshåb), and the 925 m Arfiorfik (Knofjeld), located 10 M E of Paamiut (Frederikshåb) on the N side of Kuannersooq (Kvanefjord), which resembles the four knuckles of a fist when seen from N and W.
Sioqqap Sermia (Frederikshåb Isblink), which is the most recognisable part on the stretch from Paamiut (Frederikshåb) to Kangerluarsussuaq (Grædefjord), is located 30 M N of Paamiut (Frederikshåb) and is a very protruding part of the ice cap, which reaches almost all the way out to the coast (Fig. 2.6). From a distance, Sioqqap Sermia (Frederikshåb Isblink) appears as a bright light. In low-visibility weather, and even far from the coast, good guidance can also be obtained by the milky appearance of the water in front of and N of Sioqqap Sermia (Frederikshåb Isblink).
The dark Dalager Nunatakker can be seen in the ice cap, just inside Sioqqap Sermia (Frederikshåb Isblink) (Fig. 2.6).
The coast N of Sioqqap Sermia (Frederikshåb Isblink) has few landmarks. The individual mountains that stand out from their surroundings include Ilivertalik, rising to a height of 1101 m, 10 M N of Qeqertarsuatsiaat (Fiskenæsset) (Fig. 2.13), Killavaat with jagged peaks rising to a height of 1245 m, and Qeqertaasarsuaq, (Fig. 2.7).
Closer to the coast, the most visible landmark is: Takisup Qeqertarsua (Ravns Storø) with two peaks rising to heights of 207 m and 186 m respectively (Fig. 2.11). N of Sioqqap Sermia (Frederikshåb Isblink) is Qassisallit (Hellefiskeøer), a group of small, bright, rounded islands, which are located fairly isolated away from the rest of the coast, N of the entrance to Qeqertarsuatsiaat (Fiskenæsset). The 381 m mountain Kangaarsussuaq is located close to the shore, 7 M N of Qassisallit (Hellefiskeøer) and is very recognisable when seen from N and S.

2.1.2 Depths

The 200 m areas off the stretch of coast do not constitute a coherent shelf, because deep channels (Frederikshåb Dyb, Ravns Dyb, Allumersat Sioraata Iterna (Danas Dyb) and Fiskenæs Dyb) lead inshore in several places. These form Narsallip Ikkannersua (Narsalik Banke), Frederikshåb Banke, Sioqqap Sioraata Ikkennera (Ravns Banke), Danap Ikkannera (Danas Banke) and Qeqertarsuatsiaat Ikkannersuat (Fiskenæs Banke), each with depths of 40 - 100 m.
However, the 1000 m contour line runs regularly 35 M from the coast and parallel to it.
Well clear of Sermersuut, which is steep and smooth, it is possible to keep as close as 5 M from the coast, if the ice permits.

2.1.3 Ice conditions

Before transiting the area, the ship's master should obtain information about the extent of the ice, especially during the polar ice period from mid-January to the end of July.
If the ship's destination is Paamiut (Frederikshåb) or further N, steer W of all observed ice.

Ice can be encountered in the area throughout the year. Outside the polar ice period, icebergs and growlers are often observed.
In the waters around Nunap Isua (Kap Farvel), where the polar ice apparently has a tendency to accumulate somewhat when drifting from the E coast of Greenland, the ice belt can extend to a width of more than 100 M in May and June. Strong winds between N and E can push the ice far out into the Labrador Sea.

The waters between Nunap Isua (Kap Farvel) and Paamiut (Frederikshåb) can normally be navigated without obstacles outside the polar ice period. Access to the area may be blocked by polar ice during the intervening period.
If they encounter significant quantities of polar ice, ships approaching the coastline Nunakuluut – Paamiut (Frederikshåb) should usually not enter the ice or navigate E of it, until after they have passed the latitude of Nunakuluut.
Ships should keep clear of the ice to the W, keeping along the ice edge as far as possible in order to take advantage of any opportunities to navigate through N of Nunakuluut.

If the ice is encountered far to the W, it is possible that its N extent is not located very far N. Ships wishing to approach the coastline can take advantage of this and navigate W and N of the ice.
If the end of the ice can also be seen to the S and E, there will be an opportunity to navigate in between the ice and the coast.

As it drifts N, on average the polar ice reaches Ilorput (Arsuk Fjord) in March. After passing Nunakuluut, the current carries it somewhat out from the coast and it is generally dispersed quickly.
In exceptional cases, the stretch from Ilorput (Arsuk Fjord) to Kangerluarsussuaq (Grædefjord) may be blocked by polar ice in April and May. The blockage usually lasts for 2-3 weeks, and navigation then occurs in the shore lead from N.
Prolonged N winds usually push the ice quite far W.

The ice belt off the coast is usually widest in May and it reduces again in July. By the end of July, its N boundary is at Nunakuluut. In good summers, the ice does not extend further N than Nunakuluut.
W and SW winds along the coast from Nunap Isua (Kap Farvel) to Paamiut (Frederikshåb) can push the ice hard against the coast, whereas winds from the N and E often result in shore lead.
It must be expected during the winter months (December – April) that fjords and inshore routes may be closed by winter ice. Along the coast, belts of new ice can be formed, which are often broken by the frequent storms.

The ice fjords between Arsuk and Paamiut (Frederikshåb) often fill the waters along the coast with glacial ice and smaller icebergs, and fog occurs quite frequently as a consequence. A clearing may be found by keeping W of the bergy bits, which may be 4-5 M or further from the coast.

The bergy bits occur throughout the year, but especially around spring time, when the glaciers are particularly active. Experience has shown that the largest quantities of glacial ice often occur from two days before full moon and new moon until two days afterwards.
The largest quantity of ice comes from the Sermilik fjord.
Sermiligaarsuk and Kuannersooq (Kvanefjord) produce a lot of blue ice, which is formed when large quantities of melt-water freeze on the ice cap.

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

2.2.1 Ilorput (Arsuk Fjord). Arsuk and Kangilinnguit (Grønnedal)
2.2.2 Paamiut (Frederikshåb)
2.2.3 Qeqertarsuatsiaat Kangerluat (Fiskenæsfjorden) and Qeqertarsuatsiaat (Fiskenæsset)
2.2.4 Kangerluarsussuaq (Grædefjord)

2.2.1 Ilorput (Arsuk Fjord) 61º06'N 048º40'W, charts 1146, 1118 and 1152

The main entrance to Ilorput (Arsuk Fjord) is between Qeqertarsuaq (Storø) and Arsuup Uummannaa (Arsuk Umanak). From here, it is possible to steer E through either Arsuutaata Saqqaa (Søndre Løb), S and E of Arsuutaa (Arsuk Ø), or through Torsukattak (Nordre Løb), W and N of Arsuutaa (Arsuk Ø). Larger vessels should use Arsuutaata Saqqaa (Søndre Løb), while Torsukattak (Nordre Løb) can be used by smaller vessels and ships.
Regarding the navigation channel S and E of Qeqertarsuaq (Storø), see section 2.2.1.4.

2.2.1.1 Approaching from S

After sighting Uummannaq (Thorstein Islænder) in the archipelago Kitsissut (Ydre Kitsissut), steer 1 M W of Uummannaarsuk. Then steer towards the W side of Arsuup Uummannaa until it is possible to steer into Arsuutaata Saqqaa (Søndre Løb) or Torsukattak (Nordre Løb).

2.2.1.2 Approaching from N

Steer W of Arsuup Uummannaa and then E as far as either Torsukattak (Nordre Løb) or Arsuutaata Saqqaa (Søndre Løb).

2.2.1.3 Shoals and rocks

In the channel N and E of Arsuup Uummannaa, there are shoals with 4.1-4.6 m of water 1.2-1.4 M ENE of the N peak of Arsuup Uummannaa.
There is a rock that is dry at low tide 0.3 M SW of the SW point of Sermersuut.

2.2.1.4 Arsuutaata Saqqaa (Søndre Løb)

Steer N of Qeqertarsuaq (Storø) so that it is just possible to see the N coast of Tallorutit clear. If Arsuutaa (Arsuk Ø) has been reached, follow the leading beacons or the N side of the navigation channel, which is free of dangers until the point at Isua (E point of Arsuutaa (Arsuk Ø)). Do not approach closer than 0.2 M to this island because of two small islets, rocks.

When steering mid-fjord and well clear of the coasts, everywhere is free of dangers from Isua to the point at Kamittalik, W of Ivittuut. Kamittalik can be passed at a distance of 200 m.

2.2.1.5 Torsukattak (Nordre Løb)

Steer E towards Torsukattak (Nordre Løb), N of Elna Banke and N of the shoals NW of Qeqertaarsuk. Elna Banke will often be recognisable due to icebergs that have run aground. In Torsukattak (Nordre Løb) itself, keep to the S side of the channel, which is quite free of dangers, while the N side of the channel is foul. Pay particular attention to Alert E of Qajartalik, which is dry at low water. In order to stay clear of this to the S, keep clear of the S point of Arsuup Uummannaa, S of the small island S of Qajartalik. A little further E, off Pingu and Qeqertasussuk, there are rocks up to 0.5 M from the N coast.
There is a narrows, Ikerasaarsuk (Karsakken), at the E end of the navigation channel. There are rocks here on the NW side, but it is easy to get clear by following the S coast. The narrowest part of the channel is 70-80 m wide; keep mid-channel here. Take note in good time of whether the narrows are blocked by an iceberg or by polar ice. After passing the narrows, steer NE across the fjord and around the point at Kamittalik.

2.2.1.6 Navigation channel S and E of Qeqertarsuaq (Storø) to Arsuutaata Saqqaa (Søndre Løb).

There are two routes for navigation S and E of Qeqertarsuaq (Storø):

2.2.1.6.1 The W route goes W of the group of islands Qeqertaarsuit (Camilla) and between Qernertut and Inussuttuut.

2.2.1.6.2 The E route through Simpson Passage passes between Qeqertaarsuit (Camilla) and Helen.

The E route should be preferred. The minimum depth over Helen is 19.2 m. There is a rock that is dry at low tide 0.5 M SW of Qeqertaarsuit (Camilla) and 0.5 M S of Qernertut.
Ilorput (Arsuk Fjord) is apparently free of dangers all the way in to Sermeq (Arsuk Bræ) in the innermost part of the fjord.

2.2.1.6.3 Navigation channel W of Arsuutaa (Arsuk Ø) through Ikerasaa (Isberg Sund)

The advantage of this channel is that it is possible to see directly through it and thus to see if there is ice in the sound. Keep mid-channel in the S part of the sound and more W in the N part.

2.2.1.6.4 Fog

Fog is very common in the summer months outside Ilorput (Arsuk Fjord). With NE and E winds, it usually stays out at sea, while inshore and in the fjord, it is quiet and clear. Mostly, the fog lies in as far as the outermost islands, but it often spreads into the fjord in the evening and does not withdraw again until the next morning. Under such weather conditions, the coast should be approached carefully immediately after midday. If there is ice in the waters,

there will usually be fog at the ice at night after a day with strong sunshine. Conversely, fog in the daytime during the summer can be followed by a clearing up at night. Fog is relatively rare here in September.

2.2.1.7 Arsuk, 61º10.5'N 048º27.2'W, charts 1118, 1146 and 1152.

2.2.1.7.1 Restricted area

All navigation and stopover of civilian ships and vessels of any kind is prohibited in Ilorput (Arsuk Fjord) E of the boundary line indicated in the maps, 2 M SW of Fyrpynt, unless authorized in advance by the Arctic Command (AKO) in Kangilinnguit (Grønnedal).
Ships that exceed the leading beacons unannounced must immediately identify themselves to AKO. Ships that have entered the area will be rejected, unless there is an emergency.
AKO is authorized to remove and, if necessary, detain ships and vessels that do not comply with this order or the instructions issued by AKO for navigation and stopover in the restricted area.
Any ship or vessel that passes the point of Kamittalik on the way in shall, as far as possible, answer radio calls from AKO, indicating their name, port of register and destination.
Failure to comply with the provisions, instructions and orders issued in accordance with this order, will result in a fine.

2.2.1.8 Kangilinnguit (Grønnedal), 61º14.3'N 048º06.1'W, charts 1118 and 1146.

2.2.1.9 Anchorages

2.2.1.9.1 Eqaluit (Kuunnaat Bugten), 61º11.5'N 048º23.5'W, charts 1146 and 1118

The bay is located 2 M E of Arsuk. Ships approaching from W should follow Torsukattak (Nordre Løb) until they can steer in a N direction towards the middle of the channel, E of the island in the middle of the bay. Beware here of the underwater rocks E of Suffik (Fortuna Havn), which have been found up to 0.5 M E of the E point of Qeqertasussuk. The island, Eqaluit Qeqertaat, in the middle of the bay can be passed to the E or W side. Due to rocks, keep a distance of at least 0.1 M from the island. The waters are then free of dangers in the entire bay. It is possible to swing at anchor in 28 m of water with ample chain. The bay can usually be expected to be free of polar ice, but it does occur that it is filled with growlers.
The anchorage is good, and the holding ground is comprised of sand/clay.
The wind that blows hardest in Eqaluit (Kuunnaat Bay) is the north wind. Very strong mountain gusts can occur and are strongest during storms from the N.

2.2.1.9.2 Iterlak (Christian Havn), 61º14'N 048º15'W, charts 1146 and 1118

The bay is located on the N side of Ilorput (Arsuk Fjord), 7 M NE of Arsuk. The bay provides good shelter from N winds and is used as an anchorage for larger ships. Good holding ground.

2.2.2 Paamiut (Frederikshåb)

2.2.2.1 Approach

7.2.2.1.1 Landmarks

Paamiut (Frederikshåb) lies between low, bare surroundings at a small indentation on the N side of the mouth of Kuannersooq (Kvanefjord).
Outside the harbour, there is a significant group of small islands that can be divided into a N and a S archipelago, separated by the main channel into the harbour. Among the islands in the S archipelago is the outermost, Qiioqi (Vardeø), a small, rounded, protruding islet, which is quite conspicuous, at least at a distance of 4-8 M (Fig. 2.10). The land behind the town rises to quite a height, but has no easily recognisable points. The mountain Qaqqarsuatsiaq Kujalleq, (Fig. 2.10), 4 M NE of the town, is very conspicuous in the spring, when the snow still covers the surrounding landscape and while the sides of this mountain are snowless, but it is less conspicuous further into the summer. The most recognisable mountain in the Paamiut (Frederikshåb) area is the 935 m high Arfiorfik (Knofjeld), which lies 10 M E of the harbour at the N side of Kuannersooq (Kvanefjord) and resembles the four knuckles of a clenched fist.
When approaching from the sea with insufficient position-fixing, however, it will always be possible from a great distance to orient oneself by Frederikshåb Umanak, (Figs. 2.4 and 2.5), S of the harbour, and by Sioqqap Sermia (Frederikshåb Isblink), (Fig. 2.6), a protruding, low section of the ice cap that ends near the sea 30 M N of Paamiut (Frederikshåb). From a distance, Sioqqap Sermia (Frederikshåb Isblink) appears as a bright light.
Two channels lead to Paamiut (Frederikshåb), Sydløbet and Nordløbet. The first, which is the main channel and, as mentioned earlier, runs between the N and S archipelagos, should be preferred.

2.2.2.1.2 Sydløbet [South channel]

Steer close N of Qiioqi (Vardeø) and further in between the low, elongated island of Saattuarsussuaq and the somewhat higher Kingittuarsuk. Immediately ahead, Oqaatsorsuit (Skarvø) will be sighted somewhat further in with a beacon on its rather pointed peak. It descends abruptly to the N. A little further S, Qernertunnguaq (Sorte Skær), is a fairly low and smooth islet. Smaller vessels can pass on either side of Qernertunnguaq (Sorte Skær). From here, keep between Takisoq and Alleruusat and continue in the leading lights to the harbour.
The route described here is free of dangers, but there are some rocks on either side of it, ENE of Qiioqi (Vardeø) and SW of Akerortooq, recognisable by two small peaks resembling a pair of horns.
Channel E of Qiioqi (Vardeø), see chart 1230.

2.2.2.1.2.1 Breakers

From Saattuarsussuaq, breakers have been observed approx. 1.2 M NW of the island at low tide and high N swell.

2.2.2.1.3 Nordløbet [North channel]

This channel leads close S of Qaqqartooq (Kofoeds Båke). During approach, keep well clear

of the outer islands until the open channel can be seen. Then, steer N of two small, isolated islands, of which the one furthest E, which is low and rugged, must not be approached too closely, as spurs of the island extend 100 m to the NE. The entrance itself is narrow and it is necessary to keep mid-channel. From here, continue in the marked channel to the harbour, see chart 1250. The channel is free of dangers mid-channel all the way to the harbour. The minimum depth in the channel is 3 m.
Alternative route: Steer N and E of Taleruusaq and from there further into Nordløbet.

2.2.2.1.4 Ice conditions

A great deal of blue ice comes from Kuannersooq (Kvanefjord) into the waters outside Paamiut (Frederikshåb).
Winter ice can occur from December to March, and some years as early as October. Breakups are frequent. The thickest observed winter ice was 47 cm.

2.2.2.1.5 Paamiut (Frederikshåb) 61º59.8'N 049º40.8'W, charts 1211, 1230 1250.

2.2.3 Qeqertarsuatsiaat Kangerluat (Fiskenæsfjorden) and Qeqertarsuatsiaat (Fiskenæsset)

2.2.3.1 Landmarks

Qassisallit (Hellefiskeøer), small, bright and rounded islands, the mountains Kangaarsussuaq and Ilivertalik, (Fig. 2.13), 63º15'N 050º36'W.

2.2.3.2 Approach

The approach to Qeqertarsuatsiaat Kangerluat (Fiskenæsfjorden) is usually S of Qassisallit (Hellefiskeøer). From a position approx. 0.5 M S of the islands, keep E, S and E of Avalleq (Sorte Skær) on the W side of the entrance to the fjord. It is possible to keep close to Avalleq (Sorte Skær). From here, keep up into the fjord on bearing 025º, which will mean having the mountain of Ilivertalik slightly to port. After passing a number of islands and small islets to starboard, keep mid-channel to the settlement of Qeqertarsuatsiaat (Fiskenæsset). When approaching Qeqertarsuatsiaat Kangerluat (Fiskenæsfjorden) from S, the mountain of Ilivertalik can be easily seen in clear weather. When this can be seen on a bearing 022º-025º, keep up into the fjord E of Avalleq (Sorte Skær).

2.2.3.3 Qeqertarsuatsiaat (Fiskenæsset), 63º05.4'N 050º40.0'W, charts 1212, 1231 and 1251

2.2.4 Kangerluarsussuaq (Grædefjord), 63º18'N 051º10'W, charts 1213, 1200 and 1300

From a position approx. 63º15'N 051º15'W, keep in towards the fjord itself, close S of Avalleq in the N side of the mouth of the fjord. Exercise caution due to the islets further S, Inussuttuut, with rocks around them. From Avalleq, which is a longish, low, black rock, keep into the fjord.

2.3 Inshore routes Ilorput (Arsuk Fjord) – Kangerluarsussuaq (Grædefjord)

2.3.1 Ilorput (Arsuk Fjord) – Paamiut (Frederikshåb)
2.3.2 Paamiut (Frederikshåb) – Qeqertarsuatsiaat (Fiskenæsset) – Kangerluarsussuaq (Grædefjord)

2.3.1 Inshore route Ilorput (Arsuk Fjord) – Paamiut (Frederikshåb)

Area 61º10.5'N 048º16.5'W – 61º59.7'N 049º40.8'W, charts: 1146, 1118, 1200, 1210, 1152, 1251 and 1230.

Navigating the route which is marked with beacons does not present any special difficulties. However, the route is not considered to be particularly ideal. Naturally, it may be an advantage to use it in severe weather, but here, close to the coast, there is a risk of encountering bergy bits when transiting both Sermilik and Kuannersooq (Kvanefjord).
Parts of the route should only be used by navigators having knowledge of local conditions and caution is advised.
From Ilorput (Arsuk Fjord), keep through Ikerasaarsuk (Karsakken) and W through Torsukattak and S and W of Qajartalik. From here, keep E of Arsuup Uummannaa, N through Ikerasaarsuk (Isaløb) and Toornaasuup Imaa (Toornaasuk Løb). The latter channel is free of dangers mid-channel. In a fresh and stormy gale, there are very strong gusts in the channel. Bear S of Oquutalik. From here, proceed W of Kangeq Kujalleq (Søndre Kangeq), which can be passed at a distance of 200 m, and Kangeq Avannarleq (Nordre Kangeq), and continue between the second and third islands, as seen from the W of the islands of Portusoorsuup Tunuleqitikasii. The minimum depth mid-channel between the islands is 15 m. Continue past Kingittoq (Tindingen), E of Qiioqi and Qiioqiarsuk, and through the channel W of Narsalik. If you are familiar with local conditions, it is possible to steer through Ikerasaarsunnguaq (Smallesund), across the fjord Sermilik and E and N of Narsalik. This route is not marked, but sometimes it gives a better chance of encountering scattered ice, when Sermilik has released the characteristic blue bergy bits into the waters, often 5-6 M W of the Ikerasaarsunnguaq (Smallesund) – Narsalik. It must be assumed that the narrow channel E of Anarsivik may be packed with ice or blocked by a large iceberg.
Then continue across Imartuneq and E and N of Quassuaq (Vesterland). From here, proceed N and E or W of Sarfaatsiaq. The depth in the channel E of the island is 6 m. Continue N or S of Kangilineq (Kvaneø) to Paamiut (Frederikshåb).

2.3.1.1 Anchorages for smaller vessels

2.3.1.1.1 Sillisit Havn, 61º22'N 048º56'W, chart 1251 and 1210

The anchorage is located inside the small islands, 2 M NE of Kangeq Kujalleq (Søndre Kangeq). The entrance to the anchorage is either NW of the islands, NE of the islands or between the two centre islands. The entrances are free of dangers and the depth at the anchorage is 22 m with a good holding ground.

2.3.1.1.2 Tissaluk Havn, 61º22.5'N 048º55.3'W, charts 1251 and 1210

There is an anchorage at Tissaluk Havn that can be used when the ice prevents further progress. Ships that come from N or W should keep S of Kangeq Kujalleq (Søndre Kangeq) and further NE along the coast. The high, recognisable mountain of Tissaluk (Fig. 2.15) can then be seen ahead. The entrance is between two low harbour arms. The entrance and the anchorage are free of dangers, but do not get too close to the S harbour point. It is possible to anchor in both the S and N part of the harbour.

2.3.1.1.3 Timmik N, 61º22.7'N 048º50.1'W, chart 1210

There is a good anchorage inside a small island, SE of the mountain Tissaluk.

2.3.1.1.4 Kangaarsuup Uummannaa, 61º26.3'N 049º03.5'W, chart 1210

On the SE side of this island, in the mouth of the fjord Sermiligaarsuk, there is an anchorage for smaller vessels that can be used during N winds. From W, steer straight in to the S-side of the island and keep along the island until the mountain Kingittoq (Tindingen) can be seen clear in a deep dip on the island (Fig. 2.16). Anchor in 28-38 m of water with a sandy bottom in the bay off the dip.

2.3.1.1.5 Kangaarsuk Havn, 61º28'N 049º00'W, chart 1251

On the N side of Sermiligaarsuk, there is an anchorage for smaller vessels in the bay at the abandoned settlement Kangaarsuk. Steer straight in towards Kingittoq (Tindingen) and then along the S side of this at a distance of 1 M from the coast to avoid some smaller rocks located here. Keep N of all the small islands outside the anchorage and then mid-channel into it (Fig. 2.17). The holding ground is good. Strong mountain gusts can come from SE from the gorge in the E side of the anchorage.

2.3.1.1.6 Ikerasaarsunnguaq (Smallesund), 61º33'N 049º16'W, chart 1251

The site is a commonly used anchorage for smaller vessels located in the strait between Anarsivik and the mainland. Anarsivik is very recognisable by its low E part and its 130 m high W hummock with a straight ridge that ends abruptly. Kingittoq (Tindingen), Anarsivik and the small protruding island of Qiioqi provide excellent guidance for finding the anchorage. Drop anchor at the location indicated on the chart in 18-20 m of water, and moor the ship with starboard mooring to the land to the south for S and E winds. Along the northern part of the land, the sound is free of dangers from the anchorage and further W.

2.3.1.1.7 Narsalik Havn, 61º39.6'N 049º19.3'W, chart 1251

The anchorage is located in a bay on the NW side of the island Narsalik. In the bay, smaller vessels and ships may either swing at anchor or stern-moor.
Soon after it has been expelled from Sermilik, the ice off Narsalik can often be troublesome for ships on the S or N route along the coast.

2.3.1.1.8 Frederikshåb Umanak, 61º45.7'N 049º37.2'W, chart 1210

There is a cove on the S side of Frederikshåb Umanak, where smaller vessels can anchor for short stopovers.

2.3.1.1.9 Quassuaq (Vesterland), 61º45.1'N 049º21.4'W and 61º45.2'N 49º23.0 W, chart 1210

The coves on the NE side of Quassuaq (Vesterland) have good anchorages for smaller vessels of appropriate depth, and they provide good shelter if there is ice in the channel.

2.3.1.1.10

No harbours are known between Frederikshåb Umanak and Paamiut (Frederikshåb) that can be used by ships.

2.3.2 Inshore route Paamiut (Frederikshåb) – Qeqertarsuatsiaat (Fiskenæsset) – Kangerluarsussuaq (Grædefjord)

Area 61º59.7'N 049º40.8'W – 63º05.4'N 050º41.0'W – 63º18'N 051º11'W, charts: 1230, 1211, 1212, 1231 and 1213.

Parts of the route should only be used by navigators having knowledge of local conditions and caution is advised.
From Paamiut (Frederikshåb), follow the leading lights out to Oqaatsorsuit (Skarvø), which should be taken on the port side. From here, proceed through Nordløbet, which is marked with three beacons without top-marks. Take the third beacon on the port side and steer N and E of Taleruusaq, Qeqertarsuaaraq (Søndre Storø) and Qeqertarsuaq (Nordre Storø) and further NNW. After passing Takisoq, it is possible to:
1) steer in towards the abandoned settlement of Avigaat, or
2) W and S of Qassisalik out towards the open sea and NNW in the waters, or
3) further NW between Aatik and Niaqornaq. 1 M NW of Niaqornaq, it is possible to either steer towards the open sea, E and N of Illutalik, or continue E of Simiuttat and Ukalersalik. There is a small island in the entrance N of Maajorsuit, 0.2 M W of the beacon with a triangle with an upward pointing tip, which can be passed on both sides. From here, keep S of the rocks at Naajatuut.
After passing the rocks S of Naajatuut, steer NNW and E of Kujalliit and Ikermiut. Kujalliit in line with the small island, 0.3 M NNE of Ikermiut, gives 25-30 m of water in the open waters N towards Tulugartalik, which must be passed to the E at a distance of 100 m. From here, continue E of Qarsaalik, which should also be passed at a distance of 100-150 m. From here, steer N along the NW side of the ice blink. Here, do not get W of the line between Qarsaalik and the beacon island 2 M further N, Napparutilikasak, due to rocks on both sides of the line between these two islands. After passing Napparutilikasak, follow the sounding track between Eqalugissat and Ikerasatsiaap Nunaa on the W side of the fjord Ikkattoq. Off Ikkattoq, keep the highest peak of the E part of Takisup Qeqertarsua (Ravns Storø) a little to port.
In the channel E of Tigutillit, keep to the W part due to rocks mid-channel and in the E part. Outside the channel, steer up towards the SE point of Takisup Qeqertarsua (Ravns Storø). Alternatively, it is possible to steer mid-channel, W of Tigutillit. The waters are free of dangers.

For further inshore navigation between the islands to the mouth of Kangerluarsussuaq (Grædefjord), see charts 1212, 1231 and 1213.
Small vessels can pass through a channel, W of Kangaatsiaap Timaa, between beacons 436 and 438. The N part of the channel has a barrier with shallow water and rocks on the sides. At mean sea level, vessels with a draught of up to 1.5-1.8 m can pass.

2.3.2.1 Anchorages for smaller vessels

2.3.2.1.1 Avigaat, 62º13.5'N 049º50.5'W, charts 1251 and 1211
Close S of the ice blink, it is easiest to approach using the island of Uummannaq, (Fig. 2.19), the largest and highest of the islands in this area. The anchorage is located in the bay between Kuannit and Niaqornaq, off the abandoned settlement Avigaat. The water depth is 25 m and good holding ground. (Fig. 2.20) is drawn S of Nutaarmiut.

2.3.2.1.2 Iterlak N, 62º13.5'N 049º41.5'W, chart 1211
On the S side of Qassit fjord, in a bay on the N side of the island of Iterlak, it is possible to anchor in 50 m of water, but there is little room to swing.

2.3.2.1.3 Maajorsuit, 62º17.2'N 050º02.4'W, charts 1251 and 1211

2.3.2.1.4 Niaqornap Umiatsialivia (Teisten Havn), 62º41.1'N 050º20.0'W, charts 1250 and 1212
There is excellent anchorage here for smaller ships. The holding ground is good and there is shelter from all winds.

2.3.2.1.5 Kangerluluk (Nordre Fiskerihavn), 62º44'N 050º24.7'W, chart 1212
The N side of Takisup Qeqertarsua (Ravns Storø).
It is possible to anchor in the harbour or slightly outside the entrance. The holding ground is good. The buildings and jetties are in disrepair.

2.3.2.1.6 Kangerlua (Søndre Fiskerihavn), 62º42.5'N 050º24'W, chart 1212
The S side of Takisup Qeqertarsua (Ravns Storø).
It is possible to swing at anchor everywhere in the harbour. The holding ground is good. However, the harbour is not good during strong SW and W winds, which cause a heavy swell in the harbour. Small boats can anchor in Rota Havn. The buildings and jetties are in disrepair.

2.3.2.1.7 Kangillermiut, 62º46.6'N 050º21.5'W, charts 1251 and 1212
There is a good anchorage in a small cove 2.5 M SSE of Kangillermiut.

2.3.2.1.8 Eqalugissat (Irkens Havn), 63º04.5'N 050º47.5'W, chart 1231
At Qeqertarsuatsiaat Kangerluat (Fiskenæsfjorden). Anchor 0.3 M NW of the entrance in depths of 11-13 m. There is good holding ground.

2.4 Nature reserves, conservation areas, etc.

The Government of Greenland's Order No. 4 of 12 April 2010 on the conservation of an area at Ivittuut and Kangilinnguit (Grønnedal). The area is shown in relevant charts.

The Government of Greenland's Order no. 1 of 05 January 2017 on protection and hunting of birds. The area is shown in relevant charts.

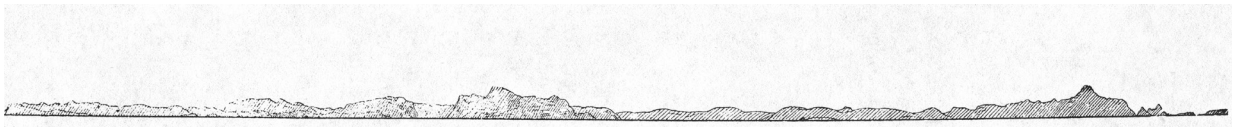


Fig. 2.2



Fig. 2.3

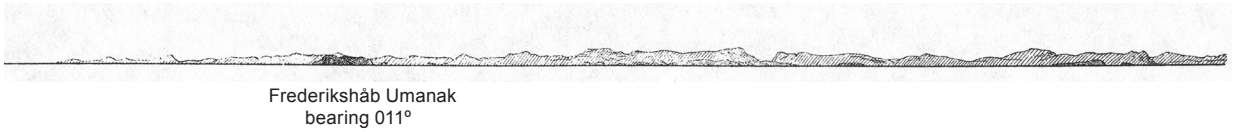


Fig. 2.4

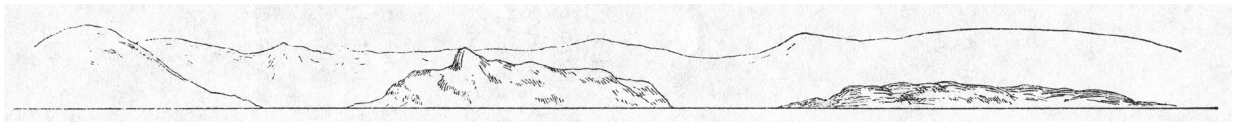


Fig. 2.5



Fig. 2.6 – Frederikshåb Umanak.

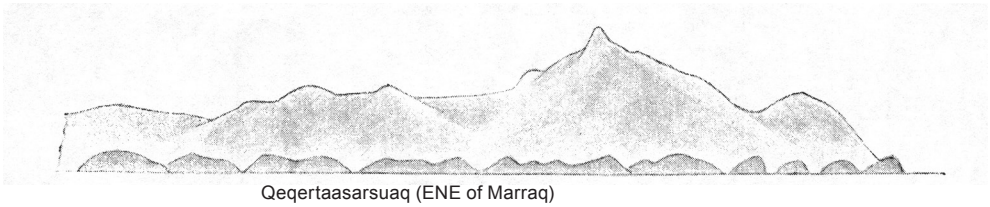
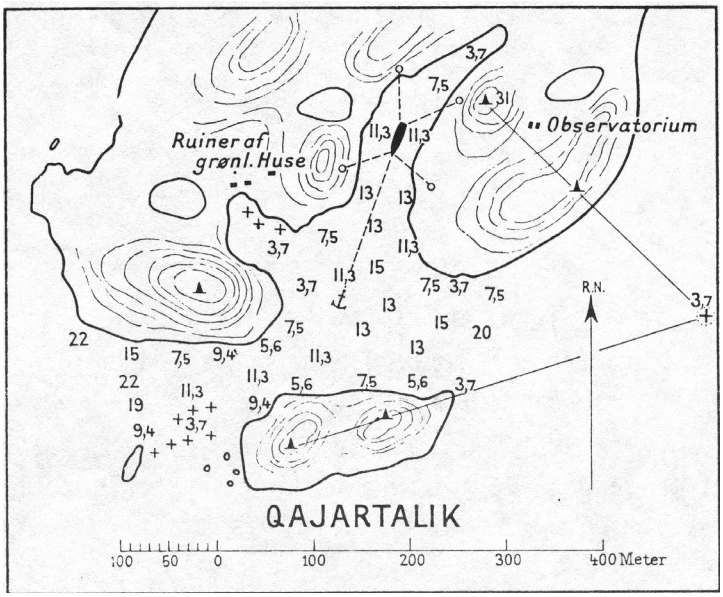
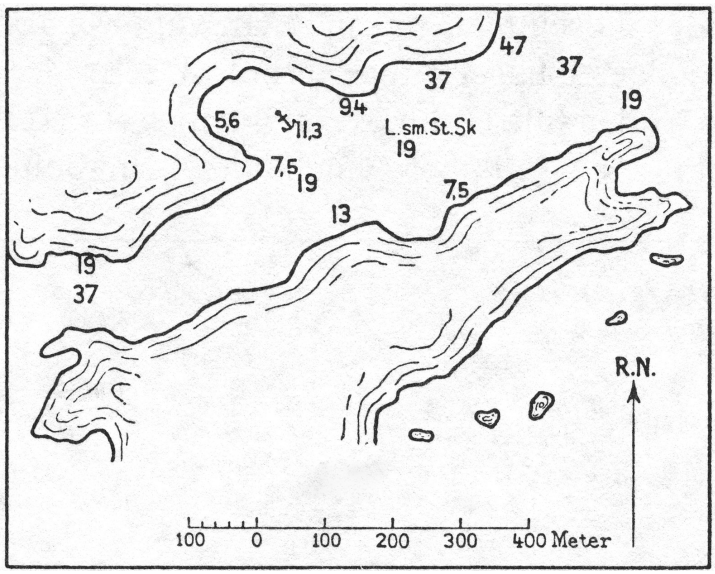


Fig. 2.7



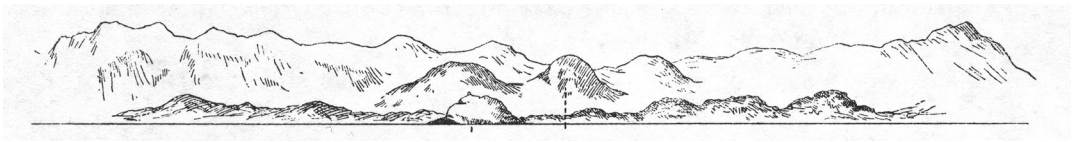
Note. There is a light on the SW point of Qajartalik

Fig. 2.8



Suffik (Fortuna Havn)

Fig. 2.9



Qaqqarsuatsiaq Kujalleq
(The area is snow-clad)

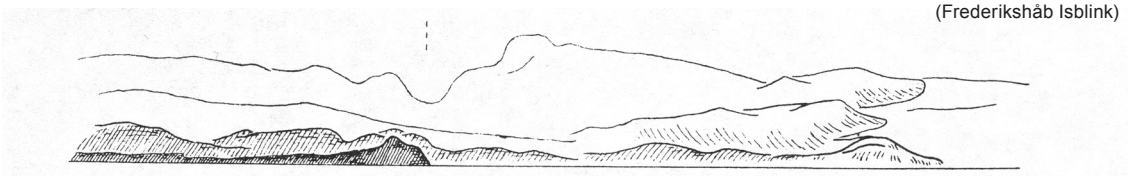
Qiioqi (Vardeø)
bearing 034°, distant 4 M

Fig. 2.10



Takisup Qeqertarsua (Ravns Storø)
bearing ENE, distant 12 M

Fig. 2.11



Sioqqap Sermia
(Frederikshåb Isblink)

View of the coast for the guidance of approaching Takisup Qeqertarsua (Ravns Storø). An identifiable valley N of Sioqqap Sermia (Frederikshåb Isblink) in line with the S edge of the islands at the W side of the harbour entrance in bearing 109°.

Fig. 2.12



Ilivertalik

Fig. 2.13

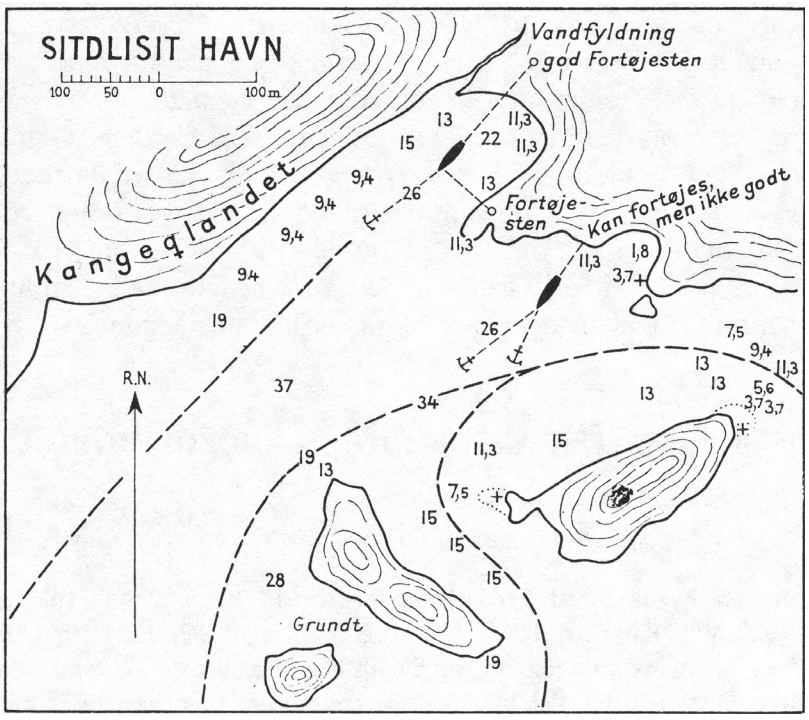
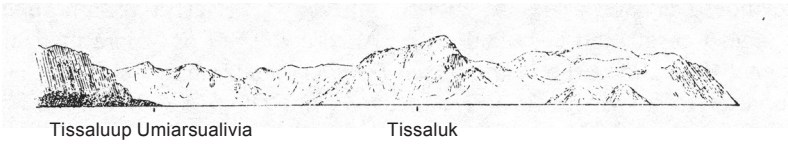


Fig. 2.14



Tissaluup Umiarsualivia
(Tissaluk Havn)

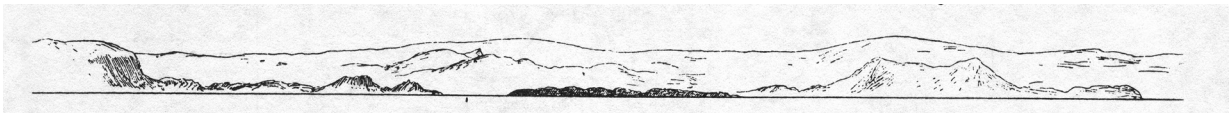
Tissaluk
bearing 067°, distant 4 M

Fig. 2.15



Anchorage mark in Kangaarsuup Uummannaa

Fig. 2.16



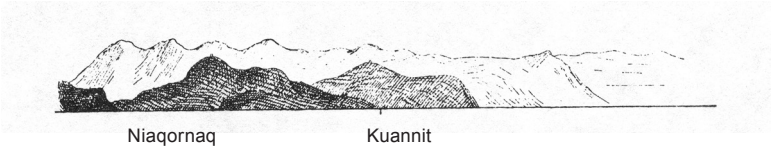
Entrance
Veiw of the coast at Kangaarssuk (The area is snow-clad)

Fig. 2.17



The island Uummannaq (3 M SSW of Avigaat) bearing 022°

Fig. 2.18



Niaqornaq
with the cairn

Kuannit
Entrance to the harbour

Fig. 2.19

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Map

Kangerluarsussuaq (Grædefjord) – Sermersuut (Hamborgerland)

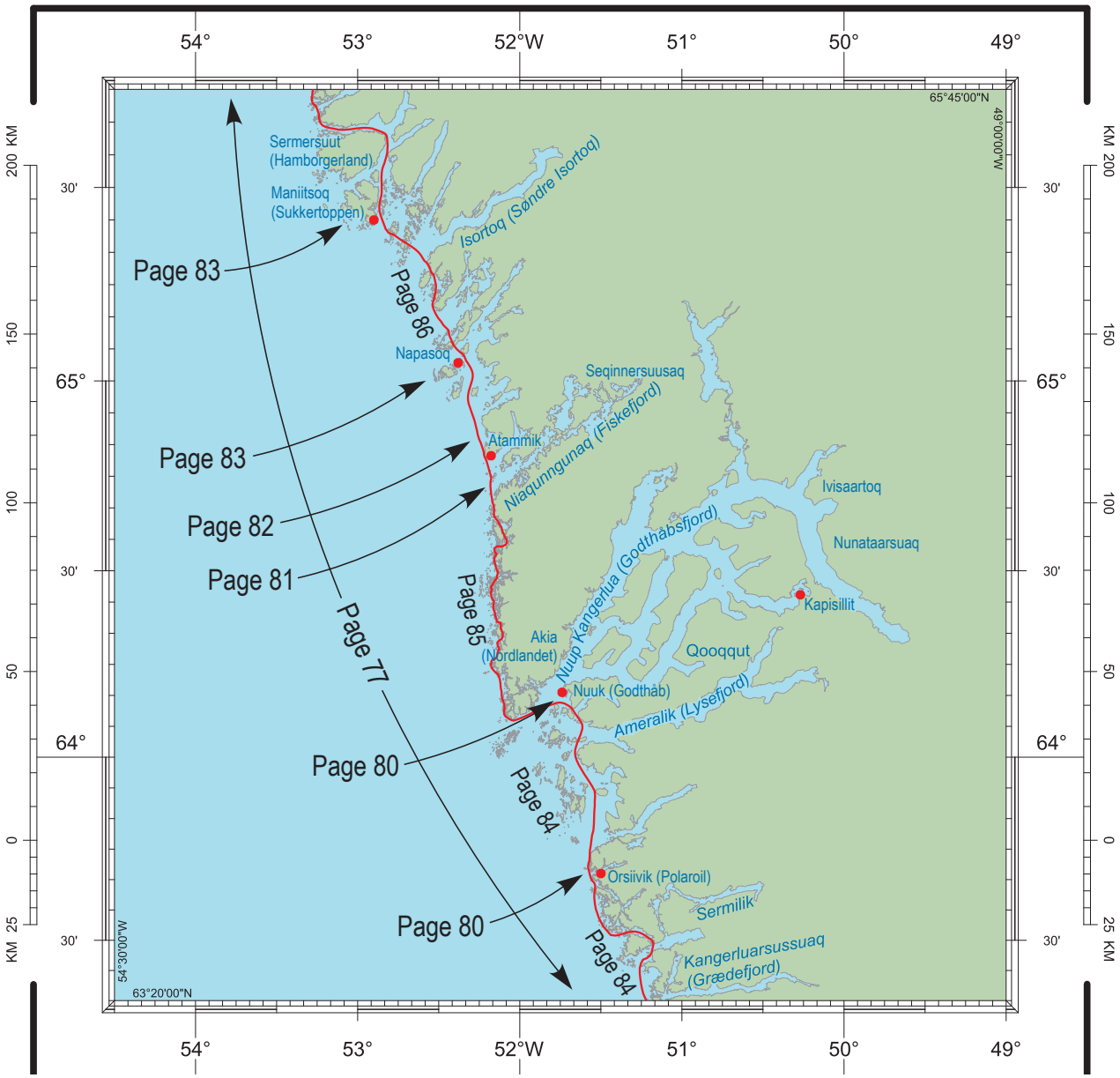


Fig. 3.1

CHAPTER 3

Kangerluarsussuaq (Grædefjord) – Sermersuut (Hamborgerland)

Area 63º18'N 051º10'W – 65º40'N 053º15'W
Charts: 1000, 1001 (Unknown), 1300 (Qornoq 1927), 1213, 1310, 1311, 1312, 1313, 1314, 1330, 1331, 1333, 1335, 1350, 1351, 1352, 1353 and 1410 (WGS-84)

3.1 Transit of the area
3.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
3.3 Inshore routes

3.1 Transit of the area

The coast from Kangerluarsussuaq (Grædefjord) to the entrance to Orsiivik (Polaroil) has dangers with many islands and rocks. N of Orsiivik (Polaroil), the archipelago that lies off Nuup Kangerlua (Godthåbsfjord) begins. The waters between Nuup Kangerlua (Godthåbsfjord) and Sermersuut (Hamborgerland) have quite a lot of dangers close to the coast, and during passage the coast should not be approached within 10 M.
During passage W of the entire area, do not get too close to the archipelago, as several underwater rocks have been found up to 3 M off the outer visible islands.

3.1.1 Landmarks

The Killavaat mountains 1,245 m with high jagged peaks 63º28'N 050º58'W and Qeqertaasarsuaq, 826 m (Fig. 2.7) at 63º27'N 051º05'W. The islets Nukariit (Tre Brødre), 7 M S of the entrance to Orsiivik (Polaroil). There are 3 cairns erected on the islands.
From the water off Nuup Kangerlua (Godthåbsfjord), a large mountainous area can be seen in clear weather that forms a continuation of the high land between Qeqertarsuatsiaat (Fiskenæsset) and Nuuk (Godthåb) until a little N of Nuuk (Godthåb), where it is suddenly interrupted by a low, inconspicuous area of land with only a few prominent points. Among the mountains can be seen, starting from S, Meqquitsoq (Skinderhvalen) and Sammisorsuaq 63º52'N 051º24'W. The latter slopes steeply to the N, and no matter what direction this mountain is seen from the sea, it appears to be turned to the side. Further N, Kingittorsuaq (Hjortetakken) SE of Nuuk (Godthåb) and Sermitsiaq (Sadelø) N of Nuuk (Godthåb) (Fig. 3.2, 3.3 and 3.5), are easily recognizable, particularly from SSW as seen in (Fig. 3.5). Sermitsiaq (Sadelø) then appears very prominent just E of the low Akia (Nordlandet). To the right of Sermitsiaq (Sadelø), Ukkusissat (Store Malene) is a recognizable mountain close to Nuuk (Godthåb), and finally Kingittorsuaq (Hjortetakken) further SE. The mountains are also very recognizable seen from W, (Fig. 3.4), especially when viewed closer to land when a clear

difference can be seen between what is protruding, and what lies further back. At a greater distance, Kingittorsuaq (Hjortetakken) can be confused from this side with a mountain seen a little further N. Sermitsiaq (Sadelø) is more difficult to find coming from N, because its peculiar shape is then not so sharply defined, (Fig. 3.5).
From sufficiently close to land, a low and in summer dark, sharply defined foreland can be seen on the N side of the mouth of the fjord. This is the above-mentioned Akia (Nordlandet), whose S tip, Kangeq, forms the N side of the mouth of the fjord. Kangeq is smooth and slopes away with a somewhat cleft upper part. A cluster of small islands can be seen in the middle of the mouth of the fjord. They lie so close together that they look like a unit, especially seen from some distance to the SW. These are Kitsissut (Kookøerne), over 200 islands and rocks, which due to their prominent location, large number and peculiar, rounded, dome-shaped nodules, are an excellent landmark for the approach to Nuup Kangerlua (Godthåbsfjord). There is a 90 m high radio mast on Qunguata Saqqarlersua (Radioø).
While the land around Nuuk (Godthåb) is characterized by high mountains, the outer area on the N side of Nuup Kangerlua (Godthåbsfjord) already assumes a low, rounded appearance that is a special feature of the coastal area until somewhat S of Maniitsoq (Sukkertoppen).
Seen from the sea N of the Nuuk (Godthåb) highland, there are only a few easily recognisable landmarks. The first is the mountain Toqqusaq 64º53'N 052º10'W N of the Ammassivik fjord and, although only 517 meters high, it is quite striking, because it lies very far out and is the only high point for a long distance. The second is the elongated Sulussugut (Finnefjeld) 65º16'N 052º08'W, which is 1,094 m high and has a somewhat jagged surface (Fig. 3.7, 3.8 and 3.9). Its peculiar form can be seen most clearly from N and S. Sulussugut (Finnefjeld) forms the transition to a high massif that extends almost to Sisimiut (Holsteinsborg).
Close S of Maniitsoq (Sukkertoppen) the mainland assumes quite a different character than what was dominant from Nuuk (Godthåb) and further N. The mountains become higher and more prominent, and a series of jagged and pointed mountains within Maniitsoq (Sukkertoppen) make the land in this area very recognisable.
The landmarks N of Sulussugut (Finnefjeld) include the following:
Nukappiaq 65º26'N 052º05'W is a 1,257 m high mountain with a high peak on the S side of the Isortoq fjord.
Illerfik (Kistefjeld) is 837 m high with a rounded top on the mainland NE of Maniitsoq island. It is very conspicuous within 10 M from the land, whereas from a greater distance it is not particularly prominent due to the higher, jagged mountains behind it, which then dominate the landscape. Illerfik (Kistefjeld) is easily recognised by the fact that on the S side of the rounded top, it has a gully or gorge that continues right down to the waterline and can be seen from a long distance.
Maniitsoq island is relatively snow-free and has a brownish colour. In the centre of the island is the 567 m high Iviangiusat (Pattefjeld), with some rounded peaks.
Uummannassuaq (Kin of Sal) is a steep, 359 m high and fairly large island, immediately W of and close to the island of Maniitsoq. It is particularly noticeable from S and N (Fig. 3.9, 3.10 and 3.11). Maniitsoq island is otherwise low compared to the island of Sermersuut (Hamborgerland) to the N, with its high, snow-capped mountains, including Tarrarsuutaasaq, 781 m (Fig. 3.12), which is very striking. Tunu (Hamborgersund) N of Sermersuut (Hamborgerland) is clearly visible from the sea.

3.1.2 Depths

The continental shelf is not continuous, but is penetrated several places by wide and deep trenches extending all the way to the shore. The fishing grounds are formed here, which from the S consist of Fyllap Ikkannera (Fyllas Banke), Toqqusap Ikkannera (Toqqusaq Banke), Maniitsup Ikkannersua (Sukkertoppen Banke) and Lille Hellefiske Banke.
Fyllap Ikkannera (Fyllas Banke) off Nuuk (Godthåb) is 40 M long with a minimum depth of 30 m. The 20 M long Toqqusap Ikkannera (Toqqusaq Banke) is separated from Fyllap Ikkannera (Fyllas Banke) by the 12 M wide Sukkertoppen Dyb, which has depths of up to 635 m off Niaqunngunaq (Fiskefjord). The bank has its least depth of 40 m at the E edge.
The much larger Maniitsup Ikkannersua (Sukkertoppen Banke) has depths of 30 m.
Between Maniitsup Ikkannersua (Sukkertoppen Banke) and Lille Hellefiske Banke, W of Sermersuut (Hamborgerland), there are several smaller banks, all with depths of less than 100 m. During passage in this area, it is important to take account of the low Kitsissut (Kookøerne) islands off Nuuk (Godthåb). These islands are poor radar targets, but a course 10 M clear of the high and steep Sermersuut (Hamborgerland) should provide good safety when passing Kitsissut (Kookøerne).

3.1.3 Ice conditions

The polar ice is often encountered in the season N of Paamiut (Frederikshåb) and in some cases, it reaches the area around Nuuk (Godthåb), but rarely N of here.
Navigation of the waters between Nuuk (Godthåb) and Sisimiut (Holsteinsborg) may sometimes be made difficult by winter ice from January to April. However, frequent storms often cause the ice to break up. Icebergs and floes are often seen in the area.

3.1.4 Magnetic disturbances

These have been observed a number of times W of the Saattut group of islands, which are located 3 M SW of Meqquitsoq (Skinderhvalen). At 63º44.7'N 052º18'W, 20 M W of Meqquitsoq (Skinderhvalen), deflections have been observed of 40º to the left on the magnetic compass. From this location to Nuuk (Godthåb), the magnetic compass was especially dead, and deflections of 5º were observed twice.

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

3.2.1 Orsiivik (Polaroil)
3.2.2 Nuuk (Godthåb)
3.2.3 Kapisillit
3.2.4 Seqinnersuusaq i Niaqunngunaq (Fiskefjord)
3.2.5 Atammik
3.2.6 Napasoq
3.2.7 Maniitsoq (Sukkertoppen)

3.2.1 Orsiivik (Polaroil) 63º42'N 051º33'W, charts 1310, 1330 and 1350

3.2.1.1 Approach

3 M S of Meqquitsoq (Skinderhvalen), (Fig. 3.6), the 6 M long Kangerluarsoruseq fjord cuts into the land. The coast S of the fjord has dangers, with many islands and rocks. The archipelago located off Nuup Kangerlua (Godthåbsfjord) begins N of the fjord area.
The Saattut group of islands lies 1 M W of the mouth of the fjord. Between the group of islands and the coast is a narrow channel, but it has dangers just around the islands and between these and the recognizable Qaarajuttukasik (Sorte Skær) 0.6 M further S, on which an orange coloured circle is painted. The waters S of Qaarajuttukasik (Sorte Skær) are free of dangers as far as Ikarluk Sankta Maria (Sankta Maria Skær), which lies 0.8 M S of Qaarajuttukasik (Sorte Skær).
Kangerluarsoruseq can also be navigated as far as an island located in the innermost part of the fjord. When approaching, keep to the middle of the fjord and pass 3 larger islands on the starboard side when inward bound. Avoid an underwater rock E of the third large island, which is recognizable by a deep cut in the middle.
Orsiivik (Polaroil), refer also to chart 1330.

3.2.2 Nuuk (Godthåb) 64º10.4'N 051º43.5'W, charts 1310, 1331, 1351 and 1353

3.2.2.1 Landmarks

Nuuk (Godthåb) is on the W headland of a long peninsula that separates Nuup Kangerlua (Godthåbsfjord) and Ameralik (Lysefjord). The highly branched and deep Nuup Kangerlua (Godthåbsfjord) extends roughly NNE inland, and on the E side it is confined by a high, mountainous area with peaks of 1,000-1,600 m, while the land on the W side, the so-called Akia (Nordlandet), is low and rounded. S of the mouth of Nuup Kangerlua (Godthåbsfjord) is a wide archipelago that to the S extends to just off Meqquitsoq (Skinderhvalen), N of Orsiivik (Polaroil). Kitsissut (Kookøerne) is a cluster of small islands that are close SW of the entrance to Nuup Kangerlua (Godthåbsfjord), and which cannot be confused with any group of islands further S, since there is no cluster of small islands within a reasonable distance that is so prominent or so large. Beware, however, that they may be confused with the Satsissuaqqat islands located somewhat further N. This cluster of small islands is more scattered, however, and they are smaller and fewer in number than Kitsissut (Kookøerne), but are surrounded by several underwater rocks. NE of Kitsissut (Kookøerne) are the high, easily recognizable points Sermitsiaq (Sadelø) Ukkusissat (Store Malene) and Kingittorsuaq (Hjortetakken), (Fig. 3.2, 3.3 and 3.4), which can be seen long before Kitsissut (Kookøerne) when approaching from S and W. Kitsissut (Kookøerne) can only be seen on radar from a distance of 15 M, while the hinterland can give an echo on the radar's range, usually 50 M.

3.2.2.2 Approach

Nuuk (Godthåb) can be navigated through Attorsuit (Nordløb) in the outer part of Nuup Kangerlua (Godthåbsfjord) and through Narsakkoortariaa (Narsaq Løb), see section 3.3.2.

Narsakkoortariaa (Narsaq Løb) extends N between the islands of Saattut and Qernertut and E of Simiuttat and the islands further N. It is recommended that this channel be used by vessels with a maximum draught of 7.2 m approaching from S, as this route is then somewhat shorter than the route W and N of Kitsissut (Kookøerne). Large vessels should approach through Attorsuit (Nordløb) with maximum draught of 20 m.

3.2.2.2.1 Attorsuit (Nordløb), chart 1331

At a distance of 10-12 M, the outermost of the Kitsissut (Kookøerne) islands can be seen in clear weather. At almost the same time, the low unbroken island of Kangeq can be seen a little further N.
Approaching from S, from position 64º02.5'N 052º17.0'W, stay in Attorsuit (Nordløb) approximately 0.5 M N of Attorsuit Light while passing Ikkarlussuaq (Sælskæret), which is 1 M NW of Attorsuit. Ikkarlussuaq (Sælskæret) is submerged at high water but dry at low water. However, waves almost always break on it when there is a swell. After passing Attorsuit Light and Ikkarlussuaq (Sælskæret), it is possible to sail straight to Nuuk (Godthåb), see chart 1331. It is possible to keep 0.5 M N of Qeqertarsuaq (Hundeø) and from there E until the approach to Umiarsualivik (Skibshavn) appears open. This keeps well clear of the 5,2 m shoal 0.2 M SSW of the peninsula on which the town is located, and after the turn there is plenty of room to get the vessel on a steady course in towards the harbour. Incidentally, the 5.2 m shoal is located N of the leading line on Qeqertaq Avalleq (Fyrø), so navigating a little S of the leading line clears the shoal well, see chart 1353.

3.2.3 Kapisillit, refer to section 3.3.3

3.2.4 Seqinnersuusaq, Niaqunngunaq (Fiskefjord) 64º58.6'N 051º34.7'W, charts 1313 and 1333

3.2.4.1. Depths

Refer to charts 1313 and 1333.

3.2.4.2 Approach and navigation

Navigation of Niaqunngunaq (Fiskefjord) should only occur during daylight in calm weather, good visibility, and with wind speeds of less than 8 m/s.
From 64º36'N 052º35'W, vessels approaching from S can navigate ENE towards the island Timmiakasiit Avalersui. From 64º39.5'N 052º30'W, vessels approaching from N can navigate E towards the island. From close WSW off Timmiakasiit Avalersui, navigate along the coast in a N and later a NE direction toward the narrow part of Niaqunngunaq (Fiskefjord) at the island Sarfap Qeqertaarsua. Between this island and the entrance to Tasiusaarsuaq, the fjord is very narrow. The current is very strong in this part of the fjord, with eddies and changing currents. Very large vessels with relatively poor manoeuvrability can only navigate this part at high water. All vessels are cautioned against navigating the waters around Sarfap Qeqertaarsua N between high water and low water. The current at this location can be up to 8 knots.

The current at Sarfap Qeqertaarsua N determines the navigation in Niaqunngunaq (Fiskefjord). Vessels can pass this place without hindrance in the period from 20 minutes before until 10 minutes after the local high water, which occurs about 1 hour and 55 minutes after high water in Nuuk (Godthåb).

3.2.4.3 Inward bound navigation

It is recommended to pass Sarfap Qeqertaarsua N 10-20 minutes before the local high water. During the passage, there will be a slight wake current, quickly followed by a weak counter-current. The speed of the current increases quickly, but will not exceed about 2.5 knots at a speed over the ground of 6 knots.
It is possible to pass N or S of the island Panik. N of Panik the current is strong but calm. In the wider part S of the island, the current is much less and it is recommended for all vessels.
It is possible to pass N or S of the island Illutsiaat. In the channel N of the island, the current is unsettled in the S part. The broader waters S of Illutsiaat are recommended for all vessels except for very large vessels, which may have problems manoeuvring when changing course. The local high water here occurs about 2 hours and 15 minutes after high water in Nuuk (Godthåb).
In Ikinnilik, the approach to Tasiusaarsuaq, the current is calm. The current S of Ikinnilik mixes with the current coming from NE, and large vessels here should therefore be aware of any changing currents.
The current is calm in Tasiusaarsuaq off the island Nuussuup Qeqertaa. The current decreases N of the island and does not affect calling into the harbour/landing installation Seqinnersuusaq.

3.2.4.4 Outward bound navigation

It is recommended to pass Sarfap Qeqertaarsua N 10 minutes after the local high water. The minimum speed over the ground should be 6 knots if the island Illutsiaat can be passed in a fairly low current, i.e. less than 2.5 knots. Large vessels can pass N of the islands Illutsiaat and Panik, but all other vessels are recommended to keep S of the islands and can then pass Sarfap Qeqertaarsua N around high water.

3.2.4.5 Ice conditions

Smaller icebergs can occur all year in the waters W of Timmiakasiit Avalersui. Winter ice may occur in the season along the coast and in the outer part of Niaqunngunaq (Fiskefjord). In the narrow part of the fjord, no ice will be formed due to the strong current. However, broken winter ice may occur, especially at spring tide and in the spring.
Winter ice occur in Tasiusaarsuaq from December to June.

3.2.5 Atammik, 64º48.3’N 052º11.0’W, charts 1313, 1314 and 1333

3.2.5.1 Approaching from S, in open waters

From position 64º42.5’N 052º30.0’W, steer into the outer part of Ammassivik fjord on course 065º. When the group of islands Simiutat has been passed, steer towards the entrance to the harbour.

3.2.5.2 Approaching from N, in open waters

From position 64º45'N 052º30'W, steer E until it is possible to steer 065º S around Simiutat and from there to Atammik.

3.2.6 Napasoq, 65º02.7'N 052º23.1'W, chart 1314

3.2.6.1 Approaching from W, in open waters

Napasoq can be approached S or N of the rocks Ikkarloralak.

3.2.6.2 Approaching via the inshore route, see section 3.3.5.

3.2.7 Maniitsoq (Sukkertoppen) 65º25'N 052º54'W, chart 1352 and 1335

3.2.7.1 Landmarks

Sulussugut (Finnefjeld) S of the fjord Isortoq, Illerfik (Kistefjeld) on the mainland NE of the island Maniitsoq, Uummannassuaq (Kin of Sal) W of Maniitsoq and Iviangiusat (Pattefjeld) on Maniitsoq.

3.2.4.1.1 Archipelago

There is an extensive archipelago E and SE, as well as S and W of the island Maniitsoq.
In the SE section of the archipelago, 3.5 M SSE of Maniitsoq (Sukkertoppen), is the island Killiaraq with a light. In the S part lies Ikermiut (Ikermiut Rev) and Annikitsoq (Faltings Skær), both with depths of only 2 m.
Between the island of Maniitsoq and the E part of the archipelago, the main channel goes to Maniitsoq (Sukkertoppen) and a channel continues N to Tunu (Hamborgersund).
The inshore route through Tunu (Hamborgersund), refer to section 3.3.5.

3.2.7.2 Navigation

When approaching, keep towards Killiaraq until the lighthouse on Kirkegårdsnæs is in line with the beacon on the island close S of here. Steer up in this mark between Annikitsoq (Faltings Skær) and Ikermiut (Ikermiut Rev) until the harbour appears open, and now steer into the harbour, S of Portusooq.
The harbour is navigable both day and night throughout the year.
When approaching in low-visibility weather, it can sometimes be easier to go SE of Annikitsoq (Faltings Skær) and keep NNE in the middle of the deep channel between Killiaraq and Ikermiut (Ikermiut Rev), because Killiaraq, Killersuaq and the islands NE of here provide a good radar response. When the harbour appears open, steer into the harbour using the radar in the white light sector.

3.3 Inshore route Kangerluarsussuaq (Grædefjord) – Sermersuut (Hamborgerland)

3.3.1 Kangerluarsussuaq (Grædefjord) – Orsiivik (Polaroil)
3.3.2 Orsiivik (Polaroil) – Nuuk (Godthåb)
3.3.3 Nuup Kangerlua (Godthåbsfjord) and the area NE of Nuuk (Godthåb)
3.3.4 Nuuk (Godthåb) – Atammik
3.3.5 Atammik – Sermersuut (Hamborgerland)

3.3.1 Inshore route Kangerluarsussuaq (Grædefjord) – Orsiivik (Polaroil) 63º18'N 051º09.5'W – 63º41'N 051º33'W, charts 1213, 1310 and 1330

Note. This route should only be used by small vessels or boats with navigators having local knowledge.

When approaching Kangerluarsussuaq (Grædefjord) with sight of the mountain Killavaat, steer toward the mouth of the fjord, while staying close S of the group of islands at Ikerasaarsuup Timaa, as there are dangers around the group of islands furthest S, Inussuttuut. The rock furthest S in the Ikerasaarsuup Timaa group of islands, Avalleq, is an elongated, black rock. Pass close by this rock and then steer into the fjord.
From the mouth of Kangerluarsussuaq (Grædefjord), steer in the sounding tracks NNW in the channel marked with beacons E around Ukiivissat, where the depth of the N-part is only 2 m at spring high water. From here, steer between the islands with beacons at Pingutusuup Avalia. From here, steer a course 330º until clear of the rocks W of Tukingasoq and then N, keeping W of Itisuatsiaap Qeqertarsua and E of Itisuatsiaap Qeqertaa, Tukingasorsuaq and Kujallersuaq into Sarfat.
From Sarfat, steer along the sounding track E and N of Saneraata Timaa through Ikerasassuaq and further S and W of Ikerasakitsup Timaa and NW in the channel marked with beacons W of Nukariit (Tre Brødre) and E of Ivilikasik, refer to chart 1330 plan A.
From Ivilikasik, keep in rock-filled waters towards Qimmit and from here N in the sounding track towards the islands Ammaqqunnguit (Teltøerne), passing E through the channel marked with beacons, refer to chart 1330. From Ivissuartooq, steer between the land and Kangaakasiip Avalii N to Avalap Quia (Den Smukke Ø) Light's white sector, from where it is possible to steer towards Orsiivik (Polaroil) and the fjord Kangerdluarssoruseq.

3.3.2 Inshore route Orsiivik (Polaroil) – Nuuk (Godthåb) 63º41'N 051º33'W – 64º09'N 051º46'W, charts 1350, 1330, 1310, 1331 and 1353

From Orsiivik (Polaroil), keep into Avalap Quia (Den Smukke Ø) Light's white sector and from there E or W of Saattut.
From a position in Saattut Light's N white light sector and W of Meqquitsoq (Skinderhvalen), keep N through Narsakkoortariaa (Narsaq Løb) W of Qeqertarsuaq and then in the leading lines until N of Simiutaa. In the area with strong current between Simiutaa and the island

Kingittoq to the W, the minimum depth is 11.8 m.
N of the area with strong current, it is possible to steer either:
1) E or W of Serfartoorsuaq and E of Aqissersiorfik (Rypeø) to Nuuk (Godthåb), where there is a minimum depth of 7.2 m, or
2) S and W of Qeqertarsuaq (Hundeø).

3.3.3 Nuup Kangerlua (Godthåbsfjord) and the area NE of Nuuk (Godthåb) 64º32'N 051º06'W, charts 1311 and 1312

The main channels between and around the islands in the inner part of Nuup Kangerlua (Godthåbsfjord) are clear of dangers, and the depths are generally large.

3.3.3.1 Qoornoq, 64º32'N 051º06'W, charts 1300 and 1312

which is mostly inhabited in the summer, is located on a low island at the NE headland of Qoornup Qeqertarsua (Bjørneøen), N of Sermitsiaq (Sadelø). The bay S of the houses has a harbour for small vessels. The depth is 4-5 m with a sandy bottom.
With an E or S wind, however, it is best to anchor in a cove on the W-side of the island. The weather at Qoornoq is mostly good.

3.3.3.2 Qooqqut, 64º15.5'N 050º54'W, chart 1300 and 1312

is a former sheep breeding station 22 M E of Nuuk (Godthåb). Today there are several hotel cabins and a resturant at the location. It is possible to anchor S of the buildings in 30-35 m water (Fig. 3.13). In mid-channel in the fjord Qooqqut, the depth decreases evenly from 400 m in the W part, to 30 m at the anchorage.

3.3.3.3 The settlement Kapisillit, 64º26.0'N 050º16.0'W, charts 1300, 1312 and 1311

3.3.4 Inshore route Nuuk (Godthåb) – Atammik 64º09'N 051º46'W – 64º48'N 052º11'W, charts 1331, 1313 and 1333

Note. The inshore route should be navigated with caution. This route is the most difficult and most rock-filled of all the inshore routes in Greenland, and should only be used by smaller vessels with navigators having local knowledge.
From Nuup Kangerlua (Godthåbsfjord) (chart 1331), approach Ikerasak and keep E of the islands Kangeq and Illuerunnerit (Håbets Ø). From here, follow the route close E of Arfiorfik (beacon 605) and the islets located NW of Ulittarfik (beacon 606). There are several rocks in the waters W of Ulittarfik, E of the surveyed route.
On a NNW course, keep towards an island with beacon (607), chart 1313 panel A, while navigating in the surveyed route. Then continue on approximately the same course past Satsissunnguit towards the narrow channel W of Kangaarsuup Nunaa, while approaching the islets just S of the somewhat low island marked with a beacon (608). Keep to the surveyed route. There are several rocks in the waters between the islands, so that great caution must be exercised in this channel. Alternatively, it is possible to steer W of beacons 608 and 609 in the sounding track over Kangaarsuk. Immediately W of Qernertuarsunnguaq, continue in the surveyed route.

As Kangaarsuup Nunaa lies out to the sea, there are often heavy seas and swells here, and the breakers then shows the location of the rocks, but if the surveyed route on the chart are followed, the navigation should not present much difficulty. The N end of Kangaarsuup Nunaa channel is marked with a beacon (609). Out of the channel, steer approx. 2 M on a NNW course in the surveyed route W of Qernertuarsunnguaq to about 0.5 M SW of the beacon island (610). From here, steer NE and then N into the narrow channel past beacons 610 and 611. Alternatively, continue further to the NE into Sarfap Paa and from there N and NW in the surveyed route to the beacon (612) close to Inussuttooq. This channel is deeper and wider.
The surveyed route continues N and continues W of Kangaarsuttaaq and through the narrow channel between the beacons 614 and 615. Just outside the channel, it divides into two, W and E of Ikkarlussuaq respectively and then joins again approx. 0.4 M S of beacon 616. Keep in the surveyed route through the narrow channel W of Qoqaarissut to beacon 619.
From this beacon, follow the sounding track and the marking N to the E of Umiatsiaalivigissoq and Pallissaat. After passing the beacon (630) SE of Innalik, keep E to the S of beacon 631 and onwards into Amerlunnguaq or in Oqummiap Paava. The route through Oqummiap Paava and further N is considered better and has greater depth.
From Pallissaat, it is possible to continue in open waters in the sounding track W of the small islands W of Maliffiup Nunaa and W of Timmiakasiit Avalersui. Refer also to chart 1333.
In Amerlunnguaq at low water, there are several places with quite shallow water. There is a beacon (634) at the N end of the sound, at the point furthest E point, and one should steer very close, 5-6 m, to the almost vertical rock wall on the E side of the waters, as there are dangers at the W point. Now continue in the surveyed route in chart 1333, following the marking E of Maliffiup Nunaa, Napparutiliiarneq and Timmiakasiit Avalersui at beacon 638. In this channel, keep close to the beacon island (beacon 638). (The island E of with the beacon 639 is considerably higher and steeply sloping). Outside the channel, keep slightly E, as there is an underwater rock about 0.1 M NNW of the beacon island (beacon 638).
Alternatively, steer through the channel closest to Uiffaap Timaa, as this channel is wider and has greater depth.
From Timmiakasiit Avalersui, keep N into the surveyed route W of the beacon islands to Iverfik. From there, keep NE towards Qimarravik. From about SE of Qassersuaq, steer N and later NW between this and the beacon island NE of here. From here, it is possible to steer up towards Naajatalik and further N in the inshore route or towards Atammik. Refer to chart 1333.

3.3.5 Inshore route Atammik – Tunu (Hamborgersund) 64º48’N 052º11’W – 65º39’N 053º11’W, charts 1300, 1314, 1410, 1333, 1335 and 1352

From the waters S of Atammik, keep SW of the island Naajatalik and follow a NW course between two small islands, where the one furthest N has a beacon, refer to chart 1333.
A second and broader channel leads S of the beacon island and the small island SW of this. Keep clear of the rock roughly 0.2 M W of the beacon island. When the rock has been passed, steer a course N along the shore inside a few small islands, and then onwards between Qeqertarsuaq (Langø) and Ivissuartooq.
When the entrance to Toqqusaq furthest N has been passed, steer between Nasaasaaq

(Kalotten) and Naajatuut (Kasketterne). After passing the Avatarpaat rocks, steer W of Teqqarnat and E of Sallia up towards Napasoq and through a narrow channel W of Nunaku, refer to chart 1314. Outside this channel, steer NNW towards Ikerasaarsuk, and remain on the W side during approach. From the N part of Ikerasaarsuk, keep in the sounding track W of a small island and E of Ikaarissat, because the N point of this island must not be approached too close due to some rocks.
From here, keep NNW towards the left edge of Iviangiusat (Pattefjeld) up towards Kangaarsuk, which one should keep well clear of. From here, steer along the sounding track E of Silaqanngitsulivik.
From the beacon N of Toornaarsuttalik, keep N towards a small beacon island, and from this beacon island follow the coast, keeping E of the small islands and rocks in the N end of the channel E of Uummannaq.
From here, it is possible to choose between the following two routes to Maniitsoq (Sukkertoppen).
One route follows the sounding track E and N of Ivittusoq, N of Imilik and from there to Maniitsoq (Sukkertoppen). The sound S of Imilik is free of dangers, but there are rocks close N and S of the entrance.
The other route goes N of Qallunaannguit, S of Kuannilik and the beacon island Qeqertaralak, and from there, with Uummannassuaq (Kin of Sal) straight ahead, S of Qarsaartalik between the beacon island and the small island lying N of this, and further NW towards Portusooq at the entrance to Maniitsoq (Sukkertoppen).
From Portusooq, the inshore route goes N, E of Maniitsoq and Maniitsuarsuit, refer to chart 1335. From Maniitsuarsuit, it is possible to steer N of this island and into Ammaqqoq, which is free of dangers and deep in mid-channel, or to continue N past the earlier settlement Ikamiut, E and N of Sermersuut (Hamborgerland) to Tunu (Hamborgersund), on whose W entrance the abandoned settlement Appamiut is located.

3.3.5.1 Anchorages

3.3.5.1.1 Eqaluk NE of Toqqusaq 64º58’N 052º05’W, chart 1314
The best anchorage can be found in the innermost part of the fjord. There is a stream here with good water.

3.3.5.1.2 Talerulik 64º59.8’N 052º22.3’W, chart 1314
There is a good anchorage for smaller vessels on the W side of the N part of Talerulik. It is possible to swing at anchor or to be stern-moored, as there are mooring rings in the SE part of the bay. The anchorage is navigable from March to December.
Note. No information is available about the nature of the mooring rings (2016).

3.3.5.1.3 Napasoq 65º02.7’N 052º23.1’W, chart 1314

3.3.5.1.4 Imilik 65º24.5’N 052º46.1’W, chart 1335
The best anchorage is E of the island, where it is possible to anchor in 25-30 m of water.

3.3.5.1.5 Ammassivik 64º54'N 052º02'W, chart 1314

In the innermost part of the fjord, Sammisoq, it is possible to anchor at a suitable distance from the rock, which is dry at low water. Good holding ground.

3.3.5.1.6 Appamiut 65º39.7'N 053º10.7'W, chart 1410

Smaller vessels can swing at anchor in the broad W of the buildings, possibly with stern mooring to stones at the buildings in depths of 14-18 m, good holding ground.

3.3.5.1.7 Tunu (Hamborgersund) N-side, 65º41.0'N 052º51.5'W, chart 1410

It is possible to anchor in 40 m of water at the innermost part of an unnamed bay close to Ikamiut Kangerluarsuat. With N winds, the bay is ideal and with good holding ground.

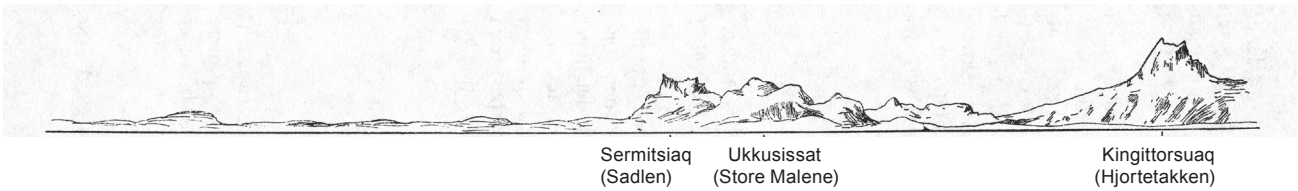


Fig. 3.2 - The coastal area of Nuuk (Godthåb), seen from the archipelago S of Kitsissut (Kookøerne). (The area is snow-covered).

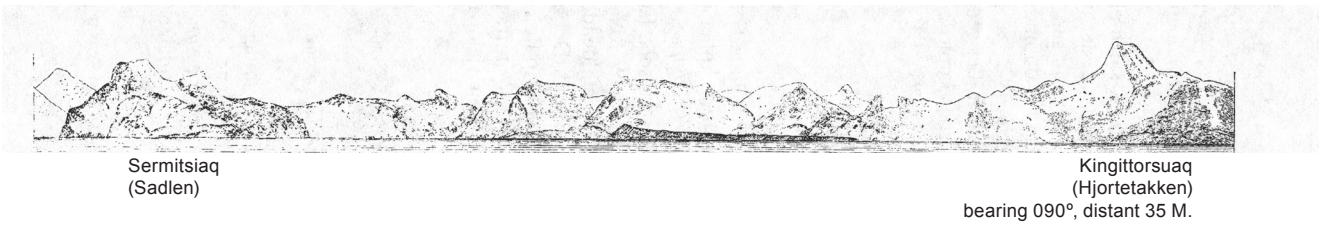


Fig. 3.3 - The coastal area of Nuuk (Godthåb), seen from W.

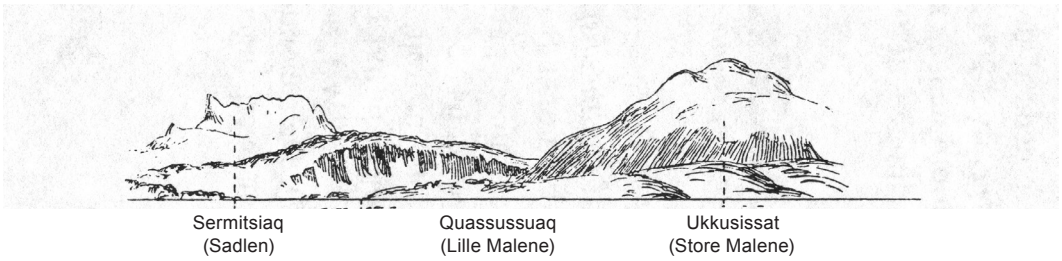


Fig. 3.4 – The coastal area of Nuuk (Godthåb), seen from the waters W of Kitsissut (Kookøerne).

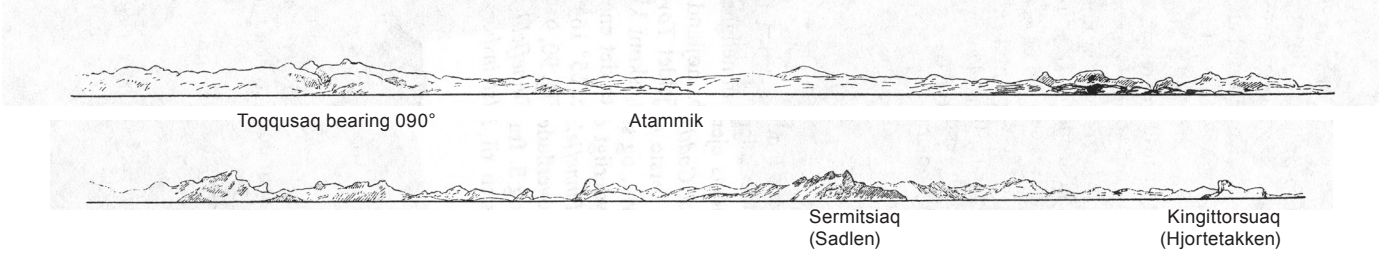


Fig. 3.5 – The coastal area N of Nuup Kangerlua (Godthåbsfjord). (The area is snow-covered).



Fig. 3.6 – Meqquitsoq (Skinderhvalen).



Fig. 3.7 – Sulussugut (Finnefjeld).



Fig. 3.8 – Sulussugut (Finnefjeld) seen from NW.

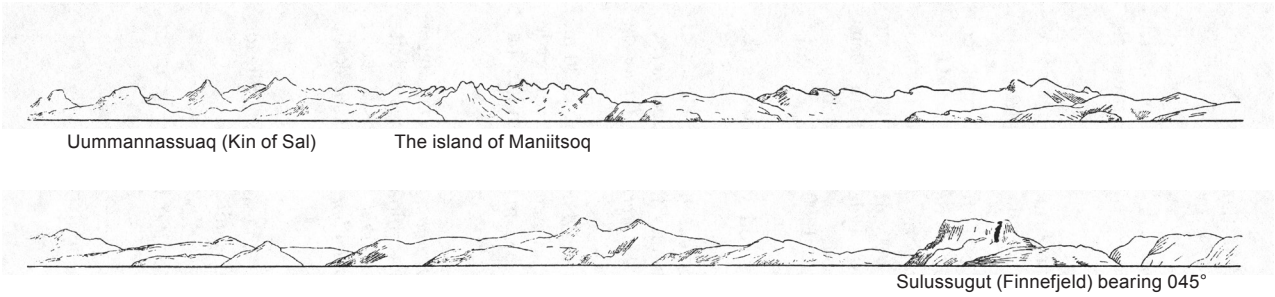


Fig. 3.9 – The coastal area of Maniitsoq (Sukkertoppen). (The area is snow-covered).

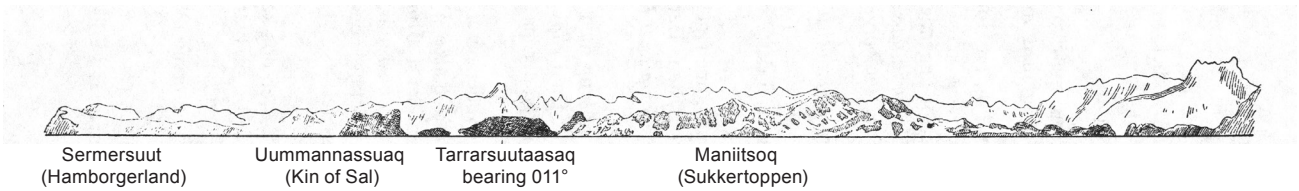


Fig. 3.10 – The coastal area of Maniitsoq (Sukkertoppen) seen from SSW.

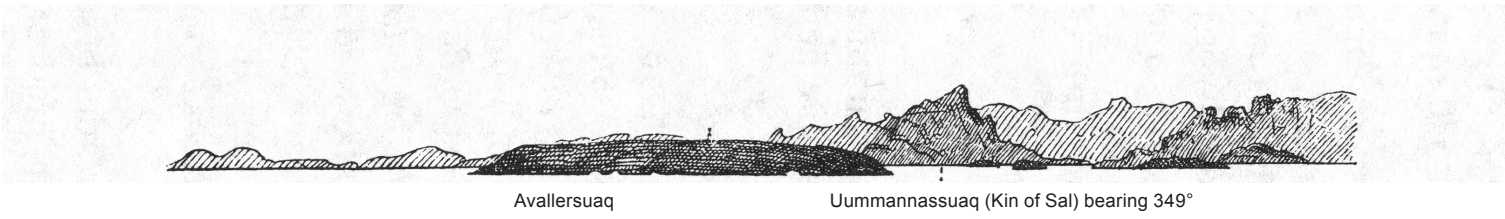


Fig. 3.11

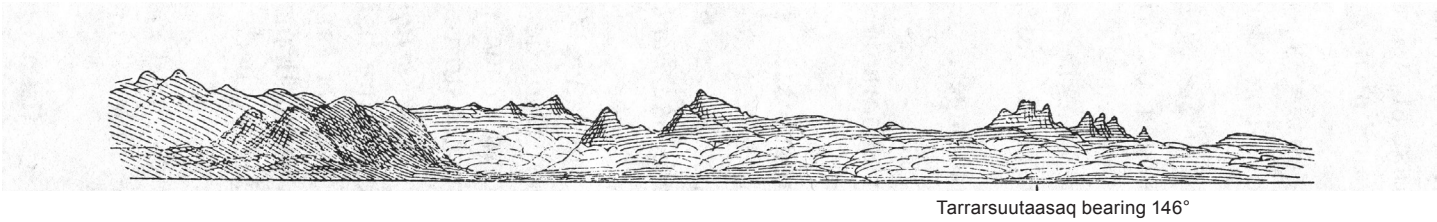


Fig. 3.12 – Sermersuut (Hamborgerland) seen from NW.

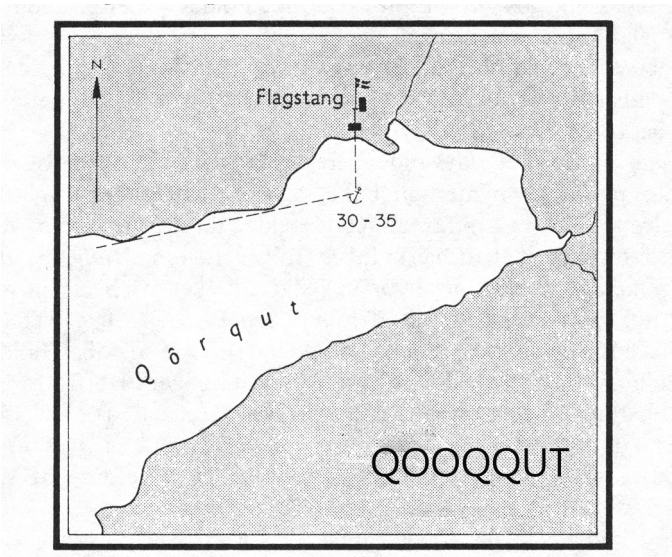


Fig. 3.13 – Qooqqut.

Map

Sermersuut (Hamborgerland) – Aasiaat (Egedesminde)

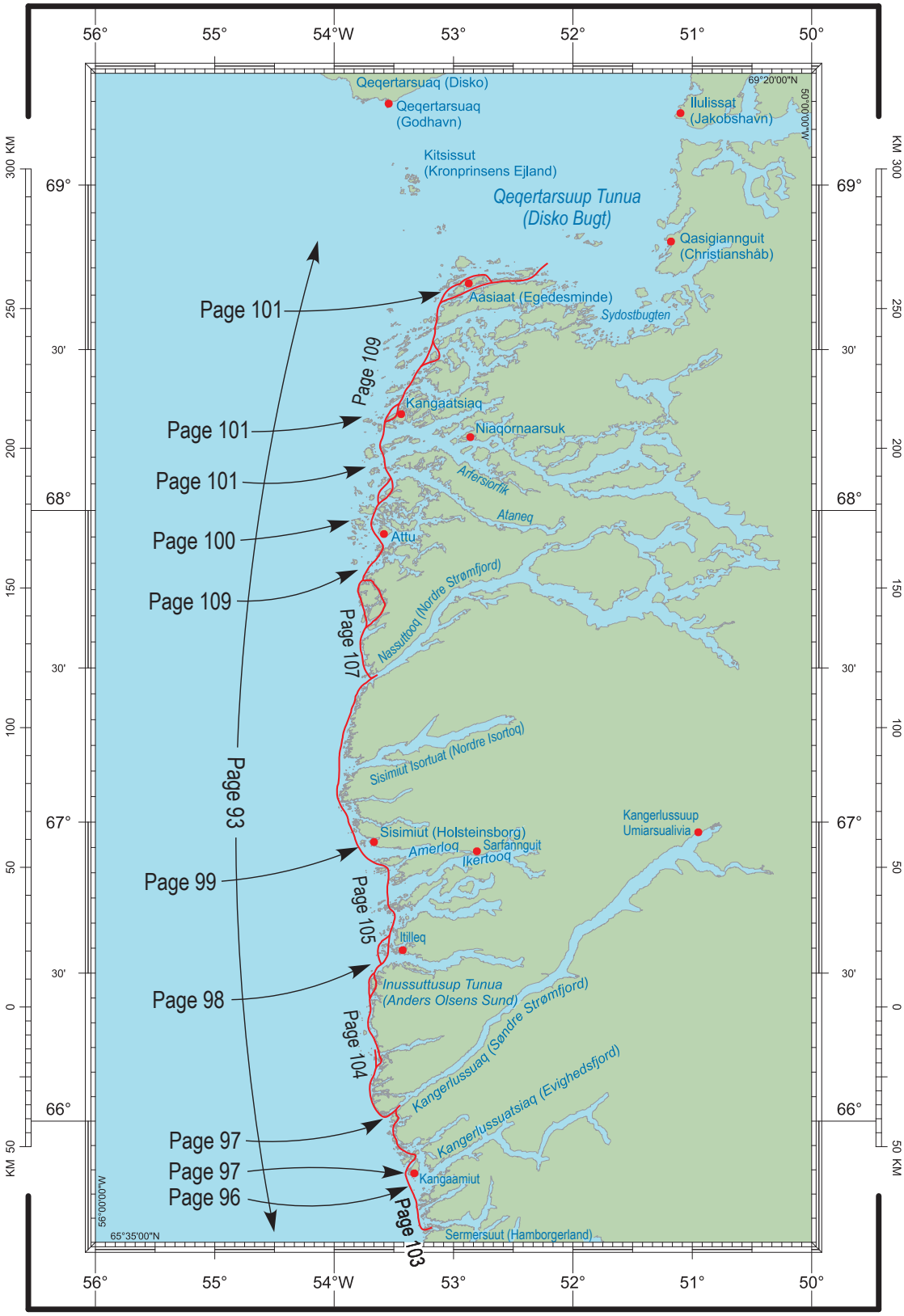


Fig. 4.1

CHAPTER 4

Sermersuut (Hamborgerland) – Aasiaat (Egedesminde)

Area: 65º40'N 053º15'W – 68º43'N 052º53'W
Charts: 1400 (Qornoq 1927), 1410, 1411, 1412 (WGS-84), 1415, 1416 (Qornoq 1927), 1430 (WGS-84), 1450 (Qornoq 1927)/(WGS-84), 1451 (Qornoq 1927), 1461, 1462 (WGS-84), 1550, 1530, 1510, 1511 og 1500 (Qornoq 1927)

4.1 Transit of the area
4.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
4.3 Inshore routes

4.1 Transit of the area

The area, Nuna Kunngi Frederik IX covers the land between Sermersuut (Hamborgerland) and Aasiaat (Egedesminde). The S part of the area, Sermersuut (Hamborgerland) – Sisimiut (Holsteinsborg), contains many high and broken mountainous areas and many extensive valleys and fjords cut into the land. There is an archipelago of varying width off most of the shore. In the area's N part, Sisimiut (Holsteinsborg) – Uummannaq (Rifkol), numerous and highly branched fjords cut into the land and the stretch of coast on the part furthest S is high and mountainous, while the part furthest N is low and uniform, but with an extended archipelago.
When navigating from the S to Sisimiut (Holsteinsborg), along Naajarluttuut (Grundene) one should not keep further E than longitude 054ºW. Transit of the area as far as Sisimiut (Holsteinsborg) will otherwise pose no problems, but when passing Sisimiut (Holsteinsborg), keep well clear W of the group of islands Qassit, 7 M from the coast.
Between Sisimiut (Holsteinsborg) and Aasiaat (Egedesminde), it may be necessary in spring to keep under the coast, when the West Ice is still far to the E. In clear weather, it is easiest to navigate along this coast by keeping a distance of a few M from the visible islands and rocks, making it possible to follow the chart from island to island. In fog, similar navigation is possible using radar, but note that icebergs can complicate identification of the land.
The coast has no dangers at some distance from land, except for the waters from Uummannaq (Rifkol) to the island Simiutarsuaq 14 M further N.
When navigating close to the coast, keep between the island Simiutarsuaq and the rocks Simiutarsuup Ikkarlui, some of which are dry at low tide. The Killiit (Vester Ejland) group of islands can be passed quite close, although there are a few small islets on the NW side, between which there are rocks. A depth of 7 m has been found 0.5 M N of the lighthouse.

4.1.1 Landmarks

N of the island of Maniitsoq lies the island Sermersuut (Hamborgerland), which is very striking due to its high, snow-capped mountains, including Tarrarsuutaasaq (Fig. 3.12). The narrow sound N of Sermersuut (Hamborgerland) is clearly visible from the sea, 8 M N of this it is possible to look far into Kangerlussuatsiaq (Evighedsfjord), where glaciers protrude down between steep mountains. The Kangaamiut settlement lies close N of the Kangerlussuatsiaq (Evighedsfjord) estuary on an island with a fairly high peak. The place is easily recognizable due to the cone-shaped peaks of the island of Uummannat close to the NW, which can be seen from a great distance, and especially from NW they appear clearly separated from each other, while from SW they appear approximately in a straight line as a single steep, dark rock. The high island of Simiutaq in the estuary of Kangerlussuaq (Søndre Strømfjord) and the mountain Kinngatsiaq, 551 m, slightly N of here, are also clearly recognisable. Kinngatsiaq has sharp, dark sides and a dome-shaped peak. In the high alpine land N of Kinngatsiaq, however, it is not easy to find points that can be identified.

Naajarluttuut (Grundene), which is a large collection of small islets and rocks, lies off the high alpine land. The larger and higher island Uummannaarsussuaq lies on the S side of these islands. It is recognizable by its three rounded peaks, of which the one furthest SW rises to a height of 69 m. Ikkarlussuaq, a low scoured rock, lies 3.5 M NW of Naajarluttuut (Grundene).

Qeqertarsuatsiaq Light is located on the S side of the approach to the fjord Itilleq, and N of the mouth of the fjord, where the land recedes again, is the mountain Qaqqatsiaq, 972 m, which has a cone-shaped appearance when viewed from the sea, and is very conspicuous and therefore easily recognized (Fig. 4.14).

The mountain Kingaq, 625 m, is 4.5 M N of the settlement Itilleq and is a high, protruding rock which, viewed from SW, is the end of the land to the N out towards a fjord. Seen from NW, it is recognizable as a dark, protruding headland. Between this fjord and the fjord Ikertooq, the mountain Saqqap Timilia, 513 m, can be seen on the big island Sallersua. It is easily recognizable in the surrounding lower land.

The land around Sisimiut (Holsteinsborg) is very distinctive in clear weather, and the major difference in the height of the land around the town and the adjacent low land to the S of the fjord Amerloq, which can be noticed far out at sea, is enough to provide good guidance. Closer to land, several landmarks stand out from the surroundings (Fig. 4.2, 4.3, 4.4, 4.5, 4.6 and 4.7). The most recognizable mountains seen from S include the 882 m Aappilattorsuaq, 10 M E of the town, and on the N side of Amerloq (Fig. 4.2 and 4.17). The mountain Nasaasaq (Kællingehætten), 771 m, close ESE of the town, is not very recognizable from S until you get closer and can see a strange, small, vertical peak called Asungasungaaq (Manden) on the mountain ridge in the hollow just to the right of the highest peak (Fig. 4.3). This small peak resembles a person seen from a distance and, seen from S, is an infallible means of identification of Nasaasaq (Kællingehætten), which from this side does not appear with the characteristic top that is seen so distinctly from W (Fig. 4.4).

NW of Nasaasaq (Kællingehætten) is the somewhat lower Palasip Qaqqaa (Præstefjeldet), 536 m, with its relatively dark and steep S side. (Fig. 4.2).

Behind the 3 aforementioned mountains, it is possible to see a high, even mountainous landscape, which is very snow-covered, even in mid-summer.

The landmarks in the high land N of Sisimiut (Holsteinsborg) include the mountains

Nasaasaaq, 1,013 m, 67°20'N 052°23'W, and Uummataasaq, 1,508 m, 67°20'N 052°59'W, both located by the fjord Sisimiut Isortuat (Nordre Isortoq), 30 and 20 M from the coast respectively. Uummataasaq (Fig. 4.9) is easily recognizable from N. At the point Inussuk, 67°34.8'N 053°47.0'W, S of the entrance to the cove Eqalussuit, there is a very large, easily recognizable boulder on the not particularly high headland.
The mountain Kingittoq (708 m) is located S of Eqalussuit Tasiat (Giesecke Sø) and is easily recognizable with two, almost equally high peaks. At 67º42'N 053º47'W, Uummannaarsuk is the highest and most prominent of the islands off the coast of Kangeq. The island Uummannaq (Rifkol), 256 m, at 67º58.0'N 053°46.8'W, is the most easily recognizable point along the coast (Fig. 4.11). The small, low group of islands Killiit (Vester Ejland), located W of the S entrance to Aasiaat (Egedesminde), is easily recognizable because of its advanced position and the lighthouse located on the highest of the islands (Fig. 4.10). The land around Aasiaat (Egedesminde) is low and rounded like the coastal land further S. From Uummannaq (Rifkol), 57º58'N latitude, the high land on the island of Qeqertarsuaq (Disko) can easily be seen on a clear day.

Qeqertarsuup Tunua (Disko Bugt). Refer to Chapter 6.

4.1.2 Depth, charts 1400 and 1500

Between Sermersuut (Hamborgerland) and W of Uummannaq (Rifkol), the 200 m depth contour runs 60 M from the coast and it extends unbroken and nearly parallel to the coast along the entire area. Banks with depths of less than 100 m are Lille Hellefiskebanke and Qalerallit Ikkannersuat (Store Hellefiskebanke).
These banks are separated by 7 M wide Holsteinsborg Dyb, a deep which extends in a SW direction between the above-mentioned banks, from the waters immediately S of Sisimiut (Holsteinsborg).
Lille Hellefiskebanke has depths of 25-30 m off Naajarluttuut (Grundene) 10 M from the coast.
Qalerallit Ikkannersuat (Store Hellefiskebanke) is the largest of all the fishing banks. It is 100 M long, and there is shallow waters in several places. Thus, there are depths of 17-18 m SW of Sisimiut (Holsteinsborg), of 8-9 m off Nassuttooq (Nordre Strømfjord) and of 14 m off Kangiusaq (Færinge Nordhavn).
Qalerallit Ikkannersuat (Store Hellefiskebanke) ends on the N side of a deep channel, Egedesminde Dyb, which extends in a NE direction in towards the S part of Qeqertarsuup Tunua (Disko Bugt). From this channel, an unnamed deep with more than 200 m of water extends S between Qalerallit Ikkannersuat (Store Hellefiskebanke) and the coast until somewhat S of Uummannaq (Rifkol).

4.1.3 Ice conditions

Polar ice is almost never encountered in the area from Maniitsoq (Sukkertoppen) to Sisimiut (Holsteinsborg).
Navigation of the waters between Nuuk (Godthåb) and Sisimiut (Holsteinsborg) may be made difficult by Winter Ice from January to April.

The West Ice is found in early spring off Sisimiut (Holsteinsborg), but it is rarely close in to the shore beyond April. Somewhat later, it can usually be encountered 40-50 M out to sea. During the summer, however, the ice edge moves further W.
Icebergs are rarely seen at Sisimiut (Holsteinsborg).
The area from Sisimiut (Holsteinsborg) to Aasiaat (Egedesminde) is blocked to navigation by Winter Ice and West Ice from January to late April. The West Ice often reaches the coast near Uummannaq (Rifkol) in the early winter months.
Icebergs and floes are often seen in the area.
The inflow of large amounts of fresh water from the fjords along the west coast cause new ice formations in the early winter months close to the mouths of the fjords. Winds from N and E along the west coast often cause the ice to break up and drift towards W, whereas SW winds drive the ice in towards the shore.

4.1.4 Magnetic disturbances

are observed on the stretch between Kangerlussuaq (Søndre Strømfjord) and Ikkarlussuaq. The magnetic compass showed deviations here of up to 15º on either side.

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

4.2.1 Kangerlussuatsiaq (Evighedsfjord)
4.2.2 Kangaamiut
4.2.3 Kangerlussuaq (Søndre Strømfjord), Naajat og Kangerlussuup Umiarsualivia
4.2.4 Itilleq
4.2.5 Sarfannguit
4.2.6 Sisimiut (Holsteinsborg)
4.2.7 Attu
4.2.8 Ikerasaarsuk
4.2.9 Iginniarfik
4.2.10 Niaqornaarsuk
4.2.11 Kangaatsiaq
4.2.12 Aasiaat (Egedesminde)

4.2.1 Kangerlussuatsiaq (Evighedsfjord) 65º50’N 053º08’W, charts 1400 and 1410

4.2.1.1 Approach

From position 65º44.5’N 053º27.0’W, steer a course 030º into the fjord N of Ikermiut with beacon, and S of the islands S of Kangaamiut and further S of Maniitsorsuaq.

4.2.1.2 Depth
The fjord is deep and free of dangers.

4.2.1.3 Anchorages
On the N side, 200 m from shore, just after the largest glacier has been passed for inward bound vessels, there is a useful anchorage with 65 m of water and good holding ground. Another anchorage can be found off a stream on the N side of Kangiussaq at about 65º52.2'N 052º13.5'W.

4.2.2 Kangaamiut 65º49.6'N 053º20.9'W, charts 1410 and 1450

4.2.2.1 Approach
When passing the coastal stretch W of Kangaamiut, the coast should not be approached closer than 3-4 M. Kangaamiut can be approached through either the Sydløbet [South channel] or Nordløbet [North channel].

4.2.2.1.1 Sydløbet [South channel]
From position 65º44.5'N 053º27.0'W, steer a course 055º up between the island Sallersuarput and the groups of islands Qasigissat and Portusuukkut. In the narrow channel along the inside of the islands off the settlement, there is 3.6 m of water at mean low water springs. However, there is a flat stone with 3.2 m off the centre of the island Sallinngua Kujalleq.

4.2.2.1.2 Nordløbet [North channel]
From position 65º49.5'N 053º30.0'W, steer a course 063º in between the islands Uummannat and Kangaamiut. When approaching the coast, a small, bright island is passed S of Qaarajuttoq, close S of Uummannat. There is another island further in, Sanningasunnguaq, which has a beacon. Pass this island to the N, as well as N of the island Qerrortusoq, which lies 0.7 M E of here. Then keep mid-channel into Ikerasatsiaq.

4.2.3 Kangerlussuaq (Søndre Strømfjord) 66º00'N 053º35'W, charts 1400, 1410, 1411 and 1461
The fjord is 90 M long and the W part is 0.5-1.5 M wide. The E part is 2-3 M wide.

4.2.3.1 Approach
In the same latitude as Kangerlussuaq (Søndre Strømfjord), at a distance of 15-20 M from the coast, it is possible to get a good radar image of the entrance, as the contours of the island Simiutaq are very clear. When approaching from S, the fjord can be seen opening.
Note that the strong current out to sea flows N or S (across the mouth of the fjord). Refer also below to section 4.2.3.3 Current.
From a safe position 10 M W of the mouth of the fjord, set a course into Kangerlussuaq (Søndre Strømfjord) S leading line (lights/beacons bearing 099º) and then in Kangerlussuaq (Søndre Strømfjord) N leading line (lights/beacons bearing bearing 056º), which leads NW of the underwater rocks 0.4 M WNW of Avatarpak. It is important to steer up in these leading lines in good time to avoid being put E of the line.
The leading ligths are often difficult to spot, as they coincide with the high and – depending on

the season – more or less snow-covered hinterland. For identification, 2 white, square slatted surfaces with red border have been erected close behind Kangerlussuaq (Søndre Strømfjord) S rear light. There is a white square slatted surface with red border 4 m behind the front light. There is a beacon on the island of Qerrulik in the small fjord on the W side of Simiutaq that can usually be seen at a distance of 5 M.
On the SE side of Simiutaq there are two square beacons. When kept in line they lead from Kangerlussuaq (Søndre Strømfjord) N leading line between the islands Kangillersuaq (Cruncher Island) and Qeqertasussuk.
From here, keep mid-channel into the fjord.

4.2.3.2 Depth
The fjord is free of dangers and rocks, except for Ikkarlussuaq (Revet), which lies 17 M from the entrance.
Ikkarlussuaq (Revet) is visible at low tide and almost resembles the back of a whale, and there are always eddies around it.

4.2.3.3 Current
The current in the entrance and in the W part of the fjord flows NE with flood tide, and SW with ebb tide, and in this part it can achieve a speed of up to 7 knots. 20 M further E, the current decreases to 3 knots and at Qaqqatsiaq, midway through the fjord, to 2 knots. The current can be noticed up to 60 M N of the entrance, inside the fjord.
Off the entrance, there is often a strong current across the mouth of the fjord, which must be taken into account when approaching the fjord.
Naajat 66°33,53´N 052°03,80´W, chart 1411
Kangerlussuup Umiarsualivia 66º58,1'N 050º57,0'W, chart 1411.

4.2.4 Itilleq, settlement, 66º34.5'N 053º30.5'W, charts 1400, 1412 and 1450
Navigation
The fjord Itilleq Ilua is surrounded on both sides by very high mountains. Landmarks in this area include Qaqqatsiaq, 1,062 m, and Qaqqatoqaq, 1,440 m, both located on the N side of the fjord Itilleq Ilua. The best route during approach is from the island Qeqertarsuatsiaq, which can be passed S of, and then proceed keeping NE towards the settlement Itilleq. It is also possible to keep N of Qeqertarsuatsiaq, then keep midway between this island and the rock-filled area located 1.5 M NE of the island (refer to Section 4.3.3 and charts 1412 and 1450).
Approaching in open waters from NW, refer to chart 1412.

4.2.5 Sarfannguit 66º54.0'N 052º52.0'W, chart 1412
is a settlement in the part of Amerloq furthest E, where a very narrow channel connects the fjords Amerloq and Ikertooq. In the channel the current is noticeable.

4.2.5.1 Approach
The settlement can be approached from Sisimiut (Holsteinsborg) through Amerloq, where the

sounding tracks should be followed, but small vessels and boats that can pass the narrow channel can also navigate to the settlement through Ikertooq, where there are large depths mid-channel.
When approaching from SW, keep towards Aappilattorsuaq on a bearing of 045° between Maniitsorsuaq and Sarfannguit Nunaat (Sarfannguaqland) (Fig. 4.17), and this mark shows E of all the islands NW of Sarfannguit Nunaat (Sarfannguaqland).

4.2.5.2 Ice conditions

Amerloq freezes over from December to April. Ikertooq is usually ice-free all year, but may freeze over in January-February in the E part, E of Nuussuaq.

4.2.5.3 Current

The current in the narrow channel flows N with flood tide and S with ebb tide.

4.2.6 Sisimiut (Holsteinsborg) 66º56.5'N 053º40.5'W, charts 1430, 1451, 1412 and 1400

4.2.6.1 Approach

Sisimiut (Holsteinsborg) lies at a small and well-protected fjord on the W side of the peninsula between the fjords Amerloq and Kangerluarsuk Tulleq (Søndre Kangerluarsuk).

4.2.6.2 Landmarks

As noted above in section 4.1 Transit of the area, the land around Sisimiut (Holsteinsborg) is very recognizable in clear weather. The mountain Nasaasaq (Kællingehætten), 771 m, close ESE of the town, is not very recognizable from S until so close that a strange, small, vertical peak can be seen called Asungasungaaq (Manden) on the mountain ridge in the hollow just to the right of the highest peak (Fig. 4.3). This small peak resembles a person seen from a distance and, seen from S, is an infallible means of identification of Nasaasaq (Kællingehætten), which from this side does not appear with the characteristic top that is seen so distinctly from W (Fig. 4.4).
N of Nasaasaq (Kællingehætten) is the somewhat lower Palasip Qaqqaa (Præstefjeldet), 551 m, with its relatively dark and steep S side.
Behind the 3 mountains mentioned above, it is possible to see a high mountainous landscape, which is very snow-covered, even in mid-summer.
When quite close to the land, it is possible to see, among the many islands W of Sarfannguit Nunaat (Sarfannguaqland), the islands Uummannaarsuk and Maniitsorsuaq S of Amerloq. Uummannaarsuk is not very recognizable from S, but is more so from W and N (Fig. 4.5). On the larger island Maniitsorsuaq, the island's westernmost mountain Inngissoorsuaq (Fig. 4.6 and 4.7) is especially noticeable. It is recognizable by its peak sloping to the E, and its shape resembles the mountains Inngissoorsuaq, although it could not be confused with that mountain because the island is much more protruding and is lower.
The group of islands Qilanngaat, 3 M W of Uummannaarsuk, can be passed quite close and is only comprised of low, small islets, but 1.5 M and 1 M SSW of the group of islands there are rocks over which the minimum depth is 16 m and 2 m respectively.

Of the small islands in the archipelago W and NW of Sisimiut (Holsteinsborg), the protruding group of islands Qassit can clearly be seen during transit in the NW part of the archipelago. Outside the mouth of the fjord Amerloq and 4 M NNW of Qilanngaat, lies the isolated Ikkarluk (Jacob's Skær), a small, low, smooth, darkish rock that is only submerged at highest water, but on which waves always break enough so that it can be seen. At the time of year when there is ice floating in the waters, it sometimes happens that a small growler can get stuck on the rock and conceal it, or that it may become covered with brash ice. The rock can be passed closely on all sides.
The waters are very foul in the archipelago area W and NW of Sisimiut (Holsteinsborg). Refer to chart 1430.

4.2.6.3 Navigation

Two navigation channels lead to Sisimiut (Holsteinsborg). Sydløbet (the south channel), which passes S of the entire archipelago W of the town, and Nordløbet (the north channel), which passes through the N part of the archipelago. Of the two channels, Sydløbet should usually be preferred.

4.2.6.3.1 Sydløbet [South channel]

From a position W of the group of islands Qilanngaat, it is possible to keep E of Annertusoq (Møllers Ø) and between Tissaqatsi (Stone Island) and the underwater rock, 4 m, 600 m E of here. Tissaqatsi (Stone Island) can be passed close. When it has been passed, keep in the Palasip Qaqqaa (Præstefjeldet) leading line. This leading line keeps clear of Victoria Skær (0.8 m), SW of Qimmit. After passing Qimmit, it is possible to turn starboard when the front light in Sisimiut (Holsteinsborg) leading line clears the N-edge of Sallinnguit (Tømmermandsøen). Then proceed in the leading line towards the harbour.

4.2.6.3.2 Nordløbet [North channel]

When approaching Sisimiut (Holsteinsborg) from N, the route through Nordløbet is the shortest route to the harbour.
If Nordløbet is used, keep S between Avannarlersuaq and Inussulinnguaq, W of the Qaarajuttunnguaq, and W and S of the rock Ikermiu, which is submerged at high water, but over which there will always be breaker. From here, proceed in the leading line to the harbour.
Nordløbet is obviously easier to use when leaving Sisimiut (Holsteinsborg) than when entering the harbour, because outbound traffic has a safe place of departure, and because the outer islands of the archipelago can be seen more clearly from the inside than from the outside.
It is possible to anchor on Qalerallit Ikkannersuat (Store Hellefiskebanke). Ice is rarely encountered on this bank in summer or autumn.

4.2.7 Attu 67º56.5'N 053º38.0'W, charts 1416 and 1451

4.2.7.1 Approach

From the sea, keep between Uummannaq (Rifkol) and Nunarsuaq. Keep closest to Nunarsuaq. When the unnamed island S of Nunarsuaq has been passed, keep N and E of

the beacon island W of Saattui. When the beacon island has been passed, keep towards Innartalik. From Innartalik, keep E towards Attu.
Approaches via the inshore route, refer to chart 1416.

4.2.7.2 Current
The current is noticeable in this area and can be quite strong. The current flows N with flood tide and S with ebb tide.

4.2.8 Ikerasaarsuk, 68°08.4'N 053°27.2'W, charts 1416 and 1510
Approaching from the sea and the inshore route, refer to chart 1416.

4.2.9 Iginniarfik, 68°09,0'N 053°10,8'W, charts 1416 and 1510
Approaching from the sea and the inshore route, refer to chart 1416.

4.2.10 Niaqornaarsuk, 68º14.0'N 052º52.0'W, 1416 and 1510
Approaching from the sea and the inshore route, refer to chart 1510. Outside of the surveyed areas, follow the sounding tracks.

4.2.11 Kangaatsiaq 68º18.5'N 053º28.0'W, chart 1510 and 1550

4.2.11.1 Approach
From the sea, keep into Kangaatsiaq Fyr's white light sector S of the island Qamusivik. Keep clear of the rock 0.9 M SW of Qamusivik. Closer to the harbour, bear W and S of Kangaatsiaq SW light.

4.2.12 Aasiaat (Egedesminde) 68º42.6'N 052º53.0'W, charts 1530, 1510, 1511 and 1500

4.2.12.1 Landmarks
The land around Aasiaat (Egedesminde) is low and rounded like the coastal land further S. The town is located on an island in a rather large archipelago located on the S side of Qeqertarsuup Tunua (Disko Bugt) and which, seen from a distance, resembles a low, continuous mainland. The N point of the archipelago is formed by the relatively high island Maniitsoq, which is very distinctive when seen from W.
WSW of Aasiaat (Egedesminde) is the previously mentioned small group of islands, Killiit (Vester Ejland), (Fig. 4.10), which is very distinctive when seen from W due to its prominent position and light, which is located on the highest of the islands.
S of Killiit (Vester Ejland) are the small islands Akulliit. From Killiit (Vester Ejland), Maniitsoq can be seen on a bearing of approximately 055º and the island Appalilik (Kullen) can be seen to the left of this.

4.2.12.2 Navigation

Approaching from S, it is recommended to get a sighting of Killiit (Vester Ejland) and then keep towards the group of islands, which can be approached quite closely on all sides, except on the W side, where there are a few small islets, between which there are rocks.
Four channels lead to Aasiaat (Egedesminde):
4.2.12.2.1 Sydvestløbet (SW channel) between Saattuarsuit (Susanne Øer) and Oqaatsut.
4.2.12.2.2 Iginniarfiup Ikerasaa between Iginniarfik and Tupilak (Ræveø).
4.2.12.2.3 Kajup Alannguata Imaa (Nordvestløbet) (NW channel) between Pullat and Appalilik (Kullen).
4.2.12.2.4 Angisup Kangilerna (Nordostløbet) (NE channel), which from Qeqertarsuup Tunua (Disko Bugt) passes between Angisoq and Napparutilinnguaq (Zimmer Varde Ø).

4.2.12.2.1 Sydvestløbet

can be found by means of (Fig. 4.13), which is drawn about midway between Saattuarsuit (Susanne Øer) and Killiit (Vester Ejland). Vessels approaching from S can pass between Killiit (Vester Ejland) and Akulliit, but larger vessels should keep N of Saattuarsuit (Susanne Øer) because of rocks, respectively 6.8 M (6.2 m) and 3.1 M (3.8 m) SW of Saattuarsuit (Susanne Øer) lighthouse. There is a beacon with a globe-shaped topmark at Oqaatsut, and on each of the two islands furthest NW in Skarveholmene there is a beacon with a diamond-shaped topmark.
The channel from Saattuarsuit (Susanne Øer) to Aasiaat (Egedesminde) is also well buoyed for both day-time and night-time navigation.

4.2.12.2.2 Iginniarfiup Ikerasaa

is the sound between the islands Iginniarfik and Tupilak (Ræveø). The sound is used by smaller ships, vessels and boats. It is possible to look through the entire length of the sound from both sides.

4.2.12.2.3 Kajup Alannguata Imaa (Nordvestløbet)

From Killiit (Vester Ejland), bear up towards Appalilik (Kullen) when the low, elongated island Pullat, S of Appalilik (Kullen), with surrounding small rocks can be seen. Keep between Pullat and Appalilik (Kullen) into the channel, which continues E between the islands S of Maniitsoq and Kaju (Hareøen). After passing Kaju (Hareøen), the houses in the town can be seen. Steer somewhat W of these and Iperarsuaq (Tørveøen) will come into view ahead, which should be kept on the port side during approach. There are a number of rocks quite close to the W point of Iperarsuaq (Tørveøen). Kajup Alannguata Imaa (Nordvestløbet) is not marked.

4.2.12.2.4 Angisup Kangilerna (Nordostløbet)

Angisup Kangilerna (Nordostløbet) can be used when approaching Aasiaat (Egedesminde) from N or NE. If the large island Maniitsoq has been sighted, as well as Manertooq to the E, it is easy to find the islets located further E, as well as the higher Angisoq and the quite low island Napparutilinnguaq (Zimmer Varde Ø), between which the channel runs. It is shallow close to the shore on both sides, especially on the E side of the channel, where foul ground stretches 150 m to the SW.

It is possible to keep close to the rock off the E point of Angisoq. From here it is already possible to see the town and Iperarsuaq (Tørveøen), which, as previously mentioned, should be kept on the port side during approach to the harbour. However, it is possible to proceed between Iperarsuaq (Tørveøen) and the town, but it is then necessary to keep a little closer to the town, as foul ground from the E point of Iperarsuaq (Tørveøen) and the small rocks further N protrude far out into the waters.
It is also possible to navigate E and S of the islands E of Napparutilinnguaq (Zimmer Varde Ø).

Qeqertarsuup Tunua (Disko Bugt), refer to Chapter 6.

4.3 Inshore routes Sermersuut (Hamborgerland) – Aasiaat (Egedesminde)

4.3.1 Sermersuut (Hamborgerland) – Kangerlussuaq (Søndre Strømfjord)
4.3.2 Kangerlussuaq (Søndre Strømfjord) – Inussuttusup Tunua (Anders Olsen Sund)
4.3.3 Inussuttusup Tunua (Anders Olsen Sund) – Sisimiut (Holsteinsborg)
4.3.4 Sisimiut (Holsteinsborg) – Attu
4.3.5 Attu – Aasiaat (Egedesminde)

4.3.1 Inshore route Sermersuut (Hamborgerland) – Kangerlussuaq (Søndre Strømfjord), 65º39.6'N 053º10.7'W – 66º02.3'N 053º29.5'W, charts 1400, 1410, 1450 and 1461

After passing the island Ukiivinnguaq on the N side of Tunu (Hamborgersund), keep towards the beacon on the island Timilia in the group of islands Skildpadderne and further N towards Kangaannguaq in the surveyed, narrow waters as indicated in chart 1450. Out of the channel, proceed NW-ward towards N Ikermiut island to clear the 2 m rock lying 0.5 M N of Kangaannguaq. From Kangaannguaq, keep E of Ikermiut and the group of islands 2 M N of here towards a light brown island Nasaasakkut with a beacon. The island is easily recognizable because the N half has a wide, dark stripe in the middle. Close S of this island, keep NW along the islands N of the rock, which lies 150 m SW of the S point of the furthest S of the three islands outside the settlement, to the anchorage NNW of Kangaamiut or through the narrow fairway N of the three islands (refer to chart 1450). From the anchorage, follow the markings through Uummannap Ikerasaa between Uummannat and Akulleq, from here E or W of Innartalik (with beacon) NW of Akulleq and proceed between Nukappiaq and the beacon island W of here, keeping well clear E and N of the rocks that lie E and N of the beacon island. From Innartalik, it is also possible to navigate E and N of the islands Qaarajuttorsuaq and Nukappiaq. Thence, keep NW, E of Ungusivik, keeping clear of the shallow waters E of the channel off this island. From the N point of Ungusivik, keep well clear of a rock with wide foul ground close N of the island. Thence, keep E of Serfat and E and N of the rocks at the N point of Serfat and proceed towards the beacon island located 0.7 M further N. It is possible to pass close E or W of this beacon island. Thence, keep in the waters between the islands Qeqertasussuk and Qerrulik (with beacon). Thence, steer towards the anchorages at Paa Havn and Sisussat (Fiskemesterens Havn) or further into Kangerlussuaq (Søndre Strømfjord).

From the mouth of Kangerlussuaq (Søndre Strømfjord), it is possible to either
A) keep in the leading lines S of Simiutaq or
B) keep along the S coast of Simiutaq, N of Kangillersuaq (Cruncher Island) and then bear NNW at a distance of 0.5 M from the coast, or
C) proceed through Amerlunnguaq, the channel N of Simiutaq. From the estuary of Amerlunnguaq, bear NW around Naajarluttuut (Grundene). Refer to section 4.3.2 Kangerlussuaq (Søndre Strømfjord) – Inussuttusup Tunua (Anders Olsen Sund).

4.3.1.1 Anchorages

4.3.1.1.1 Timerliit, 65º50.5'N 053º11.0'W, chart 1410
on the N side of the mouth of Kangerlussuatsiaq (Evighedsfjord).

4.3.1.1.2 At Kangaamiut in Ikerasatsiaq, chart 1450
it is possible to anchor in 20-40 m water in the broad, SE or SSE of the small island in the W side of the channel. The anchorage has an uneven bottom, but is good in all winds.

4.3.1.1.3 Paa Havn 66º01'N 053º22'W, chart 1461
An excellent anchorage, where larger vessels can anchor in 60 m of water and smaller vessels in 40 m of water, clay bottom.

4.3.1.1.4 Sisussat (Fiskemesterens Havn) 66º01'N 053º28'0 W, chart 1461
A good and well-protected anchorage where vessels can swing at anchor, but the current here can sometimes be very strong.

4.3.2 Inshore route Kangerlussuaq (Søndre Strømfjord) – Inussuttusup Tunua (Anders Olsen Sund), 66º02.3'N 053º29.5'W – 66º29.5'N 053º42.0'W, charts 1400, 1410, 1412, 1450, 1461 and 1462
Note: The inshore route via Naajarluttuut (Grundene) from Kangerlussuaq (Søndre Strømfjord) – Inussuttusup Tunua (Anders Olsen Sund) provides navigation options for boats and small vessels. As the route is filled with rocks, it should only be used in emergencies and then by navigators having local knowledge.

No instructions for navigation in this route can be provided.

4.3.2.1 Anchorages

4.3.2.1.1 Iseqquk 66º07.5'N 053º36.5'W, chart 1450
There is a good anchorage N of Kangerlussuaq (Søndre Strømfjord) in the fjord S of the mountain Kinngatsiaq, which is easily recognizable by its steep, dark sides and its dome-shaped peak. The land is low on both sides of the fjord. It is possible to anchor 2 M inside the fjord, S of a small island, where there is 28 m of water with clay bottom. Room for several small vessels to swing at anchor. Anchorage is also available at several places in the fjord. There are depths of less than 10 m both N and S of the entrance.

4.3.2.1.2 The harbour in Inussuttusup Tunua (Anders Olsen Sund) 66º28.5'N 053º39.5'W, chart 1462

There is a good, small harbour in Inussuttusup Tunua (Anders Olsen Sund). The leading mark is: "The mountain Qaqqatsiaq in line with the island Qeqertarsuatsiaq on bearing 078º". When approaching Qeqertarsuatsiaq, the next mark can be seen: "A conspicuous dip in the mountain crest in line with the N edge of the island Inussuttusoq on bearing 111º" (Fig. 4.15), which should be maintained through the outer part of the channel S to the anchorage. Abreast of this island, vessels approaching from N, E of Qeqertarsuatsiaq, can keep S in the sounding track, E around until Inussuttusup Tunua (Anders Olsen Sund).

4.3.3 Inshore route Inussuttusup Tunua (Anders Olsen Sund) – Sisimiut (Holsteinsborg) 66º29.5'N 053º42.0'W – 66º56.5'N 053º43.5'W, charts 1400, 1412, 1430, 1450 and 1462

From Qeqertarsuatsiaq, keep NE towards the settlement Itilleq. When approaching the N-side of the fjord, keep in the line of 2 beacons on an island S of the settlement Itilleq. The beacons are in line on bearing 057º and leads S of a number of rocks SW of the settlement Itilleq. After that, keep N and E of Qimatulivinnguaq to the settlement. The settlement Itilleq should be approached from NW, while keeping closest to the island S of the settlement. With strong winds from the SW, it is possible to anchor in a bay on the N side of the island Itilleq. For navigation of the waters between Itilleq and Sisimiut (Holsteinsborg), refer to charts 1450 and 1430.

4.3.3.1 Anchorages

4.3.3.1.1 Itilleq, refer to Section 4.2.4.

4.3.3.1.2 Nipisat Havn 66º49'N 053º29'W, chart 1430 and (Fig. 4.16)

The harbour has a reasonable anchorage and is easily accessible. When approaching from SW, keep towards Aappilattorsuaq on a bearing of 045° between Maniitsorsuaq and Sarfannguit Nunaat (Sarfannguaqland) (Fig. 4.17), and this mark shows E of all the islands NW of Sarfannguit Nunaat (Sarfannguaqland). Steer towards the mark until turning into the harbour, whose inlet, even from a distance, is recognisable by a reddish-yellow coloured stripe on a cliff on the E side of the island Aappilattoq.
The inlet itself is deep and free of dangers. The bottom consists of clay and sand, but it is reported that the holding ground is not particularly good.
Note: GST has no information about navigation of the narrow waters SE of Nipisat.

4.3.3.1.3 Saqqaq 66º42.5'N 053º27.0'W, chart 1412

The settlement is abandoned and the anchorage provides little shelter from winds from S or W. Small vessels can anchor in 3-4 m of water. The harbour cannot be recommended as a harbour of refuge.

4.3.3.1.4 Uummannaarsuk 66º50.9'N 053º34.5'W, charts 1430 and 1412

There is an abandoned settlement on the E side of the island of the same name. It is possible to anchor in depths of 15-20 m 0.4 M SE of the settlement, or in 3-4 m 200 m SE of the settlement. There is almost always a swell at the anchorage.

Ice.

The sound of Annat Imaat N of Uummannaarsuk can freeze over in harsh winters (January-March).

4.3.3.1.5 Ikerasaarsuk 66º49.2'N 053º06.2'W, chart 1412

Smaller vessels can anchor in the NE-side of the sound in 10-12 m of water with good holding ground, sheltered from all wind directions and with sufficient space to swing at anchor. Ships at anchor swing in the direction of the sound due to the strong tidal current. Ikerasaarsuk is usually approached from the fjord Ikertooq, but can also be navigated from the parallel fjord to the S, Ikerasaarsuk Amerlua.

Ice.

There is ice in the fjord in harsh winters, but usually the waters are ice-free and navigable throughout the year.

4.3.3.1.6 Saqqarliit 66°52.3'N 052°27.4'W, chart 1412

There is an abandoned settlement in the E part of the fjord Ikertooq. There is no actual harbour. Smaller vessels can anchor in the small bay N of a number of rocks that are dry at low water and which extend 300 m offshore W of the houses.
Larger vessels cannot anchor at the abandoned settlement, but there is an anchorage 1.3 M SW of this in a bay with 15-20 m water at the anchorage and with good holding ground. Fishermen from Sarfannguit often set their salmon nets in this bay.

Ice.

The fjord freezes over from December to March. The normal navigation period is from April to November.

4.3.3.1.7 Assaqutaq, 66º55.0'N 053º29.8'W, charts 1430 and 1412

is an abandoned settlement located 4 M E of Sisimiut (Holsteinsborg) on the N side of the fjord Amerloq.
The fjord is not adequately surveyed and must be navigated with caution. Smaller vessels can anchor off the abandoned settlement, N of the narrow sound between the long island and the small island W of this at depths of 10-12 m, but there is not much space to swing at anchor. E of the sound, the depth decreases to 1-3 m. There is a bay approximately 1 M E of the settlement, where small vessels can anchor in depths of 10 m. The anchorage, which has good holding ground, is good in all winds.

4.3.3.1.7.1 Rocks

1 M W of the settlement there is a rock that is dry at low water.

4.3.3.1.7.2 Ice
Assaqutaq is navigable throughout the year. There is ice in the fjord in winter, but the anchorage is ice-free.

4.3.3.1.7.3 Resources
Water supply with a hose from a small stream in a cove 500 m E of the anchorage. It is deep close to the water filling location, but it is not possible to anchor.

4.3.4 Inshore route Sisimiut (Holsteinsborg) – Attu, 66º56.5'N 053º43.5'W – 67º56.5'N 053º37.5'W, charts 1400, 1415, 1416, 1430, 1450 and 1451
Note: Parts of this route should only be used by smaller vessels and motor boats with a draught of 2-1.4 m.

Chart 1430 provides guidance for navigation from Sisimiut (Holsteinsborg) in the surveyed routes, as well as in the W parts of the fjords Kangerluarsuk Tulleq (Søndre Kangerluarsuk) and Kangerluarsuk Ungalleq (Nordre Kangerluarsuk) and as far as W of the island Kangaarsuk. Thence, keep NE according to the sounding track.
On the S side of the mouth of the fjord Sisimiut Isortuat (Nordre Isortoq), keep E of Umiatsialivik, the furthest W of the two largest islands. Out of this channel, it is now possible on a N course to keep E of Aqqusinersuaq, the island furthest W in the mouth of the fjord, and proceed towards Ukiivik (Sydbay).
From Ukiivik (Sydbay), keep N towards Takisut, E of the chain of islands furthest W, and from there S and W of the Takisut group of islands, located 1 M N of the entrance to Ukiivik (Sydbay).
From N of Takisut, keep N, E of a number of islands. This distance is also 1 M.
When the Aataarniarfik point has been passed, keep N, E of two small islands and then in open water W of Iffat and Niaqoq at a distance of 1.5 M from the land and further W of Perutusut. Thence, keep NE towards Nassuttooq (Nordre Strømfjord). From the mouth of Nassuttooq (Nordre Strømfjord), it is possible to keep NW, E of the group of islands Timerlersuaq close SW of the mainland. Keep 0.2 M from the point at Ujarasussuit, as there are a few rocks NW of Timerlersuaq.
Thence, proceed in open waters N to Inussuk, which should be passed at a distance of 2 M. On the point of Inussuk, on the not particularly high headland, there is a very large, easily recognizable boulder. Keep 1 M W and N of the group of islands Simiutannguit and proceed ENE into the mark: "Round island with beacon, ESE of Aarfit, to the right edge of the inner fjord". Now steer into Kangiusap Paava S of the beacon island and N of the group of islands Qeqertarsuaq to Kangiusaq (Færinge Nordhavn).
From Kangiusaq (Færinge Nordhavn), smaller vessels can keep E of Kangeq in the sounding track through Ikerasaarsuk. N of Kangeq, pass between the two largest islands SW of the Ukalilik point, and proceed N and E around the Ukalilik point, S of Serfartuut and NE towards Ammaqqoq, W of the abandoned settlement Aqisserniaq and, after passing Naajamiut, keep NW towards the settlement Attu.

From the group of islands Simiutannguit SW of Kangiusaq (Færinge Nordhavn), it is possible in open water to keep W of Kangeq towards the beacon on Kitsissut. Thence it is possible to keep either W or N of Maniitsoq, where the waters are deep and free of dangers. From Kitsissut it is possible to keep N into open water to Uummannaq (Rifkol) and N of this island to Attu.

4.3.4.1 Anchorages

4.3.4.1.1 Isortoq, 67º12.7'N 053º50.7'W, chart 1415

Boat harbour on the N side of the inlet to the fjord Sisimiut Isortuat (Nordre Isortoq) at a small bay, a little ESE of Ukiivik. The harbour is narrow in an E-W direction, but provides good shelter from N winds. Do not go too far into the harbour because of shallow water. The holding ground is good.

4.3.4.1.2 Ukiivik (Sydbay) 67º13'N 053º54'W, charts 1451 and 1415

On the N side of the entrance to Sisimiut Isortuat (Nordre Isortoq) is a particularly good harbour that is easy to navigate and with shelter from all winds. The depth is 18 m with good holding ground.

4.3.4.1.3 Ikkattut, group of islands 67º23.4'N 053º49.7'W, chart 1415

N of the group of islands, there is a small boat harbour in a small cove (67º23.5'N 053º49.7'W). At high water, small boats can sail E of Ikkattut.

4.3.4.1.4 Taseralik, 67º26.1'N 053º44.2'W, chart 1415

On the S side of the entrance to Nassuttooq (Nordre Strømfjord), there is a boat harbour E of the island.

4.3.4.1.5 Tasiusaarsuk (Depothavn), 67º29'N 053º39'W, chart 1415

There is good anchorage for motor boats on the N side of the entrance to Nassuttooq (Nordre Strømfjord). The harbour is good for N winds.

4.3.4.1.6 Eqalunnguit, 67º26.1'N 053º44.2'W, chart 1415

There is a small boat harbour in the small fjord that runs N-S close W of Eqalunnguit.

4.3.4.1.7 Qassiarsuk (Pinsehavn), 67º32.6'N 053º42.8'W, chart 1415

Innermost in the fjord there is a small boat harbour.

4.3.4.1.8 Kangiusaq (Færinge Nordhavn), 67º41'N 053º35'W, charts 1451 and 1416.

Approach mark from W: "The middle of the high mountain Kingigtoq, 730 m, in line with the S point of the island Aarfit". During approach, which occurs N of the group of islands Simiutannguit, keep closest to the island Aarfit (with beacon) and S of the island Qeqertakasik and continue mid-channel into the fjord. Larger vessels can anchor in depths of 30 m NE of Qeqertarsuaq, 3 M E of Aarfit, smaller ships and vessels can use the inner part, Kangiussaq, where it is possible to anchor in depths of 20-25 m in the line: The anchor marks on the S side of the fjord in line.

4.3.4.1.9 Aqisserniaq, abandoned settlement, 67º52.5'N 053º35.5'W, chart 1416, 4 M S of Attu.

4.3.5 Inshore route Attu – Aasiaat (Egedesminde), 67º56.5'N 053º37.5'W – 68º43'N 052º53'W, charts 1416, 1510, 1500 and 1530

The inshore route from Kitsissut (10 M SW of Attu) to Aasiaat (Egedesminde) and Sydostbugten, with entrances to settlements and fjords, is navigable as instructed in charts 1416, 1510, 1530 and 1512. The original inshore route is marked with beacons. It may be more appropriate at some places along the route to use alternative routes, e.g. depending on the ice conditions. Outside the surveyed waters in the inshore route, it is possible to steer according to the sounding tracks further into the fjords.

4.3.5.1 Comments regarding the navigation of particular sections of water:

4.3.5.1.1 The waters close W of Attu

The rock 0.2 M SW of Innartalik should be passed to the W.

4.3.5.1.2 The waters close W of Ikerasaarsuk

In the channel S of Sallersuaq, keep close to the S side of the island.

4.3.5.1.3 The waters NW of Ikerasaarsuk

In the channel S of Innalissuaq, keep close to the S side of the island.

4.3.5.2 Ikerasassuaq (Langesund)

The route through Ikerasassuaq (Langesund) can also be used to Aasiaat (Egedesminde) or to Sydostbugten, depending on the ice conditions. After passing Nalunaaqutaq, vessels coming from S should keep into Ikerasassuaq (Langesund). Charts 1530 and 1512 provide directions for navigation.

After passing Aappalaartoq, either keep N up into a fairway for boats, Ikerasannguaq (Smallesund), which leads E of Aappalaartoq and Tupilak (Ræveø) to Aasiaat (Egedesminde), where caution is advised because the waters have not been surveyed, or proceed further ENE in Ikerasassuaq (Langesund). E of Aasiaat (Egedesminde) island there is a channel that runs E and W of Naartuut, the small island with a beacon in the middle of the channel.

From S of this channel, it is possible to keep E in Ikerasassuaq (Langesund).

Roughly halfway between Naartuut and Akunnaaq there are 3 small islands located in the middle of the sound. There are beacons on 2 of them. At low water, however, the islands form only one island.

0.55 M WSW of these islands is a small island with rocks on the N and NE side. It is possible to pass between the rock N and NE of this island and 2 rocks farther N inshore by following the waters' S side W of the islands. When the point has been passed, keep the two beacons on the islands in line. There is a wreck at the N-side of the W side of the rock. The wreck is visible above the water's surface.

Thence proceed E into Sydostbugten.

4.3.6 Anchorages

4.3.6.1 NW of Attu, 67º56.5'N 053º37.5'W, charts 1451 and 1416

It is possible to anchor between the islands in about 45 m of water. There is good holding ground. When the wind is from S, there may be a swell at the anchorage.

4.3.6.2 Manermiut, 68º36'N 053º08'W, charts 1530 and 1510

It is possible to anchor in a small bay N of the former settlement or N of the E point at the entrance to the bay.

4.3.6.3 Killiit (Vester Ejland), 68º37.5'N 053º31.5'W, chart 1530

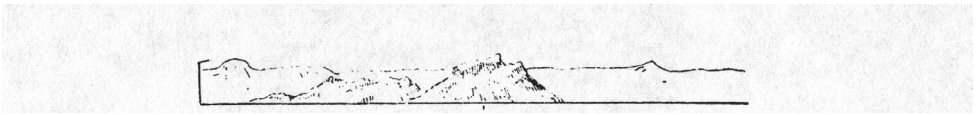
It is possible to anchor 750 m SW of the light in 34 m of water. The anchorage is not good in a SW wind.

4.3.6.4 Nunaleqqavik (Hollænderhavn), 68º43.5'N 052º58.5'W,, chart 1530

May be used by ships of 50 m length. It is possible to anchor in 40 m of water.



Fig. 4.2 – The coastal area of Sisimiut (Holsteinsborg) seen from WSW.



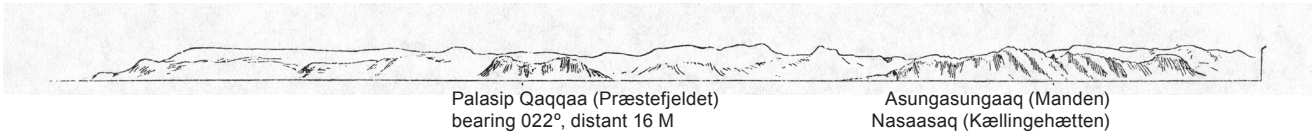


Fig. 4.3 – N side of the fjord Amerloq, seen from S.

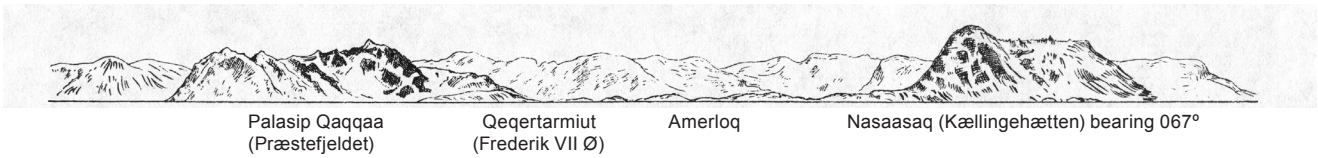


Fig. 4.4 – The coastal area of Sisimiut (Holsteinsborg) seen from WSW.

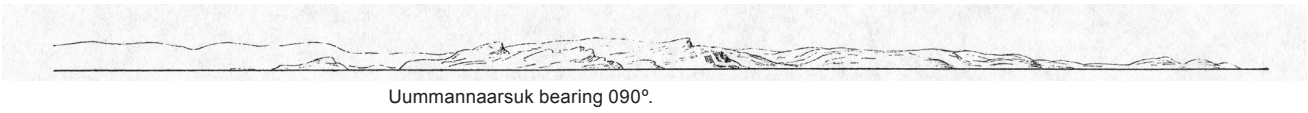


Fig. 4.5 – The coastal area of Sisimiut (Holsteinsborg) seen from W.

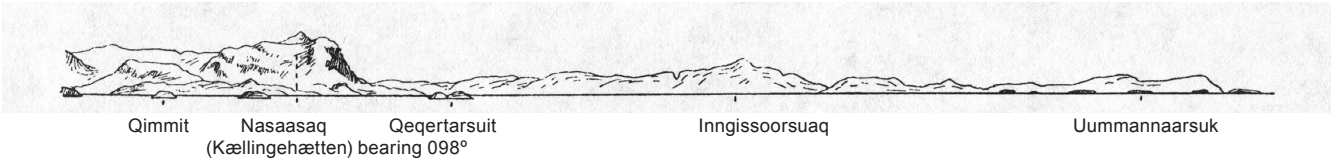


Fig. 4.6 – Seen from Qeqertarmiut (Frederik VII Ø).



Fig. 4.7 – Inngissoorsuaq bearing 045º.

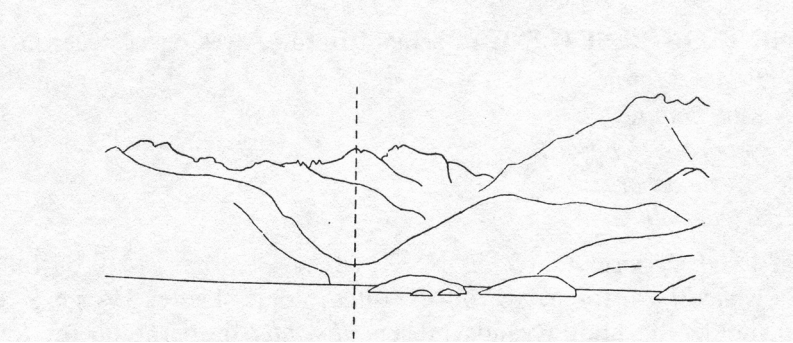


Fig. 4.8 – Entrance marking to Kangerlussuatsiaq (Evighedsfjord): ”The left of the two conspicuously peaks seen in line with a green lush valley to the left (NW) of Maniitsorsuaq bearing 026º”.

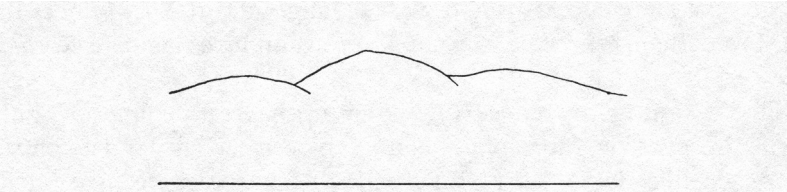


Fig. 4.9 – The mountain of Uummataasaq, 67º20’N 053º00’W, seen from N edge of Qalerallit Ikkannersuat (Store Hellefiskebanke).

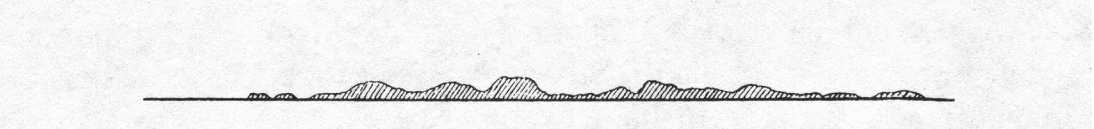
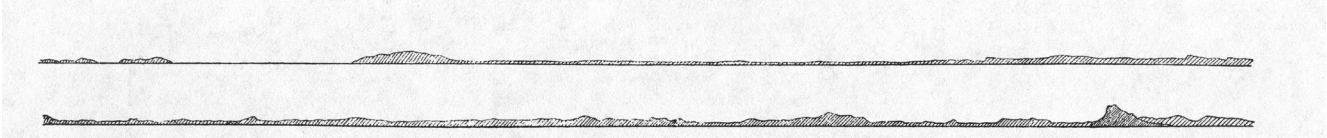


Fig. 4.10 – Killiit (Vester Ejland) bearing 050º, distant 10 M.



Uummannaq (Rifkol) bearing 090º, distant 24 M.

Fig. 4.11 – The coastal area from Uummannaq (Rifkol) and further N.

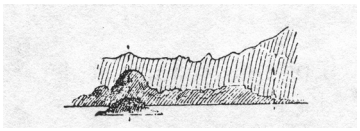


Fig. 4.12 – Marking abeam of the rock E of Tissaqatsi (Stone Island).

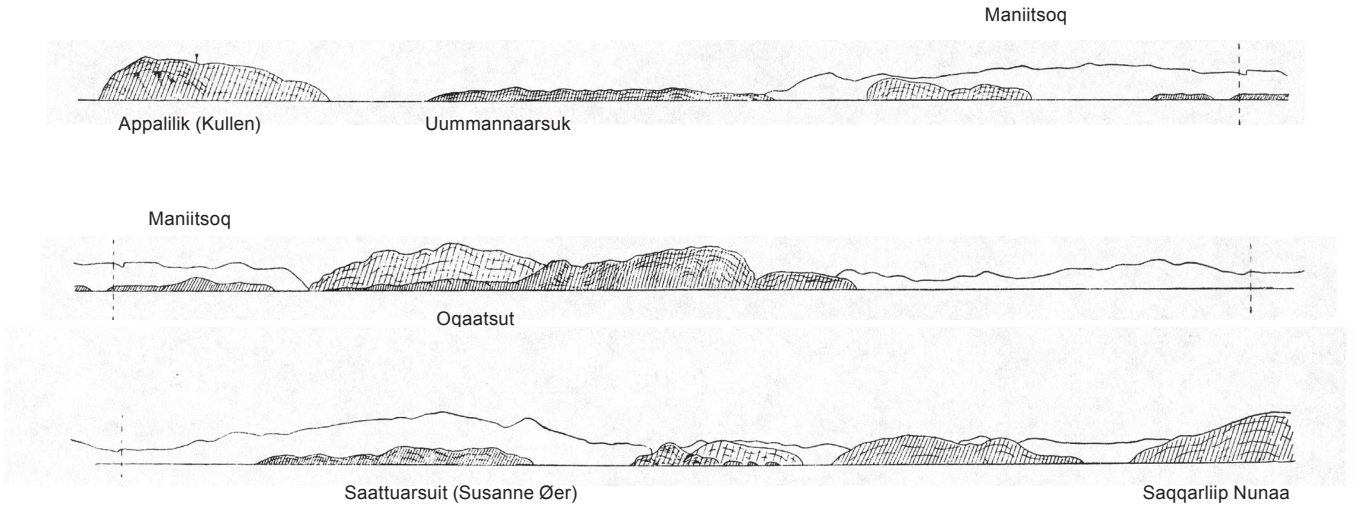


Fig. 4.13 – View of the coastal area of Sydvestløbet to Aasiaat (Egedesminde), drawn from W of Saattuarsuit (Susanne Øer).

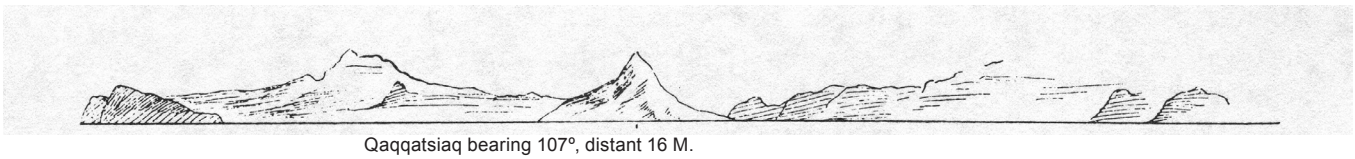


Fig. 4.14

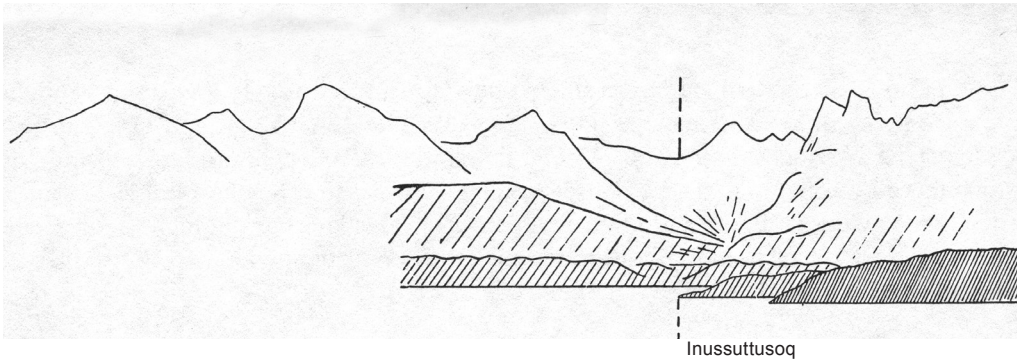


Fig. 4.15 – Entrance marking to Inussuttusup Tunua (Anders Olsen Sund): ”A conspicuously hollow in the mountain crest seen in line with the N edge of Inussuttusoq (Anders Olsen Ø) in bearing 111º”.

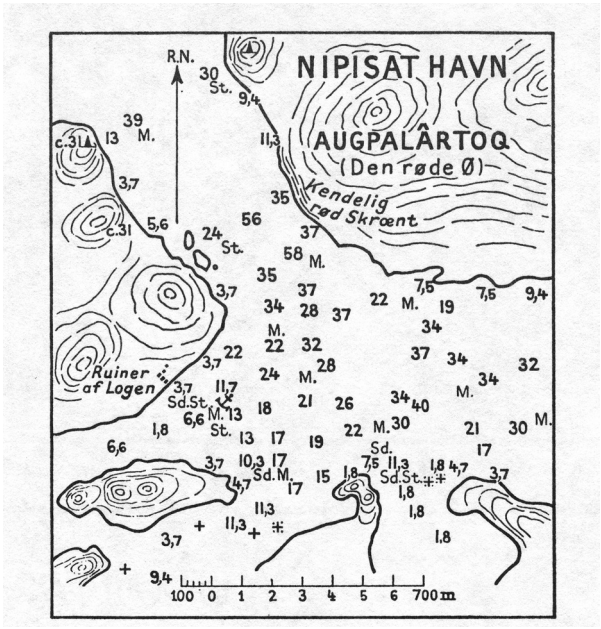


Fig. 4.16 – Nipisat Pulariaat (Nipisat Havn).
”Logen” = Former trading post.

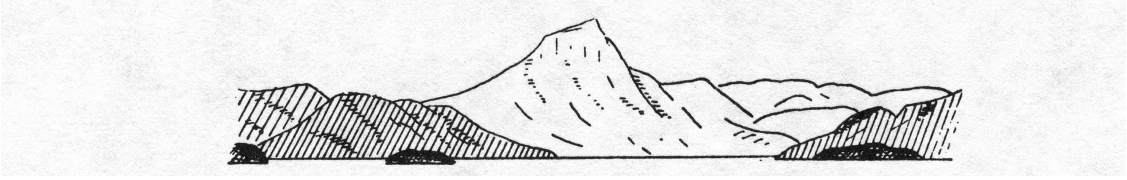


Fig. 4.17

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Map

Aasiaat (Egedesminde) – Qeqertarsuatsiaq (Hareøen). W om Qeqertarsuaq (Disko)

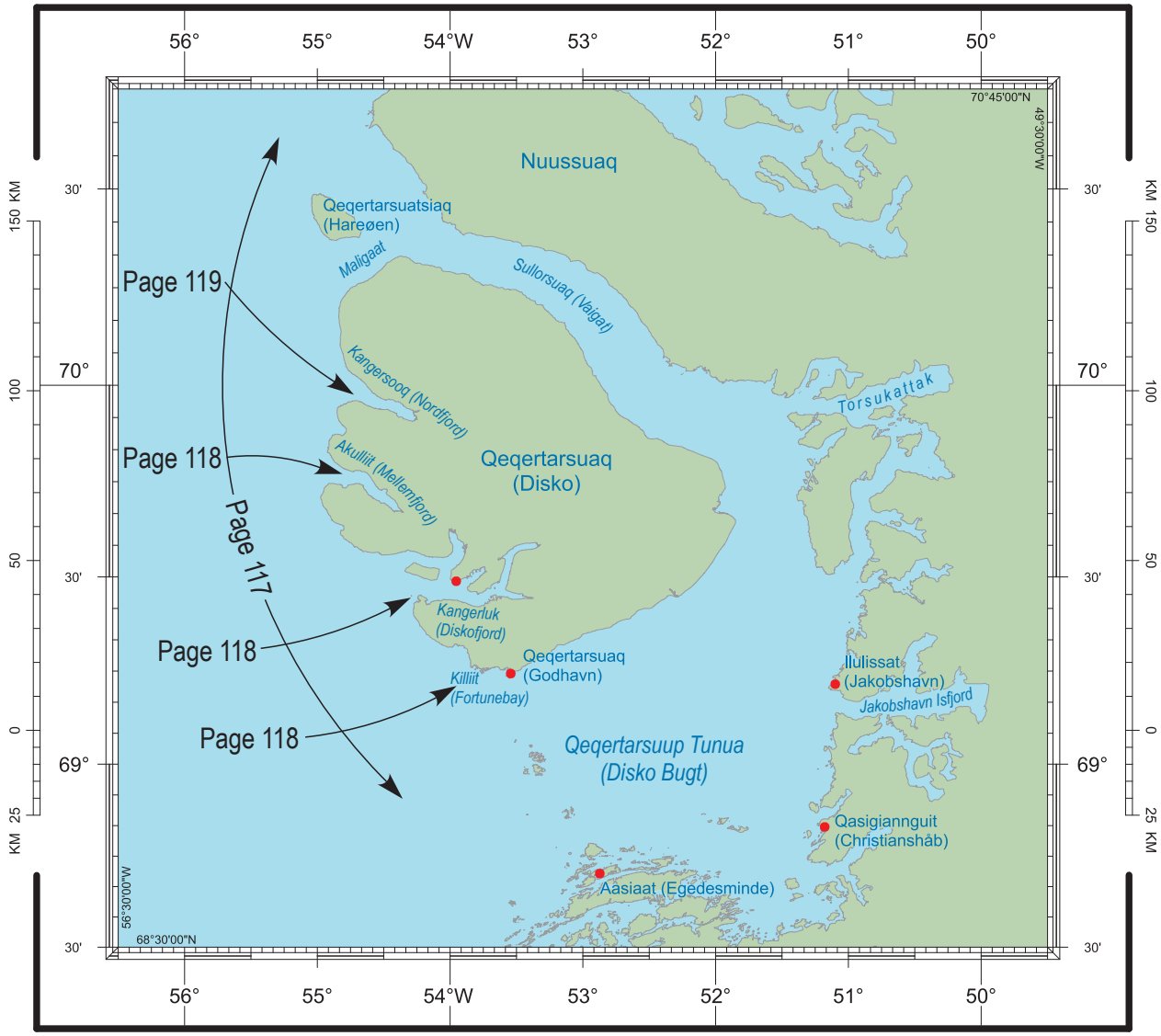


Fig. 5.1

CHAPTER 5

Aasiaat (Egedesminde) – Qeqertarsuatsiaq (Hareøen). W of Qeqertarsuaq (Disko)

Area 68º43´N 052º52´W – 70º25´N 055º00´W
Charts: 1500, 1511 and 1550 (Qornoq 1927)

5.1 Transit of the area
5.2 Approach and navigation of channels and settlements

5.1 Transit of the area

5.1.1 Landmarks

When approaching the W coast of Qeqertarsuaq (Disko), no landmarks can be seen from a distance between the town of Qeqertarsuaq (Godhavn) and Qeqertarsuatsiaq (Hareøen), but closer to land the points at the entrances to the 3 fjords, Kangerluk (Disko Fjord), Akulliit (Mellemfjord) and Kangersooq (Nordfjord) can be clearly distinguished. Navigating W of Qeqertarsuaq (Disko) poses no difficulties, as the island has very fine “radar echo” and is very “steep”, with easily identifiable points and indentations. When navigating here, vessels are usually so far out to sea that the lower and divided country at Aasiaat (Egedesminde) will not provide usable positions using radar.

5.1.2 Depths

Depth conditions in this area vary greatly, but the survey throughout the area provides good guidance for navigation both W and E of Qeqertarsuaq (Disko).
A wide shoal extends approximately 60 M W from the mainland and Qeqertarsuaq (Disko), but at 2 channels it is divided into 3 parts. Furthest S, the 15-25 M wide Egedesminde Dyb, with depths of up to 900 m, cuts in between Qalerallit Ikkannersuat (Store Hellefiskebanke) and Qeqertarsuup Ikkannersua (Disko Banke) and continues into Qeqertarsuup Tunua (Disko Bugt) between the group of islands that lie from Aasiaat (Egedesminde) and over to Qeqertarsuaq (Godhavn).
Furthest N, Godhavn Rende runs between Qeqertarsuup Ikkannersua (Disko Banke) and the shoal connected to Qeqertarsuaq (Disko) into Qeqertarsuup Tunua (Disko Bugt). The channel is only 1-2 M wide between Aappilattoq (E Parry Skær) and Ikkarlussuaq (W Parry Skær) and Qeqertarsuaq (Godhavn).
There is a wide shoal W and NW of Qeqertarsuaq (Disko) and Qeqertarsuatsiaq (Hareøen), with depths of less than 200 m. The outer W limit of the shoal is about 40 M from the coast.
The waters W of Qeqertarsuaq (Disko) are free of dangers.

5.1.3 Rocks

Saattut lies at the S side of the entrance to Kangerluk (Disko Fjord). An 8.0 m rock lies approximately 1 M W of the mountain Kingittuusaq (S of Kangersooq (Nordfjord)), and Avatarpaat lies 3 M N of the entrance to Kangersooq (Nordfjord) and 1.5 M from land. Smaller vessels that shall navigate N from Kangersooq (Nordfjord), are advised to keep a little out to sea in order to keep W of the rock Avatarpaat. A strong wind blows regularly close to the shore but usually diminishes in strength further out to sea.

5.2 Approach and navigation of channels and settlements

5.2.1 Killiit (Fortunebay), 69º15.5´N 053º44.0´W, chart 1550

This is a good harbour, 4 M W of Qeqertarsuaq (Godhavn). The harbour is protected to the SW by some islands and rocks that extend 1 M out from the coast. The rock furthest SE lies about 500 m SSE of the large island Qaqqaq. Approaching the harbour, which cuts into Qeqertarsuaq (Disko) itself, usually occurs E of Qaqqaq. However, in the actual entrance to the harbour, keep W of a rock that lies 150 m W of the not particularly high headland that lies to the E and can be recognized by a peculiar vertical notch in the outer part of the headland.

5 5.2.2 Kangerluk (Disko Fjord), 69º30´N 054º30´W, chart 1500

The elongated island Qeqertaq lies in the outer part of the fjord. It has a similar height and appearance to Qeqertarsuaq (Disko). Kangerluk (Disko Fjord) is navigable as far as the inner part of the fjord.
For smaller vessels, Kangerluk (Disko Fjord) has several good anchorages off Itinneq Kangilleq (Blæsedalen) at about 69º27'N 053º39'W, which lead S to Qeqertarsuaq (Godhavn), but the best anchorage in Kangerluk (Disko Fjord) is at the settlement Kangerluk (Disko Fjord).
There is an excellent anchorage in a small bay 1.5 M further into Kangerluarsuk.

5.2.3 Akulliit (Mellemfjord), 69º45´N 054º48´W, chart 1500

There are 2 anchorages in Akulliit (Mellemfjord) on the S side of the fjord. The one furthest W is Ivisaaqqut (Enok Havn), which is located about 2.5 M inside the mouth of the fjord. It is a small bay that provides good shelter from winds from SW, while the anchorage is not good when the wind is from N. Keep in towards the stream midway between the points and anchor in 18 m of water. Akulliit (Mellemfjord) as far as Ivisaaqqut (Enok Havn) is reported to be free of dangers.
The second anchorage for small vessels lies behind a headland at Narsaarsuk, 3.5 M E of Ivisaaqqut (Enok Havn), where the fjord turns in a SE direction. There is good shelter from all winds, but it is necessary to anchor close to the coast. There are several shallow areas in the inner part of Akulliit (Mellemfjord) that are dry at low water, so caution is advised.

5.2.4 Qasigissat, 69º53´N 054º51´W, chart 1500

On the outer coast from Akulliit (Mellemfjord) to Kangersooq (Nordfjord), there is a small bay, Qasigissat, that small vessels can use as an anchorage and harbour of refuge during S winds.

5.2.5 Kangersooq (Nordfjord), 70º00´N 054º45´W, chart 1500

The fjord is not navigable by larger vessels, but there are anchorages for smaller vessels in the following locations:

5.2.5.1 Perlertut, 69º58.0'N 054º28.0'W

On the N side off the hunters' hut. The harbour provides shelter from N winds.

5.2.5.2 Kingittuusaq 69º55.5'N 054º23.5'W

On the S side in a small bay about 7 M in from the cairn at the mouth of the fjord
This harbour at is an anchorage that is well-protected from all wind directions. It is difficult to spot from the outside, and it is necessary to navigate close to the coast to find it.
The inner part of Kangersooq (Nordfjord) is very shallow and partly dry at low water.

5.2.6 Nipisat, 69º27´N 054º13´W, chart 1550

Nipisat is a cove on the S side of Kangerluk (Disko Fjord). It is possible to anchor in 12 m of water.

Map

Qeqertarsuup Tunua (Disko Bugt) and Sullorsuaq (Vaigat)

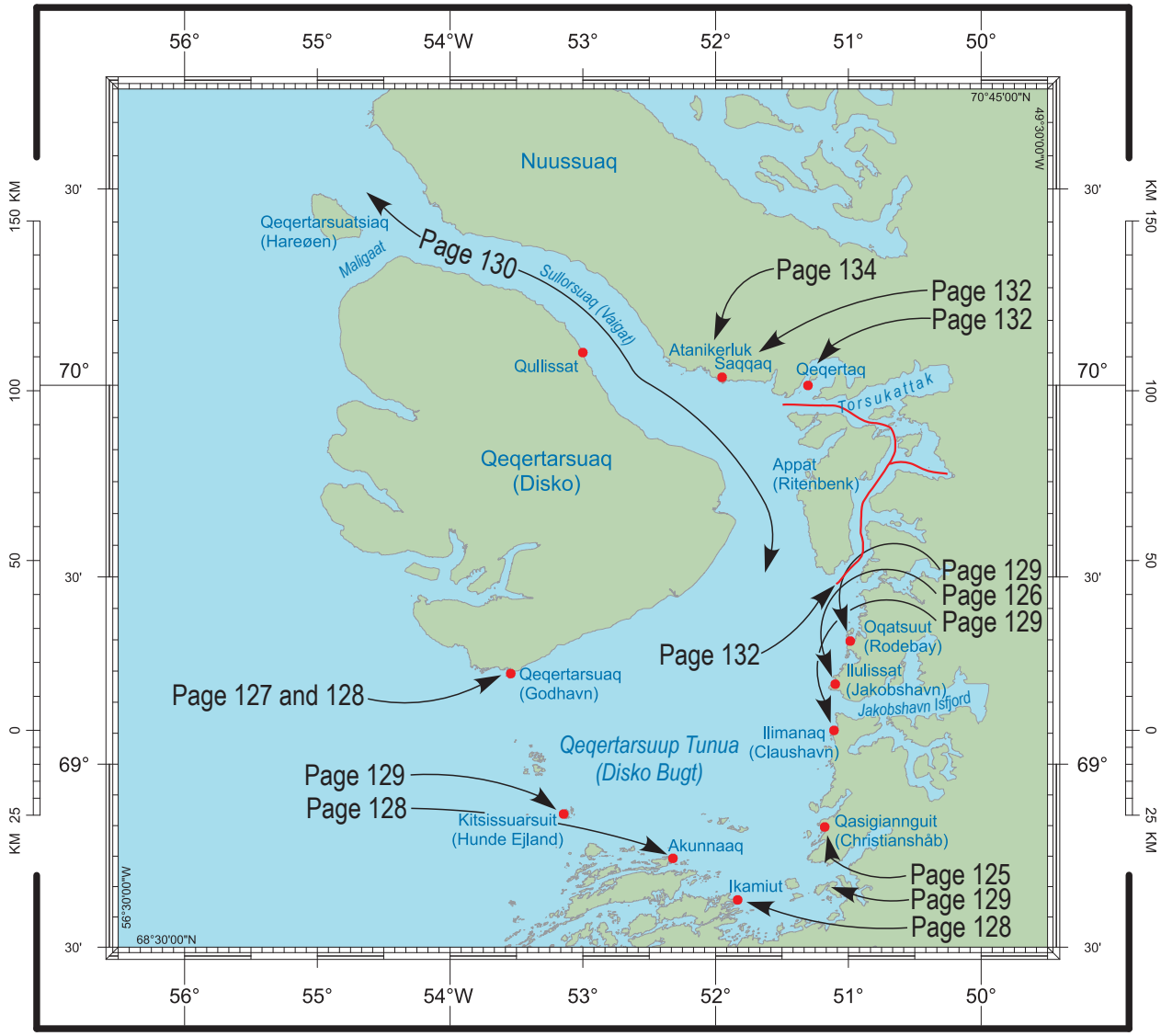


Fig. 6.1

CHAPTER 6

Qeqertarsuup Tunua (Disko Bugt) and Sullorsuaq (Vaigat)

Area 69º00'N 052º00'W
Charts: 1500, 1510, 1511, 1512, 1513, 1530, 1550, 1551 and 1552, (all charts Qornoq 1927)

6.1 Qeqertarsuup Tunua (Disko Bugt)

6.1.1 Transit of the area
6.1.2 Approaches and navigation of waterways, fjords, towns and settlements etc.
6.1.3 Settlements and anchorages

6.1.1 Transit of the area

Qeqertarsuup Tunua (Disko Bugt) is bounded to the S by the N and E coasts of the larger islands Saqqarliip Nunaa and Innaarsuit and the mainland to the E thereof, towards E of the mainland N of Paakitsoq at the entrance to Ikerasak (Ataa Sund) towards N of the line: The point N of Paakitsoq, the S end of Alluttoq (Arveprinsens Ejland), Flakkerhuk on Qeqertarsuaq (Disko) and by the S coast of Qeqertarsuaq (Disko) from Flakkerhuk to Qaqqaliaq (Udkiggen) at the town Qeqertarsuaq (Godhavn), and to the W of the line: Qaqqaliaq (Udkiggen), Aappilattoq (E Parry Skær) and Ikkarlussuaq (W Parry Skær), Assissut (Brændevinsskær), the W point of Kitsissut (Kronprinsens Ejland), the W point of Nunatsiaq (Rotten), Appalillip Ikkarlussua (Brændevinsskær), the W point of Pullat, the W point of Saattuarsuit (Susanne Øer), the W coast of Saqqarliip Nunaa.
The furthest S part of Qeqertarsuup Tunua (Disko Bugt), S of the line from the E point of Saqqarliip Nunaa, Qeqertasussuk (Jakobsholm) N of Qasigiannguit (Christianshåb) is called Sydostbugten.
At Qeqertarsuup Tunua (Disko Bugt), in addition to Aasiaat (Egedesminde) on the S side of the bay, there are the towns Qasigiannguit (Christianshåb), Ilulissat (Jakobshavn) and Qeqertarsuaq (Godhavn), the settlements: Akunnaaq, Ikamiut, Ilimanaq (Claushavn), Oqaatsut (Rodebay) and Kitsissuarsuit (Hunde Ejland).
In the S part of Qeqertarsuup Tunua (Disko Bugt), 10 M NE of the E point of Saqqarliip Nunaa, there is the group of islands Kitsissunnguit (Grønne Ejland). 10 M NNW of Aasiaat (Egedesminde) is Kitsissuarsuit (Hunde Ejland) and 20 M NNW of Aasiaat (Egedesminde) is Kitsissut (Kronprinsens Ejland).

6.1.1.1 Landmarks

Refer to the relevant waters section and the towns' approaches etc. in Qeqertarsuup Tunua (Disko Bugt).

6.1.1.2 Detached islands and islets

From Aasiaat (Egedesminde) and across the mouth of Qeqertarsuup Tunua (Disko Bugt), there are several groups of islands, small islands and islets.

Appalillip Ikkarlussua (Brændevinsskær) is a quite low, small islet 2 M WNW of Appalilik (Kullen). It is possible to get close to this rock, which always protrudes above the water surface.

Kitsissuarsuit (Hunde Ejland) is an inhabited group of islands 6 M NNW of the island Maniitsoq. The islands consist of two rows of rather low islets, separated by a nearby channel that runs N-S and which is navigable by small vessels. The settlement is located on the island furthest to the SW.

6 M W of Kitsissuarsuit (Hunde Ejland) is a small, somewhat elongated, low island Nunatsiaq (Rotten). It is shallow on the NW side of Nunatsiaq (Rotten).

Kitsissut (Kronprinsens Ejland), charts 1511 and 1550, are somewhat higher and larger islands, located 7 M NW of Kitsissuarsuit (Hunde Ejland). The islands are divided into a S and a N group, separated by a 600-700 m wide sound. The water is somewhat foul N and NW of Kitsissut (Kronprinsens Ejland).

Assissut (Brændevinsskær), 3 M NW of Kitsissut (Kronprinsens Ejland), consists of three small islands. There are underwater rocks E of Assissut (Brændevinsskær).

6.1.1.3 Rocks

Aappilattoq (E Parry Skær) and Ikkarlussuaq (W Parry Skær) lie 8 M NW of Assissut (Brændevinsskær). The depth of Aappilattoq (E Parry Skær) is 3.7 m and the depth of Ikkarlussuaq (W Parry Skær) is 0.1 m at low water. The sea rarely breaks on the reef to the E. There is a rock with a minimum depth of 8.6 m 2 M N of Assissut (Brændevinsskær), and there is a rock with a minimum depth of 5.9 m 2 M ENE of Assissut (Brændevinsskær).

6.1.1.4. Depths

Qeqertarsuup Ikkannersua (Disko Banke) lies SW of Qeqertarsuaq (Godhavn), and on the NE part of the bank are Aappilattoq (E Parry Skær) and Ikkarlussuaq (W Parry Skær). The bank extends 30 M in a S direction, and 70 M in a W direction.

The depths on the E part of the bank are highly variable and there are places where the depth is less than 50 m. To the E, the area's seabed formations drop steeply toward greater depths off the entrances to Qeqertarsuup Tunua (Disko Bugt), especially on the 10 M stretch from 3 M S of Aappilattoq (E Parry Skær) to off the S point of Kitsissut (Kronprinsens Ejland), where the bank ends with a vertical, underwater rock wall that is several hundred meters high and runs in a N-S direction.

N of the bank, between this and the shoal S of Qeqertarsuaq (Disko), there is a channel Godhavn Rende with depths of 200 m. Egedesminde Dyb, with depths of up to 900 m, lies opposite the S part of Qeqertarsuup Tunua (Disko Bugt), between the bank and Killiit (Vester Ejland). In the E part of Egedesminde Dyb is the island Nunatsiaq (Rotten) and Appalillip Ikkarlussua (Brændevinsskær), which always protrudes above the water, and 6 M W of Appalillip Ikkarlussua (Brændevinsskær) is an underwater rock with minimum depth of 18 m.

Egedesminde Dyb branches out towards Qeqertarsuup Tunua (Disko Bugt), with mainly decreasing depths to the E in 3 main channels:

1) to the E, between Maniitsoq and Kitsissuarsuit (Hunde Ejland),
2) to the NE, between Kitsissuarsuit (Hunde Ejland) and Kitsissut (Kronprinsens Ejland), and
3) to the N, W and N of Assissut (Brændevinsskær) and Kitsissut (Kronprinsens Ejland).

Kitsissut (Kronprinsens Ejland) and Assissut (Brændevinsskær) lie within the same final 200 m contour line, which extends N until about 3 M from the furthest N of Kitsissut (Kronprinsens Ejland). The depth contour lines run very close to the S side of the group of islands, where the waters are free of danger.
The depths within the 200 m contour line around Kitsissuarsuit (Hunde Ejland) are highly variable. The islands themselves should not be approached too closely with larger vessels.
The waters are very foul N and E of Kitsissunnguit (Grønne Ejland). There are several underwater rocks here, including a large, elongated rock, where the depth is 1.2 m at low water. The rock lies 5 M N of the large island furthest W. S of the group of islands, however, the waters are free of dangers and the depth is large close to the islands.
There is an area 3 M NE of Ikamiut with depths of 6-10 m.
The largest contiguous area with depths exceeding 400 m in Qeqertarsuup Tunua (Disko Bugt) itself are found in it's NW part. The depth of this area is up to 700 m.
The greatest depths in Qeqertarsuup Tunua (Disko Bugt), up to 875 m, are found E and NE of Kitsissut (Kronprinsens Ejland) in continuation of the channel S of Kitsissut (Kronprinsens Ejland).
The channel between Kitsissuarsuit (Hunde Ejland) and Maniitsoq has depths of up to 710 m. The depths vary greatly and decrease rapidly to the E. E of Maniitsoq the channel divides into two branches, the deepest of which runs NE of Kitsissuarsuit (Hunde Ejland), while the other continues E to the S of Kitsissunnguit (Grønne Ejland) with depths exceeding 200 m.
Along the coast at Qasigiannguit (Christianshåb) and between Kitsissunnguit (Grønne Ejland), there is a deep with more than 300 m of water.
Between Ilulissat (Jakobshavn) and Paakitsoq, there are large depths off the coast close to land.
In the part of Qeqertarsuup Tunua (Disko Bugt) furthest N, at the boundary to Sullorsuaq (Vaigat), between Flakkerhuk and Alluttoq (Arveprinsens Ejland), the greatest depth is 300 m.
S of Flakkerhuk, and between this coastline and Aamaruutissat (Skansen), the seabed is uneven and has several underwater peaks with depths of less than 100 m at a distance of 5-15 M from Qeqertarsuaq (Disko). Ikkanneq Porsild (Porsild Grund), with minimum depth of 17 m, lies about midway between Aamaruutissat (Skansen) and Ilulissat (Jakobshavn). Along the S and SW part of Alluttoq (Arveprinsens Ejland), there are several ridges with less than 200 m of water at a distance of 5 M from the coast.

6.1.1.5 Ice conditions

The winter ice may lie as far out as to the line Aasiaat (Egedesminde) – Qeqertarsuaq (Godhavn) until the end of May.

6.1.1.5.1 Icebergs

Icebergs in Qeqertarsuup Tunua (Disko Bugt) come from Kangiata Sullua (Jakobshavn Isfjord). The actual ice fjord is constantly so full of icebergs and bergy bits that no form of navigation in the fjord is possible. On the bank outside the mouth of the fjord, there are numerous icebergs grounded several M out from the coast, preventing the packed ice inside the fjord from drifting

out to sea. As the melting process makes these grounded icebergs lighter, however, they drift off and thereby sometimes open the way for the departure of the trapped ice. The fjord is then said to “discharge”.
The largest annual discharge generally occurs in May-June after the break-up of the winter ice and around spring time.
In the outer part of the grounded icebergs on Kangiata Aniggua (Isfjeldsbanken), there is often an opening along the coast where it is possible to navigate.
When the ice is released from the ice fjord or Kangiata Aniggua (Isfjeldsbanken), it is carried N by the current, initially (after the winter ice disappears) only a distance of 10-15 M, and it then changes direction to the SW and then S and E and back to the NE within the part of the bay furthest E.
As the current develops during the summer, the ice circulates over a larger area. In July, the ice drifts N to the N boundary of the bay, then close to the S coast of Qeqertarsuaq (Disko), towards Kitsissut (Kronprinsens Ejland) and Kitsissuarsuit (Hunde Ejland) and back past Kitsissunnguit (Grønne Ejland) to W of Kangiata Aniggua (Isfjeldsbanken). Along the way, the ice is spread widely because of winds, currents and melting, and many icebergs drift W out past Qeqertarsuaq (Godhavn). Others run aground on the various banks and shallows. On the previously mentioned underwater peaks S of Flakkerhuk and on Ikkanneq Porsild (Porsild Grund), there are almost always larger icebergs that have run aground. W of Kitsissut (Kronprinsens Ejland), the steeply descending E side of the shallower area with Parry Skær, can usually be identified by a line of stranded icebergs. In early July, numerous icebergs will be delayed in the foul waters N and E of these islands while drifting past Kitsissunnguit (Grønne Ejland). As the coastal current from Ikersuaq Davis (Davis Stræde) penetrates E into the bay and further out through Sullorsuaq (Vaigat), the S side of the bay becomes increasingly clear, so that towards autumn, there will only be relatively few icebergs because, as these are detached from the shallow areas, they are carried N.

6.1.1.6 Current

Shortly after the winter ice melts away, i.e. in early June, only a weak cyclonic (left-turning) current movement affects Qeqertarsuup Tunua (Disko Bugt).
The main currents from Ikersuaq Davis (Davis Stræde) and Avannaata Imaa (Baffin Bugt) mainly run N at this time and keep out of the bay without penetrating into it.
During the summer, the movement of the left-turning current in the bay becomes stronger. A weak current running E from the waters W of Qeqertarsuup Tunua (Disko Bugt) can then be noticed on the S side of the bay, and at the same time, a current flowing W past Qeqertarsuaq (Godhavn) increases in strength.
In late August, the current flowing into the bay has expanded and fills the width of the waters from Aasiaat (Egedesminde) to Parry Skær. The main part of the current runs NE and continues on through Sullorsuaq (Vaigat), while a branch of it turns W along the S coast of Qeqertarsuaq (Disko). As the melting period on land ceases, the coastal current is probably weakened from the areas S of Qeqertarsuup Tunua (Disko Bugt) and thus the currents generally in this area.

6.1.1.7 Wind and weather conditions

The main wind direction in good weather in the summer is either into or out of the bay and it only blows from other directions during stormy weather. In summer, the weather in the bay is usually beautiful and calm, but fog (northerly fog) frequently drifts into the mouth of Qeqertarsuup Tunua (Disko Bugt), past Qeqertarsuaq (Godhavn) and Aasiaat (Egedesminde). The fog often comes in with the afternoon sea breeze and remains until the land breeze (E wind) begins in the morning. Fog can also come from N through Sullorsuaq (Vaigat) and fill the E part of the bay. If there is close ice (icebergs and bergy bits) N of Kangiata Aniggua (Isfjeldsbanken), fog sometimes forms in this location.

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

6.1.2.1 Qasigiannguit (Christianshåb)
6.1.2.2 Ilulissat (Jakobshavn)
6.1.2.3 Qeqertarsuaq (Godhavn)

6.1.2.1 Qasigiannguit (Christianshåb) 68º49´N 051º12´W, charts 1500, 1512, 1513 and 1551

6.1.2.1.1 Approaches

From Aasiaat (Egedesminde) to Qasigiannguit (Christianshåb), the normal route runs through Angisup Kangilerna (Nordostløbet), N of Napparutilinnguaq (Zimmer Varde Ø), N of Anaarsuit and E towards the S side of Kitsissunnguit (Grønne Ejland). The S side of Kitsissunnguit (Grønne Ejland) is free of dangers and can be approached closely. From the SE end of Kitsissunnguit (Grønne Ejland), keep N or S of Savik to Qasigiannguit (Christianshåb).

6.1.2.1.2 Landmarks

There are several islands N of Saqqarliip Nunaa and in the W part of Sydostbugten. Both the islands and the hinterland are generally of low height and without conspicuous points. The SE part of Sydostbugten has a few relatively larger and higher islands, of which Tussaaq, 185 m, is particularly recognizable by its protruding position and a characteristic pointed shape with 2 peaks.
Inside Sydostbugten, the 360 m high mountain Sarpiusat Qaqqaat is located close to the coast. The land on the S side of Sydostbugten is otherwise rather low and consists of extensive clay and sand deposits. Around Qasigiannguit (Christianshåb) there are heights of 400-500 m, and the mountains here have very rounded shapes. Close E of the town, the 427 m high mountain Qaqqarsuaq appears massive.
Off Qasigiannguit (Christianshåb) there are several small islands and rocks, as well as the somewhat larger and protruding island Savik, 65 m. As previously mentioned, Kitsissunnguit (Grønne Ejland) lies 10 M NE of the E point of Saqqarliip Nunaa. It is a group of low brownish green and uninhabited islands with, unusually for Greenlandic rocks, a smooth and slightly curved surface.

Ships that navigates along the land from N, will, after Kangiata Sullua (Jakobshavn Isfjord), have the small, protruding, approximately 11 m high island Qilanngalik to navigate by, and later the 139 m high Qeqertasussuk (Jakobsholm). The beacon on Savik is striking and certainly the best mark when approaching. The town itself cannot be seen before you are within the islets Napiisaq and Quilik (Spækholmen) that lie outside the harbour.

6.1.2.1.3 Depths

The depth is very large on the W and SW side of Qeqertasussuk (Jakobsholm), on the W side of the small island to the W of here, Oqaatsuarsuit (Rypeholm), and on the NE side of Savik.

6.1.2.2 Illulissat (Jakobshavn) 69º14´N 051º06´W, charts 1552, 1513 and 1500

6.1.2.2.1 Approaches

The coastal area between Qasigiannguit (Christianshåb) and Ilulissat (Jakobshavn) is generally low, with bare, glaciated gneiss mountains. Further inland, the height of the mountains increases, but does not exceed 500-600 m.
The islands Oqaatsuarsuit (Rypeholm) and Qeqertasussuk (Jakobsholm) lie N of Qasigiannguit (Christianshåb), at the mouth of Eqaluit (Laksebugt). 6 M further N is the small islet Qilanngalik and a further 3 M further N is the pointed island Appat. The waters outside the islands are free of dangers and pose no difficulty for navigation.

6.1.2.2.2 Landmarks

The recognizable, 431 m high mountain Iviangernat, which has two peaks, is close to the coast S of the 3-4 M wide Kangiata Sullua (Jakobshavn Isfjord).
Kangiata Aniggua (Isfjeldsbanken) is the most conspicuous approach mark to Ilulissat (Jakobshavn). When approaching from the W, the actual land around the town has, as long as you are still well out to sea, a very uniform, almost flat appearance. It is only when you get closer that individual points stand out from the coast's gently undulating silhouette, and 23 M NE of the town the 385 m high mountain Akinnaq can then be seen with a quite steep and lighter S side. 7 M further NE, the mountain Perserajuk can be seen with a slight slope towards N. There is a large cairn on each of the mountains. Below Perserajuk's peak, a characteristic branched snow formation can be seen almost all summer. It resembles a bird with outstretched wings flying diagonally downwards to the left (N). Towards N, Alluttoq (Arveprinsens Ejland) can be seen separated from the mainland.

6.1.2.2.3 Navigation

When approaching from W, steer towards a point just N of Kangiata Aniggua (Isfjeldsbanken) until you have sight of the church and buildings in the town of Ilulissat (Jakobshavn). Then steer a little further N to keep W and N of some quite low, small islets or rocks that lie outside the S side of the entrance to the harbour. Smaller vessels can also navigate inside (SE) these islets. When passing, consideration must be given to a shoal that extends 200 m to the NE from the island furthest N.
At the entrance to the harbour, keep in the leading lines.

6.1.2.3 Qeqertarsuaq (Godhavn)

Qeqertarsuaq (Disko) SE coast
Flakkerhuk – Qeqertarsuaq (Godhavn), 69º39´N 051º51´W – 69º15´N 053º33´W, charts 1500, 1511 and 1551

6.1.2.3.1 Landmarks

From the low, sandy E coastline, Qeqertarsuaq (Disko) rises towards W and inland in predominantly reddish brown and layered rock formations. Seen as a silhouette against a bright northern sky, the land here appears to have a quite uniformly high altitude. In daylight, the numerous transverse valleys and distinctive mountain peaks on the near and intermediate land become more distinct, however, and behind them you can see the more than 1000 m high surface of the interior, which is covered by ice.
Near Qeqertarsuaq (Godhavn), the steep mountains extend out to the coast.
A cairn has been built on a mountain slope W of Flakkerhuk, the so-called Gule Ryg [Yellow Ridge], 681 m. Due to its prominent position, it can be seen from far away in certain light conditions. The flat foreshore at Flakkerhuk provides little or no radar echo, and in low-visibility weather one should stay outside the 100 m contour line. The radar echo comes from the highlands at Gule Ryg.
Akuliarutsip Qaqqaa (Skorstensfjeld), 951 m, a quite regularly shaped mountain, is located 9 M WSW of the cairn on Gule Ryg and 7 M N of the former settlement Aamaruutissat (Skansen), between two converging valleys running towards the coast. In the middle, it has a “chimney”, like on an ordinary residential house. Several other mountains in the area have similar “chimneys”. However, the real Skorstensfjeld can be distinguished from these by its more isolated location and by the fact that the “roof ridge” on each side E and W of the “chimney” has two distinct snow drifts running downward and slightly inward.
A little W of the previous settlement Aamaruutissat (Skansen), the long, fort-like basalt rock, after which the place is named, is located near the coast.
3 M inland, behind Aamaruutissat (Skansen), is the most recognizable, albeit only 652 m high mountain Iviangernat, with two brownish, regularly shaped peaks that are close together and approximately N-S of each other.
There is a cairn on a mountain ridge 4 M W of Aamaruutissat (Skansen).
The large N-S running Kangikerlaap Itinnera (Brededal) lies 8 M E of Qeqertarsuaq (Godhavn). 2 M E of the valley and off it’s W side, there are some small isolated rocks in the water quite close to the coast.
The 913 m high Innarsuaq (Skarvefjeld) rises W of Kangikerlaap Itinnera (Brededal), without a beach in front. Two large cairns have been erected on the mountain. Off the shoreline in front of the mountain, there are a few isolated rocks, the furthest E of which has a particularly distinct high and pointed shape and is called Asungasungaaq (Per Dams Skib).
Approximately in the middle of Innarsuaq (Skarvefjeld), in its lowest, steep part, there are 3 distinctive ravines, of which the 2 furthest E are the widest. These ravines and Asungasungaaq (Per Dams Skib) are good landmarks in misty weather, when the mountain peaks cannot be seen, to bear W along the shore towards Qeqertarsuaq (Godhavn).
Between Innarsuaq (Skarvefjeld) and Akuarut (Lyngmarksfjeld), which lies to the W, there is another wide valley, Itinneq Kangilleq (Blæsedalen).

From E, the land around Qeqertarsuaq (Godhavn) looks like a long, low spit that protrudes from the high basalt mountains. At its S tip, there is a tower-like red building with a white cross, Qaqqaliaq (Udkiggen), which is comprised of 4 large whale jaw bones that are raised against each other and covered with boards.

6.1.2.3.2 Depths

A little SW of the former settlement Aamaruutissat (Skansen), there is a small island Nuunnguaq 0.7 M from land, and 2 M W of the island is a rock that is not always visible at high water. When they keep close to the coast of Qeqertarsuaq (Disko), smaller vessels can keep inside (N around) the island and the rock.
The rest of the coastline is free of dangers until the 3.0 m rock, 0.4 M E of Qaqqaliaq (Udkiggen), and off the W part of it the depth is large until a short distance from the shore. Off the flat Flakkerhuk, the waters steadily become shallower and the 10 m contour is 0.5 M from the coast. The flat beach provides little or no radar echo (see Section 6.1.2.3.1 Landmarks).

6.1.2.3.3 Qeqertarsuaq (Godhavn), 69º15.0´N 053º33.0´W, chart 1551

6.1.2.3.3.1 Landmarks

Qeqertarsuaq (Godhavn) lies at the S point of Qeqertarsuaq (Disko). As the Danish name suggests, there is quite a good harbour here. For guidance when approaching from S, there is the deep valley, Itinneq Kangilleq (Blæsedalen), between Akuarut (Lyngmarksfjeld) just N of the town and Innarsuaq (Skarvefjeld) located further E (Fig. 6.4). The town also lies just below the highest part of Lyngmarksbræ. From up close, it is possible to recognise Akuarut (Lyngmarksfjeld) by its 2-3 ravines in the upper part of the S side of the mountain. W of Akuarut (Lyngmarksfjeld) is the over 700 m high Navaranaat (Apostelfjeld). The actual low land that forms the harbour, and on which the town is located, can be seen from a distance of 10 M, but it is only from closer that the aforementioned, tower-like building Qaqqaliaq (Udkiggen) can be seen on the point on the foreland furthest S.

6.1.2.3.3.2 Approaches

When Qaqqaliaq (Udkiggen) has been sighted, the harbour entrance can be found by keeping Qeqertaq (Kødø) to starboard and then steering towards the harbour point. Qeqertaq (Kødø), that can be approached closely, is a 10 m high, round, bare rocky island on the W side of the land at Godhavn. The island has a reddish colour on the E side and has a beacon in the middle.

6.1.3 Settlements and anchorages

6.1.3.1 Akunnaaq, 68º44.5´N 052º20.0´W, chart 1512.

6.1.3.2 Ikamiut, 68º38.1´N 051º50.0´W, chart 1512.

6.1.3.3 Akulliit, (abandoned settlement) 68º39.5'N 051ºN15'W, chart 1512

The former settlement Akulliit is located on a protruding, low foreland on the W side of the large island Akulliit, E of Tussaaq in Sydostbugten. There is a good natural harbour of significant size between the foreland and the island Salleq close S of there. There are no rocks and the holding ground is clay. It is possible to keep in towards the settlement from W of the foreland and the island, or from S between the island and the settlement. Both channels are free of dangers.

6.1.3.4 Kitsissunnguit (Grønne Ejland) 68º50´N 051ºN58´W, charts 1512 and 1513

There is a large enclosed boat harbour on the N side of the island Innarsuatsiaq that is suitable for small vessels. When approaching from E, note that there are 3 rocks 1 M NE of the harbour. When turning into the channel, keep well E in the channel and then mid-channel. Anchor in the S part of the harbour.
Refer also to section 6.3 Bird protection areas and conservation areas.

6.1.3.5 Ilimanaq (Claushavn), 69º05.0´N 051º07.3´W, charts 1551 and 1513.

6.1.3.6 Oqaatsut (Rodebay), 69º20.5´N 051º01.0´W, charts 1551 and 1513.

6.1.3.7 Kitsissuarsuit (Hunde Ejland), 68º51.5´N 053º07.8´W, charts 1511 and 1500.

Sullorsuaq (Vaigat)

Area: 69º31'N 051º09'W – 70º41'N 054º27'W
Charts: 1500, 1552 and 1600 (Qornoq 1927)

6.2 Sullorsuaq (Vaigat) with Ikerasak (Ataa Sund) and Alluttoq (Arveprinsens Ejland)

6.2.1 Transit of the area
6.2.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
6.2.3 Harbours (anchorages) for smaller vessels
6.3 Bird protection areas and conservation areas

6.2.1 Transit of the area

Sullorsuaq (Vaigat) is the sound NE of Qeqertarsuaq (Disko) and it connects the NE part of Qeqertarsuup Tunua (Disko Bugt) with Avannaata Imaa (Baffin Bugt). The E side of Sullorsuaq (Vaigat) is bounded by Alluttoq (Arveprinsens Ejland) and the SW side of the Nuussuaq peninsula.
In the N mouth of Sullorsuaq (Vaigat) is Qeqertarsuatsiaq (Hareøen). Between Alluttoq (Arveprinsens Ejland) and the S side of Nuussuaq is the ice fjord Torsukattak, and Ikerasak (Ataa Sund) lies E of Alluttoq (Arveprinsens Ejland).

6.2.1.1 Landmarks

6.2.1.1.1 Sullorsuaq (Vaigat), E side

The pointed peak Kussuk, the island's highest point, 800 m, can be seen at the centre of Alluttoq (Arveprinsens Ejland). Close S of Appat (Ritenbenk) is the recognizable mountain Qaqqarsuaq E, of the foreland Kangeq. On Nuussuaq, the peculiarly shaped, small brownish peninsula Atanikerluk can be seen below the 1027 m high, twin-peaked mountain Iviangernat. The 1537 m high Uppalluk (Giesecke Monument) is located at 70º13'N 052º28'W near the coast.
The estuary of the large stream Kuussuaq can be seen in the N part of Sullorsuaq (Vaigat), S of the large, NNE running transverse valley Itilleq. There are some islets and rocks close to the shore off the W point of the peninsula Nuussuaq.
Ikerasak (Ataa Sund), which is the 20 M long and 3 M wide channel between Qeqertarsuup Tunua (Disko Bugt) and Torsukattak, lies E of Alluttoq (Arveprinsens Ejland). Kangerluarsuk fjord ends 10 M N of the S entrance to the sound.

6.2.1.1.2 Sullorsuaq (Vaigat), W side

Where the waters N of Aqajarua (Mudderbugten) on the E side of Qeqertarsuaq (Disko) turn NW, the Vesuvius-like promontory Pingu, 815 m, lies near the coast.

9 M NW of Pingu, over and behind Ujarasussuk, there is a very distinctive mountain peak Illorsuaasaq, 1191 m, whose shape resembles a Danish village church tower. It does not rise above the mountain crest lying behind, but it is very conspicuous.
Qeqertarsuatsiaq (Hareøen) is considerably lower than Qeqertarsuaq (Disko). It has an elongated appearance with a smooth, slightly curved surface and it descends somewhat flatly below the rather steep banks both to the N and S.

6.2.1.2 Depths

As previously mentioned, in the borderland between Qeqertarsuup Tunua (Disko Bugt) and Sullorsuaq (Vaigat) the depth does not exceed 300 m. Just N of here, however, close to the coast of Alluttoq (Arveprinsens Ejland), there are depths of 400-600 m. These depths continue N and NW past Qullissat. Between Qeqertarsuaq (Disko) and Nuussuaq, the 200 m and 100 m contours run quite close to the coasts. There are only a few small, well-defined areas with depths between 100 m and 200 m, such as 3 M SW of Saqqaq and mid-channel in the sound, 12 M on bearing 259º from Saqqaq.

6.2.1.2.1 Rocks

In the N part of Sullorsuaq (Vaigat), 22 M SW of Niaqornaq on Nuussuaq, at 70º24.5'N 054º10.0'W, the rock Ikkarluk is visible at low tide. It is possible to pass both E and W of the rock. The usual route W passes at quite a large distance to it. During passage E of the rock, no small depths have been observed, but the bottom here is very uneven.
In Ikerasak (Ataa Sund), there is a rock in position 69º46.907'N 050º42.048'W.
In Torsukattak, the depth from the inner part of the fjord to S of Qeqertaq seems to be more than 700 m. In the W part of the fjord, where there is somewhat less water, the largest depth is probably between 400 m and 500 m.
From the S tip of Alluttoq (Arveprinsens Ejland), several banks extend with depths of less than 200 m in a S direction toward the mainland coast S of Paakitsoq. The E part of the waters apparently has a deep channel in continuation of the deep channels in Qeqertarsuup Tunua (Disko Bugt).
The depth in the channels past the islands between the N part of Ikerasak (Ataa Sund) and Torsukattak is unknown. The current here is strong, which may indicate that the water depth in these places is not very great. Moreover, major difficulties can sometimes be encountered here because of the ice from the two glaciers on the E side of the basin, as this ice is carried N by the current through the mentioned channels. These waters are marked with 3 beacons and should only be navigated by navigators having local knowledge.

6.2.1.3 Ice conditions

The winter ice in Sullorsuaq (Vaigat) often forms at the end of December. S of Qullissat, the waters do not fully freeze over, although this does usually occur in the N part of these waters. The ice usually breaks up again in Sullorsuaq (Vaigat) in April-May and in Torsukattak in early June.
The icebergs from Torsukattak are carried into Sullorsuaq (Vaigat) and then follow the current. Due to the large discharges after the break-up of the winter ice, bergy bits can often remain dense from the mouth of the fjord and further N along the coast of Nuussuaq and on

the Qeqertarsuaq (Disko) side from 70ºN and further S. This ice does not prevent navigation of Sullorsuaq (Vaigat).
In Ikerasak (Ataa Sund), the ice usually remains into June.

6.2.1.4 Current
As in Qeqertarsuup Tunua (Disko Bugt), the S part of Sullorsuaq (Vaigat) probably also has a weak cyclonic (left-handed) current movement at the beginning of the summer, which carries the ice from Torsukattak a little N along the coast of Nuussuaq and then S along the coast of Qeqertarsuaq (Disko). At the end of the summer, the current passes completely through the sound from Qeqertarsuup Tunua (Disko Bugt) to Avannaata Imaa (Baffin Bugt).

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

6.2.2.1 Saqqaq 70º01.0´N 051º57.0´W, charts 1500 and 1552.

6.2.2.2 Qeqertaq 70º00.0´N 051º17.0´W, chart 1500.

6.2.2.3 Ataa 69º45.1´N 050º57.0´W, chart 1500
The former settlement is located on the W side of Ikerasak (Ataa Sund), where it turns NE. A few hundred metres W of the houses there is a good harbour for small vessels, but caution should be exercised when navigating the harbour because of rocks. Weather permitting, it is normal to anchor close to shore off the houses, where there is a short sandy beach.
In Ikerasak (Ataa Sund), the ice usually remains until the beginning of June.

6.2.3 Harbours (anchorages) for smaller vessels

6.2.3.1 Alluttoq (Klokkerhuk) 69º32´N 051º13´W, chart 1500
There is a small cove on the S coast of Alluttoq (Arveprinsens Ejland), where small vessels can shelter from N winds, but the location is not good.

6.2.3.2 Kangeq 69º42´N 051º20´W, chart 1500
There is an anchorage on the W coast of Alluttoq (Arveprinsens Ejland), with shelter from N and S winds, but the anchorage is not recommended.

6.2.3.3 Appat (Ritenbenk) 69º46´N 051º19´W, chart 1500
On the SE side of the 51 m high island, Appat (Ritenbenk), and 3 M N of the 660 m high mountain, Qaqqarsuaq, E of the foreland Kangeq.

6.2.3.3.1 Approaches
Between Kangeq and Appat (Ritenbenk), there is the somewhat smaller island Uigorleq (Sønderø), and N of the island Appat (Ritenbenk) is Avannarleq (Nordø). The latter is the highest, 58 m. When approaching from S or W, the protruding mountain Qaqqarsuaq (Fig.

6.5), with the islands to the N, is a good approach mark and even if the mountain peaks are covered by cloud, the three islands provide sufficient guidance, since there are no islands at the S part of Alluttoq (Arveprinsens Ejland).

6.2.3.3.2 Navigation

Appat (Ritenbenk) is navigable by 3 channels:

6.2.3.3.2.1 Nordløbet (the north channel)

between Avannarleq (Nordø) and the island Appat (Ritenbenk) and further S along the latter.

6.2.3.3.2.2 Mellemløbet (the intermediate channel)

between the island Appat (Ritenbenk) and Uigorleq (Sønderø), and

6.2.3.3.2.3 Sydløbet (the south channel)

between Uigorleq (Sønderø) and Qaqqarsuaq and further N, E around Uigorleq (Sønderø).
The first two channels are completely free of dangers. In Mellemløbet, however, the small islands should not be passed closer than 200 m on the NW side of Uigorleq (Sønderø), because it is shallow here. There is a rock in the Sydløbet with a minimum depth of 4.7 m on the E side of Uigorleq (Sønderø), and it is therefore advisable to keep to the E side of the channel. The coast N of Qaqqarsuaq can be approached closely.

6.2.3.3.3 Anchorage

The anchorage in the harbour (Fig. 6.6) is not very good. The holding ground is bad, the space is small and the ground slopes steeply. There is shelter from all wind directions except for the so-called Southwest (from true S), which can produce strong gusts from the high Qaqqarsuaq.
Two anchors should be used when mooring to land at Appat (Ritenbenk). The port anchor should then be set in the intersection of the marks (see Fig. 6.6).
Note: The anchor marks cannot be relied upon to be in place and in order.
To take account of the drifting ice, when turning to port (coming from S), place the starboard anchor closer to the S point in order to lie as far as possible in line with the current, also in order to be able to set a wire in from the starboard bow during a southwest gale. Set stern mooring in at the bridge. The settlement Appat (Ritenbenk) is abandoned.

6.2.3.3.4 Current

The current in the harbour can be very strong. It runs SW with falling waters and NE with rising waters.

6.2.3.3.5 Ice

The winter ice disappears by May, usually earlier. Appat (Ritenbenk) can be expected to be navigable from the second half of May.
There are often icebergs and floes in the channels to the harbour.

6.2.3.3.6 Weather conditions

Appat (Ritenbenk) has many days with good and calm weather, but the north wind from

Sullorsuaq (Vaigat) is prevalent and can blow strongly for long periods, often during storm periods. As already mentioned, however, the most troublesome wind at the anchorage in the harbour is the Southwest (from true S).

6.2.3.4 Kangerluarsuk (Vaskebugt) 69º46´N 051º15´W, chart 1500

The bay is a small, 1 M long fjord. 2 M NE of Appat (Ritenbenk), it cuts into Alluttoq (Arveprinsens Ejland) and it can be used as a refuge harbour in bad weather, when a ship cannot lie at Appat (Ritenbenk). It is possible to anchor as shown on (Fig. 6.7) in the S part of the bay in 40 m of water.

6.2.3.5 Kangerluk (Langebugt) 69º51´N 051º07´W, chart 1500

There is a good anchorage for all winds on the S side of the bay at Niaqornaq.

6.2.3.6 Oqaatsut 69º55´N 051º17´W, chart 1500

There is a good closed harbour on the W side on the island Oqaatsut in the N part of Ikerasannguaq (Smalle Sund). The N entrance to the sound, the narrow waters with strong current, is deep and without rocks. There are rocks in the broad close S of the two narrow channels. Caution should be exercised.

6.2.3.7 Nalluarsuit Tasinngortaat (de Quervain Havn) 69º46´N 050º22´W, chart 1500

The harbour lies on the S side of the glacier Eqip Sermia. The water-rich stream Eqip Kuussua forces away the bergy bits discharged here in a NW direction. At the point in front of the glacier there is a memorial (a hydrogen bottle) for the expedition ship “Fox”. There are several hotel cabins at the location.

6.2.3.8 Saqqaq NW 3.5 M, 70º03´N 052º05´W, chart 1500

On the S coast of Nuussuaq there is a small bay with a good anchorage with shelter from N winds.

6.2.3.9 Tartunaq 70º03´N 052º15´W, chart 1500

This lies at a long and rocky foreland, recognisable by a round hummock. In a cove on the W side of the foreland there is a good anchorage with shelter from N and E winds. There is deep water all the way in to the coast.

6.2.3.10 Atanikerluk 70º03´N 052º19´W, charts 1500 and 1552

Depending on the wind conditions, it is possible to anchor NW of the peninsula Atanikerluk in the bay Iluaraa or SE of the peninsula, where it is possible to anchor in 50 m of water 250 m NE of the island Aaqqatissat. In the N part of the bay, the depth decreases quite quickly.

6.2.3.11 Niaqornaarsuk 70º30’N 054º12’W, chart 1600

Small vessels can find excellent shelter on either the N side or the S side of the foreland there. Navigation should be exercised with caution, as there are underwater rocks.

6.2.3.12 Ikkarluk 70º25´N 054º00´W, chart 1600

E of the rock Ikkarluk, 5 M S of Niaqornaarsuk, small vessels can shelter from the north wind behind a foreland.

6.2.3.13 Nuussuaq 70º41´N 054º35´W, kort 1600 og (Fig. 6.8)

From the coast near the peninsula's point furthest W, Nuussuaq, some forelands extend in a SW direction, thereby forming several small coves. There are some islands and rocks outside and between the foreland.
In the cove furthest S, 2 M N of the furthest S and longest foreland, Nuussuutaa, there is a harbour for small vessels off the site of the former settlement Nuussuaq.
Approaching from S, keep close W of Nuussuutaa with a beacon and in around (E of) all the outlying islands (Issorissoq) if this channel is not blocked by grounded icebergs. A leading line, 2 beacons in line on bearing about 040º lead to the harbour. However, the beacons lead quite close to the islands and rocks in the harbour's NW side, and it is necessary to anchor 50 m SE of the leading line. Stern moorings should be lead in to a chain on a small islet, located in the anchor mark. There is a mooring ring on the SE side of the harbour. When approaching from N, it is possible to steer around the island chain lying to the N of the harbour. The harbour can be used during a N wind. A SW wind causes some swell, but no significant waves. Small vessels can find a more sheltered anchorage 0.5 M farther N, where there is shelter from all winds. There is a rock at this anchorage.
Note: The mooring chain and mooring ring cannot be relied upon to be in place and in order.

6.2.3.13.1 Ice

Usually, Nuussuaq harbour is hardly affected by ice. It is only in May and June, during the ice break-up in Uummannap Kangerlua (Uummannaq Fjord), that access to the harbour may be impeded.

6.2.3.13.2 Water filling

Drinking water can be obtained from a small stream, or from a spring nearby.

6.3 Bird protection areas and conservation areas

Note: Courtesy translation. Only the Danish version has legal validity.

6.3.1 The Government of Greenland's Executive Order no. 1 of 5 January 2017 on protection and hunting of birds. The executive order applies to Greenland's land and fishing territory.

During the period from 1 May to 31 August, it is not permitted to go ashore or move around at the following locations, or within a distance of 500 metres from these locations:

1) Assissut (Brændevinsskær) at Imerissoq (Kronprinsen Ejland) (the area shown on chart 1511).
2) Nunatsiaq (Rotten) at Kitsissuarsuit (Hunde Ejland) (the area shown on chart 1511).
3) Saattuarssuit at Kitsissunnguit (Grønne Ejland) (the area shown on charts 1512 and 1513).
4) The fjord arm Tasiussarssuaq behind Naternaq (Lersletten) at Nordenskiöld Gletscher (the area not shown on chart 1500).
5) Appat Innaat [the bird cliff Appat] at Appat (Ritenbenk) (the area not shown on chart 1500).

6.3.2 The Government of Greenland's Executive Order no. 11 of 17 April 2008 on the conservation of Kitsissunnguit (Grønne Ejland).

The area is shown in relevant charts.

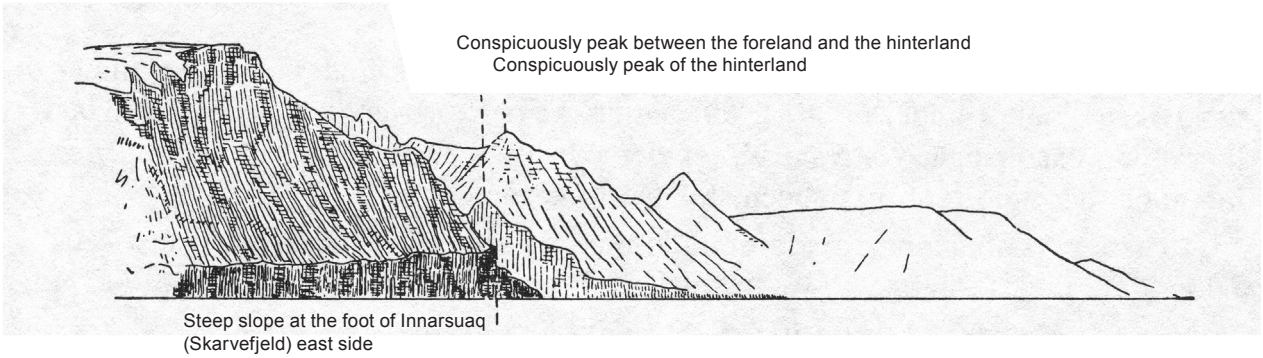


Fig. 6.2 – Eastern marking of Aappilattoq (E Parry Skær): ”Slope at the foot of Innarsuaq (Skarvefjeld) in the middle between two conspicuously peaks”.

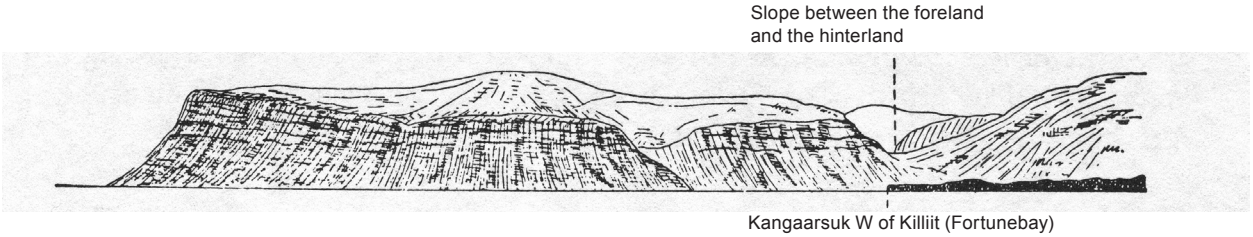


Fig. 6.3 – Western marking of Aappilattoq (E Parry Skær): ”Left part of the slope between the foreland and the hinterland a little to right of Kangaarsuk point”.

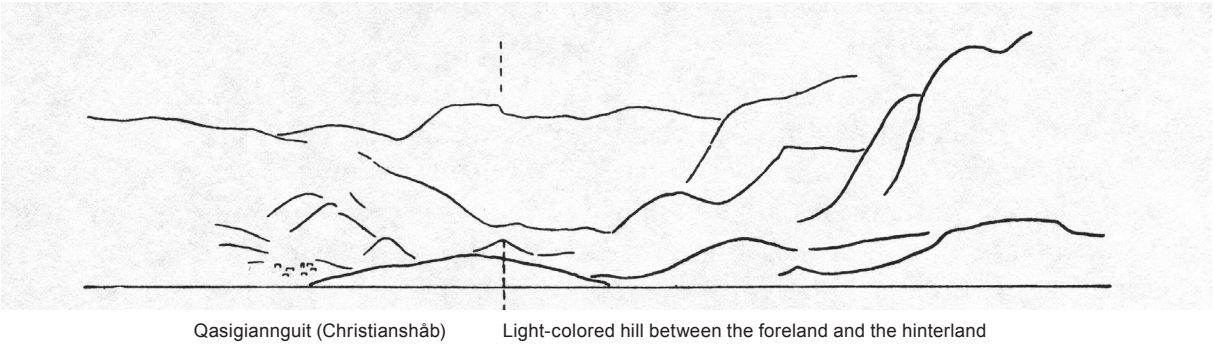


Fig. 6.4 – Conspicuously slope of the hinterland in line with light-colored hill between the foreland and the hinterland (to the right of Qasigiannguit (Christianshåb)) bearing 054º.

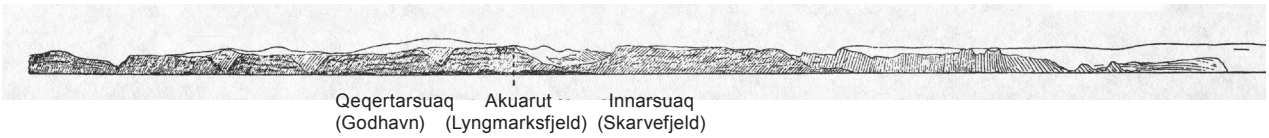


Fig. 6.4 – Qeqertarsuaq (Disko) seen from S.

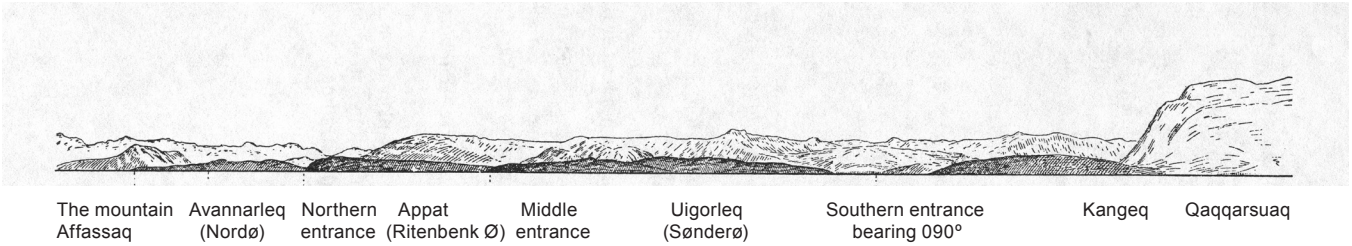


Fig. 6.5 – The coastal area of Appat (Ritenbenk), seen from a boat about 2 M from shore (the land is snow-clad).

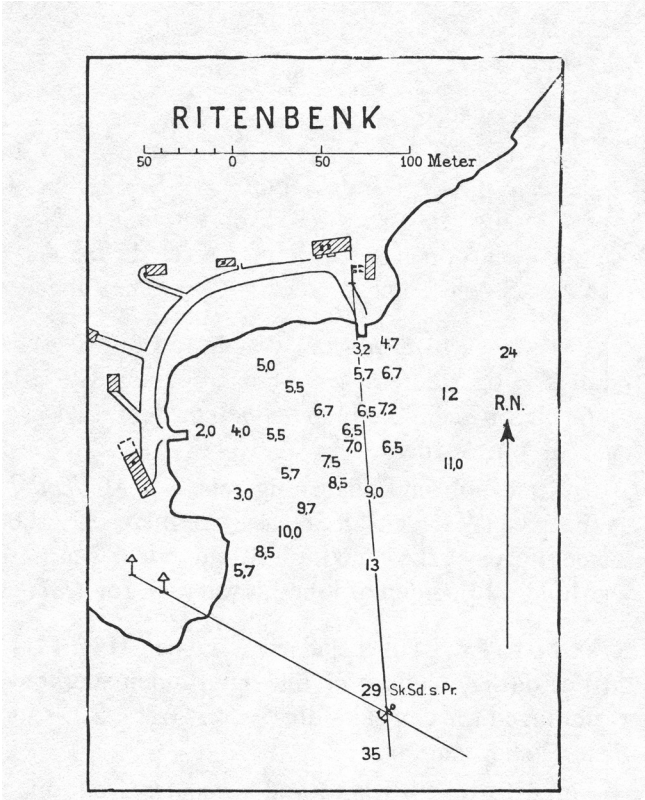


Fig. 6.6 – Sketch of Appat (Ritenbenk). Note. The beacons can not be expected to be in place and in order.

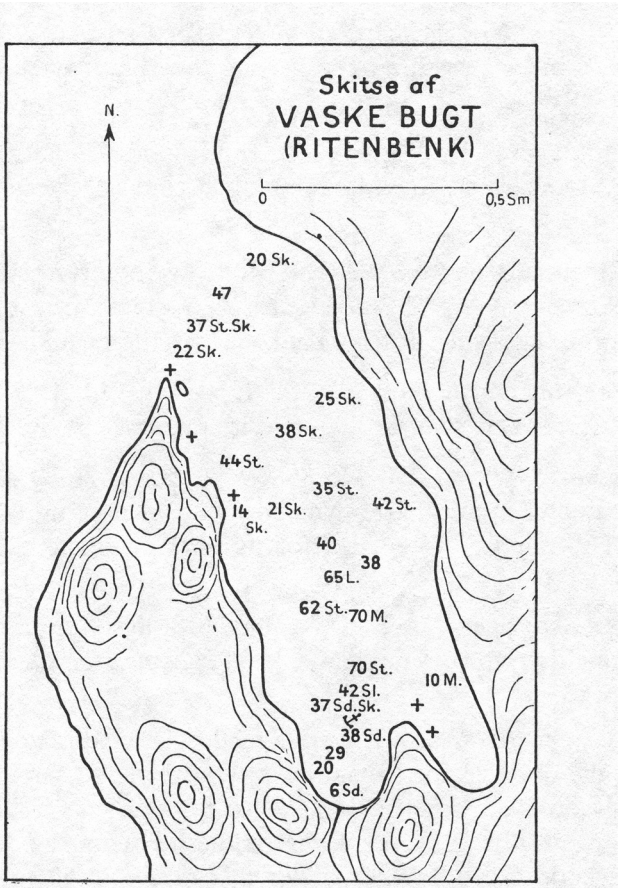


Fig. 6.7 – Sketch of Kangerluarsuk (Vaskebugt).

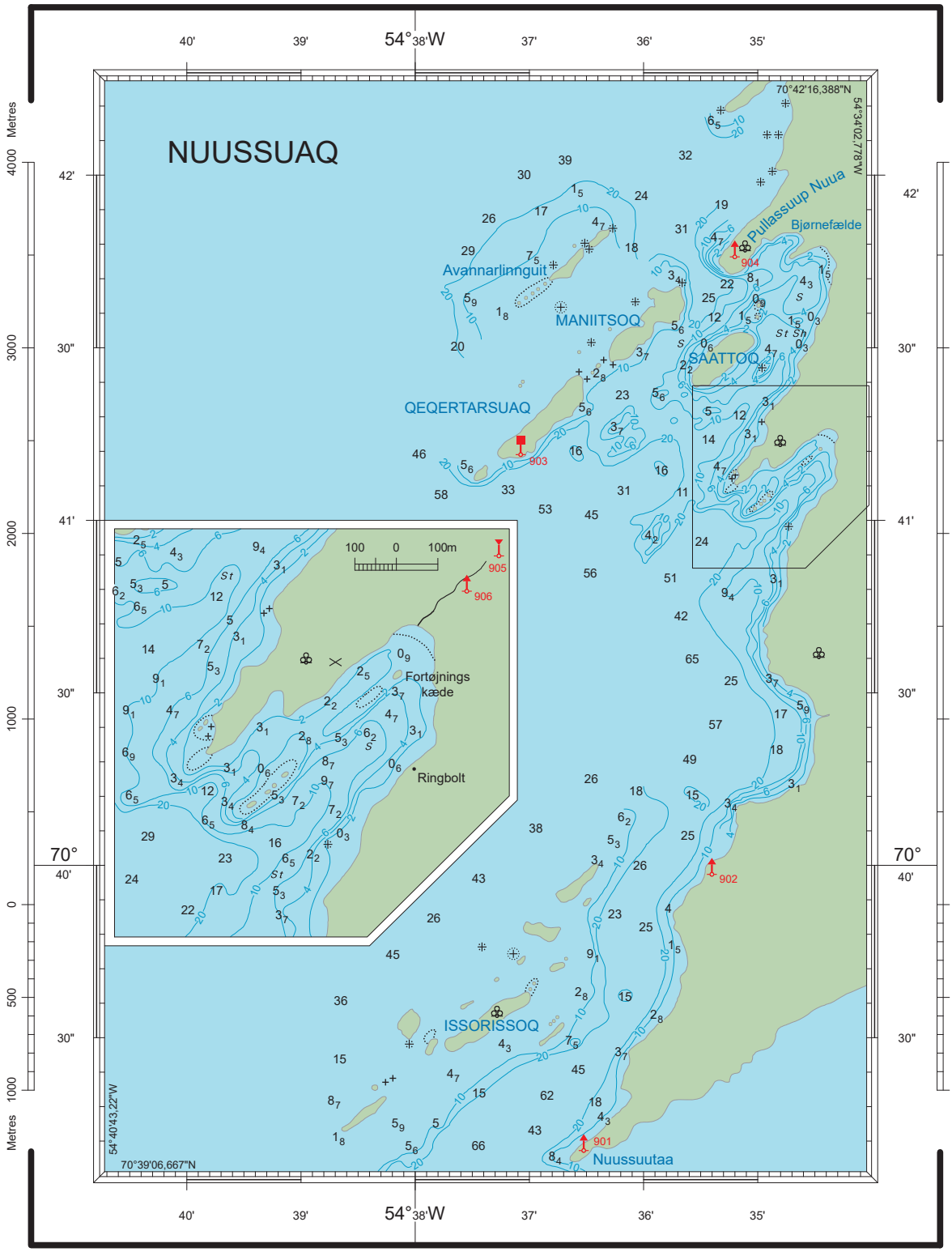


Fig. 6.8 – Plan showing the Nuussuaq Peninsula westernmost area.

Map

Qeqertarsuatsiaq (Hareøen) – Upernavik

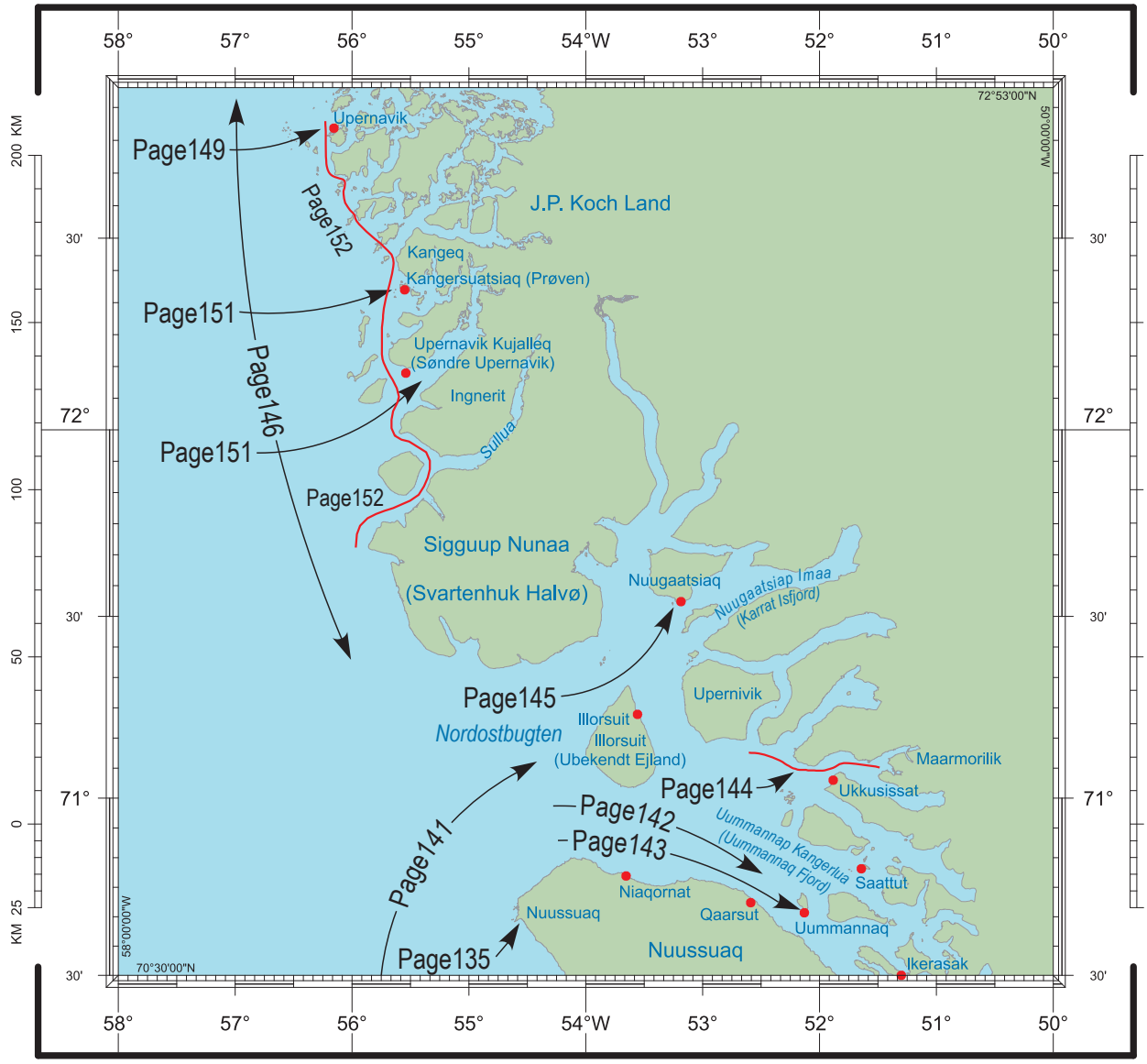


Fig. 7.1

CHAPTER 7

Qeqertarsuatsiaq (Hareøen) – Upernavik

Area 70º25´N 055º00´W – 72º48´N 056º05´W

Charts: 1600, (Qornoq 1927), 1650, (WGS-84) 1700, 1710, (Qornoq 1927)

7.1 Nordostbugten and Uummannap Kangerlua (Uummannaq Fjord), (the Uummannaq area)

7.1.1 Transit of the area
7.1.2 Approaches and navigation of waterways (fjords), towns and settlements
7.1.3 Bird protection areas

7.1.1 Transit of the area

Nordostbugten is all the waters between the peninsulas Nuussuaq and Sigguup Nunaa (Svartenhuk Halvø). At the islands Illorsuit (Ubekendt Ejland) and Upernivik, it divides into a S section and a N section called Uummannap Kangerlua (Uummannaq Fjord) and Qeqertat Imaat (Karrat Fjord) respectively. Both of these fjords branch again to the E into numerous fjord arms, all of which are ice fjords, except one. The area is also the place in Greenland where there are most glaciers, which can clearly be noticed by the number of both large and small icebergs that are encountered everywhere in this area.

7.1.1.1 Landmarks

The land around Uummannap Kangerlua (Uummannaq Fjord) is consistently high, and 18 M E of the outer part of Itilli, the transverse valley across the peninsula Nuussuaq, is the obliquely sloping, reddish brown, 737 m high, Aarrusaq (Slibestensfjeldet). 10 M further SE is the easily recognizable, 1965 m high mountain Qilertinnguit, which has a small, distinctive little peak on top. ENE of Qilertinnguit is the island Uummannaq, where the town of Uummannaq is situated on the S part. The island is almost filled by the 1175 m high and steep mountain, Uummannaq, which has some conspicuous ravines at its peak. When approaching from the W, the 1410 m high, massive-looking Salliaruseq (Storøen) is visible behind this mountain. The island has steep sides to the S, W and N, while the island's E section descends evenly (Fig. 7.2).
12 M ESE of Uummannaq is the 10 M long island Ikerasak, with the 785 m high mountain, Uummannatsiaq, which rises like a steep, enormous dorsal fin, which can be seen from far and wide.
Illorsuit (Ubekendt Ejland) lies in the N part of Uummannap Kangerlua (Uummannaq Fjord). It is 1077 m high and is divided into two sections by a traverse valley. Seen from W, the island

only seems low because of the 2024 m high island Upernivik, which lies further E.
The island Appat, which is 10 M NNE of Uummannaq, is a colossal rocky island with steep sides and sharp peaks, whose highest point is 1704 m. Close W of Appat there is a smaller island, Salleq, which is 1063 m high and rises out of the sealike the top of a submerged mountain. The N side of Salleq is vertical.
The groups of islands N of Salleq, Qeqertat and Qasigissat, are low.

7.1.1.2. Depths

7.1.1.2.1 Uummannap Kangerlua (Uummannaq Fjord)

As far as is know, Uummannap Kangerlua (Uummannaq Fjord) is generally very deep and free of dangers. Of the relatively few soundings taken in the area, it appears that the greatest depth off the mouth of Nordostbugten is about 600 m, while the greatest depth measured in Uummannap Kangerlua (Uummannaq Fjord), approximately halfway between the S tip of Illorsuit (Ubekendt Ejland) and Appat, is about 800 m. It is apparent from the size of the icebergs that discharge from there that it must be deep all the way up to the edge of the ice fjords' glaciers.
Rocks. Refer to chart 1600 and 1610.

7.1.1.2.2 Qeqertat Imaat (Karrat Fjord)

The known depths in the W part of Qeqertat Imaat (Karrat Fjord) are significantly smaller than the depths in Uummannap Kangerlua (Uummannaq Fjord).
Depths in Nuugaatsiap Imaa (Karrat Isfjord), refer to chart 1600.
Rocks.
The low group of islands Illorsuit Qeqertaat (Schade Øer) lies between Sigguup Nunaa (Svartenhuk Halvø) and Illorsuit (Ubekendt Ejland). Rocks have been reported between and around these islands and W of Illorsuit (Ubekendt Ejland) and 3.5 M S of Akunnerit, refer to chart 1600.

7.1.1.2.3 Illorsuit Imaat (Illorsuit Sund)

The channel between the islands Illorsuit (Ubekendt Ejland) and Upernivik, the 7 M wide Illorsuit Imaat (Illorsuit Sund), is deep and probably quite free of dangers.

7.1.1.4 Ice conditions

The winter ice in the N part of Uummannap Kangerlua (Uummannaq Fjord) rarely breaks up fully before the last half of June. Shortly after this break-up, large volumes of icebergs and bergy bits flow out of the fjord.
At Qeqertat Imaat (Karrat Fjord), the winter ice often remains in place until into July.
In the S part of Uummannap Kangerlua (Uummannaq Fjord), the ice often breaks up in early June.

7.1.1.5 Wind and weather conditions

There is relatively little wind around Nordostbugten, mostly in the autumn and in the spring, if this comes early. The prevailing winds are N and E, and they are both cold and dry. The hot

and moist S and W winds are less prevalent here than in Qeqertarsuup Tunua (Disko Bugt). It is a peculiarity of Uummannap Kangerlua (Uummannaq Fjord) that the N wind always blows inwards, while the SW wind blows outwards in the inner part of the fjord. Foehn-like warm and fierce winds from E and SE can be quite common.
Precipitation is generally insignificant and falls mostly in the W part of the area.
At the outer coasts of the peninsulas Nuussuaq and Sigguup Nunaa (Svartenhuk Halvø), the climate is quite different than described above. The weather here is very stormy with quite a lot of fog, rain and sleet.

7.1.2 Approaches and navigation of towns and settlements etc.

Niaqornat, Qaarsut, Uummannaq, Qasigissat (Spraglebugt), Ikerasak, Saattut, Ukkusissat, Maarmorilik (abandoned mine), Illorsuit and Nuugaatsiaq.

7.1.2.1 Niaqornat 70º47.6´N 053º40.0´W, chart 1600.

7.1.2.2 Qaarsut 70º44.0´N 052º38.5´W, charts 1600 and 1610.

7.1.2.3 Uummannaq 70º40.5´N 052º08.0´W, charts 1600, 1610 and 1650.

Approach and navigation.
When approaching Uummannaq from W, keep to the S side of the fjord to get more current and there are usually fewer icebergs than further out in the waters. The N coast of Nuussuaq is free of dangers everywhere close to shore. Approaching the S point of Uummannaq from W, it is possible to keep quite close to shore and in along the land with a course slightly within Qeqertannguaq Avannarleq (Kødø). The area is free of dangers close to the rock SSE of the Storehouse, whereas the point at the harbour entrance or the S point of Qeqertannguaq Avannarleq (Kødø) should not be approached too closely, as it is shallow off both these places.

7.1.2.4 Qasigissat (Spraglebugt) 70º41.5´N 052º08.9´W, charts 1600, 1610 and 1650

If the entrance to Uummannaq harbour is blocked by ice, or if only a short stay at the town is required, it is possible to anchor and moor in Qasigissat (Spraglebugt) on the W side of the island Uummannaq and just below the mountain Uummannaq.
The anchorage is excellent for small ships as an alternative to Uummannaq harbour. It could also be used by larger ships, but it can be difficult to navigate due to the rather narrow swinging space, especially during anchoring and weighing manoeuvres in poor weather.
The bay is partly covered to the W by a small island (with cairn) and some rocks. During the navigation period, the bay has the great advantage that it is almost always free of ice.

7.1.2.4.1 Navigation

From W, steer in between the cairn island and a small rock to the N of it. The leading mark is: “two beacons on the E land in line”. Do not get too close to the cairn island, as the water is shallow on its N side.
It is also possible to pass between the rock N of the cairn island and the N side of the bay.

7.1.2.4.2 Mooring
For orientation while anchoring, there is an anchor painted on a boulder on the N side of the bay, and there is a beacon erected a little S of this. Drop the anchor just before the boulder is in line with the beacon. Because of the high and steep mountain behind it, the distance may be difficult to judge correctly. However, one must be careful that this “slightly outside the mark” does not become too much, because otherwise it may be difficult to reach the mooring rings on the E land with the stern mooring. The nature of at the anchorage is mud and clay.

7.1.2.4.3 Departure
With an E wind, it may be difficult for larger vessels to leave the harbour due to lack of space to swing.

7.1.2.4.4 Water filling
can occur from the stream at the beacons on the E land, although the stream often runs dry at the end of the summer.

7.1.2.5 Appat 70º52´N 051º43´W, chart 1610
It is reported that there is a good harbour for larger ships in Umiasussuup Ilua on the SE part of the island Appat. The depth in the harbour should be quite large. However, no detailed information about this harbour is available.

7.1.2.6 Ikerasak 70º30.0´N 051º19.0´W, chart 1600.

7.1.2.7 Saattut 70º48.8´N 051º38.2´W, charts 1600 and 1610.

7.1.2.8 Ukkusissat 71º03.0´N 051º53.8´W, charts 1600 and 1610.
From the outer part of Uummannap Kangerlua (Uummannaq Fjord), keep either through the sound Appat Ikerat between the islands Appat and Salleq, which is considered to be the best route, because it the waters are most free of dangers in terms of both depth and ice conditions, or steer N of Salleq through Salliup Qeqertallu Ikerat. However, this route is foul on the N side and often has numerous stranded icebergs, and on the S side rock slides occasionally occur from the top of Salleq (impacts have been observed up to 400 meters from the coast). It is also possible to approach N of the groups of islands Qasigissat and Qeqertat.

7.1.2.9 Maarmorilik (abandoned mine) 71º07.6´N 051º17.0´W, charts 1610 and 1650.
In Qaamarujuup Sullua, in whose innermost part there is a glacier, keep mid-channel or slightly further S. Keep 0.5 M S of the group of islands Qeqertannguit, and keep well clear of the 6 m rock approx. 600 m W of the entrance to Affarlikassaa. On approach, keep well clear of the point on the W side. There is a high mountain on the E side of the entrance. In this mountain’s steep, light slope a dark figure can be seen, resembling an angel with outstretched wings and is called Inngili Qernertoq (Sorte Engel), [Black Angel].

7.1.2.10 Illorsuit 71º14,3´N 053º30.5´W, chart 1600.
The settlement is located on the NE side of Illorsuit (Ubekendt Ejland) at the innermost part of a small bend in the coastline.

7.1.2.11 Nuugaatsiaq 71º32.5´N 053º13.0´W, chart 1600.

The settlement lies on the S side of the island of Qeqertarsuaq, in the NE part of Qeqertat Imaat (Karrat Fjord).

7.1.2.12 Anchorages

7.1.2.12.1 Uummannatsiaq 70º33.6'N 051º40.0'W, chart 1600

is an abandoned settlement on the NW point of the island Ikerasak. Close N of here is a fine boat harbour that provides shelter from both ice and wind.

7.1.2.12.2 Sermillip Kangerlua, chart 1600

In the inner part of the fjord Sermillip Kangerlua, on the N side of Drygalski Halvø, there are several excellent anchorages in the two bays that cut SE into the peninsula, but the waters have not yet been surveyed and caution should be exercised.

7.1.2.12.3 Qeqertat 71º00´N 052º20´W, chart 1610

In the N section of Uummannap Kangerlua (Uummannaq Fjord), on the largest of the islands in the Qeqertat group of islands, there is a good closed harbour in a deep bay that cuts into the island from the S (Fig. 7.3).
Vessels may obtain anchorage in the NW part of the inlet and secure stern lines to boulders on the shore (Fig. 7.3).
In a cove on the NE side on the largest of the islands it is possible for small vessel to obtain anchorage in depths of 20-30 m and swing at anchor. The cove may be entered from NE. Entering from W through in the narrow channel is possible for small vessels and boats (Fig. 7.4).

7.1.2.12.4 Arfertuarssuk 71º27'N 055º10'W, chart 1600

On the S side of Sigguup Nunaa (Svartenhuk Halvø) in the small fjord Arfertuarssuk, E of Narsinganersua (Kap Cranstown), there are several good anchorages, where it is possible to anchor in N and W winds. No information is available about depths and caution should be exercised.

7.1.2.12.5 Illorsuit Qeqertaat (Schade Øer), chart 1600

on the E side of the island to the SW, Inussuttalik (Båkeø), has a good little harbour for small crafts.
There is a small rock S of the small island further E, Issorissoq.

7.1.2.12.6 Tasiusaq 71º04.5'N 051º18.0'W, chart 1610 and (Fig. 7.5)

In the innermost part of the fjord it is posible to anchor in about 35 m of water and good holding ground. The passage N of the islands is free of dangers and a least depth of about 18 m. The passage S of the biggest island is foul.

7.1.3 Bird protection areas

Note: Courtesy translation. Only the Danish version has legal validity.

The Government of Greenland's Executive Order no. 1 of 5 January 2017 on the protection and hunting of birds.
The executive order applies to Greenland's land and fishing territory.
During the period from 1 May to 31 August, it is not permitted to go ashore or move around at the following locations, or within a distance of 500 metres from these locations:
The island of Salleq (the area shown on charts 1600 and 1610).

7.2 Sigguk (Svartenhuk) – Upernavik, (S part of the Upernavik area)

Area 71º23´N 055º10´W – 72º47´N 056º10´W

Charts: 1600, (Qornoq 1927), 1650, (WGS-84) 1700, 1710, (Qornoq 1927)

7.2.1 Transit of the area
7.2.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
7.2.3 Inshore routes

7.2.1 Transit of the area

7.2.1.1 Landmarks

The land from Narsinganersua (Kap Cranstown), the SW point of Sigguup Nunaa (Svartenhuk Halvø) to Sigguk (Svartenhuk), has a quite smooth surface and no particularly conspicuous points. Seen from S, the W point of Sigguup Nunaa (Svartenhuk Halvø) appears as a high hummock with an outlying, lower foreland dropping steeply towards the W. Since this foreland cannot be seen until close to Narsinganersua (Kap Cranstown), Sigguk (Svartenhuk) fades out of sight as a round hummock when viewed from further S.
Qeqertaq (Skalø), N of Sigguk (Svartenhuk) (Fig. 7.6), is easily recognizable, as well as the high, steep, dark island of Kigataq, with its smooth surface.
Tukingasoq, N of Kigataq, has a cone-shaped mountain, Niaqua (Dark Head), on its S side. The part of the island furthest W is quite low and continues to the W as an underwater shoal. On the SW part of the island's high land, a high cairn has been erected in memory of the arrival of Their Majesties King Christian X and Queen Alexandrine at this location in 1921 to rescue the crew and passengers of the steamship "Bele" wrecked on the rock on the W side of the island. The memorial cairn can be seen from a great distance.
Saattoq (Store Fladø) and Uigorleq (Lille Fladø) lie to the N of Tukingasoq and, as the names suggest, they are flat islands and therefore easily recognizable at close quarters.

7.2.1.1.1 The N boundary of the basalt area.

The coast's basalt area that extends S to the S coast of Qeqertarsuaq (Disko), has its N boundary a little N of the latitude of Saattoq (Store Fladø) and Uigorleq (Lille Fladø). The contrast between the even, uniform basalt area and the undulating, peaked gneiss formations further N is so striking that it is difficult to avoid noticing it from the sea.

7.2.1.1.2 Kangersuatsiaq (Prøven) – Qaarsorsuaq

N of the settlement of Kangersuatsiaq (Prøven), which lies at the boundary between the basalt and gneiss areas, the outer areas consist of numerous islands which, seen from the sea, appear as contiguous, fairly high land. There are not many landmarks here. One of the most striking formations is the steep, dark NW side of the peninsula Kangeq, just N of Kangersuatsiaq (Prøven). More closely, several of the protruding islets can be seen, such as Maniitsoq and Salleq, which lie next to the peninsula Kangeq and S of the larger island Iperaq. Iperaq is recognizable by the 583 m high mountain on the N tip of the island.

7.2.1.1.3 Qaarsorsuaq (Sanderson Hope)

In clear weather, it is already possible from off Sigguk (Svartenhuk) to see the 1032 m high mountain Qaarsorsuaq (Sanderson Hope) close S of Upernavik. It rises like an island, apparently terminating the land to the N.
There are some islets S of Qaarsorsuaq, including the somewhat protruding island Anaanaa.

7.2.1.2. Depths

From the central deep of Avannaata Imaa (Baffin Bugt), a quite wide channel with more than 400 m of water cuts E in toward Uummannap Kangerlua (Uummannaq Fjord). Both N and S of the channel, the 400 m contours seem to lie at an equal distance (70-75 M) respectively from the outer coast of Qeqertarsuaq (Disko) and the outer coast of the land N of Nordostbugten as far as Upernavik.
The soundings off the coast between Nordostbugten and Upernavik are too few to provide any further description of the depth conditions here. In a few places, such as NW of Sigguk (Svartenhuk), W of Qeqertaq (Skalø), and between Kangersuatsiaq (Prøven) and Upernavik, there are banks up to 20-30 M from the coast with less than 200 m of water, including Upernaviup Ikkannera (Upernavik Banke).
At the outer land, only the following rocks and shoals can be indicated:

7.2.1.2.1 Sigguk (Svartenhuk), W point

A rock 5 M S of the W point of Sigguk (Svartenhuk). The minimum depth over the rock, which extends in a NS direction for 3-400 m, is approximately 5 m at mean sea level. As the rock also has an offshoot to the E, it is not advisable to sail between the rock and the land. Waves break heavily over the rock, and the site is often marked by stranded icebergs or floes.

7.2.1.2.2 Tukingasoq, W point

At the W point of the island Tukingasoq, rocks extend W in a shoal, and the island's W point should therefore not be approached closer than 3 M.

7.2.1.2.3 Salleq, W
SW of the island Salleq (W of the peninsula Kangeq), a shoal extends well out to sea.

7.2.1.2.4 Kangeq
From the small island Kangeq (SW of the larger island Singarnaq), there are numerous islets and rocks in a SSW direction.

7.2.1.2.5 Anaanaa, SW
6 M SW of Anaanaa there are 2 rocks that are dry at low water. The distance between the rocks is 1.3 M.

7.2.1.2.6 Upernavik, W
8 M W of Upernavik, there is a large cluster of small islets and rocks, Nunannguit (Smålandene) with Mary Skær.
The entire area between these islands and the two rocks mentioned above 6 M SW of Anaanaa should be considered foul waters.

7.2.1.2.7 Pamiua (Søndre Næs), SW
There is a depth of approximately 17 m SW of Pamiua (Søndre Næs), (72º45.1'N 056º15.4'W).

7.2.1.3 Ice conditions
There are many icebergs in the waters between Nuussuaq and Sigguup Nunaa (Svartenhuk Halvø).
Especially when the winter ice breaks up, and particularly around Sigguup Nunaa (Svartenhuk Halvø) and Qeqertat Imaat (Karrat Fjord), there are large numbers of icebergs and quite large volumes of drifting winter ice from Nordostbugten can be encountered until into July.

7.2.1.4 Wind and weather conditions
There can be very strong E foehn winds from Uummannap Kangerlua (Uummannaq Fjord) and Qeqertat Imaat (Karrat Fjord) during the summer, and small vessels may therefore have difficulty passing the stretch between Nuussuaq and Sigguup Nunaa (Svartenhuk Halvø). Even in calm weather, E winds of force 6-7 can blow from Uummannap Kangerlua (Uummannaq Fjord) N and S of these peninsulas.
The waters off Sigguup Nunaa (Svartenhuk Halvø) are notorious due to fog and frequent storms.

7.2.1.5 Magnetic disturbances
Magnetic disturbances have repeatedly been observed in the waters W of Sigguup Nunaa (Svartenhuk Halvø).

7.2.2 Approaches and navigation of towns and settlements etc.

Upernavik, Upernavik Kujalleq (Søndre Upernavik) and Kangersuatsiaq (Prøven).

7.2.2.1 Upernavik 72º47.5´N 056º09.4´W, charts 1650, 1710, 1700

The town is located on the SW slope of the not very large island, Upernavik, in the outer part of the archipelago S of Ikeq (Upernavik Isfjord).

The island of Upernavik lies close N of the somewhat larger island Akia (Langø) that lies N of Qaarsorsuaq. Its W point, a reddish foreland, is called Pamiua (Søndre Næs). There are a few smaller islands between Akia (Langø) and Upernavik. The island furthest W, just N of Pamiua (Søndre Næs), is called Sanerarleq (Griseøen). 1 M N of Upernavik is the island Karrat.

7.2.2.1.1 Landmarks

The most recognizable point near Upernavik is the previously mentioned, 1032 m high mountain Qaarsorsuaq (Sanderson Hope), on the outer part of the island Qaarsorsuaq. Another mountain that is almost as high, with steep sides and flat top, can be seen somewhat further in. This mountain can be sighted from far away.

When approaching Qaarsorsuaq from the sea, some protruding small islands, islets and rocks can be seen that are relevant to navigation. These are as follows, starting from S:

7.2.2.1.1.1 Aarrusaq (Hvalø), 83 m (Fig. 7.9)

also called Nøgleø, about 2 M W of Qaarsorsuaq. The island is quite recognizable by its high S part and low N part. Close S of Aarrusaq (Hvalø) is the small islet Aarrusap Sallia. Both islands are surrounded by some rocks.

7.2.2.1.1.2 Qeqertasussuk (Bruun Ø), 127 m (Fig. 7.9)

2.5 M N of Aarrusaq (Hvalø). The island is larger than Aarrusaq (Hvalø) and is light in appearance.

7.2.2.1.1.3 Avannarleq (Nordø), 101 m,

1 M NW of Qeqertasussuk (Bruun Ø).

7.2.2.1.1.4 Nunannguit (Smålandene)

As stated above, Nunannguit (Smålandene), 8 M W of Upernavik. The furthest S of these is 2 M WSW of Avannarleq (Nordø). The small islet Qajaaffik lies within the islands mentioned above, between Nunannguit (Smålandene) and Pamiua (Søndre Næs), and 1.5 M NNE of Avannarleq (Nordø). The islet Kiatannguaq lies approximately 3 M W of the island Karrat and 4 M N of Qajaaffik.

7.2.2.2 Rocks

Known rocks off Upernavik, in addition to the rocks between and around Nunannguit (Smålandene), include the following:

7.2.2.2.1 Qeqertasussuk (Bruun Ø)

A rock at the SE point of Qeqertasussuk (Bruun Ø) and a rock 0.3 M N of the island.

7.2.2.2.2 Avannarleq (Nordø)
A few rocks off the NW side of Avannarleq (Nordø).

7.2.2.2.3 Upernavik, W
A rock 3 M W of Upernavik. The rock is dry at low water and appears to be of considerable extent.

7.2.2.2.4 Saffiorfik (Smedeø)
A rock 450 m WSW of Saffiorfik (Smedeø) off the town.

7.2.2.2.5 Saffiorfik (Smedeø)
A rock 450 m on a bearing of 281º from Saffiorfik (Smedeø). The rock is dry at low water.

7.2.2.2.6 Saffiorfik (Smedeø)
A rock 175 m on a bearing 222º from Saffiorfik (Smedeø), where the depth is 4.6 m at low water.

7.2.2.2.7 Saffiorfik (Smedeø)
A rock, Kikiak, 500 m on a bearing of 349º from Saffiorfik (Smedeø).

7.2.2.2.8 Ikersuaq
There are 3 rocks under the name Ikkannersuaq in the sound Ikersuaq between the islands Upernavik and Akia (Langø).

a) 350 m on a bearing 161º from the S point of Upernavik, Saqqaarsuk, there is a rock over which the depth is 4.4 m at low water.
b) 400 m on a bearing 137º from the S point of Upernavik, Saqqaarsuk, there is a rock over which the depth is 6.7 m at low water.
c) 500 m on a bearing 133º from the S point of Upernavik, Saqqaarsuk, there is a reef over which the depth is 7.4 m at low water.

Apart from the rocks mentioned above, the channels from the sea to Upernavik are free of dangers and of great depth until close to the islands Akia (Langø) and Upernavik.

7.2.2.3 Navigation
When approaching Upernavik in clear weather, excellent guidance is provided by the mountain Qaarsorsuaq and the aforementioned protruding islets, and from N by the small islets N of Upernavik. Several beacons have been established in the area to aid navigation.
Approaching from S occurs E of the two rocks 6 M SW of Anaanaa, and then N to the E of Aarrusaq (Hvalø) and Qeqertasussuk (Bruun Ø) and further W of Akia (Langø).

7.2.2.3.1 Approaching from NW
When approaching from NW, keep towards Qaarsorsuaq on a SE bearing. When Nunannguit (Smålandene) is sighted to the S, keep towards the island Upernavik and pass in between Kiatannguaq and the rock 3 M W of Upernavik. Keep somewhat closer to Kiatannguaq than to the rock.
When approaching from NW at a large distance from the land, in order to more easily identify

the islands NW of Upernavik, keep towards the top of the mountain Qaarsorsuaq when this is on bearing 144º. This will then steer approximately towards the protruding group of islands Kingittortallit (Brown Island) (Fig. 8.3), which can be approached quite closely. If these islands have been sighted, the islands further S can be easily found.
During navigation from S, on the stretch from Pamiua (Søndre Næs) to the entrance to the harbour, keep well clear of the rocks W of the islands Upernavik and Saffiorfik (Smedeø). These rocks can be cleared by keeping W of the line from Pamiua (Søndre Næs) to the W point of Karrat.

7.2.2.4 Anchorages
Depending on the swinging space, it is possible to anchor 500 m S of the town (NE of Sanerarleq (Griseøen)).

7.2.2.5 Upernavik Kujalleq (Søndre Upernavik) 72º09.2´N 055º32.0´W, chart 1600
The settlement can be approached from the sea mid-channel between Qeqertaq (Skalø) and the island Kigataq to the N. The waters are free of dangers mid-channel, but on the NW side of the peninsula Innerit, there are a few rocks about 1 M off the coast.

7.2.2.6 Kangersuatsiaq (Prøven) 72º22.7´N 055º33.5´W, charts 1650 and 1710
The settlement is located at the boundary, which is visible from the sea, between the basalt and the gneiss areas, the first of which has a smooth and uniform appearance, while the second located further N is undulating and peaked. If an E course is steered in clear visibility from the sea toward the boundary line between the areas, you will steer approximately toward the islets at Kangersuatsiaq (Prøven). These are the furthest S of some 125-200 m high, peaked islands.

7.2.2.6.1 Navigation

7.2.2.6.1.1 Nordløbet [North Channel]
When approaching from S, the islands Saattoq (Store Fladø) and Uigorleq (Lille Fladø) provide good guidance. Keep N of Uigorleq (Lille Fladø), off the NW point of which it is possible to anchor. Do not approach too close to the island. The channels S and E of Saattoq (Store Fladø) are also free of dangers. From Uigorleq (Lille Fladø), keep N of Sioraq (Sandøen), which lies W of Kangersuatsiaq (Prøven). Nordløbet to the harbour runs from here between Sioraq (Sandøen) and the lower and further N island of Avalleq (Tørveøen) (on the S point of which there is a beacon). The entrance from Avalleq (Tørveøen) to Kangersuatsiaq (Prøven) is completely free of dangers. Nordløbet is the most commonly used entrance to Kangersuatsiaq (Prøven).

7.2.2.6.1.2 Sydløbet [South Channel]
The south channel to the harbour is narrow, and since the W part of the sound between Sioraq (Sandøen) and Kangersuatsiaq (Prøven Ø) is very shallow, it is necessary to keep close to the E side during navigation of this channel. Larger ships should not use this channel to the harbour unless absolutely necessary. Sydløbet is mostly relevant for smaller vessels and boats that approach from S along the inshore route.

7.2.3 Inshore routes. Sigguk (Svartenhuk) – Upernavik

7.2.3.1 Sigguk (Svartenhuk) – Kangersuatsiaq (Prøven)
7.2.3.2 Kangersuatsiaq (Prøven) – Upernavik
7.2.3.3 Channel from the sea to the inshore routes
7.2.3.4 Harbours and anchorages for smaller vessels

7.2.3.1 Inshore route Sigguk (Svartenhuk) – Kangersuatsiaq (Prøven)

Area 71º41'N 055º54'W – 72º23'N 055º33'W, charts 1600, 1650 and 1710

From Sigguk (Svartenhuk), keep W of Qeqertaq (Skalø) and then over towards the E point of Kigatak, and proceed approximately 1 M from shore N to the NE point of Kigatak, or mid-channel in toward Upernavik Kujalleq (Søndre Upernavik). From off Upernavik Kujalleq (Søndre Upernavik), keep somewhat W, as the waters are somewhat foul between Kingigtoq (the SW point of Qeqertaq (Søndre Upernavik Ø)) and Tukingasoq, and the route therefore goes in W third of the channel between the two. The route continues between the small, low island Issortusoq and Saattoq (Store Fladø), on the E side of which there is a bay with good anchorage for N winds, and W of Avannarlersuit on Qeqertaasaq, which should not be approached too closely. From here, the islands at Kangersuatsiaq (Prøven) can be seen. Keep up towards Nitserfik, which is an easily recognizable, small, light-brown island with two islets or rocks to the N (Fig. 7.10). Then keep W of Nitserfik and well N of the small islets N of here. Then, to enter Kangersuatsiaq (Prøven), steer into Nordløbet between Sioraq (Sandøen) and the lower Avalleq (Tørveøen), on whose S point there is a beacon. The north channel is the most common entrance to the harbour. Smaller vessels can use Sydløbet and then keep S and E of Nitserfik up towards Kangersuatsiaq (Prøven).

7.2.3.2 Inshore route Kangersuatsiaq (Prøven) – Upernavik

Area 72º23'N 055º33'W – 72º47'N 056º09'W, charts 1710, 1650 and 1600

When navigating N from Kangersuatsiaq (Prøven), it is possible to keep either W or E of Avalleq (Tørveøen) at a suitable distance. Then keep in the sounding track in chart 1710 along the peninsula Kangeq and E of the small island of Maniitsoq and further N between the islands Iperaq and Salleq (Fig. 7.11). Iperaq is easily recognizable by its high, steep slope. Keep closer to Iperaq because of the small islands Qalilik and the rocks N of here. Approx. 100 m E of the island furthest NE there is a rock that is just visible at high water. A little further N during navigation, there is a beacon on the W point of Iperaq. This beacon is most visible seen from N and it serves here as the approach for navigation. The route continues NW between the larger island Singarnaq and the small island Kangeq (Fig. 7.12 and 7.13). The W point of Singarnaq is formed by a fairly high hummock connected to the rest of the land by a low spit of land. A small rock that is submerged at high water, lies 100 m W of Singarnaq, and since the waters on the Kangeq side are also not free of dangers, the route here goes mid-channel and then E of the small, protruding island Anaanaa and then E and N of the island Tini and the small islet N of it, Tinuteqisaaq. However, keep S and W of the small island Qoorsorfik, which lies close SW of the S point of Qaarsorsuaq (Fig. 7.14 and 7.15). Keep W from here, well clear of Inngia (SW point of Qaarsorsuaq), as the waters are foul off the point. After passing Inngia, keep N along the W side of Qaarsorsuaq and E of Qeqertasussuk (Bruun Ø). From here, keep W and

N of Pamiua (Søndre Næs) and stay well clear of the rocks W of the island of Upernavik. The rocks can be cleared by keeping W of the line Pamiua (Søndre Næs) – Karrat's W point. W of Upernavik, keep in the leading line into the harbour.

7.2.3.3. Channels from the sea to the inshore routes

When approaching from the sea, the channel can be used between the islands Kigataq and Tukingasoq, and the two routes mentioned for navigation of Kangersuatsiaq (Prøven) between Tukingasoq and Saattoq (Store Fladø), and N of Saattut (Fladøerne). For the route N of Tukingasoq, there is a good anchorage with a depth of approximately 18 m in the bay in the SW part of Tukingasoq. There is shelter from SW winds. As mentioned earlier, the W point of Tukingasoq should not be approached closer than 2 M due to the shoal extending W.

7.2.3.4 Harbours and anchorages for smaller vessels

7.2.3.4.1 Maligiaq (Svartenhavn)

There is a cove, Maligiaq (Svartenhavn), close S of the point Sigguk (Svartenhuk) at 71º39'N 055º38'W, which can be used as a harbour by smaller vessels and boats. The bottom of the cove is even, with depths of 15 m. The entrance is free of dangers, although the S headland of the cove, Qaaqqut Nuuat (Posthusnæs), should not be approached too closely. Smaller vessels are well situated for S and E winds on the S side of the cove, off the erected travel hut. With N winds, the best shelter is found at the N coast of the cove, between the mouths of two small rivers, where there is adequate water depth and good holding ground. There are two beacons on the N side of the cove as a cross mark for an anchorage with swinging space for larger vessels. There is usually some swell in Maligiaq (Svartenhavn) in bad weather.
Note: The beacons cannot be relied upon to be in place and in order.

7.2.3.4.2 Milloorfik

On the NW side of Sigguup Nunaa (Svartenhuk Halvø), S of Qeqertaq (Skalø), there is a good anchorage with shelter from S winds in the cove Milloorfik 71º45'N 055º35'W.

7.2.3.4.3 Amitsup Ilua

At the fjord Amitsup Ilua, about 71º48.9'N 055º23.0'W, there is an anchorage for smaller vessels and boats behind a flat isthmus.

7.2.3.4.4 Kangaarsuk

At Kangaarsuk 72º00'N 055º35'W, at the SW point of Ingnerit, where there was previously a settlement, there is a fine anchorage for N winds off some house sites. Small vessels can steer inside the islets Qeqertaarsuit off Kangaarsuk, but caution should be exercised near the rock between the islands and the land.

7.2.3.4.5 Tasiusaq

On the S coast of the large island Nutaarmiut, N of the peninsula Kangeq, there is a spacious bay between two peninsulas. The bay's inner cove, Tasiusaq 72º36.5'N 055º29'W, is an excellent harbour for boats, but the entrance is narrow and full of rocks. The harbour provides shelter from all winds.



Fig. 7.2 – The coastal area of the inner part of Uummannap Kangerlua (Uummannaq Fjord), seen from the fjord abeam of Niaqornat.

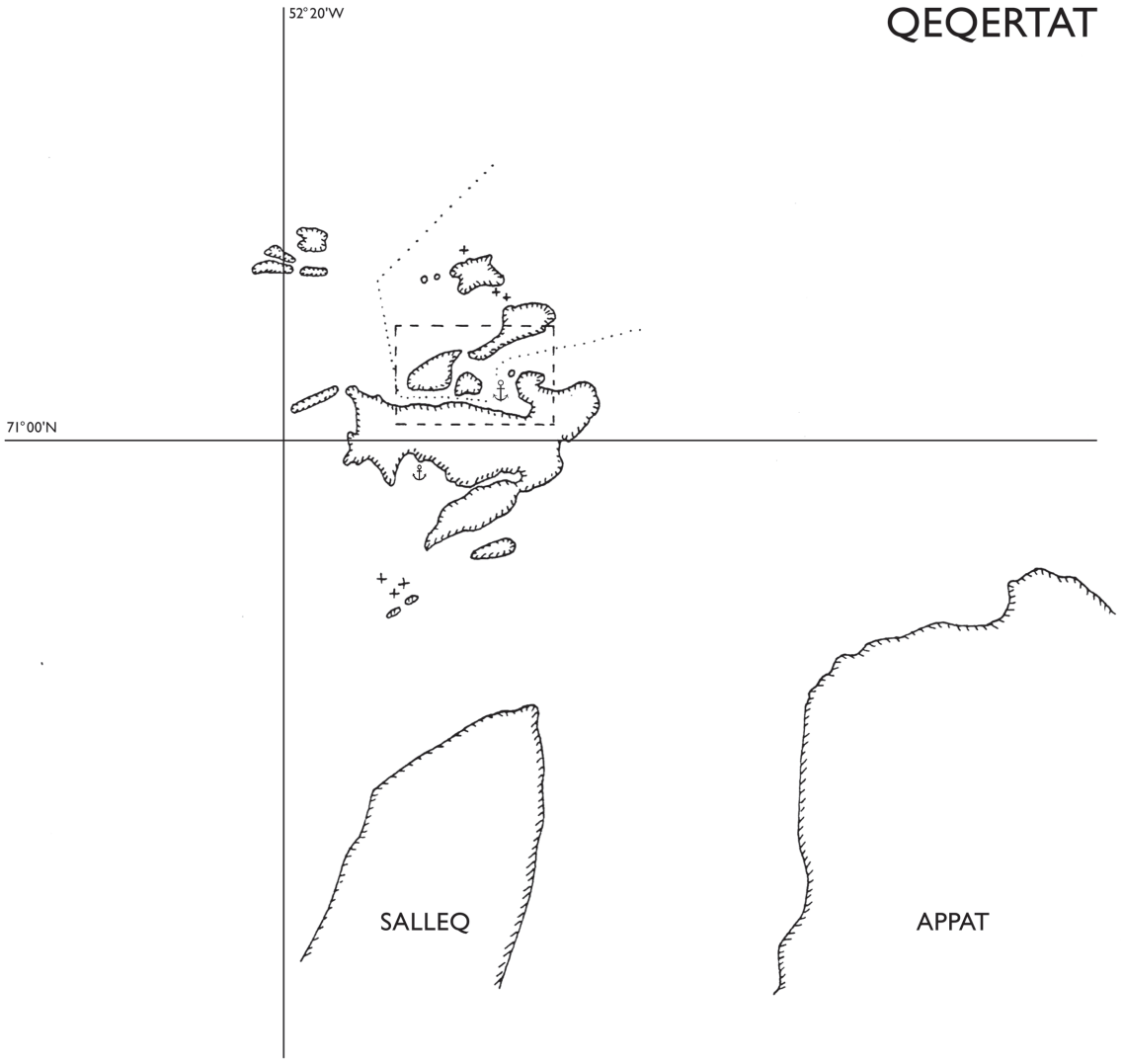


Fig. 7.3 – Anchorages at Qeqertat S.

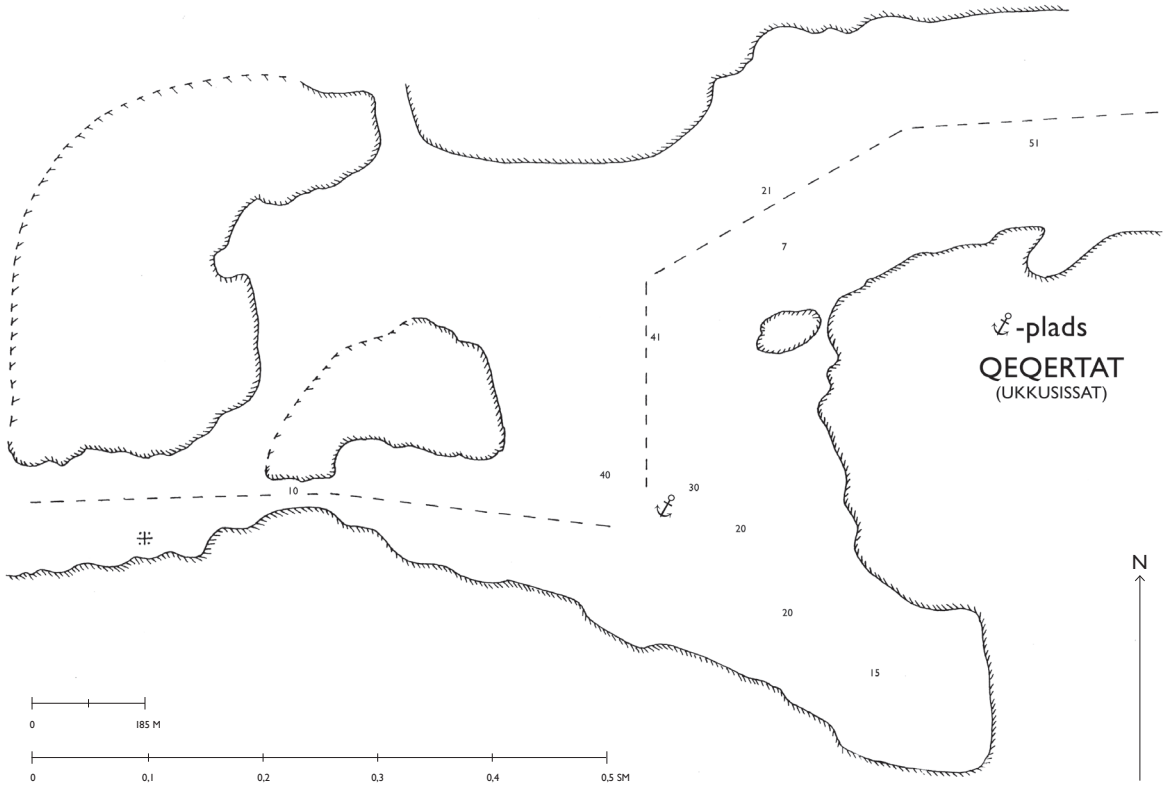


Fig. 7.4 – Anchorage at Qeqertat NE.

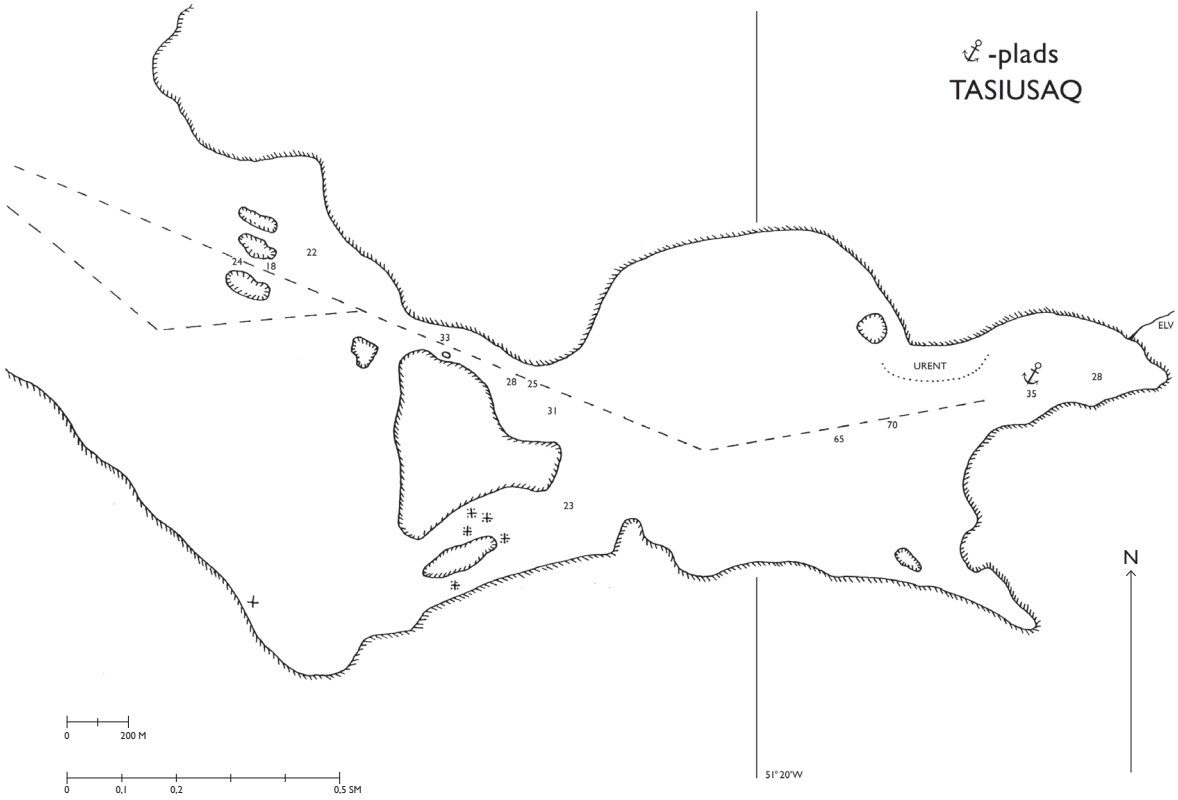


Fig. 7.5 – Anchorage at Tasiusaq.

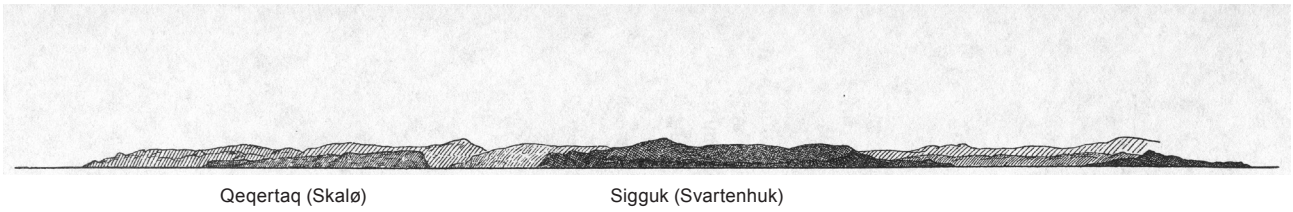


Fig. 7.6 – The coastal area of Sigguk (Svartenhuk) seen from W.

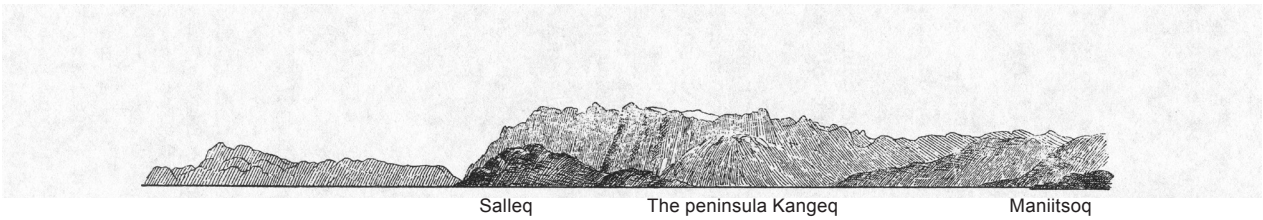


Fig. 7.7 – The coastal area N of Kangersuatsiaq (Prøven) (towards the sound of Ammaqqua) seen from WSW.

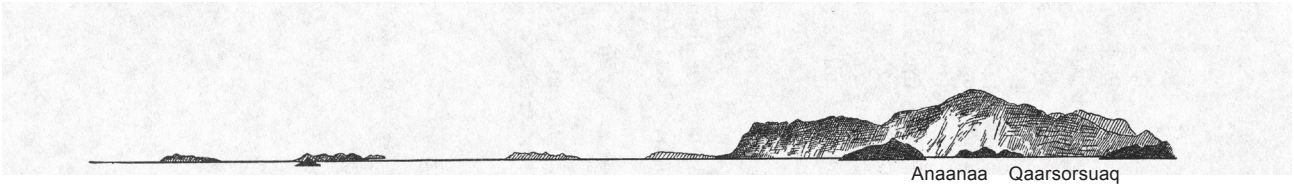


Fig. 7.8 – The coastal area of S of Upernavik seen from S.

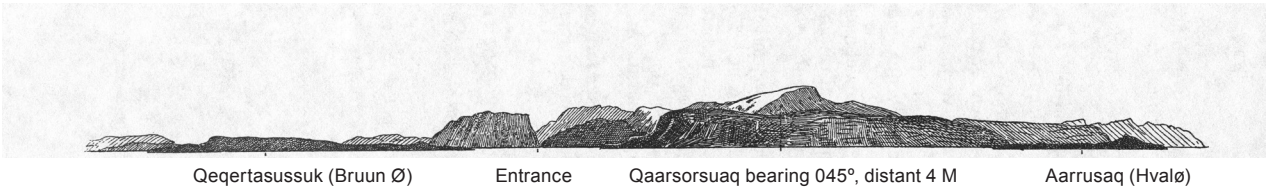


Fig. 7.9 – The coastal area S of Upernavik seen from SW.

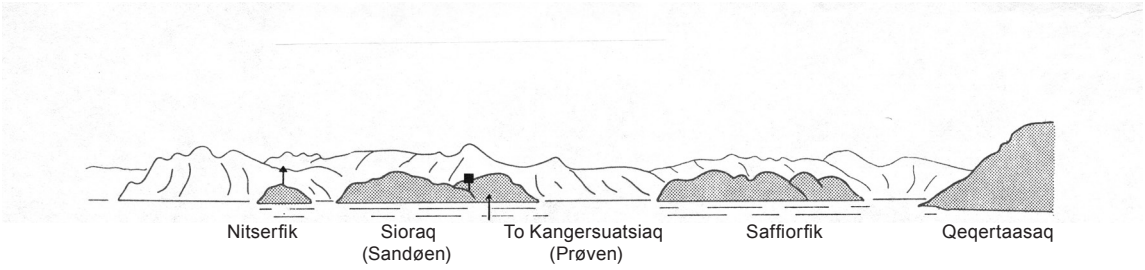


Fig. 7.10 – The coastal area seen from a position W of the island of Issortusoq.

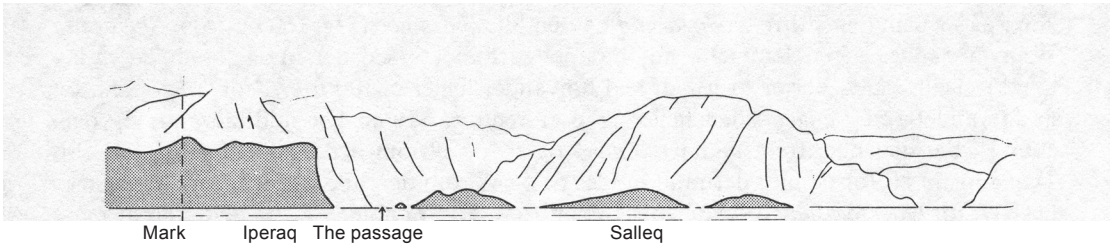


Fig. 7.11 – The marking seen in direction SSE from Singarnaq SW-point.

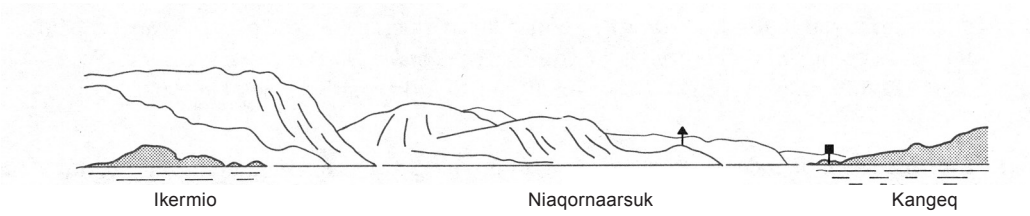


Fig. 7.12 – The passage seen towards SE from Qoorsorfik.

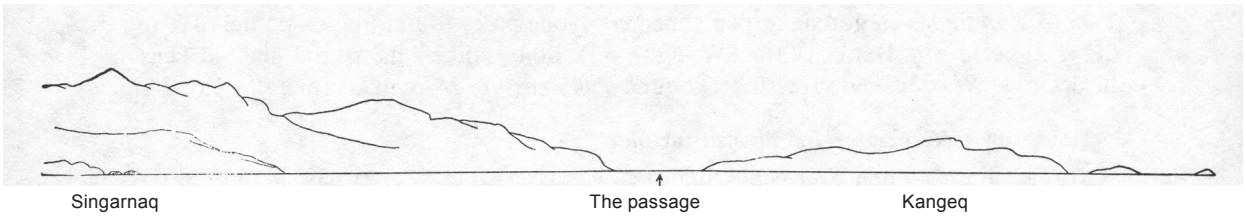


Fig. 7.13 – The passage between the islands of Singarnaq and Kangeq, seen from N abeam of Anaanaa (72º37'N 056º03'W).

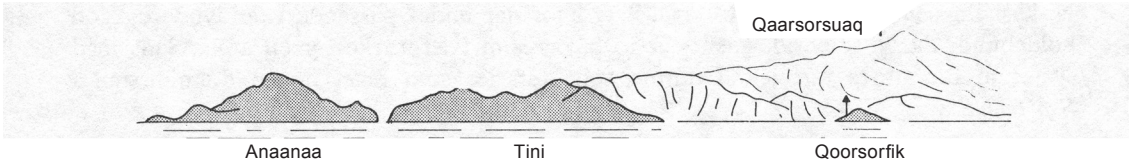


Fig. 7.14 – The islands seen from Niaqornaarsuk.

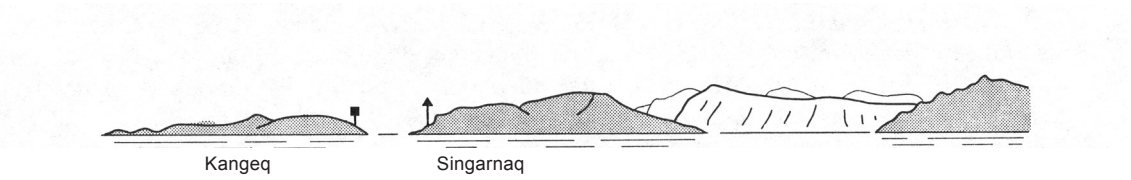


Fig. 7.15 – The islands seen from Salleq.

Map
Upernavik – Kiatassuaq (Holm Ø)

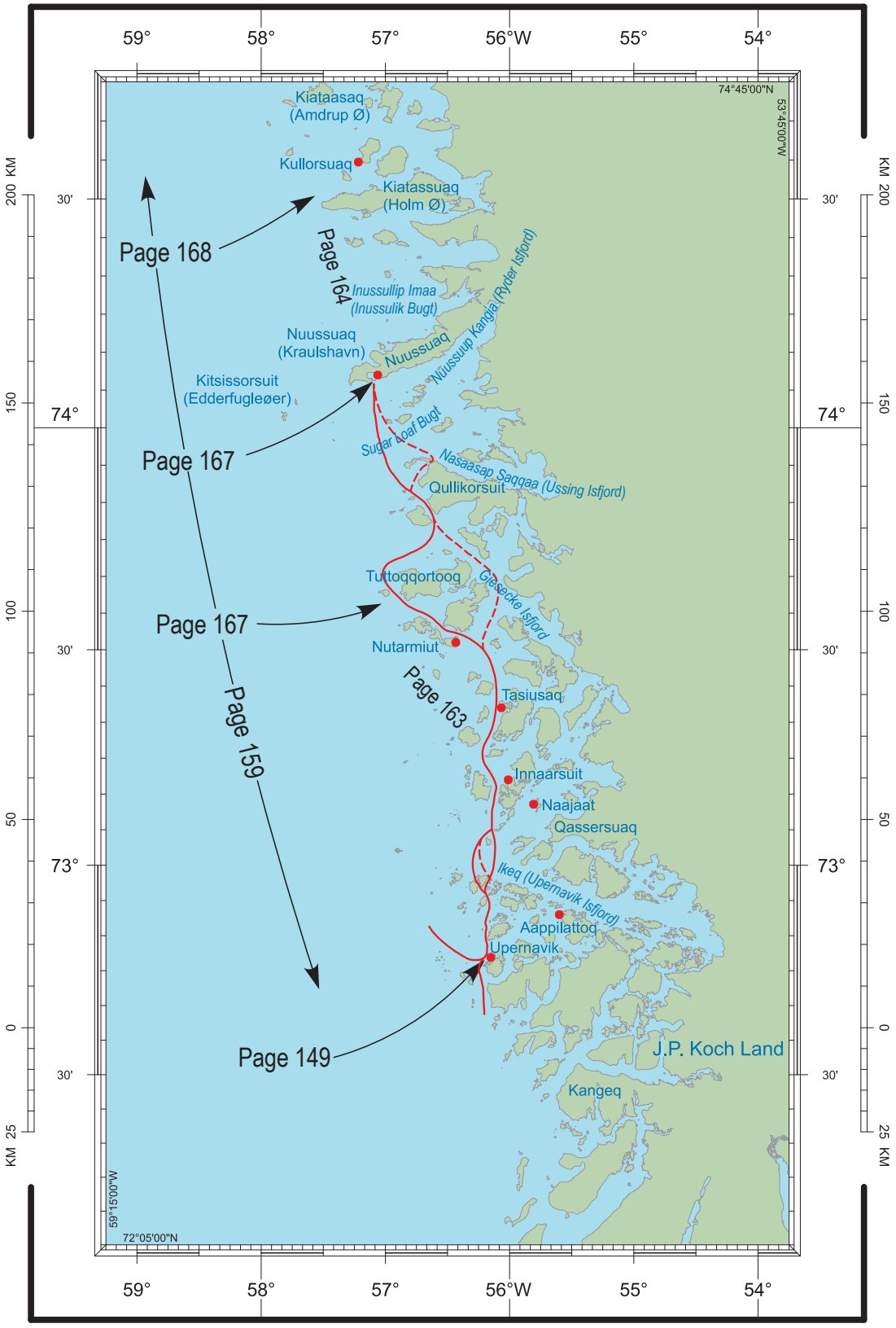


Fig. 8.1

CHAPTER 8

Upernavik – Kiatassuaq (Holm Ø)

Area 72º47´N 056º09´W – 74º30´N 057º30´W
Charts: 1710, 1700 (Qornoq 1927) and 1650 (WGS-84)

8.1 Transit of the area
8.2 Overview of settlements and anchorages in the area
8.3 Inshore routes
8.4 Harbours and anchorages for small vessels
8.5 Channels from the open sea to inshore routes
8.6 Bird protection areas

N of the latitude of Upernavik (72º47'N), the ice cap protrudes so far out that it almost covers the actual coastline of the mainland, so that only the outlying archipelago is ice-free. In the densest, S part of the area, this archipelago has a width from the ice edge of approx. 35 M, while the width of the archipelago belt in the N part, where the islands are more dispersed, is only about 20 M. Numerous productive glaciers extend from the edge of the ice cap. The icebergs from here drift to Avannaata Imaa (Baffin Bugt) via several channels running through the archipelago, which in this area are called "isfjorde" (ice fjords) in Danish. The most important of these is the 40 M long and 3 M wide Ikeq (Upernavik Isfjord), the W entrance of which is 14 M N of Upernavik, and the somewhat shorter and narrower Kangerlussuaq (Giesecke Isfjord) at 73º45'N.

8.1 Transit of the area

8.1.1 Landmarks

The previously mentioned mountain Qaarsorsuaq (Sanderson Hope) on the island of Qaarsorsuaq S of Upernavik, can be seen far to the N off the area dealt with in this section (Fig. 8.2). Within the area itself, the highest points, such as the peninsula Qassersuaq 1138 m (Fig. 8.4) N of Ikeq (Upernavik Isfjord), are located close to the edge of the ice cap, but it is not particularly striking seen from the sea. The area's landmarks consist mainly of individual characteristic points in the outer part of the archipelago and the protruding islets in front of the actual archipelago. Landmarks from Upernavik and further N are as follows:

8.1.1.1 Kingittuarsuk 72º56´N 056º38´W

A small island, 60 m, 12 M NW of Upernavik.

8.1.1.2 Kingittortallit, a group of islands 73º02´N 056º54´W

The outer group of small islands, 65 m, W of Ikeq (Upernavik Isfjord) (Fig. 8.3). The group of islands, consisting of 6 large and numerous small islets and reefs, has a light-brown appearance, except when NNW of the islands, from where they appear darker.
The group of islands is a good approach mark when coming from N and entering Upernavik.

8.1.1.3 Kingittuarsuk, a group of islands 73º15´N 056º52´W

13 M N of the Kingittortallit group of islands.

8.1.1.4 Toqqusaarsuk

A small island 9 M NNE of the Kingittuarsuk group of islands. Due to its appearance, the island is also called Wedge Island (Kileøen).

8.1.1.5 Toqqusaq 73º26´N 056º35´W

This is a small island 5 M N of Toqqusaarsuk. There are reefs N and S of the island, and there is an islet 2 M W of the N tip. The island has been called Cone Island because of its appearance.

8.1.1.6 Appalersalik (Horse Head) 73º38´N 057º02´W

The island has a characteristic NW point (Fig. 8.5) that is easily recognizable, but seen from too far W, it can blend in with the hinterland. It lies off the W end of the considerably larger and 587 m high island Tuttoqqortooq.

8.1.1.7 Kap Shackleton

on the island Appaarsuit, 10 M NNE of Appalersalik (Horse Head) and off the 621 m high SW point of the large island Qulleqqorsuit (Fig. 8.5). The island is an easily recognizable, reddish-brown, enormous block with a 440 m high, sharply sloping exterior. N and NW of Appaarsuit there are some small islands. The island furthest W, 2 M from Kap Shackleton, is called Killeq.

8.1.1.8 Uummannaq (Sugar Loaf)

about 280 m, one of the outer islands in Sugar Loaf Bugt between the island Qulleqqorsuit and the peninsula Nuussuaq (Fig. 8.5). Uummannaq (Sugar Loaf) is a high, quite regularly shaped peak that is slightly rounded at the top. The island is very recognizable and can be sighted from far away.

8.1.1.9 Kitsissorsuit (Edderfugleøer) [Duck Islands]

14 M W of Uummannaq (Sugar Loaf) (Fig. 8.5), is one of the most important points for navigation off this part of the coast. Kitsissorsuit (Edderfugleøer) consists of 3 islands. The two outer islands are separated from each other by a sound that is so narrow that, from the outside, they appear as a single island. The group's third island lies 2 M NE of the first two.
The island furthest SW, at about 80 m, is the highest of the three islands. A 3-4 m high cairn has been erected on its top.
The middle island which, as already mentioned, lies quite close to the island furthest SW, is

long and relatively low. 1 and 2 M respectively N of this island there are small islets, protruding above the surface at high water.

8.1.1.10 Nuussuaq

This (Fig. 8.5) is an approximately 25 M long peninsula that forms the N part of Nuussuup Kangia (Ryder Isfjord), which lies N of Sugar Loaf Bugt. Close to the peninsula's outer end, the land has a height of approximately 430 m. Further inland, 10 M from the SW point, it rises to a height of approximately 854 m. The settlement Nuussuaq (Kraulshavn) is located in a bay in the outer part of the S side of Nuussuaq.

8.1.1.11 Pukuluffik

9 M NNW of the SW point of Nuussuaq there is a small, glaciated islet, Pukuluffik, which can be difficult to spot, especially when the ice foot is still in place around the islet.

8.1.1.12 Inussullip Imaa (Inussulik Bugt)

There are several islands in the N part of Inussullip Imaa (Inussulik Bugt) (the waters between Nuussuaq and Kiatassuaq (Holm Ø)). Inussulik lies furthest W and E of this is the somewhat larger Inussulissuaq, rising to a height of approximately 559 m. A cairn has been erected on top of Inussulissuaq. On the island's SW side there is a former travel hut called Illukassak (Bjørneborg).

8.1.1.13 Kiatassuaq (Holm Ø)

a high, approximately 20 M long island, forms the S boundary of Qimusseriarsuaq (Melville Bugt). The island's W point, on which a large cairn has been erected, is the approximately 751 m high Kiatassuup Nuua (Wilcox Head). The middle part of Kiatassuaq (Holm Ø) rises to a height of about 935 m.

8.1.2 Depths

Off the coast between Upernavik and Kiatassuaq (Holm Ø), only a few soundings are available up to approximately 10 M from land. Approx. 30 M W of a line between Appalersalik (Horse Head) and Nuussuaq, there is an approx. 50 M long and 15 M wide bank named Kitsissorsuit Ikkannerat, with less than 200 m of water and with depths of less than 50 m. The S edge of the bank lies about 8 M S of the latitude of Appalersalik (Horse Head). Inside this bank there is again deeper water.

Outside Inussullip Imaa (Inussulik Bugt), there are several places with depths below 200 m, which could indicate the presence of a bank here, perhaps in continuation of and in connection with the chain of islands in the N part of Inussullip Imaa (Inussulik Bugt).

W of a line between the group of islands Kingittortallit (Brown Island) and Kitsissorsuit (Edderfugleøer), the waters appear to be free of dangers and without rocks. E of this line is reported to be quite full of rocks. There is probably a deep trench just N of Kingittortallit in continuation of Ikeq (Upernavik Isfjord).

8.1.3 Rocks

The following is known about rocks and foul waters on the outer coast:

8.1.3.1 Karrat

Karrat southern point about 4 M W of, 72º48.74'N 056º19.14'W, depth 14.2 m.

8.1.3.2 Angisoq,

about 3.5 M W of the island, 72º54.04'N 056º37.39'W, depth 19 m Rep (2013).

8.1.3.3 Ikeq (Upernavik Isfjord)

There is a steep, underwater rock about 3-4 m below the water surface in Ikeq (Upernavik Isfjord) N of Taartoq (approx. 73º00'N 055º59'W).

8.1.3.4 Kingittuarsuk

The waters around the group of islands Kingittuarsuk 73º15'N 056º50'W are very foul.
From the E side of the group of islands, a shoal extends 1 M to the E. It is quite shallow on the E and S sides of the islands. On the W and N sides, however, large icebergs can go aground quite close to the islands.

8.1.3.5 Niisartuut

There is a rock 1.5 M W of the island of Niisartuut.

8.1.3.6 Toqqusaq (Cone Island)

There are rocks N, S and NW of Toqqusaq (Cone Island).
There is a small islet, Upernaviarsuk, 2 M W of the N tip of the island.

8.1.3.7 Appalersalik (Horse Head) S

There is a rock 4.5 M (approx. 73º33.4'N 057º01.5'W) S of Appalersalik (Horse Head), where the depth is estimated to be 1 m.

8.1.3.8 Appalersalik (Horse Head), NNW

There are two rocks, Ikkarlunnguaq 4 and 5 M respectively NNW of Appalersalik (Horse Head), of which the one furthest N is dry at low water.

8.1.3.9 Kitsissorsuit (Edderfugleøer)

There are 2 rocks that are dry at low water 0.2 M WSW of the furthest SW island of Kitsissorsuit (Edderfugleøer).

8.1.3.10 Nuussuaq NNW

The small glaciated islet of Pukuluffik, which as previously mentioned is difficult to see, lies 9 M NNW of the SW point of the peninsula Nuussuaq.

8.1.4 Magnetic disturbances

On the stretch between 72º55'N 058º00'W and 73º10'N 058º45'W, deflections of up to 15º have been observed on the magnetic compass.
Magnetic interference occurs around the island Qallunaat (SE of Tuttoqqortooq). Deflections of up to 35º have been observed on the magnetic compass here.

8.1.5 Navigation

In clear visibility, and when there is not too much sea ice in the waters, the offshore transit of the coastal stretch poses no difficulties. It is possible to pass 1 M W of the outermost groups of islands, Kingittortallit (Brown Island) and Kitsissorsuit (Edderfugleøer), and the waters are otherwise deep and free of dangers W of the line between these islands. During the summer months, any difficulties caused by ice during the continued navigation to the N usually begin N of Kitsissorsuit (Edderfugleøer). When the latitude of Appalersalik (Horse Head) had been passed, the old whalers who used to approach Qimusseriarsuaq (Melville Bugt) quite early in the season (usually in June), would keep straight towards Kitsissorsuit (Edderfugleøer), because experience showed that there were always some open and navigable waters off these islands. With ice in the waters, it was also possible to get a better view of the ice conditions from the top of the island furthest SW than from the actual ships. Another vantage point used by the whalers for ice was Kiatassuup Nuua (Wilcox Head) on Kiatassuaq (Holm Ø).

8.2 Overview of settlements and anchorages in the area

Settlements and anchorages found in the area between Upernavik and Kiatassuaq (Holm Ø) are as follows:

8.2.1 Settlements

Aappilattoq, Tussaaq (abandoned), Naajaat, Innaarsuit, Tasiusaq, Nutaarmiut, Ikerasaarsuk, Nuussuaq (Kraulshavn) and Kullorsuaq.

8.2 2 Anchorages

Qaneq, Qaarsorsuatsiaq, Qulleqqorsuit and on the NW side of Saqqarlersuaq.
(See section 8.4).

8.3 Inshore routes Upernavik – Kullorsuaq

Area 72º47´N 056º09´W – 74º35´N 057º13´W, charts 1700 and 1710

8.3.1 The inshore route Upernavik – Nuussuaq (Kraulshavn)

is used by smaller ships when navigating settlements in the archipelago N of Upernavik. The route usually taken is indicated on the chart by several beacons (there are no beacons N of Nuussuaq (Kraulshavn)) and soundings, but apart from these soundings there have been no surveys of the area conducted. It is therefore advised not to navigate the route with large

ships and it is advised to use navigators having local knowledge on board. Navigation in the archipelago can be greatly impeded by icebergs, especially during the transit of Ikeq (Upernavik Isfjord) and Kangerlussuaq (Giesecke Isfjord), where the waters can be entirely blocked by icebergs shortly after the break-up of the winter ice.
During navigation of the route from Upernavik and further N in the archipelago towards Nuussuaq (Kraulshavn), keep between the island Karrat and the islets and rocks, Upernaviarsuk, that lie to the W of here. Due to the foul waters in this area, keep well over towards Karrat. Keep N and W of a small group of islands W of Takisoq. (Fig. 8.6). From here, keep E of Nunarsuaq, but it is foul at the NE point of this island. From Nunarsuaq, keep NNW and E or W of Kingittorsuaq, depending on the bergy bits that regularly occur in large masses from Ikeq (Upernavik Isfjord). The best channel is the one to the E, and it is possible to steer W or E of the islets at the NE corner of Kingittorsuaq.
The minimum depth in the channel W of the islet is 15 m. If the channel W of Kingittorsuaq is used, keep W of the furthest W of the two beacons on the S side of the island. The minimum depth in this channel is 10 m. Keep a little closer to Kingittorsuaq than to the islands further W.
From the E channel, the route continues N, then E or W of Tussaaq, but from the W channel, continue W of Tussaaq. Usually there is a better chance to work a way across Ikeq (Upernavik Isfjord) the further W the channel used. On Tussaaq there is an abandoned settlement of the same name in the small cove within a few islets to the S.
From Tussaaq, keep N and W of Itillilik, taking care of rocks in the W side of the waters. Then follow the sounding track through a sound between two larger islands, Qaarsorsuatsiaq and Saattup Akia. The settlement of Innaarsuit is located on the N tip of the E island. The route now continues W of the islands Kangaarsuk and Tasiusaq (with the settlement on the NW side of the island) and further N and NW through the sound S of Qallunaat, the S point of which can be seen as a grey foreland in red rocks. The small settlement of Ikerasaarsuk lies on the E side of the island S of Qallunaat. From here, keep up between the islands Appalersalik (Horse Head) and Tuttoqqortooq and further NE towards the E point of Appaarsuit (Fig. 8.7). Keep closest to the W point of Tuttoqqortooq due to the rocks Ikkarlunnguaq. When navigating the abandoned settlement Kuuk from S of Qallunaat, keep up along the E side of this island and NW in Kangerlussuaq (Giesecke Isfjord) to Kuuk, and from here towards the E point of Appaarsuit. Strong magnetic interference has been detected in the waters around Qallunaat.
When the E point of Appaarsuit has been passed, keep up between Appaarsuit and Qulleqqorsuit, from where the route continues NNW, then W of Kittorsaq and Uummannaq (Sugar Loaf) and from there N of Nuussuaq (Kraulshavn) (Fig. 8.8, 8.9 and 8.10). However, it is also possible to steer E of Kittorsaq, but this route is normally used only if ice conditions impede navigation in the W route.
For navigation of Nuussuaq (Kraulshavn), see below.

8.3.2 The inshore route Nuussuaq (Kraulshavn) – Kullorsuaq

When well out of the harbour cove of Umiarsualivik, keep a distance of 1 M along the coast W and around the peninsula Nuussuaq's SW tip, Nuussuup Nuua. From here, keep N into Inussullip Imaa (Inussulik Bugt) until roughly W of Ikermiut. From this point, steer up towards Kiatassuup Nuua (Wilcox Head) so that the foreland is rounded at a distance of approximately

1 M. The route now runs mid-channel between Kiatassuaq (Holm Ø) and Saarlia until you are off the small foreland on the N side of Kiatassuaq (Holm Ø). From here, keep N to keep clear of the foul area E of Saarlia. See (Fig. 8.11).
Caution should be exercised.

8.4 Harbours and anchorages for small vessels

The following information can be provided regarding harbours and anchorages for small vessels at the inshore route.

8.4.1 Aappilattoq, settlement, 72º53´N 055º36´W, chart 1710

lies 12 M NE of Upernavik on the NW side of the island of Aappilattoq.

8.4.1.1 Navigation

From Upernavik, approach Aappilattoq by keeping mid-channel S of Karrat, Ikermiut, Saattoq and from there to the settlement. If this route cannot be used because of ice conditions, keep mid-channel through Torsuut, keeping S of the islands Atilissuaq, Simiutaq and Ammaasarsuaq. At the W entrance to Torsuut, there is a rock that is dry at low water. From S, it is possible to approach mid-channel through Akornat (Sortehul), E of Paattorfik and Qeqertaq.

8.4.1.2 Anchoring

It is possible to anchor off the houses furthest S, to the N of an islet. The depth here is about 25 m and the waters are foul further N. The waters are not surveyed, so caution should be exercised when navigating both routes and anchorages.

8.4.1.1 Ice

The glacial ice from Ikeq (Upernavik Isfjord) can often impede or prevent navigation. During unfavourable ice conditions, smaller ships can try to anchor somewhat further in, but still off the houses to the S. The depth here is about 10 m.

8.4.2 Qaneq

N of Ikeq (Upernavik Isfjord), the island Qaneq, 73º03'N 055º55'W is located on the E side of the route, where there is a good harbour with shelter from all winds.

8.4.3 Tussaaq (abandoned settlement) 73º03'N 056º11'W

There is no proper harbour at the settlement, but in good conditions it is possible to anchor NW or SE of the settlement, which is located on the islands in front. There is a rock in the N part of the boat harbour off the houses. It can be dangerous to anchor in the boat harbour, because a large wave enters through the narrow channel when grounded icebergs calve outside the island, which often occurs. There is a rock approx. 1 M W of the island Tussaaq, over which the minimum depth is approx. 1 m. The rock is part of a shoal that extends

between the above-mentioned position and the W coast of the island Tussaaq.

8.4.4 Naajaat, settlement, 73º09´N 055º48´W

lies 22 M NNE of Upernavik.

8.4.4.1 Approach

The settlement can be approached by, from the sounding track in the inshore route E of Tussaaq, keeping mid-channel between the islands Itillilik and Qaneq, and from there towards the settlement. During navigation from Naajaat and further N, it is possible to keep through the channel between Itillilik and Attarsivik at about 73º06'N 056º02'W, where a minimum depth of 25 m is reported mid-channel. The waters to and from Naajaat are not surveyed and caution should be exercised.

8.4.4.2 Anchoring

Smaller ships can anchor S of the settlement in 25-30 m of water. Caution should be exercised because there is probably a rocky bottom, and the anchorage is not surveyed.

8.4.5 Qaarsorsuatsiaq

In the bay on the E side of the island of Qaarsorsuatsiaq, 73º11'N 056º13'W, there is a good anchorage with shelter from SW winds.

8.4.6 Innaarsuit, settlement, 73º12´N 056º02´W

chart 1700, lies 25 M N of Upernavik.
It is not possible to anchor off the boat harbour, since the depths are too great, but there is an anchorage (73º11.5'N 055º57.0'W) with approx. 25 m of water in the S part of the bay on the E side of the peninsula on which the settlement is located. Caution should be exercised.

8.4.7 Tasiusaq, 73º22'N 056º03'W

settlement, chart 1700, lies 35 M N of Upernavik.

8.4.8 Nutaarmiut, 73º32'N 056º26'W

settlement, chart 1700, lies 45 M N of Upernavik.

8.4.9 Nuuluk, 73º33'N 056º00'W

chart 1700, is an abandoned settlement on the N side of the island at the mouth of Kangerlussuaq (Giesecke Isfjord). There is a good small harbour here.

8.4.10 Kuuk (abandoned settlement) 73º43'N 056º13'W, chart 1700
The settlement is situated on the island Mernoq, on the N side of Kangerlussuaq (Giesecke Isfjord). There is a good harbour for small vessels in a small cove on the low, S part of the island, and it is possible to anchor in about 25 m of water outside the harbour.

8.4.11 Qulleqqorsuit, 73º50'N 056º40'W
chart 1700, NE of Kap Shackleton, on the S side of the island, there are two large bays in which there are good anchorages with shelter from all winds, but caution should be exercised when navigating the bay furthest E because of rocks.

8.4.12 Kittorsaq, 73º56´N 056º44´W
chart 1700, is an abandoned settlement on the island Kittorsaq. There is a good anchorage off the houses at the abandoned settlement.

8.4.13 Nuussuaq (Kraulshavn), settlement, 74º07´N 057º06´W
charts 1700 and 1650.

8.4.14 Illulik, (abandoned settlement), 74º20.5´N 056º42´W
chart 1700, can only be navigated by boat.

8.4.15 Umiatsialivik (Otto Havn), 74º36´N 057º00´W
On the NW side of Saqqarlersuaq, chart 1700 and (Fig. 8.11 and 8.12). It is possible to anchor in about 35 m of water in Umiatsialivik (Otto Havn), but the bottom is uneven and caution should be exercised, as the waters have not been surveyed.

8.4.16 Kullorsuaq, settlement, 74º34.8´N 057º13.0´W
chart 1700, is located on the S side of the island Kullorsuaq.

8.5 Channels from the open sea to inshore routes

8.5.1 S of Appalersalik (Horse Head)
From S of Appalersalik (Horse Head), it is possible to keep in towards Tuttoqqortooq on a bearing of 060º in the sounding track. Caution should be exercised.

8.5.2 Inussullip Imaa (Inussulik Bugt)
From a position 11 M W of the peninsula Nuussuaq, it is possible to keep into Inussullip Imaa (Inussulik Bugt) on a bearing of 063º. Caution should be exercised.

8.5.3 Kiatassuaq (Holm Ø) N

From a position 8 M W of Kiatassuup Nuua (Wilcox Head), it is possible to keep into the waters between Kiatassuaq (Holm Ø) and the island Saarlia on a bearing of 075º. Caution should be exercised.

8.6 Bird protection areas

Note: Courtesy translation. Only the Danish version has legal validity.

The Government of Greenland's Executive Order no. 1 of 5 January 2017 on the protection and hunting of birds.
The executive order applies to Greenland's land and fishing territory.
During the period from 1 May to 31 August, it is not permitted to go ashore or move around at the following locations, or within 500 metres from these locations:

8.6.1 Upernaviup Apparsui (Sandersons Hope) (the area is not shown on the chart).
8.6.2 Kingittuarsuk, WNW of Angisoq (the area shown on chart 1700).
8.6.3 Toqqusaq (the area shown on chart 1700).
8.6.4 Kippaku (the area shown on chart 1700).
8.6.5 Apparsuit (the area shown on chart 1700).



Fig. 8.2 – The coastal area of Upernavik seen from W.



Fig. 8.3 – Kingittortallit (NW of Upernavik) bearing 135°.



Fig. 8.4 – The coastal area N of Upernavik.

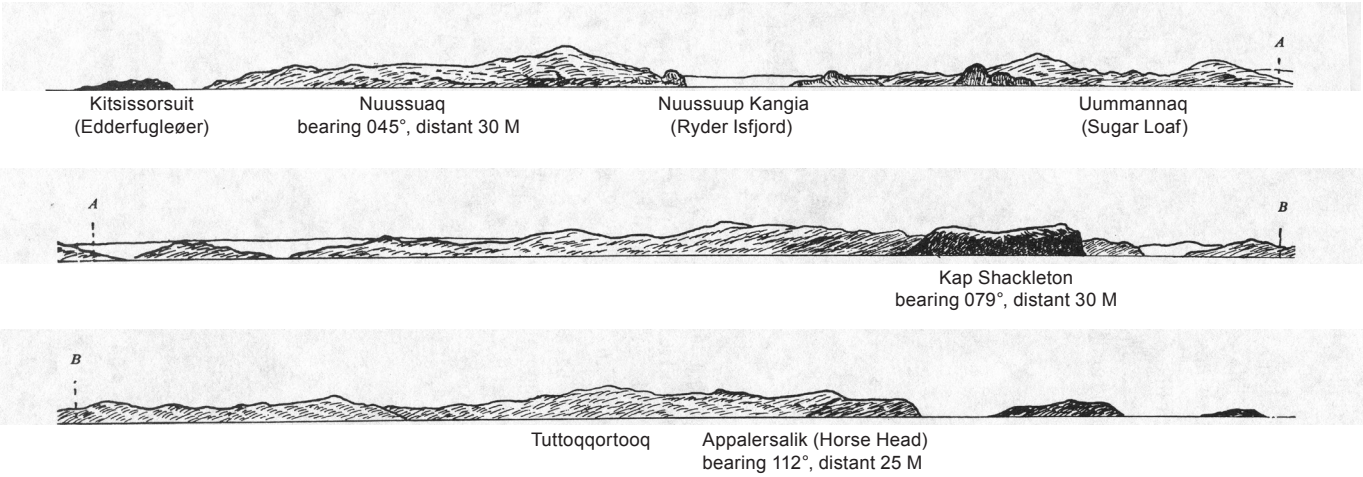


Fig. 8.5 – The coastal area seen from 73°45'N 058°30'W.

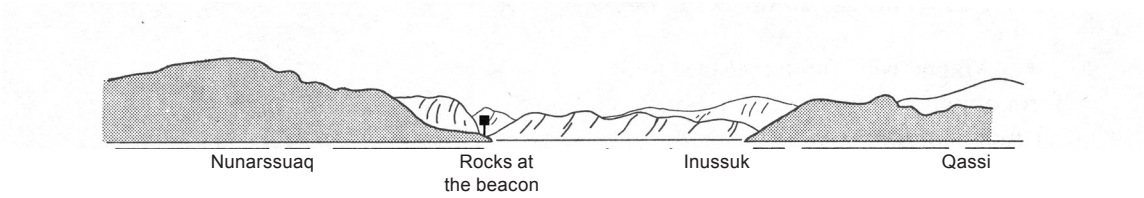


Fig. 8.6 – The islands seen from the beacon SW of Takisoq.

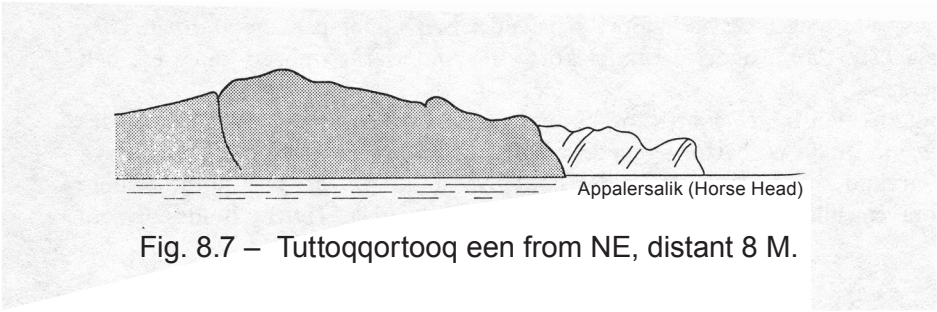


Fig. 8.7 – Tuttoqqortooq een from NE, distant 8 M.

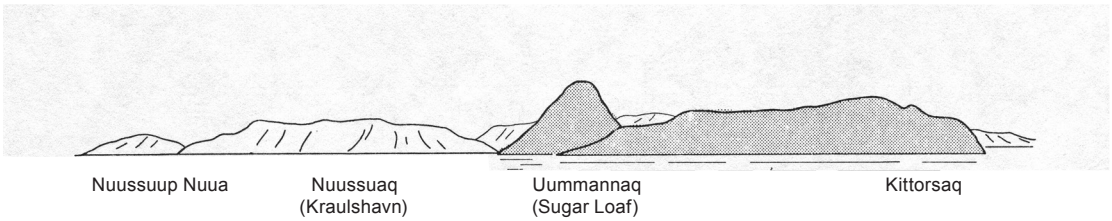


Fig. 8.8 – Uummannaq (Sugar Loaf) and Nuussuaq (Kraulshavn) seen from S.

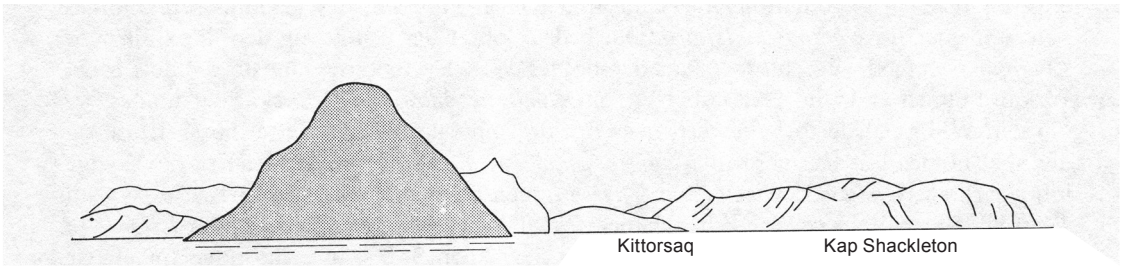


Fig. 8.9 – Uummannaq (Sugar Loaf) bearing SSE. Seen from NNW, distant 3 M.

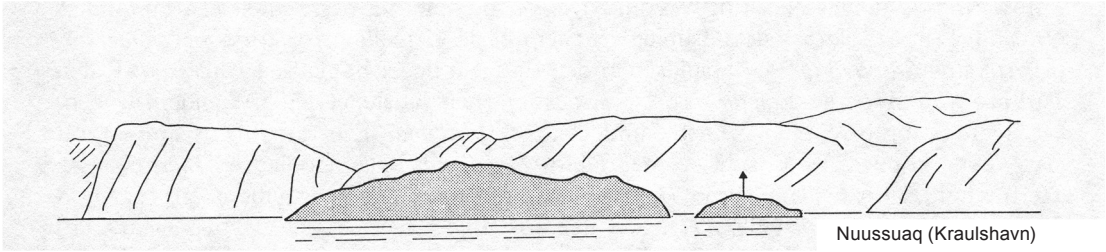


Fig. 8.10 – Entrance of Nuussuaq (Kraulshavn) bearing 011º, distant 4 M.

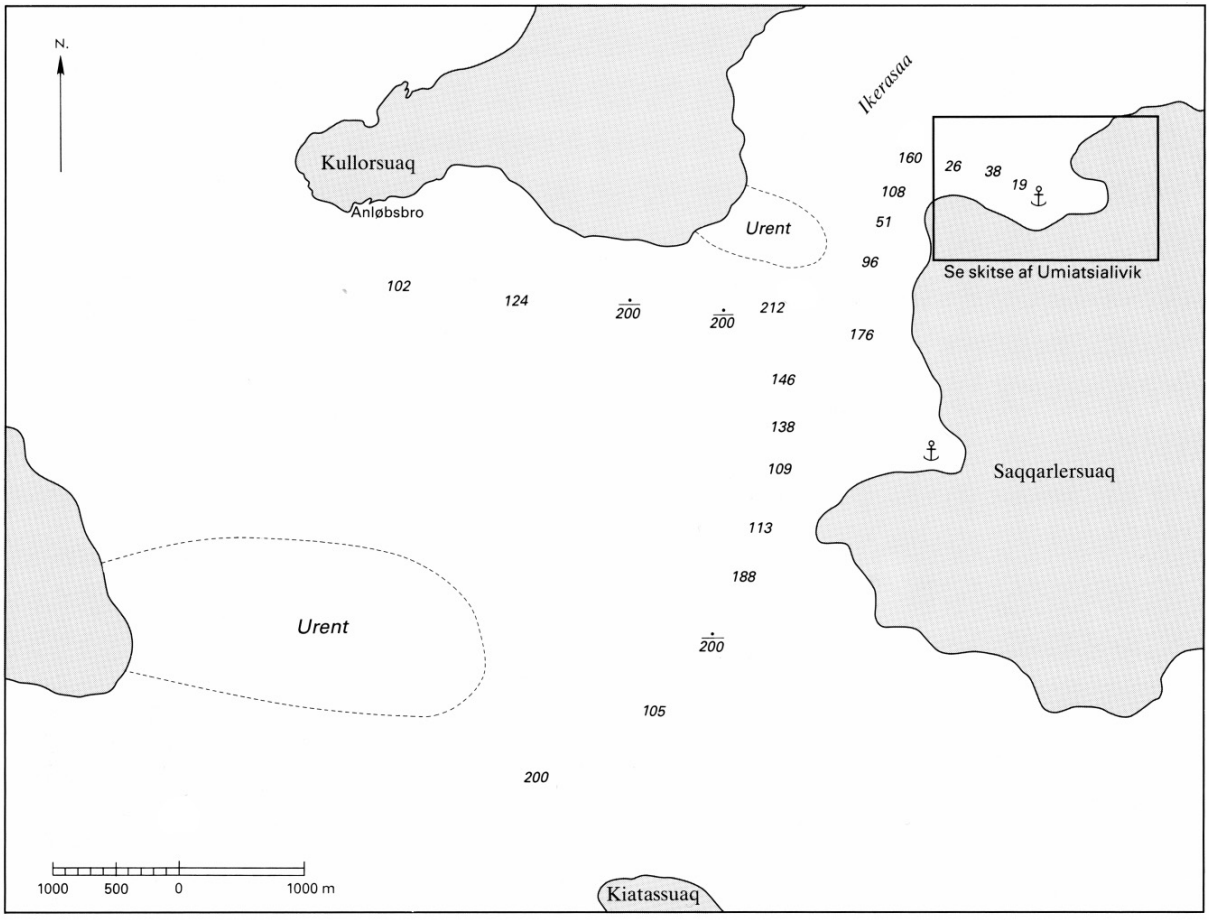


Fig. 8.11 – Sketch with indicative sounding tracks to Kullorsuaq and Umiatsialivik (Otto Havn)

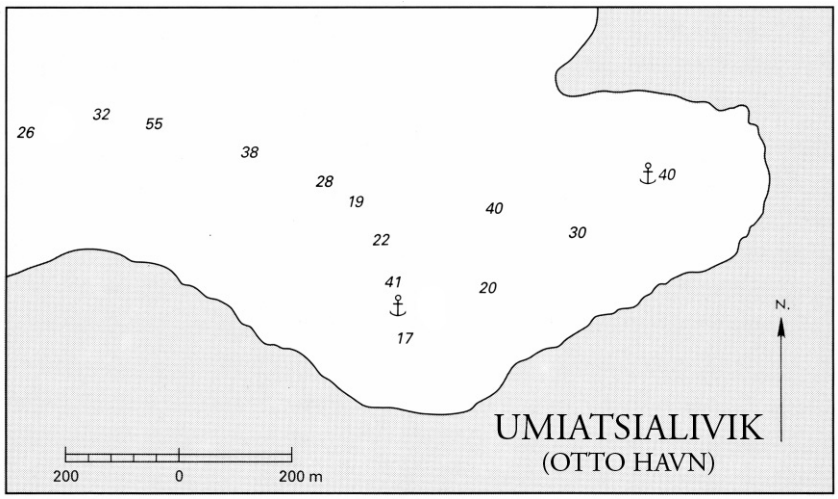


Fig. 8.12

Map

Kiatassuaq (Holm Ø) – Innaanganeq (Kap York)

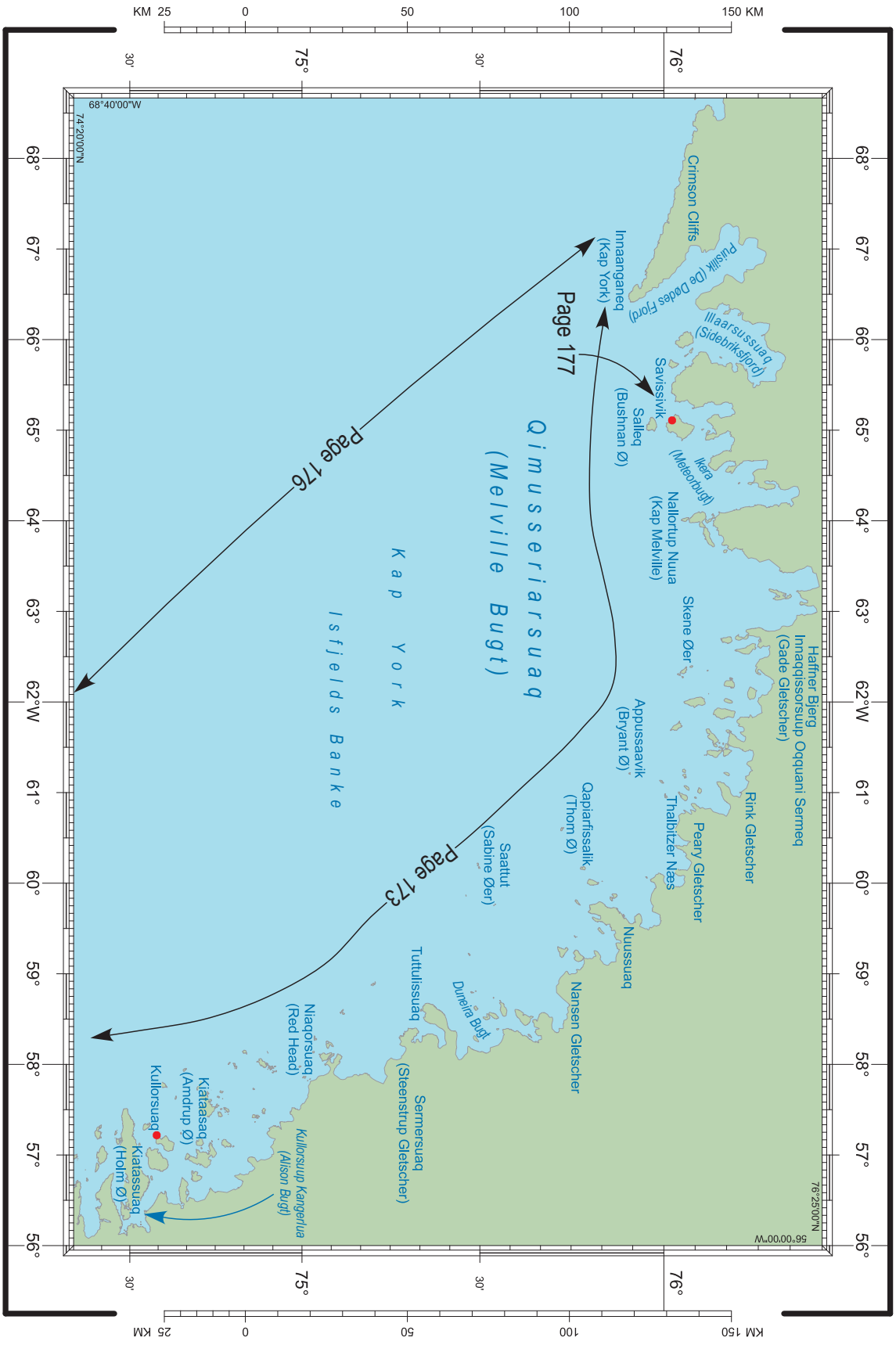


Fig. 9.1

CHAPTER 9

Kiatassuaq (Holm Ø) – Innaanganeq (Kap York), Qimusseriarsuaq (Melville Bugt)

Area 74º30´N 057º02´W – 75º54´N 066º27´W
Chart: 3100, (Qornoq 1927)

9.1 Transit of the area
9.2 Approaches and navigation of channels (fjords), towns and settlements.
9.3 Anchorages
9.4 Melville Bay Nature Reserve

Qimusseriarsuaq (Melville Bugt) are the waters off the coast between Kiatassuup Nuua (Wilcox Head) and Innaanganeq (Kap York).
The ice cap here extends almost everywhere all the way or close to the sea. In most of the bay, the coast's ice-free areas are very dispersed and nowhere have any great extent inwards. Up to about 25 M N of Kiatassuup Nuua (Wilcox Head), there is a very narrow archipelago edge in continuation of the archipelago S of Kiatassuaq (Holm Ø). Further N, there are only scattered and relatively few islands off the coastline.
Qimusseriarsuaq (Melville Bugt) is named after the British naval minister Robert Saunders Dundas, Viscount Melville (1771-1851).

9.1 Transit of the area

9.1.1 Landmarks

The landmarks in the area consist mainly of the various protruding islands of the ice-free coastal areas and the points that protrude from these, as well as some nunataks. All these points stand out sharply in clear weather against the background of the white ice cap and can therefore be seen from very far away. By following the coast from S and on towards Innaanganeq (Kap York), the following information can be provided with respect to the landmarks on the stretch from Kiatassuaq (Holm Ø) to Innaanganeq (Kap York).

9.1.1.1 Kullorsuaq (Djævelens Tommelfinger), [Devil's Thumb]

540 m, is a high column of rock on the E part of the island of Kullorsuaq, which lies 3 M N of Kiatassuaq (Holm Ø). Seen from the sea, this formation resembles a giant thumb that stretches vertically into the air from a clenched fist.

9.1.1.2 Kiataasaq (Amdrup Ø)
Of the archipelago islands N of Kiatassuaq (Holm Ø), Kiataasaq (Amdrup Ø), located 13 M N of Kiatassuup Nuua (Wilcox Head), is also relatively large and high. In contrast, the other islands are bare gneiss islets with a relatively uniform appearance. The furthest N of these is J.A.D. Jensen Øer, about 25 M NNW of Kiatassuaq (Holm Ø).

9.1.1.3 Niaqorsuaq (Red Head)
8 M N of J.A.D. Jensen Øer, this extends 2 M out in a SW direction from the edge of the ice cap. The peninsula is a dominant and high mountain top, whose NW side descends steeply, while the SW side slopes evenly down towards the sea. (Fig. 9.2).

9.1.1.4 W of Sermersuaq (Steenstrups Gletscher)
there are several small islands: Niaqorsuup Saqqaani Qeqertakassaat (Depotøer) and Tuttulissuup Qeqertarsua (N.E. Balle Ø).

9.1.1.5 Tuttulissuaq (Kap Seddon)
is the outermost point of the peninsula Tuttulissuaq, which extends 8 M out from the coast in a SW direction from a low spit of land (Fig. 9.3). The peninsula is a relatively high mountainous area with no real valleys and with smoothly rounded shapes. The SW part rises to a height of 619 m and the NE part to 863 m.
There is an anchorage for small vessels off the ruins of the former houses. Danish Geodata Agency has no detailed information about the conditions. Great caution is advised.

9.1.1.6 Saattut (Sabine Øer)
are some small, low islands, located about 25 M WNW of Tuttulissuaq (Kap Seddon). In the summer, the open water almost always reaches these islands, so that previously they were called at by ships that navigated Qimusseriarsuaq (Melville Bugt).
It was reported (1988) that a useful emergency anchorage can be found between the two islets of Saattut (Sabine Øer) in depts of about 10 m. The approach from the SW was reported to be clear of dangers, with a least depth af 8 m existing at the entrance to the anchorage.

9.1.1.7 Ajukus Skær
are two small rocks 6 M N of Saattut (Sabine Øer).

9.1.1.8 Tuttulissuaq (Kap Seddon) – Naalungialissuaq (Astrup Kystland)
Between these locations, there is a relatively large stretch of ice-free land at the coast. The nunatak Mylius-Erichsen Monument is located about 10 M from the coast on the inland ice. The so-called Usuusarsuaq (Melville Monument) lies 14 M NW of Naalungialissuaq (Astrup Kystland). This is a small island that rises straight out of the sea with a high peak. Seen from SW, this island resembles Kullorsuaq (Djævelens Tommelfinger) (Fig. 9.3).

9.1.1.9 Nuussuaq (Kap Walker)
is the SW point of a broad and high peninsula, Nuussuaq, which has steep, glaciated sides and extends 5-6 M out from the ice cap in a SW direction. There are several islands around

the promontory (Fig. 9.3).
Kivioq Havn, about 75º51'N 059º57'W, has been used as anchorage for smaller vessels.

9.1.1.10 Qapiarfissalik (Thom Ø)

14 M WSW of Nuussuaq (Kap Walker), is a rather high island with a cone-shaped rock in its middle with a rounded peak at the top.

9.1.1.11 Thalbitzer Næs – Innaanganeq (Kap York)

From Thalbitzer Næs, located 23 M NW of Nuussuaq (Kap Walker), to Innaanganeq (Kap York), the main direction of the coast is W, although a number of bays and fjords cut N inland. Seen from the sea, the coastal mountains are more prominent here than along the rest of Qimusseriarsuaq (Melville Bugt). Off the coast from Thalbitzer Næs until past Kap Murdoch, there are numerous high, inaccessible rocky islands, the furthest S of which is the steep Appussaavik (Bryant Ø) located 8 M SSW of Thalbitzer Næs.

9.1.1.12 Nallortup Nuua (Kap Melville)

Nallortup Nuua (Kap Melville) is located about midway between Thalbitzer Næs and Innaanganeq (Kap York). It is an angular peninsula that is connected to the mainland by a low spit of land that is submerged at high water. The land at Nallortup Nuua (Kap Melville) is recognisable by a large, steep black wall of rock that extends out into a low foreland.

9.1.1.13 Haffner Bjerg

This is the second highest point of the land on the N side of Qimusseriarsuaq (Melville Bugt) and is located about 19 M from Kap Murdoch on a bearing of 349°. Without reaching above the ice cover, this impressive cone dominates this entire portion of the landscape and can be sighted extremely far away in clear weather, while it can be obscured by clouds when a storm is gathering.

9.1.1.14 Salleq (Bushnan Ø)

Approx. 17 M WSW of Nallortup Nuua (Kap Melville) is the protruding Salleq (Bushnan Ø), with a local glacier that almost divides the island into two parts. Savissivik (Meteoritø) (Fig. 9.4), with the settlement of Savissivik, lies N of Salleq (Bushnan Ø).

9.1.1.15 Qeqertapaluk (George Ø) and Qeqertaq (Salve Ø)

The two steep islands, Qeqertapaluk (George Ø) and Qeqertaq (Salve Ø), lie in the outer part of the bay, E of Innaanganeq (Kap York). N of the islands, on the W side of the peninsula protruding to the S, is the recognisable Tartunnat (Pattefjeldene) (Fig. 9.4).

9.1.1.16 Innaanganeq (Kap York) 75º54´N 066º27´W

extends from the ice cap in a SE direction as a steeply sloping, dark ridge of land. (Fig. 9.5 and 9.6). Close to the coast, the mountain's low foot can be seen protruding somewhat from the promontory itself. On Innaanganeq (Kap York), at a height of approx. 445 m, there is the 18 m high granite column with metal tip, the Piulip Sakamattaa (Peary Mindevarde), [Peary's Monument] which was erected in 1932.

9.1.2 Depths

In Qimusseriarsuaq (Melville Bugt), from Kiatassuaq (Holm Ø) to Innaanganeq (Kap York), the 600 m contour runs approximately parallel to the coast and 20 M from the island groups off the coast. Within this depth contour, the entire bay has very varying depths, with many rocks and small islands, and all navigation in this area is strongly discouraged unless absolutely necessary, since ships could easily get into trouble in the ice. Stranded icebergs will normally indicate the shallowest depths in this area.
From Innaanganeq (Kap York) and further N, the coast is less foul, and the 200 m contour here runs approximately 7 M from land.
The only bank in the bay is the 45 M long and 25-30 M wide Qorfiit (Kap York Isfjelds Banke), where the polar ice is often tightly packed.
In Qimusseriarsuaq (Melville Bugt), the rock Ajukus Skær lies between Saattut (Sabine Øer) and Qapiarfissalik (Thom Ø). A rock that is dry at low water lies 12 M SSE of Saattut (Sabine Øer) and several foul areas are reported 6 M ESE of here.
There are also foul areas 7 M W and NW of Kiatassuup Nuua (Wilcox Head).

9.1.3 Navigation of Qimusseriarsuaq (Melville Bugt)

Qimusseriarsuaq (Melville Bugt) can often be quite free of sea ice in the period from July to mid-October, but as a rule, however, the waters are more or less ice-filled. During the winter, fast ice forms from the coast far out to sea. A significant contribution to this is made by the many grounded icebergs that hold back the large, drifting ice floes until they freeze together with the coastal ice. Early in the summer, when the outer part of the fast ice melts away and breaks up, the offshore winds create navigational channels between the fast ice and west ice (Baffin Bay Ice) lying outside. Later, larger or smaller portions of the west ice also melt away, thereby also creating opportunities for passage of Qimusseriarsuaq (Melville Bugt) further out at sea.
Navigation of the bay is generally impeded by the unpredictable and changing winds that cause movements in the west ice in the central part of Avannaata Imaa (Baffin Bugt), the so-called Centralis (Middle Pack). In July, August and September, the waters between the coastal ice (fast ice) and the middle pack (the west ice) is usually more or less easy to navigate. August is the best month for navigation, but sometimes the waters can be completely filled with ice.
When the ice breaks up in Qimusseriarsuaq (Melville Bugt), a large number of icebergs are released, which then drift NW with the current. Some icebergs are captured by the Baffin Current flowing S.
A large portion of the icebergs become grounded and may overwinter for several years.
Previously, there was considered to be 3 routes from the open water W of Upernavik to the relatively ice-free area in the N part of Avannaata Imaa (Baffin Bugt), the so-called Nordvand (North Water), namely:

9.1.3.1 The N route (Northabout Passage)

which follows the passable area, formed by the offshore winds, between the coast in Qimusseriarsuaq (Melville Bugt) and the west ice outside.

9.1.3.2 Midtfarvandsruten (Middle Passage)
by which, from approximately opposite Upernavik, one steered 120 M W from the coast and into the west ice until reaching a longitude of about 063ºW, and then proceeded N toward Innaanganeq (Kap York).

9.1.3.3 The S route (Southern Passage)
along the W side of Avannaata Imaa (Baffin Bugt). The middle passage should only be used well into the summer, when there was a chance that the fast ice in S Qimusseriarsuaq (Melville Bugt) had broken up. The S route could only be used very late in the summer or after an extended period with S winds.
The safest and therefore most commonly used route was the N route, by which it was expected to always be possible to reach Nordvandet, although often not until July or August.
It is possible to pass Qimusseriarsuaq (Melville Bugt) with motor-driven and ice class ships. The ice conditions vary greatly from year to year, so today ice charts are used to assess the ice conditions and determine where it is most appropriate to attack the ice.
Often a direct course is followed, since it is possible from a point approximately 15 M W of Upernavik to keep directly towards Innaanganeq (Kap York).

9.2 Approaches and navigation of waterways (fjords), towns, settlements etc.
Savissivik, 76°01'N 065°06'W, chart 3100.

9.3 Anchorages
It is reported (2013) that there are anchorages for smaller vessels and boats at the following locations. Danish Geodata Agency does not have detailed information about the conditions. Great caution is advised.

9.3.1 J.A.D. Jensen Øer, about 74º54'N 057º59'W.

9.3.2 Niaqorsuaq (Red Head), about 75º04'N 058º05'W.

9.3.3 Naalungiarsuaq, about 75º37.5'N 058º29.0'W.

9.3.4 Nuussuaq
In the bay NE of Nuussuaq (Kap Walker), about 75º49.5'N 059º37.0'W.

9.3.5 Balgoni Øer
In a small cove NE of Thalbitzer Næs, about 76º03.8'N 060º57.0'W.

9.3.6 Fisher Øer
In a cove on the N side of the W Fisher Øer, about 76º08'N 061º33'W.

9.4 Melville Bay Nature Reserve

Note: Courtesy translation. Only the Danish version has legal validity.
Conservation of Qimusseriarsuaq (Melville Bugt)
Greenland Home Rule Executive Order no. 21 of May 17th1989 concerning Melville Bay Nature Reserve
In accordance with § 2 and § 19 of Act of Landsting no. 11 of November 12th 1980 concerning
Nature Preservation, the following is determined:

§ 1. Part of Melville Bay (Qimusseriarsuaq) with adjoining stretches of land and ice, has been designated as a nature reservation, where all wildlife is protected.
Sect. 2. The area is surrounded by an outer boundary (Protection Border I) with the following co-ordinates: the 500 m level line of the inland ice, from the position 76° 22’ 30” N / 64° 01’ 00” W to the position 75° 40’ 30” N / 57° 56’ 00” W. From this last position, due southwest to Kap Lewis on Tuttulipaluk and from there, in a straight line to the far western point of the island group Saattut (Sabine Øer). From these islands, in a straight line to the far western point of Qapiarfissalik (Thom Ø) and continuing on to the far southern point of Appussaavik (Bryant Ø). From this position onwards to the far southern point of the island Nallortoq (Kap Melville, Nallortup Nuua). From this position the boundary continues due north to the starting position 76° 22’ 30” N / 64° 01’ 00” W.
Sect. 3. Within the area described in sect. 2, an inner boundary (Protection Border II) exists, with the following course: From the position 75° 32’ 40” N / 59° 00’ 00” W in a straight line to the far western point on Nuusuup Qerqertarsua (Welhaven Ø), onwards in a straight line to the far southern point of Issuussarsuit (Kløft Ø) and onwards to the southern tip of Leven Ø. From there, continuing in a straight line, to the far eastern point of Qeqertapaluk in the island group of Skene Øer and continuing, in a straight line, to the 500 m level line of the inland ice at the position of 76° 22’ 40” N / 61° 55’ 00” W.

§ 2. In the nature reserve all hunting, fishing, egg collecting, passage, sailing or air transport below the altitude of 500 m, is prohibited.
Sect. 2. Any persons, with permanent residence in either Upernavik or Avanersuaq municipality and possessing valid proof that their main occupation is hunting, may however, continue traditional hunting and fishing in the area between Protection Border I and Protection Border II.
Sect. 3. By traditional fishing and hunting is understood, in this connection, taking or hunting white whale (beluga), narwhal, polar bear, walrus and seal, using boats or dogsleds as means of transportation.

§ 3. Within Protection Border II, no one is exempt from the restrictions.
Sect. 2. It is permitted however, for those in compliance with the provisions stated in § 2, sect. 2., to pursue a wounded polar bear across Protection Border II, providing the wounding occurred outside this boundary.
Sect. 3. Crossing Protection Border II, whilst pursuing a wounded polar bear, must be reported to the police and the municipal council, immediately upon the return of the hunters.

§ 4. The hunters, who in accordance with § 2, sect. 2. are hunting traditionally in the area between Protection Border I and II, may lawfully seek refuge within Protection Border II, provided that weather conditions makes this necessary.
Sect. 2. Travelling to and from the port of refuge and during stay there, hunting may not take place inside Protection Border II.
Sect. 3. Crossing the boundary of Protection Border II, in connection with seeking refuge, must be reported to the police and municipal council, upon the return of the hunters.

§ 5. Traditional sledge travelling between Upernavik and Avanersuaq municipalities may only take place outside Protection Border II. In connection with such sledge travels, it is permitted to hunt for seal in the area between Protection Border I and II.

§ 6. Sledge travel across Melville Bay, for sporting or tourism purposes, is only permitted outside Protection Border I.

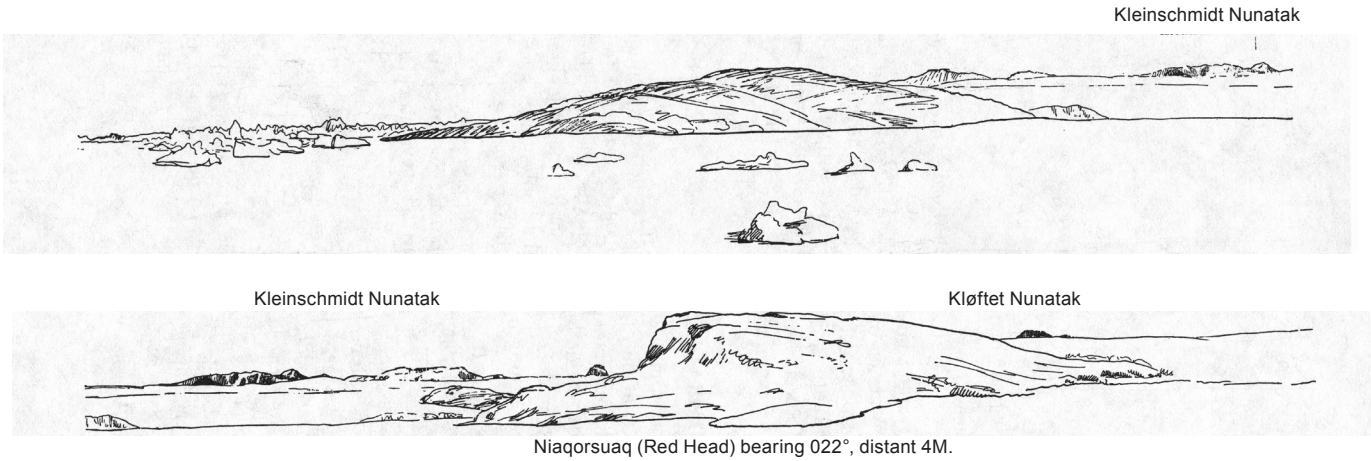
§ 7. Any use of boats in Melville Bay, not in accordance with § 2, sect. 2, is only permitted outside Protection Border I.

§ 8. The Greenland Home Rule Government may, for scientific purposes, dispense from the provisions in this Executive Order.

§ 9. Exempted from the provisions in §§ 2, 3, 4 and 7, are businesses, which in accordance with Act of Mineral Raw Materials in Greenland, carry out surveys, investigations or extraction of raw materials in the area.

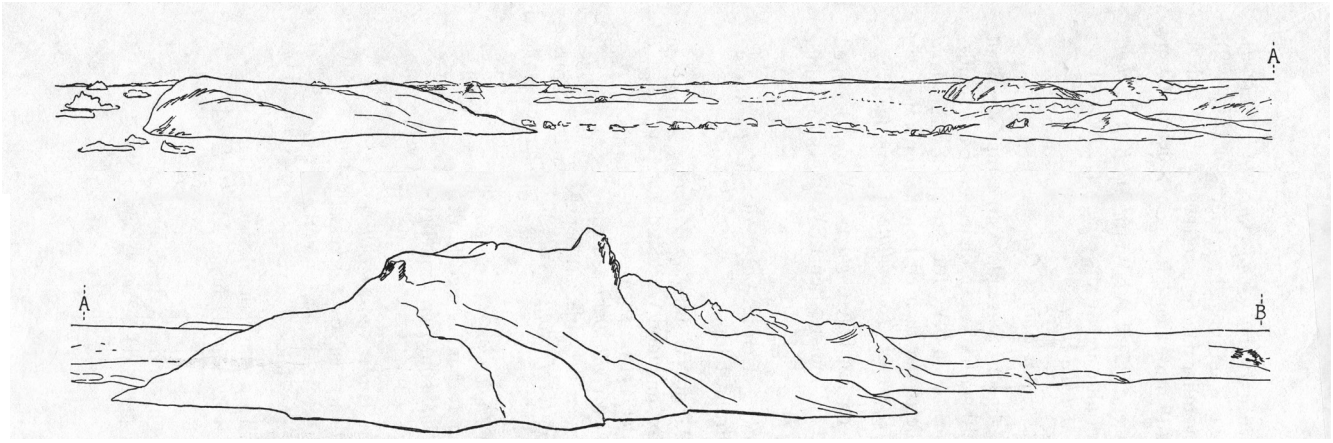
§ 10. Violation of the provisions in §§ 2-7 may result in fines being imposed or the confiscation of the catch, hunting implements and means of transportation.

§ 11. This Executive Order is effective immediately and at the same time Order of June 27th 1980 from Rigsombudsmanden in Greenland concerning the scheduling of Melville Bay, is rescinded.

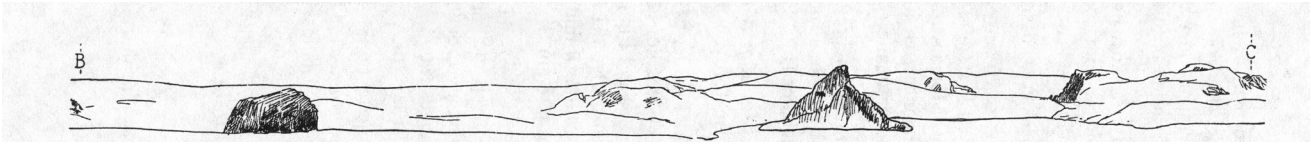


Niaqorsuaq (Red Head) bearing 022°, distant 4M.

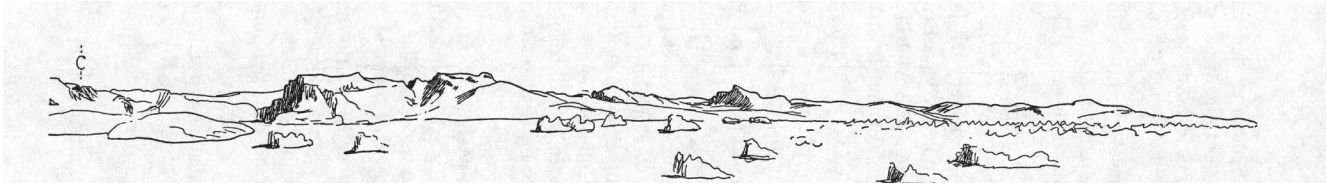
Fig. 9.2 – The coastal area of Niaqorsuaq (Red Head) and further N.



Nuussuaq (Kap Walker)



Isfjeld Usuusarsuaq (Melville Monument)



Tuttulissuaq (Kap Seddon)

Fig. 9.3 – The coastal area from Tuttulissuaq (Kap Seddon) to N of Nuussuaq (Kap Walker). Drawn near Nuussuaq (Kap Walker).

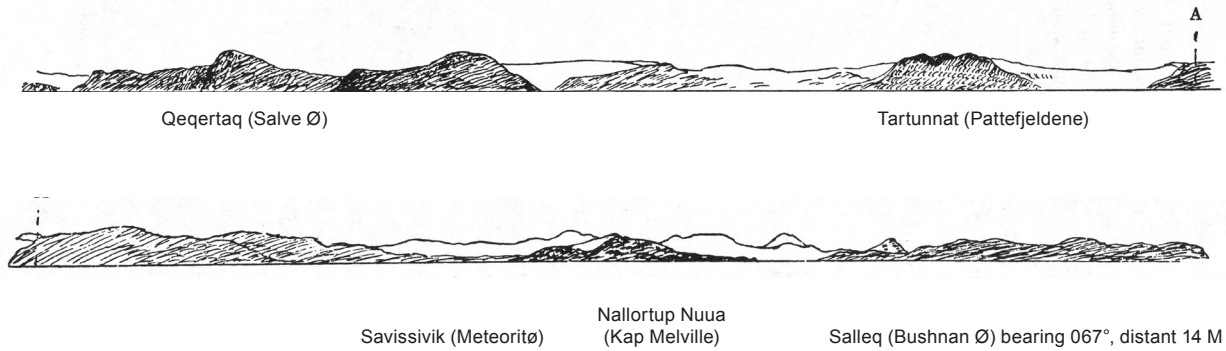


Fig. 9.4 – Qimusseriarsuaq (Melville Bugt) Northern part.

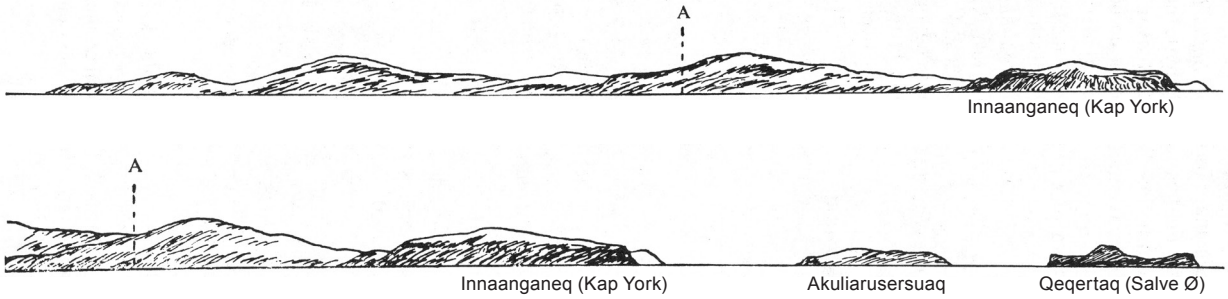


Fig. 9.5 – The coastal area of Innaanganeq (Kap York). The point bearing 337°, distant 30 M.



Fig. 9.6 – Innaanganeq (Kap York) bearing 067, distant15 M,
with Piulip Sakamattaa (Peary's Monument) (18 m high).

Map

Innaanganeq (Kap York) – Pitoraarfiup Karra (Kap Chalon)

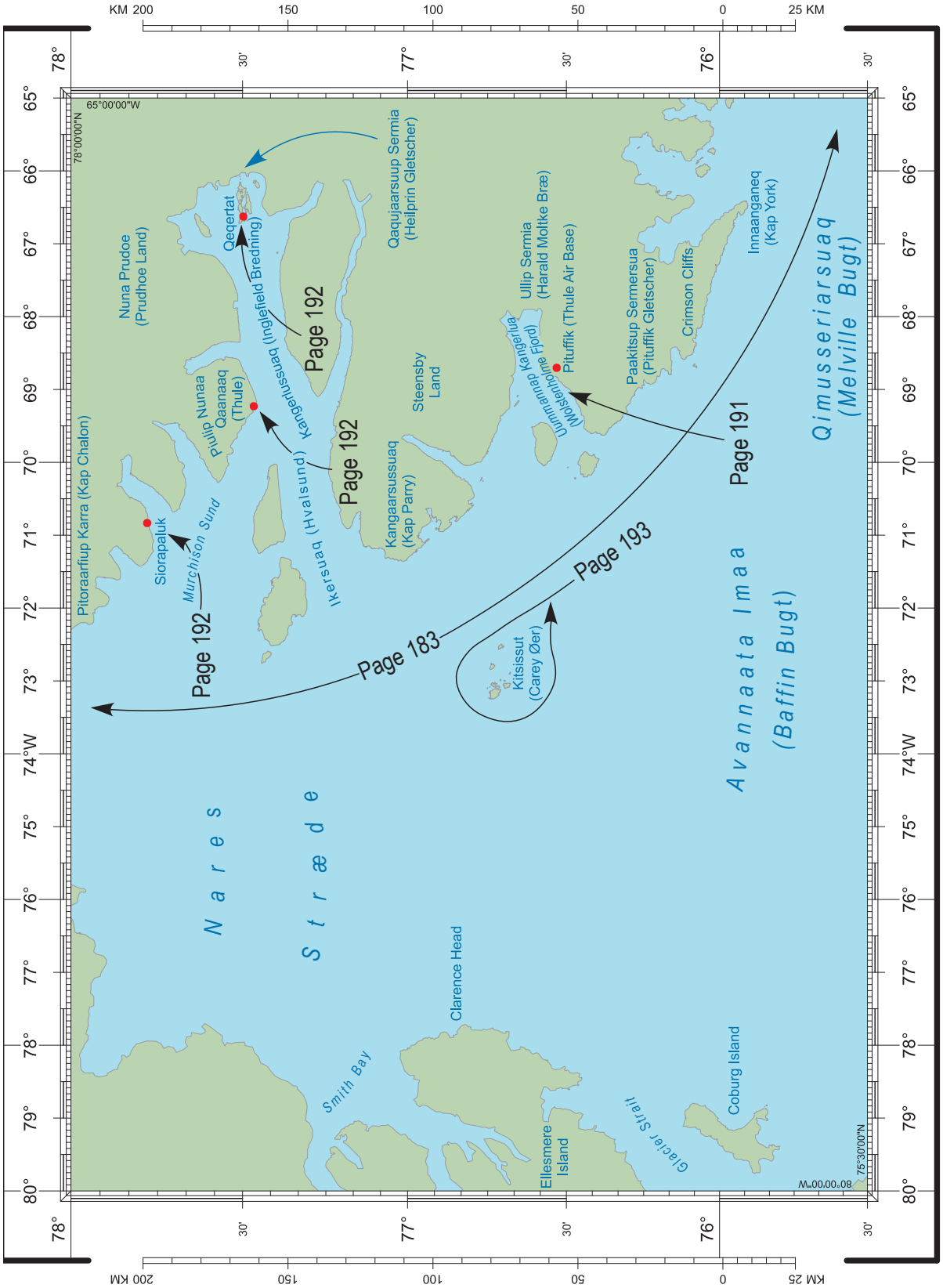


Fig. 10.1

CHAPTER 10

Innaanganeq (Kap York) – Pitoraarfiup Karra (Kap Chalon)

Area 75º54´N 066º27´W – 77º56´N 072º15´W
Charts: 3200, 3130 and 3210 (Qornoq 1927)

10.1 Transit of the area
10.2 Approaches and navigation of waterways (fjords), towns and settlements etc.
10.3 Bird protection area

10.1 Transit of the area

The land in this area, which is called Nuna Knud Rasmussen, has a relatively large, fairly uniform height. The coasts are indented by several fjords, the longest of which are Uummannap Kangerlua (Wolstenholme Fjord), Kangerluarsorujuk (Olrik Fjord) and Kangerlussuaq (Inglefield Bredning) in 77º30'N. The other fjords and indentations are quite short. In most places, the ice cap extends right out to the coast, where many glaciers protrude out toward the sea. There are no archipelagos along the coast, although there are some larger islands outside the large fjords mentioned above. The isolated group of islands, Kitsissut (Carey Øer), lies approx. 30 M W of Uummannap Kangerlua (Wolstenholme Fjord).

10.1.1 Landmarks

Parts of the coast and the islands of this coast.

10.1.1.1 Innaanganeq (Kap York) – Kangaarsuk (Kap Atholl)

75º54´N 066º13´W – 76º23´N 069º37´W

10.1.1.1.1 Crimson Cliffs 76º03´N 067º44´W

From Innaanganeq (Kap York) to Issuissuup Paava (Parker Snow Bugt) 30 M further WNW, the coast consists of a series of steep, approx. 700-800 m high mountains, separated by numerous small glaciers. The mountains were named Crimson Cliffs by Sir John Ross because of the particularly large amounts of the so-called "Red Snow" here. The red colour is caused by the unicellular, microscopic green algae Chlamydomonas Nivalis.

10.1.1.1.2 Igannaq (Conical Rock) 76º05´N 068º41´W

is a distinctive, peaked island located SW of Issuissuup Paava (Parker Snow Bugt) and 1.5 M from the coast (Fig. 10.2).

10.1.1.1.3 Issuissuup Paava (Parker Snow Bugt) 76º08´N 068º31´W
lies between Igannaq (Conical Rock) and Kap Dudley Digges.

10.1.1.1.4 Paakitsup Sermersua (Pituffik Gletsjer)
protrudes N of Kap Dudley Digges out into the sea with a 3 M wide glacier edge and is an easily recognizable part of this coastline.

10.1.1.1.5 Cave in the mountains
Close N of Paakitsup Sermersua (Pituffik Gletsjer), there is a 6 m high cave in the mountain just above the cliffs' high-water mark.

10.1.1.1.6 Landmarks
On the mountain side near Ikkarlussuaq (Tange Skær), 76º20'N 069º35'W, NW of Paakitsup Sermersua (Pituffik Gletsjer), there is a distinctive dark marking, Pau, that can be seen from a large distance (Fig. 10.3).

10.1.1.1.7 Kangaarsuk (Kap Atholl) 76º23´N 069º37´W
is the W point of an extensive, ice-free plateau. Its name in Greenlandic is Qooqqut because of the many ravines that break up the landscape. N of Kangaarsuk (Kap Atholl), the coastline curves E into Uummannap Kangerlua (Wolstenholme Fjord). The part of this furthest E has been declared a "Prohibited area".

10.1.1.2 Kangaarsuk (Kap Atholl) – Kangaarsussuaq (Kap Parry)
76º23´N 069º38´W – 77º10´N 071º21´W

10.1.1.2.1 Islands off Uummannap Kangerlua (Wolstenholme Fjord)
On the W side of Bylot Sund are the large islands Qeqertarsuaq (Wolstenholme Ø) (4 M from Kangaarsuk (Kap Atholl) on a bearing of 281º) (Fig. 10.3) and Appat (Saunders Ø) (8 M N of Kangaarsuk (Kap Atholl)) (Fig. 10.4). One of Greenland's largest bird cliffs is located on the SW side of Appat (Saunders Ø). Quite close NW of Qeqertarsuaq (Wolstenholme Ø) is the pointed, small island Igannaq (Dalrymple Rock) and the small islets Qeqertaarsuit (Edderfugleøer).
Kitsissut (Carey Øer), W of Uummannap Kangerlua (Wolstenholme Fjord).
Appat (Saunders Ø) is named after the British naval captain James Saunders, the captain of HMS North Star, who overwintered in North Star Bugt 1849-50 during the search for the lost Franklin expedition.

10.1.1.2.2 Uummannaq (Dundas Fjeld) 76º33'N 068º52'W
On the N side of North Star Bugt, and 15 M NE of Kangaarsuk (Kap Atholl), the recognizable Uummannaq (Dundas Fjeld), lies on a low spit of land. It is a dark, isolated mountain with sloping sides and a rather flat top, roughly like a truncated pyramid (see Fig. 187). A memorial cairn for Knud Rasmussen has been erected at the top of the mountain.
It is not recommended to climb the mountain because of rockfalls.
Dundas is named after the British Member of Parliament David Dundas, 1799-1877.

10.1.1.2.3 The glaciers in Uummannap Kangerlua (Wolstenholme Fjord)

In the innermost part of Uummannap Kangerlua (Wolstenholme Fjord) are Ullip Sermia (Harald Moltke Bræ) and Apuseeq (Knud Rasmussen Gletscher). Chamberlin Gletscher is on the N side of the fjord.

10.1.1.2.4 Iterlassuup Qeqertaarsui (Three Sister Bees)

are three small, flat islands at the mouth of Iterlassuaq (Granville Fjord).

10.1.1.2.5 Igannapaluk (Fitz Clarence Rock)

Approximately 8 M SE of Kangaarsussuaq (Kap Parry), in the SE part of Booth Sund, the distinctive small, high and pointed island Igannapaluk (Fitz Clarence Rock) (Fig. 10.5) can be seen jutting above the outer sides of the fjord, which are quite low plains.

10.1.1.2.6 Kangaarsussuaq (Kap Parry)

rises to the W and NW almost vertically from the sea to a height of 470 m (Fig. 10.4 and 10.5).

10.1.1.3 Qeqertarsuaq (Herbert Ø), Kiatak (Northumberland Ø) and Appaarsuit (Hakluyt Ø)

10.1.1.3.1 About 10 M N of Steensby Land

are the large islands Qeqertarsuaq (Herbert Ø) (furthest E) and Kiatak (Northumberland Ø), and the smaller island Appaarsuit (Hakluyt Ø), close W of Kiatak (Northumberland Ø). The waters between these islands and Steensby Land are called Ikersuaq (Hvalsund).

10.1.1.3.2 Qeqertarsuaq (Herbert Ø)

is a steep sandstone formation, which is almost free of glaciers on its rather flat surface. The E side of the island, Qeqertarsuup Nuua (Bastion Pynt), is a precipitous cliff of dark red sandstone, which is covered by lighter coloured stone at the top. There are usually several stranded icebergs on the edge of the littoral berm around Qeqertarsuup Nuua (Bastion Pynt).

10.1.1.3.3 Kiatak (Northumberland Ø)

also has sides that are steep and has a more pointed appearance. The local ice cap can be seen from S over the W part of the island. Several glaciers protrude down towards the sea from this, particularly on the N side of the island.

10.1.1.3.4 Appaarsuit (Hakluyt Ø)

has very steep sides on the N and E, while to the W and SW it slopes gently down towards the sea. The highest point, on which a cairn has been erected, is on the NE part of the island and reaches a height of 460 m.

10.1.1.4 Kangaarsussuaq (Kap Parry) – Kangeq
77º00´N 071º21´W – 77º17´N 069º05´W

10.1.1.4.1 Between Kangaarsussuaq (Kap Parry) and Ivisaaq (Kap Radcliff)
on the SW side of the entrance to Natsiliviup Kangerlua (Barden Bugt), the coast is high and steep with a lot of snow throughout the year.

10.1.1.4.2 Natsiliviup Kangerlua (Barden Bugt)
77º09´N 070º49´W protrudes between Ivisaaq (Kap Radcliff) and Kangeq (Kap Powlett) 5 M into Steensby Land.

10.1.1.4.3 Between Kangeq (Kap Powlett) and Kap Trautwine
10 M ENE of Kangeq (Kap Powlett), the coast consists of vertical cliffs without a foreshore.

10.1.1.4.4 Between Kap Trautwine and the entrance to Kangerluarsorujuk (Olrik Fjord).
Many glaciers protrude down through narrow ravines between these places.

10.1.1.4.5 Kangeq
is the W point of a long and broad peninsula that lies between the narrow, 35 M long Kangerluarsorujuk (Olrik Fjord) and Kangerlussuaq (Inglefield Bredning) and Kangerluarsuk (Academy Bugt).

10.1.1.5 Kangerlussuaq (Inglefield Bredning), S side

10.1.1.5.1 The island Qimmiuneqarfik
is a small gneiss island that lies 1 M from the coast, 6 M W of the entrance to Kangerluarsuk (Academy Bugt).

10.1.1.5.2 Kangerluarsuk (Academy Bugt)
penetrates 10 M SE between Naajapaluk and Nunatarsuaq. The W side of the bay is a steep rock face, while the N part of the E side has some steep valley sections leading from the coast up to the high plateau E of the bay.

10.1.1.6 Kangerlussuaq (Inglefield Bredning), E side

10.1.1.6.1 The innermost part of Kangerlussuaq (Inglefield Bredning)
is almost filled by large, very productive glaciers, separated by nunataks.
Off the glaciers there are several islands, most of them heavily glaciated. The furthest S of these is the small island of Quajaqqisaarsuaq, close off to the furthest S part of Qaqujaarsuup Sermia (Heilprin Gletcher). The nunatak Nunanngortoq (Lille Matterhorn) received its Danish name because from the W it resembles the alpine peak Little Matterhorn. The rather large Qeqertaarsuusarsuaq (Josephine Peary Ø), the furthest N of the islands, has almost vertical sides. Its part furthest S rises to a height of 500 m.

10.1.1.7 Kangerlussuaq (Inglefield Bredning), N side

10.1.1.7.1 Sculptured Cliffs

From Kap Ackland to Kangerluarsuup Nuua (Kap Tyconnel) 77°30'N 068°35'W, the coast consists of high, grey sandstone cliffs that rise steeply from the water, interrupted only by a single glacier. With some imagination, this stretch seems to consist of a series of colossal sculptor works that Peary called "The Sculptured Cliffs of Karnah" [Qaanaaq].

10.1.1.7.2 Kangerluarsuk (Bowdoin Fjord)

In the years 1893-95, Peary had his main station in Anniversary Lodge in the NE, the inner part of Kangerluarsuk (Bowdoin Fjord), which from a line between Kangerluarsuup Nuua (Kap Tyconnel) and Kangersuaq (Kap Milne) extends approximately 14 M NNW.

10.1.1.7.3 The coast E of Kangerluarsuk (Bowdoin Fjord)

At Kangersuaq (Kap Milne), there are a number of high, reddish-brown mountains, which are called Castle Cliff because of their appearance. Between these and Quinnisut Sermiat (Hubbard Gletscher), the coast consists of red and grey sandstone mountains. Further E, the mountains have a gneiss-like appearance until 5 M E of Quinnisut Sermiat (Hubbard Gletscher), where the coastline turns sharply in a NNE direction towards the previously mentioned large glacier area in the inner part of Kangerlussuaq (Inglefield Bredning). There are vertical coastal cliffs on this last stretch, behind which three prominent peaks rise: Qattarsuit, Toornaarsulissuaq (Field Bjerg) and Toornaarsulissuaq (Lee Bjerg).

10.1.1.8 Murchison Sund

is the waters on the stretch between Kap Ackland – Tuloriaq (Kap Robertson) 77°48'N 071°25'W and Qeqertarsuaq (Herbert Ø), Kiatak (Northumberland Ø) and Appaarsuit (Hakluyt Ø).

10.1.1.8.1 Murchison Sund, N side

The SW side of the peninsula Piulip Nunaa from Kap Ackland to Innarmiut (Kap Cleveland) consists mostly of fan-shaped, rocky deltas formed by the meltwater streams from the peninsula's ice cap. Behind the low, gradually rising foreland, various ridges rise towards the inland ice, from where several glaciers protrude down towards the lowlands without reaching the coast. The foreland's delta formations continue far out into the sound below the sea surface as a broad land shelf, on the edge of which there is probably always many stranded icebergs. In Murchison Sund, keep mid-channel.

Iterlassuaq (Mac Cormick Fjord) and Siorapaluup Kangerlua (Robertson Fjord) penetrate 15 M NE into the land between the approximately 300 m high Innarmiut (Kap Cleveland) and Tuloriaq (Kap Robertson). Kangeq, the point on the peninsula between these bays, appears as a dark promontory.

In 1891-92, Peary established his first overwintering station in Iterlassuaq (Mac Cormick Fjord). The settlement Siorapaluk is located at 77°47'N 7070°37'W on the N side of Siorapaluup Kangerlua (Robertson Fjord).

10.1.1.9 Tuloriaq (Kap Robertson) – Ullersuaq (Kap Alexander) (Fig. 10.6 and 10.7)

10.1.1.9.1 Tuloriaq (Kap Robertson)

The coast from Tuloriaq (Kap Robertson) to Pitoraarfiup Karra (Kap Chalon) located 13 M further NW consists of small, protruding peninsulas and glaciers. These glaciers, like the glaciers N of here as far as Iita (Etah), are quite large, but not very productive.

10.1.1.9.2 Pitoraarfiup Karra (Kap Chalon)

is a 581 m high sandstone mountain and is recognisable by a 2 M long, dark eruptive vein (basalt transition), that extends E from the point of the promontory along the S side of the peninsula.

10.1.2 Depths

Charts 3200, 3130 and 3210 provide information about the depths in the waters between Innaanganeq (Kap York) and Pitoraarfiup Karra (Kap Chalon).
The waters are generally free of dangers, except for a few places close to the coast. The land shelf, which extends out to the 200 m contour line, runs along the coast at a distance of 10-15 M. There is a 45 M long deep SE of Kitsissut (Carey Øer) with a depth of over 600 m. Mid-channel, the entire Nares Stræde also has depths of between 600 and 700 m.
Not until midway between Kitsissut (Carey Øer) and Ellesmere Island are there areas with depths below 200 m.
Due to insufficient surveying of the area around Kitsissut (Carey Øer), these islands should be approached with caution. The largest variations in depths occur between Kitsissut (Carey Øer) and Steensby Land, but the area has no known rocks that are dangerous to navigation.

10.1.3 Rocks and shoals

The coasts everywhere in the area appear to be generally free of dangers. Only the following rocks and shoals on the outer coast are known:

10.1.3.1 Kangaarsuk (Kap Atholl) S

A rock, dry at low water, 2.5 M S of Kangaarsuk (Kap Atholl) and approx. 1 M from the coast. The rock is approximately 100 m long, is not very wide and its longitudinal direction is along the shore.

10.1.3.2 Iterlassuup Qeqertaarsui (Three Sister Bees)

A rock on which icebergs run aground protrudes out from the S side of the furthest S of Iterlassuup Qeqertaarsui (Three Sister Bees).

10.1.3.3 Kiatak (Northumberland Ø) SE

There is a rock on the SE side of Kiatak (Northumberland Ø) that extends quite far out from

the coast.
The outer end of the rock is dry at low water. The rock is an underwater continuation of an eruptive vein which, seen from outside, appears as a clear, dark stripe in the rocks.
Similar eruptive veins (basalt transitions) exist in numerous places along the coast of Greenland. In Ikersuaq (Hvalsund) they occur e.g. on the N side of Steensby Land between Kangeq (Kap Powlett) and Kap Trautwine. They usually have a fairly straight course. They do not always indicate a danger to maritime traffic off the coast, but without very good local knowledge of the location in question, one should always keep well clear of the coast where such eruptive veins extend out to the sea.

10.1.3.4 Murchison Sund
In the sound, the land shelf extends out towards the navigation channel on both sides. The edge of the shoals is almost always indicated by stranded icebergs.

10.1.4 Bays and indentations
The following information can be provided about some of the bays and indentations that are not included in the harbours and anchorages described later:

10.1.4.1 Steensby Land S and SW side
There are three indentations on the S and SW side of Steensby Land.

10.1.4.1.1 Tasiusaq (Drown Bugt)
which is assumed to have shallow water.

10.1.4.1.2 Booth Sund, approximately 7 M SE of Kangaarsussuaq (Kap Parry).
None of these locations can be navigated by ship. There is a sand bank with very shallow water across the mouth of Booth Sund.

10.1.4.2 Natsiliviup Kangerlua (Barden Bugt)
on the NW side of Steensby Land was navigated by ”Pandora” in 1876, and no anchorage was found here.
There is a rock in the entrance, close to the mid-channel line of the bay. Waves may break over the rock at low water, whereas it is not visible at high water. As mentioned above, the winter settlement Natsilivik is located in the bay, while the summer settlement Narsaq lies on the other side of the fjord isthmus out towards Ikersuaq (Hvalsund) in a dip between two high mountains. The utmost caution must be exercised when approaching Narsaq with a vessel, because the waters off the settlement are very shallow and filled with large rocks.

10.1.4.3 Kangerluarsorujuk (Olrik Fjord)
The outer part of the fjord can probably be navigated. At the narrows on the W side of the fjord, 12-13 M E of the entrance, a reef has been reported that extends S from the N side of

the fjord. Strong tidal currents occur in Kangerluarsorujuk (Olrik Fjord).

10.1.4.4 Kangerluarsuk (Bowdoin Fjord)

From 3-20 August 1893, Peary's ship "Falcon" anchored close to the coast off Anniversary Lodge in the NE, inner part of Kangerluarsuk (Bowdoin Fjord), in 27 m of water and with stern mooring lines to the shore.
However, the location certainly cannot be recommended as a normal anchorage, because calvings occur from the Kangerluarsuup Sermia (Bowdoin Gletscher) that lies very nearby.

10.1.5 Ice conditions

The ice conditions are quite regular and uniform off the coast from Innaanganeq (Kap York) to Pitoraarfiup Karra (Kap Chalon). In calm weather, the new ice begins to form in mid-September.
The winter ice only settles in the area as a relatively narrow fringe along the coast, i.e. 15-20 M out from the coast. The ice belt is widest in March and April, and in May it begins to break up. At the end of May or in June, there is usually open water at the more salient promontories.
Usually, the breakaway winter ice, still closely packed, drifts along the coasts at the end of July. Open water in to the coast can only be expected from about 1 August to 15 September.
Due to the stormy weather off Kangaarsussuaq (Kap Parry) and Appaarsuit (Hakluyt Ø), there is almost never ice here.

10.1.6 Magnetic interference has been observed in the following locations:

10.1.6.1 Close to Igannaq (Dalrymple Rock).
10.1.6.2 In the part of Ikersuaq (Hvalsund) furthest W, S of Kiatak (Northumberland Ø).
10.1.6.3 About 3 M SW of Neqip Nuua (Kap Saumarez).
10.1.6.4 Close off the S part of the mouth of Sonntag Bugt, N of Pitoraarfiup Karra (Kap Chalon).
The magnetic disturbances in the area have in several cases appeared as a seemingly complete elimination of the earth's magnetic field at the location because, on some occasions the compass appeared to be completely "dead", as it did not move relative to the ship during its turns. Similar magnetic disturbances have also been observed E of Coburg Island in the NW part of Avannaata Imaa (Baffin Bugt).

10.1.7 Navigation

It can only be expected to be possible to navigate the area's main waters in July, August and September, when ice conditions permit transit.
Apart from the few shoals and reefs mentioned, the waters are deep and free of dangers.
Note always that abnormal deflections of the magnetic compass can occur in these waters.
During navigation from Qimusseriarsuaq (Melville Bugt), it is possible to keep close to the coast between Innaanganeq (Kap York) and Issuissuup Paava (Parker Snow Bugt), where

the depth at a distance of 1-1.5 M from the coast is about 50 m on average. It is possible to navigate E of Igannaq (Conical Rock), but further N it is necessary to keep well W of Ikkarlussuaq (Tange Skær).
From Ikersuaq (Hvalsund) to Murchison Sund, all three channels that lead between Appaarsuit (Hakluyt Ø), Kiatak (Northumberland Ø), Qeqertarsuaq (Herbert Ø) and the peninsula Piulip Nunaa can be used when steering mid-channel, but in Murchison Sund, be aware of the previously mentioned land shelf on both sides of the sound.

10.2 Approaches and navigation of waterways, towns and settlements etc.

10.2.1 Pituffik (Thule Air Base)
10.2.2 Moriusaq
10.2.3 Nuulliit (Blackwood Næs)
10.2.4 Natsilivik
10.2.5 Narsaq
10.2.6 Qaanaaq (Thule)
10.2.7 Qeqertarsuaq (Herbert Ø)
10.2.8 Kangerluarsuk
10.2.9 Qeqertat
10.2.10 Siorapaluk
10.2 11 Anchorages
10.2.12 Kitsissut (Carey Øer)

10.2.1 Pituffik (Thule Air Base) 76º32.6´N 068º52.5´W

charts 3130, 3100 and 3200.

10.2.2 Moriusaq (abandoned settlement) 76º45.3’N 069º53.4’W

chart 3200.

10.2.3 Nuulliit (Blackwood Næs) 76º48´N 070º35´W

chart 3200, is a former settlement on a small foreland a little before the mouth of Iterlassuaq (Granville Fjord).

10.2.4 Natsilivik 77º10´N 070º50´W

chart 3210, which is a former settlement, lies 1 M inside Kangeq (Kap Powlett) in Natsiliviup Kangerlua (Barden Bugt). It is possible to anchor off the settlement in 85-90 m of water (Fig. 3.13). From the SW side of Kangeq (Kap Powlett), a shoal extends in a SW direction. The shoal, the extent of which is unknown, is partly dry at spring low water.
When approaching Natsiliviup Kangerlua (Barden Bugt), keep well over under the land to the south due to rocks.

10.2.5 Narsaq 77º12´N 070º37´W

chart 3210, which is a former settlement, lies 4 M inside Kangeq (Kap Powlett) in Ikersuaq (Hvalsund). There is a stone reef opposite the settlement, a few hundred metres from shore. It is very foul inside the shoal. It is possible to anchor outside the shoal in 25-30 m of water, where the bottom is quite even. The holding ground appears to be good.

10.2.6 Qaanaaq (Thule) 77º28´N 069º13´W

charts 3210 and 3200.

10.2.7 Qeqertarsuaq (Herbert Ø) 77º25´N 070º12´W

Abandoned settlement, charts 3210 and 3200

10.2.8 Kangerluarsuk 77º33´N 068º35´W

chart 3200, is a former settlement, located 2 M N of Kangerluarsuup Nuua (Kap Tyconnel) in Kangerluarsuk (Bowdoin Fjord).

10.2.8.1 Anchoring

It is possible to anchor 200 m from land in 55 m of water, soft bottom in the mark:
”A wind turbine in line with flag pole on the bearing 205º”. The seabed is strongly sloping and the holding ground is not good. (Fig. 10.8).
Note**.** The listed marks can no longer be considered to be in place and in working order (Dec. 2015).

10.2.8.2 Resources

Water filling can take place at one of the small streams just inside Kangerluarsuup Nuua (Kap Tyconnel).

10.2.9 Qeqertat 77º30´N 066º40´W

chart 3200.

10.2.10 Siorapaluk 77º47´N 070º42´W

chart 3200. The settlement is located on the N side of Siorapaluup Kangerlua (Robertson Fjord) and it is navigable every year. From Qaanaaq (Thule), keep mid-channel through Murchison Sund, and when navigating S from Kangaarsussuaq (Kap Parry), keep through Ikerasak between Kiatak (Northumberland Ø) and Qeqertarsuaq (Herbert Ø) and from here to the mouth of Siorapaluup Kangerlua (Robertson Fjord). Note that the waters are foul in the N part of Murchison Sund and also on the SE side of Kiatak (Northumberland Ø), where vessels should not keep too close to the aforementioned rock. The peninsula on the N side of Siorapaluup Kangerlua (Robertson Fjord) can be recognised by the three glaciers on the S side of the peninsula that extend down towards the coast, but without quite reaching it. (Fig.

10.6). The settlement lies E of these three glaciers. glaciers.

10.2 11 Anchorages

The known anchorages and harbours in the area are as follows:

10.2.11.1 In Issuissuup Paava (Parker Snow Bugt) 76º08'N 068º35'W

between Qaarusuusarsuaq (Parker Snow Næs) and Kap Dudley Digges, there is a fine anchorage in the inner part of the bay.
It is possible to anchor in 20 m of water 300 m from shore. The bottom is clay.

10.2.11.2 Paakitsup Sermersua (Pituffik Gletsjer) 76º15'N 069º00'W

There is a usable anchorage with 42-46 m of water on the N side of the glacier. The bottom is mud.

10.2.12 Kitsissut (Carey Øer) 76º42´N 072º56´W

chart 3200 and (Fig. 10.9), is a small isolated group of islands, located about 40 M W of the entrance to Uummannap Kangerlua (Wolstenholme Fjord).
The group of islands consists of 8 major islands, which from E are as follows: Björling Ø, Bordø, Hollænderhatten, Tyreøjet, Isbjørn Ø, Mellemø, Fireø and Nordvestø, as well as numerous small islands, islets and rocks.
The waters between and around the islands are foul and the depths vary greatly. There are rocks until a few M W of Nordvestø.

10.2.12.1 Navigation

The islands Kitsissut (Carey Øer), which are regularly visited by Danish naval ships and other government ships, are only navigable from early August to mid-September. Detailed information about the islands' navigation conditions is contained in a report by J.M. Wordie, who spent 4 days here in 1937 with the ship "Isbjørn". However, they had fog during the last two days. According to Wordie's description, there is a good harbour, Isbjørn Havn, between Isbjørn Ø and the E part Mellemø, which lies to the S. There is a cairn with a pole on the S side of Isbjørn Ø. The harbour is approached from NE, E of Isbjørn Ø, the E side of which seems to be fairly free of dangers. Then keep S of the rocks that lie S of the S tip of Isbjørn Ø, and proceed NW into the harbour, where it is possible to anchor S of an earlier settlement on the S side of Isbjørn Ø.
The harbour is covered to the NW by the shallow waters between Isbjørn Ø and Mellemø. From the S, good shelter is provided by the large Fireø and some islets. The entrance to the harbour by the route described here has at least 100 m of water until completely in under the small island off Vragbugt on the E side of Isbjørn Ø. From there, the depth decreases steadily to the harbour itself, which should be navigated with caution. At the small island off the S tip of Isbjørn Ø, a rock and breakers have been observed close NE to the island, as well as strong breakers a little further SE of this (at half-tide and moderate swell). There are also several rocks close under the S coast of Isbjørn Ø, and breakers have been observed in

numerous places between this and Mellemø in the NW part of the sound.
It has been reported that the depth both N and S of the small island S of Isbjørn Ø is 3 m, and only for a width of 10 m. The harbour can be used in all wind conditions, but not when there is ice in the waters. The tidal currents are significant at the anchorage.
Reconnaissance surveys were carried out at Kitsissut (Carey Øer) in 1989 in connection with the North Water Project. The results of this study are shown as sounding tracks in the plan (Fig. 10.9). Note that these are reconnaissance surveys, and navigation in these lines should therefore be conducted with extreme caution.

10.3 Bird protection area

Note: Courtesy translation. Only the Danish version has legal validity.

The Government of Greenland's Executive Order no. 1 of 5 January 2017 on the protection and hunting of birds.
The executive order applies to Greenland's land and fishing territory.
On the group of islands Qeqertaarsuit (Lion Øer) (77º29'N 066º40'W), immediately S of the settlement of Qeqertat, any going ashore or coming and going is prohibited in the period from 1 May to 31 August and within a distance of 500 m from the islands.
The area is not shown on the chart.

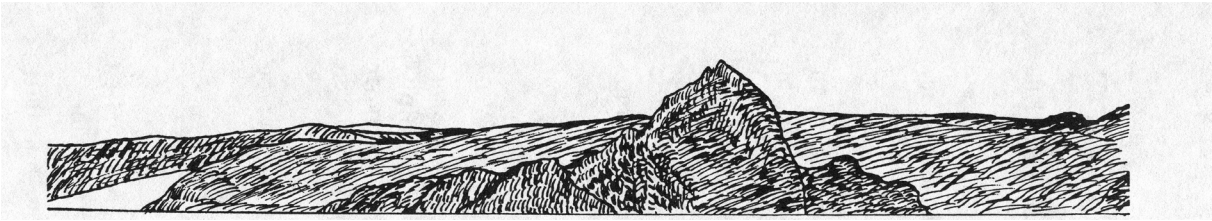


Fig. 10.2 – Igannaq (Conical Rock) bearing 360°, distant 5 M.

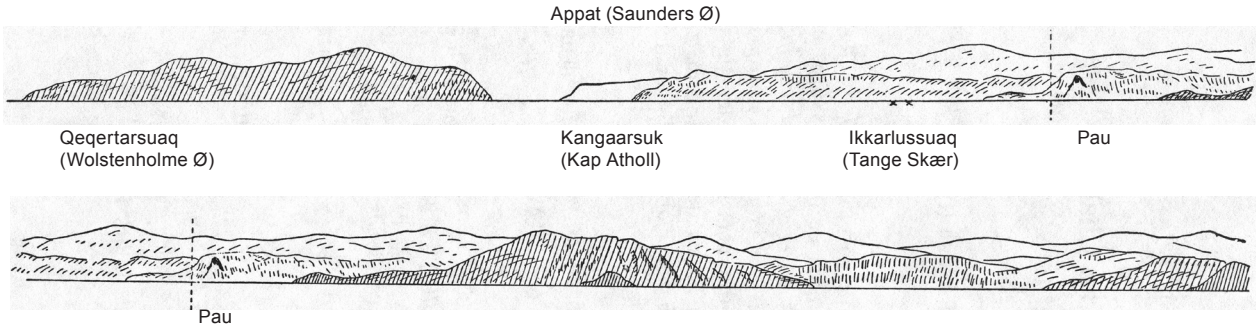


Fig. 10.3 – The coast N of Paakitsup Sermersua (Pituffik Gletsjer), seen from 76°15'N 069°25'W.

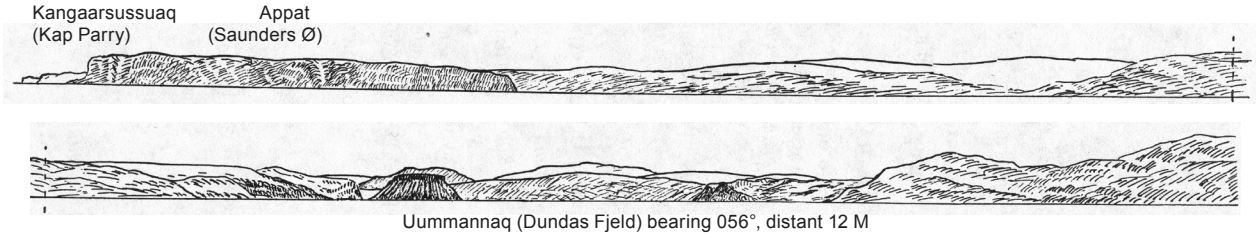


Fig. 10.4 – The coastal area of Uummannap Kangerlua (Wolstenholme Fjord).

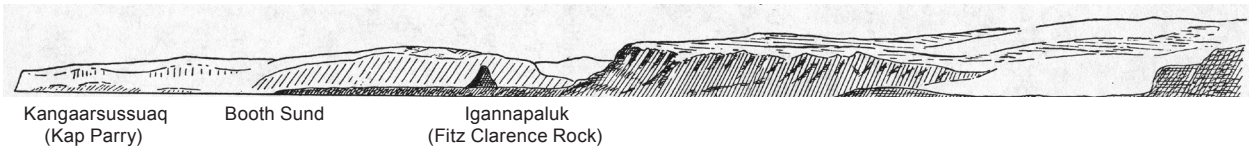


Fig. 10.5 – Kangaarsussuaq (Kap Parry) bearing 337°, distant 20 M.

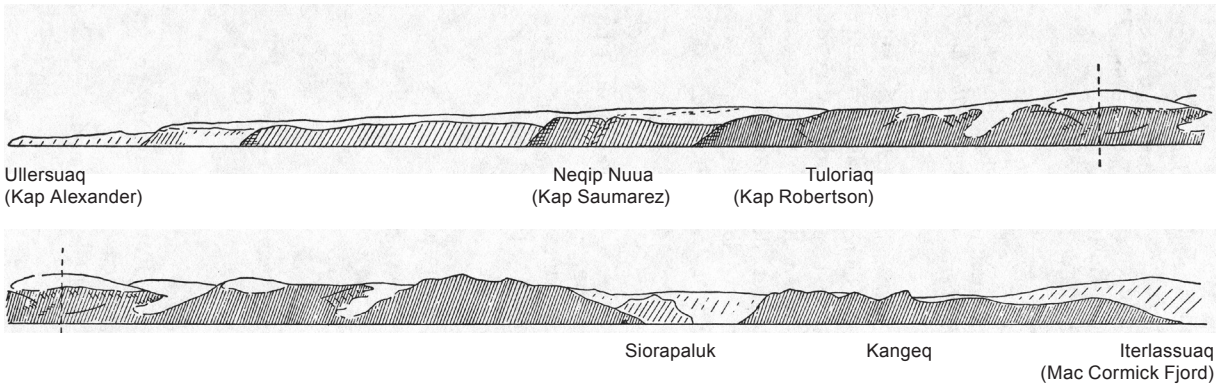


Fig. 10.6 – Siorapaluk bearing 024°, distant 22 M.

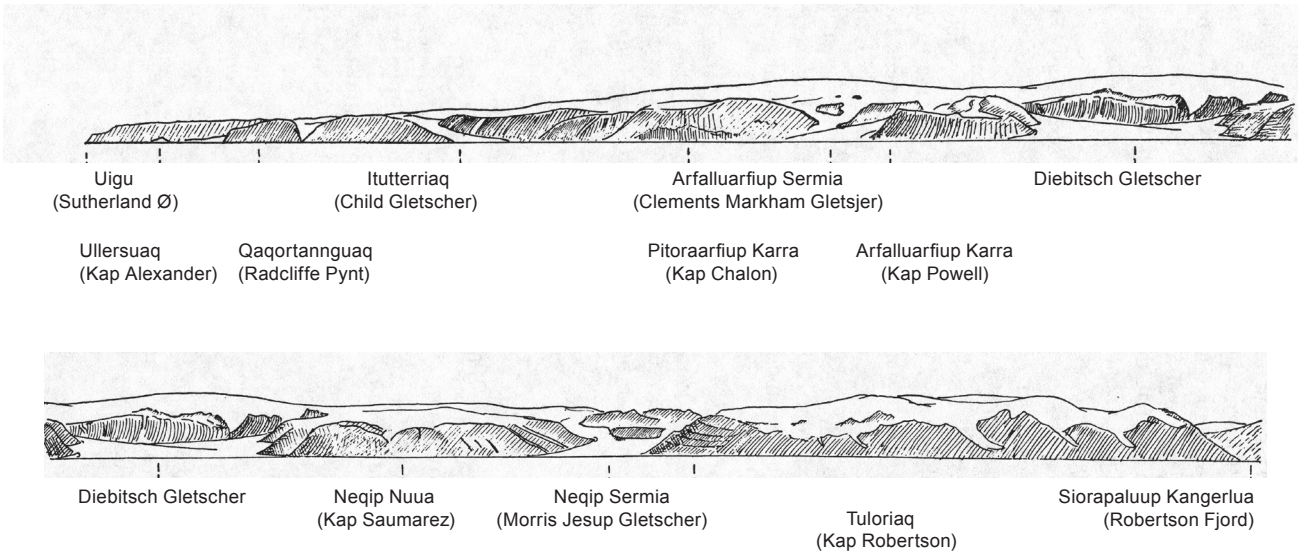


Fig. 10.7 – Siorapaluup Kangerlua (Robertson Fjord) – Ullersuaq (Kap Alexander) seen from the cairn on Appaarsuit (Hakluyt Ø).

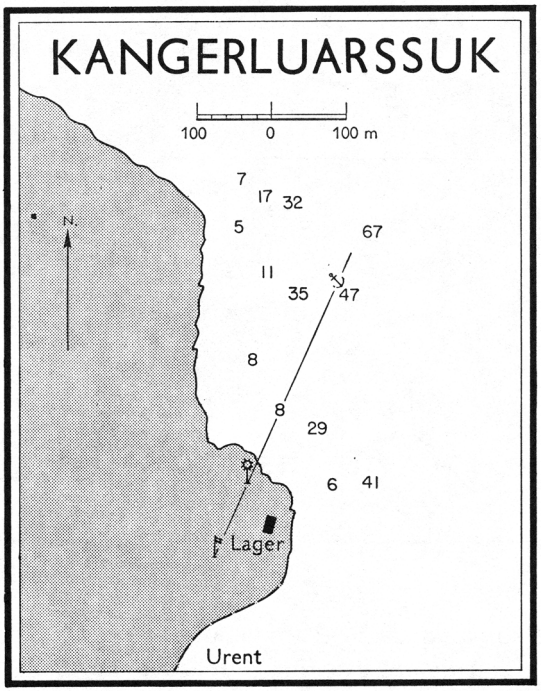

KANGERLUARSSUK
100 0 100 m
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7
17
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11
35
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8
8
29
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41
Lager
Urent

Fig. 10.8

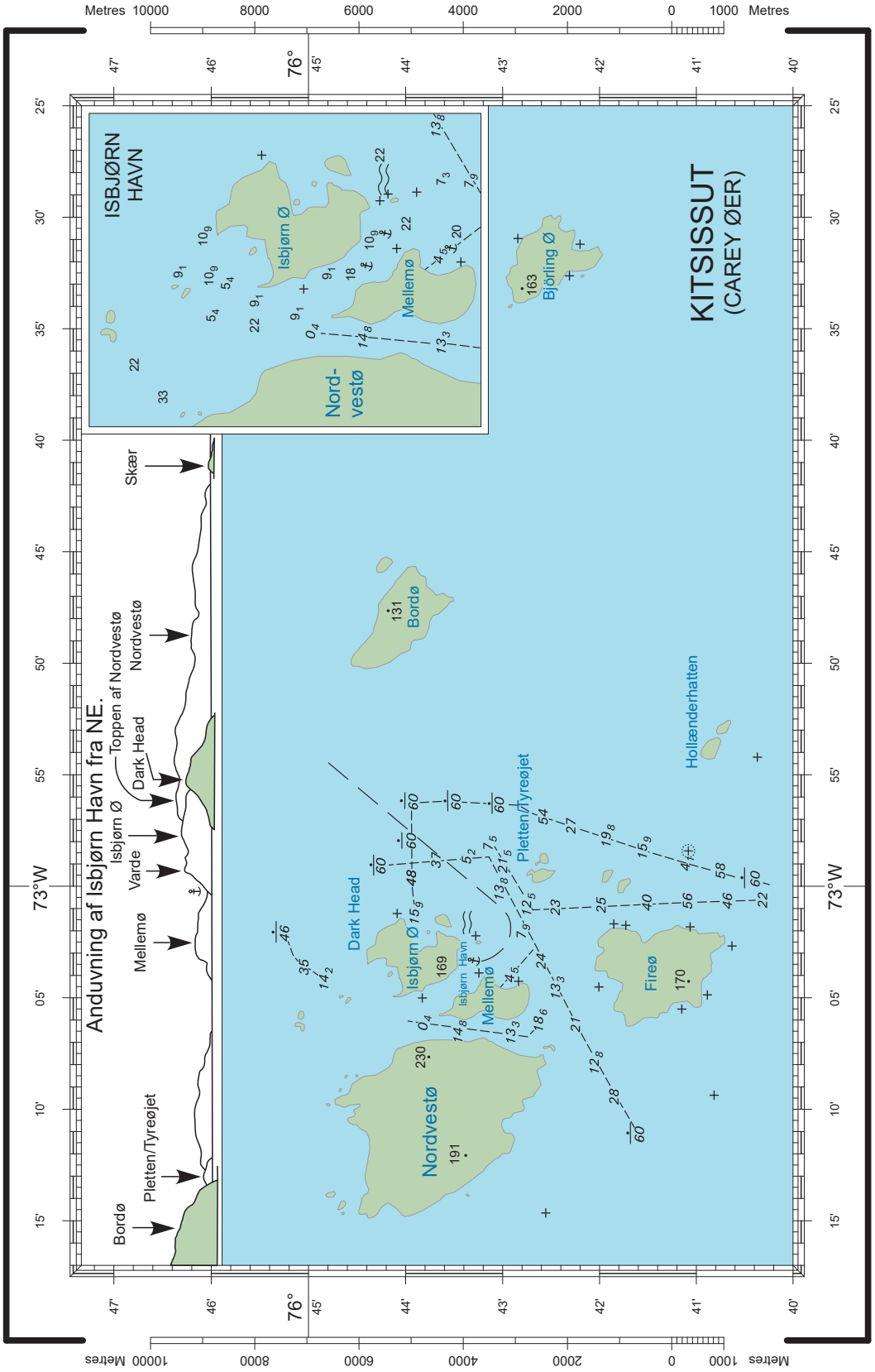


Fig. 10.9 – Kitsissut (Carey Øer).
(Approaches to Isbjørn Havn from NE)

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Map

Pitoraarfiup Karra (Kap Chalon) – Kap Morris Jesup.

Nares Stræde and Imartaq Lincoln (Lincoln Hav)

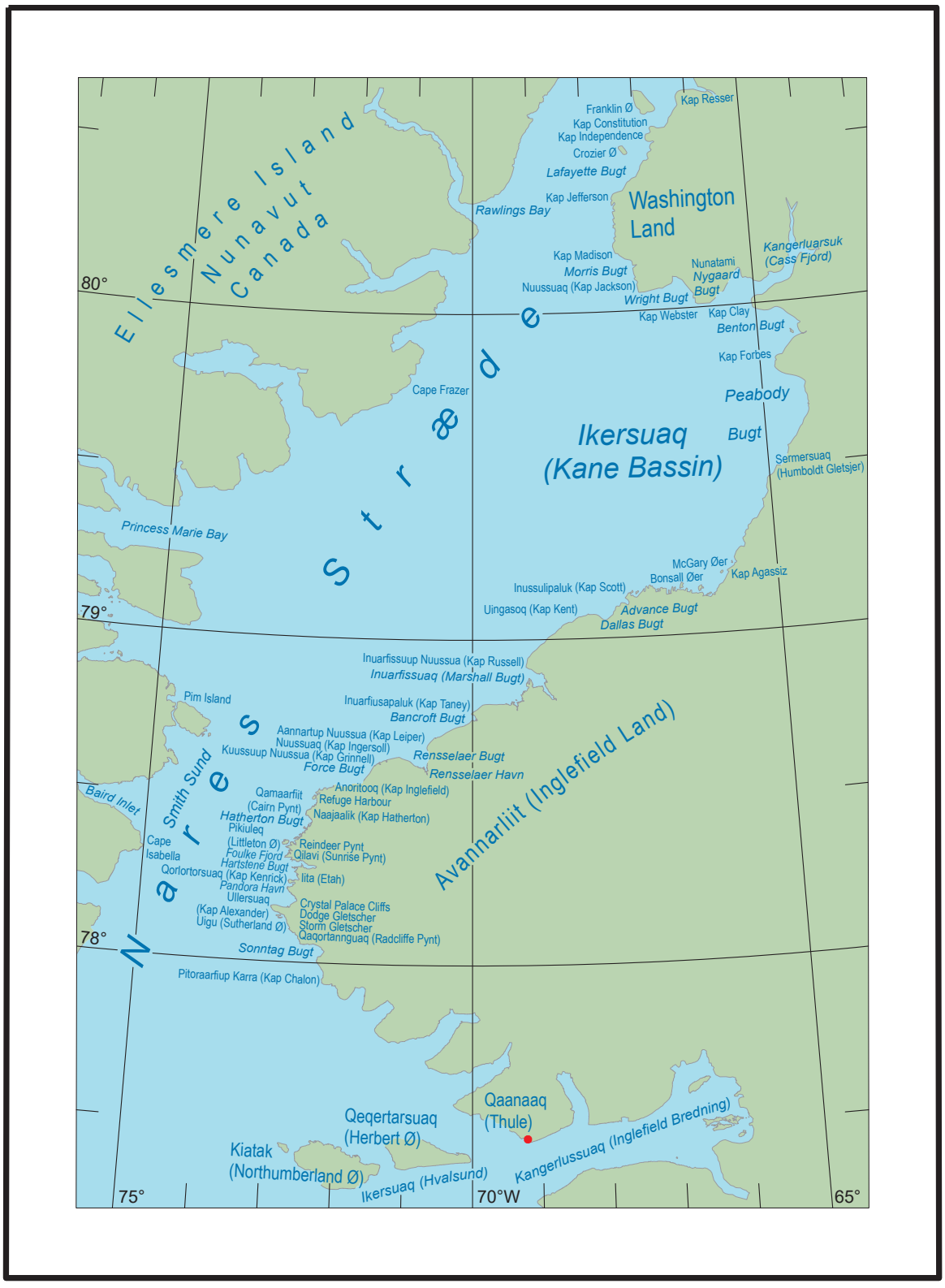


Fig. 11.1 - Pitoraarfiup Karra (Kap Chalon) – Franklin Ø

CHAPTER 11

Pitoraarfiup Karra (Kap Chalon) – Kap Morris Jesup. Nares Stræde and Imartaq Lincoln (Lincoln Hav)

Area 77º56´N 072º15´W – 83º38´N 032º35´W
Chart: 3000 (WGS-84)

11.1 Transit of the area
11.2 Description of the area
11.3 Depths
11.4 Ice, currents, tides and navigation

11.1 Transit of the area

The entire waters between Greenland and Ellesmere Island are called Nares Stræde, and these waters' individual sections between Avannaata Imaa (Baffin Bugt) and Imartaq Lincoln (Lincoln Hav), starting from S, are called: Smith Sund, Ikersuaq (Kane Bassin), Kennedy Kanal, Hall Bassin and Robeson Kanal. From the S end of Smith Sund until the N end of Robeson Kanal, Nares Stræde has a length of approximately 300 M. The width varies between 10 and 25 M, except for Ikersuaq (Kane Bassin), wherein the waters have a largest width of about 85 M. The NW side of Nares Stræde is bordered by Ellesmere Island, which has an average height of 1000 m. The coastline is penetrated by numerous deep fjords and has many prominent points. The land rises abruptly from the frozen surface of the sea up to jagged mountain peaks, which are usually covered in snow or ice. An ice sheet occurs along a relatively large part of the SE coast of Ellesmere Island, but it does not extend far inland. Large glaciers that fill all the valleys, discharge icebergs out into the bays. It is only the prominent rocky points and some of the lower S-facing locations inside the bays that are not permanently covered by ice or snow, while the rest of the surface, or about 90%, is always covered by ice.

The conditions are quite different on the SE side of Nares Stræde, as all the outermost cliffs and the outer coast is ice-free. The reason for this difference in climate between the two coastlines is probably due to the fact that a current flows N along the coast of western Greenland. The current's warmer, unfrozen water raises the average temperature in this area, while the Arctic current at Ellesmere Island blocks the bays with ice and they therefore have no open water to raise the average temperature of this ice-covered area. The prevailing E wind also brings more moisture to the NW side of Nares Stræde than to the SE side, and there is often thick fog over the NW part of the strait at the same time as the SE part has clear weather with sunshine.

11.1.1 Expeditions

These waters have been the subject of Arctic expeditions for more than 400 years, first because it was thought possible to find a NW passage to India, and later in the nineteenth century during the search for the Franklin expedition. Finally, at the beginning of this century, there was an interest in exploring the land further N and reaching the North Pole.
Smith Sund was discovered and named by William Baffin on 5 July 1616, when he reached 77º45'N in the ship "Discovery".
In 1818, the John Ross expedition was in Smith Sund, which was believed at the time to be a bay. He named Ullersuaq (Kap Alexander) and Cape Isabella after the expedition ships "Alexander" and "Isabella".
In 1852, the English Inglefield expedition was in the area and later expeditions came in the following order: 1853-55 the American expedition led by Kane, 1860-62 the American expedition led by Hayes, 1871-73 the American expedition led by Hall, and 1875-76 the English expedition led by Nares. Each time, these expeditions reached further N than their predecessors, and with the ship "Alert", Nares reached the waters around Cape Sheridan 82º29'N 061º28'W on Ellesmere Island. In 1881-84 and 1898-99, the Greely and Sverdrup expeditions were in the area, but their ships were prevented from passing through the strait by difficult ice conditions. In 1892 and 1895, Peary was in the area and reached Navy Cliff at Independence Fjord on the E coast of Greenland overland from bases in Kangerlussuaq (Inglefield Bredning).
In 1900, Peary reached Kap Morris Jesup from Fort Conger station, close NE of Bellot Island, and thus proved that Greenland was an island.
In 1905-06 and 1908-09, Peary tried to reach the North Pole over the ice from the expedition ship "Roosevelt", which reached Cape Sheridan. The first of these expeditions failed, but on 7 April 1909, Peary reached the North Pole.
More recent expeditions include those by Knud Rasmussen and Lauge Koch, who conducted expeditions in 1912-23, and each of these journeys have helped to increase our knowledge of this Arctic area.

11.2 Description of the area

There are no inhabited places in the area between Pitoraarfiup Karra (Kap Chalon) and Kap Morris Jesup. The area includes Nares Stræde, Imartaq Lincoln (Lincoln Hav) and Issittup Imaa (Arktiske Hav).
Nares Stræde includes:
Smith Sund, E side,
Smith Sund, W side,
Ikersuaq (Kane Bassin),
Kennedy Kanal,
Hall Bassin,
Robeson Kanal,
Imartaq Lincoln (Lincoln Hav).

11.2.1 Landmarks

11.2.1.1 Smith Sund, E side

11.2.1.1.1 Sonntag Bugt 78º02´N 072º20´W
is situated between Pitoraarfiup Karra (Kap Chalon) and Qaqortannguaq (Radcliffe Pynt) further N. Three glaciers protrude into the bay. The furthest N of these is called Itutterriaq (Child Gletscher) and has no glacier crevasses and can therefore be used as a route up to the ice cap.

11.2.1.1.2 Ullersuaq (Kap Alexander) 78º10´N 073º01´W
The point on Greenland furthest W is the point of a 4 M long peninsula that extends out W from the ice cap, with glaciers on the S and N side, Storm Gletscher and Dodge Gletscher respectively. The small, 90 m high, glaciated Uigu (Sutherland Ø) lies close by the S side of the peninsula.

11.2.1.1.3 Crystal Palace Cliffs
The characteristic Crystal Palace Cliffs lie N of Dodge Gletscher. It is a quite high, layered and regularly shaped mountain. The layers form ledges similar to galleries and Inglefield named it after the Crystal Palace that had recently been built in London.

11.2.1.1.4 Pandora Havn 78º14´N 072º41´W
lies in the part of McCormick Bugt furthest E, between Crystal Palace Cliffs and the prominent Qorlortuarsuk (Kap Kenrick) 2 M further N.
Pandora Havn is a well-protected harbour of refuge. When approaching, good guidance is provided by Ullersuaq (Kap Alexander) and the very recognizable Crystal Palace Cliffs that lie to the N of there. There are a few rocks close under the W side of Crystal Palace Cliffs N of Ullersuaq (Kap Alexander). During approach, beware of a shoal that extends out from the coast on the SW side of Qorlortuarsuk (Kap Kenrick). Part of the reef is dry at low tide. It is possible to anchor in 11-12 m of water NE of the small peninsula that protrudes from the S side.

11.2.1.1.5 Hartstene Bugt
lies between Qorlortuarsuk (Kap Kenrick) and Sunrise Pynt (5 M N of Qorlortuarsuk (Kap Kenrick)). This bay contains Foulke Havn and the 4-5 M long Foulke Fjord with the abandoned settlement Iita (Etah).

11.2.1.1.6 Foulke Havn 78º17´N 072º39´W
3 M N of Qorlortuarsuk (Kap Kenrick) is a small indentation in the coast, close S of the entrance to Foulke Fjord. From the N side of the harbour, a series of small islands, Knorr Øer, stretches out 1 M in a W direction.
Dr. I.I. Hayes overwintered in Foulke Havn in 1860-61 with the schooner ”United States”. The ship was towed close in to shore and moored to the rocks. Although the harbour is open to the SW, they had some shelter from this direction because some icebergs ran aground off the entrance to the anchorage.

Sir Allan Young (with the ”Pandora”) investigated the harbour as early as 1876 and found it very small and with deep waters. Ice that drifts along the coast from S tends to be carried into the harbour.
Tides: Refer to www.dmi.dk/groenland/hav/tidevandstabeller-groenland/

11.2.1.1.7 Foulke Fjord

penetrates 4-5 M E inland from the part of Hartstene Bugt furthest N. It has previously been used as an anchorage by expedition ships. The abandoned settlement Iita (Etah) is located completely inside the inner part of the fjord at Alida Sø. It is possible to anchor in the innermost, NE part of the fjord at the small peninsula, 100 m from shore in over 25 m of water.
The mouth of the fjord has some underwater rocks in the S part of the waters N of Knorr Øer and N of the land at Foulke Havn. Some rocks have also been observed close to the coast to the N. It appears that an underwater ridge with a maximum depth of 14 m extends across the fjord from the coast at Foulke Havn to Reindeer Pynt.
When approaching from W, keep a little N of the middle of the waters in order to avoid the rocks to the S, but do not get too close to the N side of the fjord either. When Reindeer Pynt has been passed, steer into the bay E of here on the N side of the fjord, where it is possible to anchor in the N part.
A ship can be beached in the E part of the harbour in an emergency.

11.2.1.1.8 Iita (Etah)

is described as one of the windiest places in Greenland. In clear weather, there is usually a hard N wind here. With SW or W winds, the weather is often overcast, but the harbour is calm.

11.2.1.1.9 Hartstene Bugt, anchorage

The part of Hartstene Bugt furthest N has a bay between Peter Jensen Næs and Sunrise Pynt in which ”Albert” and ”Discovery” anchored during a N wind on 28 July, 1875. Captain G. Nares considered the location to be a good temporary anchorage, although it was only usable in N and E winds. Judging by some grounded, massive growlers, there were some shallow areas in the bay with 9 m of water. There were several rocks and islets along the coast.

11.2.1.1.10 Qaarsorsuaq (Kap Christian Olsen)

is a protruding, steep point 3 M N of Sunrise Pynt.

11.2.1.1.11 Pikiuleq (Littleton Ø)

The small Pikiuleq (Littleton Ø) lies close N of Qaarsorsuaq (Kap Christian Olsen). The island is quite low, but can be seen from relatively far away due to its protruding position. Close to the N side of the island is an islet, Pikiulersuk (McGary Ø), as well as a rock on this W side of this islet.
There is a narrow passage at Pikiuleq (Littleton Ø) between the island and the shore, where depths of 28 m have been found mid-channel. The island is about 1 M long in a SW-NE direction. It is 2 M wide and its sides rise steeply up to a flat top. Pikiuleq (Littleton Ø) was named by Inglefield in 1852 and it has served as a depot for many expeditions. (Kane in 1853, Peary in 1893 and MacMillan in August 1923). In 1923, the remnants of the various

expeditions' cairns were found in good condition. Due to the ice conditions, the waters N of Pikiuleq (Littleton Ø) are very difficult to navigate, and usually navigation in the area is only possible with icebreakers. The waters form the transition to the actual polar area. However, a brief description shall be provided of this N part of the coast as far as Kap Morris Jesup.

11.2.1.1.12 Between Pikiuleq (Littleton Ø) and Pikiulersuk (McGary Ø)

there is a narrow passage that is filled with rocks in the SW part, whereas there is 5 m of water depth in the NE part. There is a rock close NW and W of Pikiulersuk (McGary Ø). Smaller vessels have previously anchored between the islands, but there is limited swinging room, so it is necessary to moor to the shore.

11.2.1.1.13 Life Boat Cove

is situated close E of Pikiuleq (Littleton Ø). There is shallow water in the harbour, and it can only be used by small crafts.

11.2.1.1.14 Naajaalik (Kap Hatherton)

is located NE of Pikiuleq (Littleton Ø) and is a projecting massif. There are several small islands off the coast NE of the promontory, where many sea birds have their breeding place. Hatherton Bugt lies close S of Naajaalik (Kap Hatherton). It has a sandy bottom and a sandy beach, but it is shallow. A small bay N of Naajaalik (Kap Hatherton) also has a sandy beach, sandy bottom and shallow water. This bay should not be confused with Refuge Harbour.

11.2.1.1.15 Refuge Harbour 78º30´N 072º25´W (Fig. 11.4)

is a small harbour 3 M NE of Naajaalik (Kap Hatherton) on the S side of Qamaarfiit (Cairn Pynt). The harbour has been used as an overwintering station, and it was then possible to lie in its NW part in 15 m of water. The E part of the harbour is shallow and rocky. Donald B. Mac Millan overwintered in Refuge Harbour in 1923-24 with the ship "Bowdoin". The ship became free on 1 August 1924.

11.2.1.2 Smith Sund, W side

The narrowest part of Smith Sund is only 25 M wide. Thus, from the coast of Greenland between Ullersuaq (Kap Alexander) and the NW part of Avannarliit (Inglefield Land), it is possible to clearly see across to Ellesmere Island in clear weather. Particularly prominent sections include the land around Cape Isabella (approximately at the latitude of Iita (Etah)). The actual promontory is relatively low, 244 m, but the high Mount Bolton rises above it, with the higher Wyville Thompson Glacier behind it.

Cape Sabine is roughly 20 M on a bearing of 011° from Cape Isabella and is the point of Pim Island furthest E. The promontory itself is low, but very recognisable. It has a reddish appearance and differs greatly in colour from the points N and S of here.

The high, snow-capped mountain range, Prince of Wales Mountains, rises 25-30 M inside the coast.

11.2.1.2.1 Ice conditions

Between Ullersuaq (Kap Alexander) and Iita (Etah), the winter ice only settles in the inner part of the bays. Due to the stormy weather here, there is almost never ice off Ullersuaq (Kap Alexander).

11.2.1.3 Ikersuaq (Kane Bassin), Qamaarfiit (Cairn Pynt) – Nuussuaq (Kap Jackson)

11.2.1.3.1 Qamaarfiit (Cairn Pynt) 78º30´N 072º28´W

is a small, protruding gneiss peninsula just NW of Refuge Harbour. In 1855, Captain Hartstene erected a cairn on the point. From a little N of Qamaarfiit (Cairn Pynt) the coast runs 90 M in a NNE direction to the S part of Sermersuaq (Humboldt Gletsjer). There are no deep indentations in the coastline and no glaciers between Qamaarfiit (Cairn Pynt) and Nuussuaq (Kap Ingersoll), a distance of 17 M.

11.2.1.3.2 Force Bugt

is the stretch between Anoritooq (Kap Inglefield) and Kuussuup Nuussua (Kap Grinnell). Anoritooq (Kap Inglefield) is 5 M NE of Qamaarfiit (Cairn Pynt).

11.2.1.3.3 Rensselaer Bugt

lies between Anoritooq (Kap Inglefield) and Aannartup Nuussua (Kap Leiper) further E. There are high sandstone mountains on both sides of the outer part of the bay, while the inner part of the bay is surrounded by somewhat lower, rounded heights of granite. Kane's ship "Advance" lay at anchor in 13 m of water inside the two islands in the inner part of the bay, moored to the rocks on shore. In this location, which is called Rensselaer Havn, the ship overwintered without being exposed to ice pressure. The ship froze in on 8 September 1853, but when the ice remained in the bay the following year without breaking up, the ship was abandoned in May 1855.
Tides: Refer to www.dmi.dk/groenland/hav/tidevandstabeller-groenland/

11.2.1.3.4 Aannartup Nuussua (Kap Leiper) 78º40´N 070º43´W

At Sermersuaq (Humboldt Gletsjer), between Aannartup Nuussua (Kap Leiper) and Kap Agassiz, the coastal mountains have an average height of 300 m. This stretch also has several deep indentations, which include: Bancroft Bugt, Inuarfissuaq (Marshall Bugt), Dallas Bugt and Advance Bugt. These bays continue up into the land in valleys and ravines through which streams of meltwater flow from the ice cap, but there are no actual glaciers here.

11.2.1.3.5 Bancroft Bugt

lies close S of Inuarfiusapaluk (Kap Taney), which is located 10 M NE of Aannartup Nuussua (Kap Leiper).

11.2.1.3.6 Inuarfissuaq (Marshall Bugt)

lies 13 M NE of Bancroft Bugt and extends 3 M toward SE. It then continues for a further 3 M as a narrow fjord until the mouth of the river that drains Septembersøerne, which lies E of here.

11.2.1.3.7 Inuarfissuup Nuussua (Kap Russell)
is the point on the N side of Inuarfissuaq (Marshall Bugt). Dallas Bugt is located approximately halfway between Uingasoq (Kap Kent) and Inussulipaluk (Kap Scott), and the bay extends about 3 M to the SE, where two rivers discharge.

11.2.1.3.8 Inussulipaluk (Kap Scott) 79º06´N 067º33´W
is 8 M ENE of Uingasoq (Kap Kent).

11.2.1.3.9 Advance Bugt
begins 2 M NE of Inussulipaluk (Kap Scott) and extends 1.5 M S, where a river enters the sea. The bay itself is filled with numerous small low islands and is enclosed by a chain of islands out towards the sea.

11.2.1.3.10 Bonsall Øer
lies approximately midway between Advance Bugt and Kap Agassiz and is a small group of islands that stretches 5 M in a E-W direction.

11.2.1.3.11 Kap Agassiz 79º07´N 065º57´W
Is the point of Avannarliit (Inglefield Land) furthest NE.

11.2.1.3.12 McGary Øer
is a small group of islands that lies approximately 4 M N of Kap Agassiz near Sermersuaq (Humboldt Gletsjer).

11.2.1.3.13 Peabody Bugt
is the E part of Ikersuaq (Kane Bassin) and borders Sermersuaq (Humboldt Gletsjer).

11.2.1.3.14 Sermersuaq (Humboldt Gletsjer)
reaches Peabody Bugt on a stretch of about 50 M. The outer edge of the glacier is almost without crevices and progresses in a smoothly slope out into the sea. In most places, the ice edge does not exceed a height of 50 m, but in many places, it runs so evenly out into the sea, that it is accessible by boat. The icebergs that come from here resemble large pieces of polar ice and are never as high as icebergs from Kangerlussuaq (Inglefield Bredning) or from Qimusseriarsuaq (Melville Bugt).

11.2.1.3.15 Kap Forbes
lies on the N side of Peabody Bugt.

11.2.1.3.16 Nuussuaq (Kap Jackson)
is the SW point of Washington Land and rises to a height of approximately 330 m. The coastline between Kap Forbes and Nuussuaq (Kap Jackson) has several bays, including Benton Bugt, Kangerluarsuk (Cass Fjord), Nygaard Bugt and Wright Bugt.

11.2.1.3.17 Benton Bugt
is an open bay between Kap Forbes and Kap Clay, which lies 10 M further to the WNW.

11.2.1.3.18 Kangerluarsuk (Cass Fjord)
is a narrow fjord that extends more than 15 M NE and N from Kap Clay.

11.2.1.3.19 Nygaard Bugt
extends approximately 5 M NNE between Kap Clay and Kap Webster. 3 M in it narrows to 1.7 M and ends at the mouth of a river.

11.2.1.3.20 Wright Bugt
lies between Nunatami, a point 2.5 M W of Kap Webster, and Nuussuaq (Kap Jackson), which lies 11 M further to the WNW. The bay extends 5 M N and narrows in its N part and terminates at the mouth of a river.
The mountains in the coastal area between Kap Forbes and Nuussuaq (Kap Jackson) rise to a height of 330 m, and the fantastic limestone rock formations described by Knud Rasmussen are located near Kap Webster. The mountains have a grey colour at the bottom and a glowing red hue near the top.
A wide ice-foot makes sled travel along this coast possible in the spring.

11.2.1.4 Kennedy Kanal, Nuussuaq (Kap Jackson) – Kap Morton
The E side of Kennedy Kanal is adjacent to Washington Land, which extends NE from Nuussuaq (Kap Jackson) to Kap Morton, a stretch of 80 M. The coast line is relatively straight, and the only major fjord is Bessel Fjord. Large stretches of this coastline are formed by very steep cliffs, rising to a height of up to 330 m. The hinterland rises from 400 m in the S part to 1100 m in the N part. The S part is almost ice-free and consists of broad valleys and isolated mountains, while the N part is a flat highland, partly covered by an ice cap. The land between Washington Land and the ice cap is called Daugaard-Jensen Land.

11.2.1.4.1 Nuussuaq (Kap Jackson) 80º03´N 067º01´W
From here, the coast extends 5 M N and then turns NW on a similar stretch to Kap Madison. Morris Bugt lies between these two points. There are mountains E of Kap Madison, rising to a height of up to 200 m, and further inland there is broad highland, which is traversed by a few valleys, but otherwise rises evenly towards the ice cap. The plateau consists of lime-stone, and there is almost no vegetation.
The stretch of coast from Kap Madison to Kap Jefferson is called Nicolaj Nielsen Kyst. It has a foreshore of limestone, which is from 1-2 M wide and is dry at low water but at high water, it appears as islets and reefs. In winter, this foreshore is covered by a wide ice-foot, through which numerous small islands jut up to approximately 1 m above the surface of the ice.

11.2.1.4.2 Lafayette Bugt
Between Kap Jefferson and Kap Independence, which is 13 M further NE, the coast draws back somewhat, forming Lafayette Bugt. The coasts of the bay consist of steep cliffs rising to a height of 430 meters, in front of which there is a low foreshore from 10 to 20 m wide. There

is a rocky shoal close to Kap Jefferson.

11.2.1.4.3 Crozier Ø

lies outside the middle of Lafayette Bugt, 4.5 M WSW of Kap Independence. The island rises to a height of 60 m at its S end, and it is the furthest S of the three islands in the Kennedy Kanal. The other islands are Franklin Ø and Tartupaluk (Hans Ø).

11.2.1.4.4 Kap Constitution

lies 2 M NNE of Kap Independence and consists of a steep mountain that rises to a height of 500 m.

11.2.1.4.5 Franklin Ø

is the largest of the islands in Kennedy Kanal and lies 2.5 M N of Kap Constitution. The island is about 5 M long in a NW-SE direction and its maximum width is 2.5 M. It is easily recognizable from a large distance, and on its W side, the cliffs at the shore rise almost vertically to a height of 215 m. Intense hummocking occurs on the N side of the island and ridged ice has been observed that rises to a height of up to 20 m.

11.2.1.4.6 Tartupaluk (Hans Ø) 80º49´N 066º27´W

lies approximately 8 M NNE of Franklin Ø and is the outermost of the islands in Kennedy Kanal. The island lies approximately mid-channel in Kennedy Kanal, and its S side rises to a height of 140 m. Intense hummocking has been observed on its N side, while its S side was ice-free.
Both Canada and Denmark claim sovereignty over the island.

11.2.1.4.7 John Brown Kyst

is the name of the stretch of coast between Kap Constitution and Kap Bryan, located approximately 44 M further to the NNE. The bay furthest S on this coast is the bay between Kap Constitution and Kap Resser, located NE of the former. Several rivers flow into the bay and signs have been found of previous habitation.
The ice-foot is narrow along the N part of John Brown Kyst and the sea ice that presses hard against it causes large blocks of ice to be pushed up in many places on the surface of the ice-foot.

11.2.1.4.8 Aleqatsiaq Fjord

was discovered by Lauge Koch in 1921 and was later surveyed by him. The mouth of the fjord lies between Kap Resser, which rises to a height of 300 m, and Graptolitnæs, which rises to a height of 560 m and is located approximately 4.5 M further NE. The fjord extends E and is 4 M in length. The inner part narrows and ends in a river.

11.2.1.4.9 Fossilbugt

lies approximately 3 M S of Kap Godfred Hansen. Several rivers flow into the bay and 4-5 M inland, parallel to the coast, several peaks rise to a height of 700-900 m. There are a few indentations in the coast from Kap Godfred Hansen to Kap Bryan, a distance of approximately

20 M. The indentations here along the coast are ice-free, but behind them is John Brown Iskappe, from where meltwater flows down into Bessel Fjord.

11.2.1.4.10 Kap Bryan 81º07´N 064º03´W

is the point on the W side of the mouth of Bessel Fjord and it is the point of Washington Land that is furthest N. The mountains around Kap Bryan are steep and rise to a height of 360 m. The ice-foot here is narrow and inaccessible.

11.2.1.4.11 Hannah Ø

lies close N of Kap Bryan on the W side of the mouth of Bessel Fjord and rises to a height of 40 m. ”Alert” and ”Discovery” anchored on a bank that extends out from the E side of the island, and the depth was 15 m.

11.2.1.4.12 Bessel Fjord

The mouth of the fjord is located between Kap Bryan and Kap Maynard, which lies 3 M further NE. It extends 24 M SSE and a stream discharges in its inner part. The fjord is surrounded on all sides by steep mountains, traversed by numerous small glaciers that produce icebergs. Petermann Halvø lies on the E side of the fjord.

11.2.1.4.13 Kap Morton

is the point furthest N on Petermann Halvø and the coastal land immediately S of here rises to a height of 600 m.

11.2.1.4.14 Joe Ø

lies 2 M N of Kap Morton and was visited by Peary on 21 August 1906, when the ship ”Roosevelt” was stopped here by ice pressure and sought shelter behind the island. The ship was moored to the ice-foot at the S side of the island. It appeared from the island that the W side of Hall Bassin was tightly packed with ice, while the E side was ice-free. In August 1958, the US icebreaker ”Atka” passed between Joe Ø and Kap Morton, and measured a depth of 220 m mid-channel.

11.2.1.5 Hall Bassin, Kap Morton – Kap Lupton

Hall Bassin is located between Kennedy Kanal and Robeson Kanal and has a maximum width of 30 M. Its E side is formed by the N side of Petermann Halvø between Kap Morton and Kap Lucie Marie, then by the mouth of Petermann Fjord between Kap Lucie Marie and Kap Tyson, by Hall Land between Kap Tyson and Kap Lupton.

11.2.1.5.1 Petermann Halvø

The N coast consists of high, steep cliffs that form a bay between Kap Morton and Kap Lucie Marie. At Kap Morton, however, the land slopes evenly up from the coast towards the ice-covered middle part of Petermann Halvø.

11.2.1.5.2 Petermann Fjord

The mouth of the fjord lies between Kap Lucie Marie and Kap Tyson. The fjord stretches

almost 50 M SSE to the ice cap, but the glacier already fills the entire fjord 12 M from the mouth. Petermann Gletsjer is the longest glacier in Greenland, but it produces only a few but very big icebergs. It is low where it borders the sea, and from here it continues rising steadily until it becomes the icecap approximately 50 M further in. The outer 40 M is a flowing glacial tongue with a relatively smooth surface, while the inner 10 M rises gradually towards the ice cap and is heavily fissured.
The land rises steeply on both sides of the Petermann Fjord to the glaciated limestone plateau, which is more than 800 m high, and where the ice from the plateau sends out small glacial tongues over the coastal rocks in several places. The advancing ice breaks off and often carries rock pieces that have been broken from the cliff. The entire SW part of the fjord borders a coast consisting of alternating layers of light grey and dark slate-coloured limestone. From 12 M SE of Kap Tyson and further SE, the coast on the NE side of the fjord consists of the same kind of limestone, but it has several ice tongues protruding over the rocks. On the SW side, the glacier is bound by the ice-free Daugaard-Jensen Land, which has approximately the same height as the Petermann Gletsjer. On the SE side, it is adjacent to the icecap on Hall Land, which rises steadily from here to a height of 750 m.

11.2.1.5.3 Kap Tyson 81º20´N 061º52´W
lies on the NE side of the mouth of Petermann Fjord on the SE part of Hall Land. From here, the land rises evenly up to a plateau at a height of about 800 m.

11.2.1.5.4 Offley Ø
lies 1 M S of Kap Tyson. It is a small but high and steep island which rises to a height of 150 m on the NE side.

11.2.1.5.5 Polaris Bugt
Between Kap Tyson and Kap Lupton, which is 20 M further N, the coast draws back somewhat and forms Polaris Bugt and Thank God Harbour. Polaris Bugt extends from Kap Tyson and 12 M further N. The coast here is low and many rivers discharge here.

11.2.1.5.6 Thank God Harbour
is a very small bay 2 M S of Kap Lupton and was the headquarters of the Hall expedition in 1871-1872. ”Polaris” was anchored approximately 18 M N of Kap Tyson and within the waters’ main currents, where some shelter was provided by a small point NW of this anchorage. The ship also anchored 1200 m W of the stream delta in Thank God Harbour. On the S side of the river bed at Thank God Harbour, there is a low area where it is easy to get ashore. The point here protected ”Polaris” against the ice that was carried S from Robeson Kanal by the current. The American explorer Charles Francis Hall’s grave is at the harbour, which the British Arctic Expedition marked with a cairn in 1875-76.
Tides: Refer to www.dmi.dk/groenland/hav/tidevandstabeller-groenland/

11.2.1.5.7 Kap Lupton 81º40´N 061º51´W
is an eye-catching point on the SE side of Robeson Kanal. The coast changes appearance here, as the low coast bordering Hall Bassin N is replaced to the N by the steep cliffs on Polaris Forland.

11.2.1.5.8 Polaris Forland
is the peninsula between Hall Bassin, Robeson Kanal and Newmann Bugt. The land is 330 m high and the highest point is Chester Bjerg, which rises to a height of 826 m and is 12 M NNE of Kap Lupton.

11.2.1.6 Robeson Kanal, Kap Lupton – Kap Stanton
Robeson Kanal is the furthest N and narrowest part of Nares Stræde, which leads from Avannaata Imaa (Baffin Bugt) to Imartaq Lincoln (Lincoln Hav). Robeson Kanal has a length of 50 M and a width of 11 M. The N border is a line from Kap Stanton in Greenland to Cape Sheridan on Ellesmere Island, and the S border line runs from Kap Lupton in Greenland to Kap Murchinson on Ellesmere Island. Except for a few places where the cliffs rise steeply from the sea and therefore do not form a surface for ridged ice, the coast is fringed by a narrow, uneven ice-foot that is formed by ridged ice from the pack ice being pushed up on top of the actual ice-foot to a height of up to 12 m. Between this uneven and fissured ice surface, the meltwater during the summer flows down and forms channels through the ice barrier and thus breaks its continuity, but as soon as the ice starts to hummock again along the coast, these channels are quickly filled again. The rocks that the ice carries down through the valleys cannot reach the sea, but are deposited inside the ice barrier and forms a raised beach.

11.2.1.6.1 Kap Sumner
From Kap Lupton, the coast continues 4 M N and then 15 M NE to Kap Sumner. The coast of Polaris Forland here consists of steep cliffs. Kap Sumner is high and steep, with a deep gorge just S of the top, which is snow-free in summer.

11.2.1.6.2 Newmann Bugt
The outer points of the mouth are Kap Sumner on the S side and Kap Brevoort, 6 M further NE, on the N side. The bay was first explored and crossed by Hall in 1871. From the mouth, the bay extends in its full width 10 M SE. From here, its inner part extends SSE for a distance of 38 M, and it narrows to a width of 1 M in the inner part, where it ends in a glacier. There are some islands across the bay at a distance of 20 and 27 M respectively from its mouth. Several rivers that drain the low land on both sides flow into the bay.

11.2.1.6.3 Kap Brevoort 81º58´N 060º16´W
lies 6 M NE of Kap Sumner and is a high cliff of limestone, behind which the land rises to a height of approximately 650 m. Kap Brevoort is the furthest W point of the vast ice-free area called Nyeboe Land and it lies between Newmann Bugt and Sankt George Fjord.

11.2.1.6.4 Gap Dal
lies 5 M ENE of Kap Brevoort and is a wide gap between two steep heights. From the coast,

a boulder ravine leads into the lowlands bordering Newmann Bugt. The coast is usually filled with ridged ice that can be pushed up to heights of about 10-20 m.

11.2.1.6.5 Repulse Havn

lies 11 M NE of Kap Brevoort and is a small bay in the coastline. The mouth is only 2.5 M wide. The mountains in the background make the bay look like a large bay with two islands, as the rest of the land between the highlands and the sea is so low that it can barely be distinguished. On 8 June 1900, Peary built a cairn on one of the points at Repulse Havn, but usually the coast is filled with ridged ice that can be pushed up to heights of about 10-20 m.

11.2.1.6.6 Drift Point

lies 6 M ENE of Repulse Havn and was named by Beaumont, who passed here in May 1876 by sled and found severe hummocking at the coast. In May 1917, Knud Rasmussen found the coastal ice at Drift Point smooth and easily passable.

11.2.1.6.7 Blackhorn Klint

extends 4 M along the coast from a position 5 M ENE of Drift Point. The name comes from a striking black cliff that protrudes from one of the other cliffs. The cliffs descend steeply into the sea and can only be passed on the sea ice, and there is often open water close in front of them. Within the coastline, the land here consists of small, rounded heights composed of small stones and clay without any vegetation. In the background, snowy highlands rise high above the surrounding area.

11.2.1.6.8 Kap Stanton 82º12´N 057º17´W

From Blackhorn Klint, the coast, which is steep here and has a very uneven ice-foot, continues NE to Kap Stanton, which is the point furthest E on the N end of Robeson Kanal.

11.2.1.7 Imartaq Lincoln (Lincoln Hav) [Arctic Ocean], Kap Stanton – Kap Morris Jesup

The part of Issittup Imaa (Arktiske Hav) bordering the NE part of Ellesmere Island and extending to the NW part of Greenland is called Imartaq Lincoln (Lincoln Hav). This part of the coast of Greenland was first explored by the Nares expedition in 1876, when a team led by Beaumont reached the vicinity of Sherard Osborn Fjord. Further exploration of this coast was carried out by Lockwood in the Greely expedition in 1882, by Peary in 1900, by Knud Rasmussen in the 1st and 2nd Thule Expeditions in 1912 and 1917, and by Lauge Koch in 1921 and 1938. In the latter year, it was possible to carry out control measurements by aerial photography. Knud Rasmussen's 2nd Thule Expedition particularly surveyed the deeply indented coastline between Sankt George Fjord and De Long Bugt. By mapping the inner part of Nordenskiöld Fjord and De Long Bugt, Knud Rasmussen and Lauge Koch finally determined the extent of the spit of land between Peary Land and the mainland, which is now called Nuna Knud Rasmussen, and which extends from Innaanganeq (Kap York) to Nordostrundingen.

Greenland's NW coast stretches from Kap Stanton to Kap Morris Jesup. This coastline is formed by the N part of Nyeboe Land and Peary Land. The land is deeply indented by

numerous fjords, and in most places the coast consists of steep, layered cliffs. The fjords are usually, if not always, filled with heavy drift ice from Issittup Imaa (Arktiske Hav).
From Kap Stanton, the coast stretches 18 M ENE to Kap Bryant. Between these two points there is a low headland, where the land behind rises as low, rounded peaks with a mountainous landscape further away.

11.2.1.7.1 Hand Bugt
The E side of the mouth is 4 M ENE of Kap Stanton. The bay extends 4.5 M S and borders Rockhill here, which is 1050 m high and protrudes into the inner part of the bay and forms 2 small bays. Two valleys lead S from these bays inland. On the W side in the inner part of the bay, Hall Bjerg rises to a height of 1155 m.

11.2.1.7.2 Frankfield Bugt
lies 6 M ENE of Hand Bugt and extends 3 M SE and then 6 M S. Furthest out, the bay has a width of 2 M, but it narrows sharply in its inner part.

11.2.1.7.3 Kap Bryant
is the N part of Nyeboe Land, and from here the coast turns SSE and forms the W side of St. George Fjord. The edge of the drift ice in Issittup Imaa (Arktiske Hav) is usually close to the coast W of Kap Bryant, but E it extends in a NE direction towards Beaumont Ø, which lies more than 40 M further NE.
Tides: Refer to www.dmi.dk/groenland/hav/tidevandstabeller-groenland/

11.2.1.7.4 Punch Bjerg
lies 10 M S of Kap Bryant is the most prominent landmark in the area. Wyatt Bjerg lies 3-4 M S of Kap Bryant and rises to a height of 590 m.

11.2.1.7.5 Sankt George Fjord
The mouth of the fjord lies between Kap Bryant and Dragon Point, which is located 11 M further ESE. The fjord itself extends approximately 50 M S, where it merges into Steensby Gletsjer. The fjord is surrounded almost everywhere by steep cliffs, and the land on both sides is mountainous.
Kap Fulford lies 4 M SE of Kap Bryant and its 300 m high land marks the N end of the cliffs on the W side of Sankt George Fjord. The rest of the W side of Sankt George Fjord as far as Steensby Gletsjer has only small indentations in the coast, but several small valleys lead inland, and there are some small ice caps close behind. In the inner part of the fjord, the land rises to a height of 1200 m.

11.2.1.7.6 Hendrik Ø
separates the outer part of Sankt George Fjord from Sherard Osborn Fjord. The island extends S and then SE with a total length of 35 M and with a width of 5-6 M. It is ice-free except for some small ice caps. The N part of the island is highest and rises to a height of 1100 m.
Hartz Sund connects Sankt George Fjord with Sherard Osborn Fjord and separates Hendrik

Ø from Warming Land.
Dragon Point 82º17'N 053º53'W is the low N part of Hendrik Ø. The island has been visited by almost all expeditions that have been in this area.

11.2.1.7.7 Warming Land
lies S of Hendrik Ø. The middle part of the land is filled by a glacier, but the N and S parts are ice-free. The entire N part is low, except for a single peak that rises to a height of approximately 900 m.

11.2.1.7.8 Sherard Osborn Fjord
extends SE for 35 M and is bordered to the W by Hendrik Ø and to the E by Wulff Land. The mouth of the fjord is located between Dragon Point and Kap May, which is 19 M NE of Dragon Point. The fjord narrows gradually to the S to 10 M and turns into Ryder Gletsjer.

11.2.1.7.9 Castle Ø
lies 6 M within the mouth of Sherard Osborn Fjord. It is 6 M long and rises to a height of about 640 m. The N point of the island is called Kap Cleveland.

11.2.1.7.10 Reef Ø and Wedge Ø
are two small islands located approximately halfway between Castle Ø and Wulff Land.

11.2.1.7.11 Permin Land
lies in the inner part of Sherard Osborn Fjord. It is a conspicuous part of the mainland and consists of high mountains whose peaks are covered by a glacier. The NW point is called Kap V. Nordmann. It rises to a height of approximately 800 m and lies 1 M from the SE part of Hendrik Ø.
Kap Buttress, the E point of Permin Land, rises to a height of 1097 m.
Ryder Gletsjer slopes evenly from the ice cap down to the sea between Kap Buttress and the coast of Wulff Land, which is 3 M further E. From here, the glacier stretches N in the E part of Sherard Osborn Fjord, and the outer edge that flows has extended as far N as Wedge Ø.

11.2.1.7.12 Wulff Land
is a peninsula that juts out about 80 M NNW from the mainland. The point furthest NW is called Kap May. S of Kap May, the coast consists of a 20 M stretch of high promontories between which several tongues of ice push out from Sven Hedin Firn down to the surface of the sea.
Farragut Bjerg, 13 M SSE of Kap May, is the highest peak in this part of the coast, and it rises to a height of 1210 m. Aage Bistrup Land lies in the SW part of Wulff Land. It is a narrow strip of ice-free land.
From Kap May to Depot Ø, a distance of 12 M, Wulff Land borders Imartaq Lincoln (Lincoln Hav). The coast is mountainous, but free of ice, and several fertile valleys leads inland. The largest of these valleys is Gunnar Andersson Dal, which begins close W of Depot Ø and i the furthest E of the valleys. There are many musk oxen and Arctic hares in the fertile valley

depressions in the N part of Wulff Land.

11.2.1.7.13 Victoria Fjord

lies between Wulff Land and Nares Land. It has a length of approximately 55 M and a maximum width of 18 M between Depot Ø and Kap Wohlgemuth.
Stephenson Ø lies in the mouth of the fjord. It is 12 M long and rises to a maximum height of 1050 m at the N end. In the inner part of the fjord, there are many small ice-free areas enclosed by C.H. Ostenfeld Gletsjer.
Nares Sund are the waters between the NE part of Wulff Land and Stephenson Ø.

11.2.1.7.14 Nares Land

Kap Wohlgemuth 82º33´N 048º28´W is the NW point of Nares Land. The promontory rises to a height of 700 m and behind this, the glaciated land rises to a height of 1000 m.
Nares Land extends NW between Victoria Fjord and Nordenskiöld Fjord and is covered with ice, except for a few narrow stretches of coast. Kap Middendorff, 8 M E of Kap Wohlgemuth, is the point furthest N.

11.2.1.7.15 Beaumont Ø

lies 17 M N of Wulff Land. Albert Bjerg, 460 m, is the highest point.

11.2.1.7.16 John Murray Ø

lies 11 M E of Beaumont Ø. Kap Britannia is the point on the island furthest SW. Kap Frederick is 9 M further N and is the NW point of the island. The island rises to a maximum height of approximately 800 m.

11.2.1.7.17 Fladø

lies 3 M SW of Kap Frederick. Close SE of John Murray Ø there are several small islands, Centrum Øer, the furthest E of which was used as a base for the 2nd Thule Expedition during the survey of the area.

11.2.1.7.18 Nordenskiöld Fjord

The mouth lies between Kap Middendorff and Kap Wegener. The fjord extends SE for 40 M, but the edge of the flowing Jungersen Gletsjer is only 10 M inside the mouth. The land on both sides of the fjord is covered with glaciers, except for a narrow, barren coastline, from where the land rises steeply to heights between 600 and 850 m.

11.2.1.7.19 Freuchen Land

is high, mountainous land and almost entirely covered with ice. It separates Nordenskiöld Fjord and J.P. Koch Fjord. From Kap Wegener, which is the NW point of Freuchen Land, the coastline continues SE, along the W side of the land for a distance of 43 M, and E and then SE along the N and E side of the peninsula for a distance of 60 M.

11.2.1.7.20 J.P. Koch Fjord

The mouth of the fjord lies between Kap Wegener and the S part of Elison Ø, 5 M NW of

Kap Wegener. From here, the fjord extends 20 M E and then 40 M SE. A strip of land only 12 M wide separates the inner part of J.P. Koch Fjord from Øvre Midsommer Sø, whose water flows out through a broad and fertile valley to Jørgen Brønlund Fjord, a branch of Independence Fjord. This narrow strip of land is the connection between Peary Land and the mainland. On the N side, J.P. Koch Fjord borders Elison Ø, Sverdrup Ø and the S part of Nansen Land. These areas are all virtually ice-free and consist of Alpine land. Along the S side of the outer part of the fjord and on both sides of its innermost part, the land is covered with glaciers except for a narrow coastal strip. During Knud Rasmussen's visit in June 1917, there was a small open area in the outer part of the fjord, and a few seals were caught here with difficulty.

11.2.1.7.21 Elison Ø

is about 9 M long in a NW-SE direction, but is otherwise a narrow, mountainous island consisting of uneven, 1000 m high mountainous land without valleys. The island is 4 M E of John Murray Ø and, like this island, is free of ice. Knud Rasmussen found traces of musk oxen on the island in mid-June 1917 and he observed geese and ptarmigans.
Kap Salor is the NW point of Elison Ø.

11.2.1.7.22 Sverdrup Ø

is a large, mountainous and ice-free island located NE of Elison Ø. These islands are separated by the 2 M wide Chipp Sund. The SW part of Sverdrup Ø is almost separated from the remainder and main part of the island by Lemming Fjord on the N side and a small bay on the S side.
Lemming Fjord is almost 8 M long, and from its innermost part a narrow isthmus that is only 2 M wide extends to the bay on the N side of J.P. Koch Fjord. The NW point of this part of the island is called Kap Emory, and a small island located close N of this is called Markham Ø. The rest of Sverdrup Ø is about 16 M long in a NNW-SSE direction and has a maximum width of 4-5 M. The coast has many small bays. The NW point of this part of the island is called Black Cape and is 5 M NNE of Kap Emory. Kap Benét is the furthest N point on the island and is 4.5 M NE of Black Cape. There is a bay between these two points and Knud Rasmussen's team stayed here in 1917. The land around the bay is relatively low, and from its inner part a small fertile valley extends inland toward the mountains that fill the inner portion of the island.

11.2.1.7.23 Mascart Inlet

lies between Kap Benét and Kap Payer (the NW point of Nansen Land) and extends SE. Approximately 9 M inside the entrance, the sound narrows to a width of 2 M and then splits into two parts. The largest part penetrates deep SE and E into Nansen Land, while a narrow channel leads S and connects Mascart Inlet with J.P. Koch Fjord, thereby forming a 20 M long channel connecting J.P. Koch Fjord with Issittup Imaa (Arktiske Hav).

11.2.1.7.24 Peary Land

is the extensive and indented area that forms the N part of Greenland. Although there are some ice-covered mountain tops (ice caps), several of which are of significant size, Peary

Land has large ice-free areas. Many places have relatively large valleys with quite good vegetation and good pasture for musk oxen.

11.2.1.7.25 Nansen Land

is a large protruding peninsula located between J.P. Koch Fjord and De Long Bugt. The NW part of Nansen Land between Kap Payer and Kap Mohn, which lies about 22 M further NE, is very indented, with 3 islands close to the coast.
Distant Cape is 1.5 M NE of Kap Payer and it is the furthest N point of the highlands that form the E side of the outer part of Mascart Inlet.
Jewell Fjord lies E of Distant Cape.
Gardiner Fjord lies NE of Jewell Fjord. There is an island on both sides of Gardiner Fjord, and in the innermost part the fjord turns into a glacier.
Kap Ramsay lies ENE of Distant Cape and is the W point of the island at the SW mouth of Gardiner Fjord. The island rises to a height of height of 825 m.
Kap Wijkander it the NW point of the island that lies on the NE side of the mouth of Gardiner Fjord.
Kap Mohn is the point furthest N on the small island that lies close E of the NE part of the peninsula, about 13 M ENE of Kap Ramsay.

11.2.1.7.26 De Long Bugt

lies between Nansen Land og Hazen Land. The bay is at the mouth about 11 M wide between Kap Mohn og Kap Hommock on the NW part of Hazen Land. From here extends 10 M SE, where it branches into three sounds. The sounds are named from W Brainard Sund, Qajuuttaq Sund and Wild Sund. The sounds joins together in the innermost part of De Long Bugt in a sound named Dilemmasund.
In the mouth of the fjord lies Luigi Amadeo Ø, Mary Murray Ø and further inland lies Hanne Ø and Inge Ø. The larger islands Borup Ø og MacMillan Ø lies just S of Hanne Ø og Inge Ø. Borup Ø is the furthest W of the islands.

11.2.1.7.27 Luigi Amadeo Ø

is 300 m high and lies approximately in the middle of the mouth of De Long Bugt, forming a channel on both sides of the island. The W channel is 4 M wide and the E channel is 3 M wide and is called Wild Sund.
Kap Hoffmeyer is the point furthest W on Luigi Amadeo Ø, and Kap Neumayer is the point furthest E.

11.2.1.7.28 Mary Murray Ø

is a small island in the N part of Wild Sund.

11.2.1.7.29 Hanne Ø

lies 2 M S of Luigi Amadeo Ø. The island is about 3 M long in an E-W direction and has a

width of 1.5 M. The highest point is 780 m.

11.2.1.7.30 Inge Ø
lies 2 M E of Hanne Ø.

11.2.1.7.31 Th. Thomsen Fjord
has its mouth approximately 7 M SSE of Cape Mohn and is a small inlet that extends about 2 M into Nansen Land in a SSW-ly direction.

11.2.1.7.32 Adolf Jensen Fjord
has its mouth around 3 M SE of MacMillan Ø and extends approximately 12 M SSE and then turns into Tjalfe Gletscher.

11.2.1.7.33 O.B. Bøggild Fjord
has its mouth around 3 M E of MacMillan Ø and extends approximately 15 M SE and then approximately 6 M E. From here, a valley approximately 8 M long leads into Frederick E. Hyde Fjord, a large fjord that penetrates into the NE part of Greenland.

11.2.1.7.34 Kap Hommock
is the point furthest N on Hazen Land. From here, the coast continues 50 M ENE to Kap Morris Jesup. Many promontories, separated by fjords, jut out from this irregular coastline. The mountains in this area are higher and steeper than the mountains on Nansen Land. Roosevelt Fjelde S of Kap Morris Jesup rises to a height of about 2000 m. The mountains along the outer coastline are more or less hidden by glaciers that meet over the peaks, and a short distance from the coast only the highest peaks protrude through the ice.

11.2.1.7.35 Weyprecht Sund
is located between Kap Hommock and the NW part of Lockwood Ø. From its mouth, the fjord extends about 15 M SSE to the mouth of Harder Fjord, which in turn extends 10 M E, where it turns into a glacier, Dreng Bræ.

11.2.1.7.36 Lockwood Ø
lies between Weyprecht Sund and Conger Sund, and rises to a height of 760 m.
Kap Christiansen is the point furthest N on Lockwood Ø. A stone cairn built by Lockwood in 1882 stands near the point and was visited by Peary in 1900 and by Lauge Koch in 1921.

11.2.1.7.37 Conger Sund
is located between Kap Christiansen and Kap Kane, which is located 4 M further NE. The fjord first extends S and then SW around Lockwood Ø, and then turns into Weyprecht Sund.

11.2.1.7.38 Hunt Fjord
lies between Kap Kane and a point 6 M further ENE near Kap Washington. The fjord extends 6 M SE and then turns into Thomas Gletscher. The promontories on both sides of Hunt Fjord are covered by ice, and only individual peaks protrude, but the points on both sides of the

mouth of the fjord are ice-free. Kap Kane rises to a height of 650 m, but a short distance inside the inner part of the fjord, the land rises to a height of 1550 m.

11.2.1.7.39 Kap Washington

is the point furthest N on the peninsula that lies between Hunt Fjord and Benedict Fjord. The land rises rapidly to a height of about 1000 m and further inland to 1550 m. This point was observed by Lockwood in 1882, but was first reached by Peary in May 1900. Peary could see Kap Morris Jesup from here and was thus aware that Kap Washington was not the point furthest N in Greenland. The ice at Kap Washington was very broken up.

11.2.1.7.40 Benedict Fjord

lies between Kap Washington and Kap Cannon, which is the NW point of Gertrud Rask Land. The fjord extends SE for a distance of 8 M and here its entire innermost, SE part turns into Harmsworth Gletscher. At the innermost, SW part of the fjord, a small fjord arm extends 3 M S and ends in a smaller glacier.

11.2.1.7.41 Gertrud Rask Land

is a protruding area of land that lies between Benedict Fjord and an unnamed fjord. Its point furthest NW is called Kap Cannon. Most of the land is filled with glacier ice, but numerous mountain peaks protrude from the ice, of which the one furthest N rises to a height of approximately 700 m. The land borders Issittup Imaa (Arktiske Hav) on a stretch of 6 M, and there are 4 distinct glaciers here, three of which reach the sea. The glacier located immediately E of Kap Cannon is the only glacier on the N coast of Peary Land that produces icebergs.

11.2.1.7.42 Kap Christian IV

ENE of Kap Cannon, is the point furthest N point on a small promontory that forms the W side of an unnamed fjord.

11.2.1.7.43 Kap Hans Egede

lies 3 M ESE of Kap Christian IV and forms the W side of the mouth of Sands Fjord.

11.2.1.7.44 Sands Fjord

lies between Kap Hans Egede and a point 2 M further E. The fjord extends 4 M S and then turns into MacMillan Gletscher. The mountains on both sides of the fjord rise to heights of 690-800 m. From that point that indicates the E side of the mouth of the Sands Fjord, the coast continues for a distance of 7 M evenly ENE as far as the small point that forms Kap Morris Jesup.

11.2.1.7.45 Kap Morris Jesup 83º39´N 033º23´W

was discovered and named by Peary. A river flows through a small delta out near the point. Peary visited Kap Morris Jesup on 13, 17 and 26 May 1900 and it was reported that 10 musk oxen were shot E of Kap Morris Jesup, but when Lauge Koch visited the area in May 1921, only hares and a few wolves were observed in the area.
In May 1900, Peary made some trips out onto the ice from his camp on the sea ice N of Kap

Morris Jesup. The last of these trips was made in clear weather and clear visibility, and hummocking was observed that was up to 16 m high, with fissures and narrow passages that were covered in snow. The edge of the pack ice could be seen further out and was apparently breaking up, since there was clear water sky, indicating open channels. A few days later Peary found open water a few nautical miles from shore E of Kap Morris Jesup.
Tides: Refer to www.dmi.dk/groenland/hav/tidevandstabeller-groenland/

11.3 Depths

From the soundings taken in Nares Stræde, it seems that the depths are approximately as indicated below:

11.3.1 Smith Sund

The depths of the S part are from 550-750 m, and in the N part from 275-550 m.

11.3.2 Ikersuaq (Kane Bassin)

The E part has not been surveyed, but the seabed in the W part seems to be very regular, with depths from 185-250 m, but thus considerably smaller depths than in Smith Sund and Kennedy Kanal.

11.3.3 Kennedy Kanal

The depths on the W side of the waters vary from 200-540 m and thus show deep water all the way. The E side has not been surveyed, but from the few soundings taken, it seems that the water is shallower. The smallest depth found here is 139 m.

11.3.4 Hall Bassin

The waters are deep everywhere and the smallest depth measured is 300 m. The largest is 860 m.

11.3.5 Robeson Kanal

Soundings from Peary's expedition across the narrowest point shows depths between 540 and 750 m approximately 1.5 M from the coasts. In the N part of the waters, on a line between Repulse Havn and Cape Union on Ellesmere Island, depths were found of 440, 480 and 470 m at a distance of 3.8 and 12 M from Cape Union.

11.4 Ice conditions, currents, tides and navigation

Large floes of polar ice (500-2000 m in diameter) drift S in Nares Stræde from Issittup Imaa (Arktiske Hav). From the wide funnel between Northwest Greenland and Ellesmere Island, the ice is carried into the narrow passage in Robeson Kanal and moves rapidly here in a S direction. In summer and autumn, the ice drift from Issittup Imaa (Arktiske Hav) is relatively

constant, except for brief and rare periods when a fresh SW wind in connection with ebb tide current forms a range of open water or spread drift ice N from the N entrance to the channel. When strong N winds then occur together with the tidal current at flood tide, the ice is carried through Robeson Kanal with great force.
On its way S through the approximately 300 M long Nares Stræde, the ice flow is compressed into a narrow belt, which, except for the passage through Ikersuaq (Kane Bassin), has a width of 10-25 M. In Ikersuaq (Kane Bassin), the N and S currents meet each other, and the ice drift slackens here and the ice is dispersed. Large masses of ice can gather in this basin until conditions allow it to drift out into Avannaata Imaa (Baffin Bugt) through the narrow Smith Sund.
On the E side of Ellesmere Island, there may be many icebergs in the fjords on the E coast from Rawlings Bay to Princess Marie Bay, and from Baird Inlet to Cape Norton Shaw.
Ice conditions vary greatly from year to year, but ice conditions are best in August.
Because of the rapid drift of the ice, which is caused by wind and current, it is not possible to predict the ice conditions a ship will encounter.
In some years, it is not possible to navigate the area even with ice-strengthened ships.
Experience has shown that it is best to stay close to the coast of Greenland, where the changing tides create open channels between the coast and the drift ice out in the waters. Follow these channels during the ebb tide current and seek shelter from the ice during the flood tide current.
Drift ice that is pressed N in a particular part of the pack ice route, usually spreads and forms channels when the tidal current flows N, unless the wind is strong enough to exert pressure on the ice.
When a ship is navigating in ice of this type, which is found in Hall Bassin and further N, and it finds itself closed in because of the channels closing, it is usually advisable to remain in place until the tidal current flowing N has cancelled out the prevailing S current and channels begin to form in the broken ice and along the walls of the ridge ice.
The mountains on both sides of Nares Stræde have such a structure that they provide good radar response.
Late in the summer, tough new ice formation can be found in Nares Stræde between the drift ice floes, and to avoid being frozen in for the winter at this time of the year, do not remain in loose ice for a night or seek shelter in deep bays.

11.4.1 Smith Sund

In the winter, the ice in the N and middle part of Smith Sund freezes together from coast to coast, while the S part, which is part of the ”North Water”, often remains open both in summer and winter. The S border of this winter ice is usually from Iita (Etah) and across to the coast of Ellesmere Island, and the ice here has been used by Inuit to travel by dog sled to Ellesmere Island on hunting expeditions.
Usually, however, the ice is safer further N, where the current is not so strong. The break-up of the winter ice usually does not occur until June or July, because the ice layer is strong and can withstand wear from the current. As previously mentioned, the ice conditions in Smith Sund can vary greatly and under the influence of currents and wind, they can change completely in a matter of a few hours.
The least amount of ice at Iita (Etah) usually occurs from late July to early September, at

which time new ice formation begins.

11.4.2 Ikersuaq (Kane Bassin)

Within the relatively wide area in Ikersuaq (Kane Bassin), large masses of thick polar ice gather after it is carried there from Issittup Imaa (Arktiske Hav) through Robeson Kanal and Kennedy Kanal. In the winter, the basin freezes over from coast to coast, as newly formed winter ice makes the polar ice masses freeze together, but under the influence of the wind and current, the ice is broken up occasionally and ridges are formed by ice blocks being pushed up onto the existing ice and new ice is then formed by the drift ice floes freezing together again. Apparently, the largest break-up of ice in Ikersuaq (Kane Bassin) occurs in August, but it has been observed even in August that the drift ice has remained almost unbroken over the S part of Ikersuaq (Kane Bassin).
In Ikersuaq (Kane Bassin), the flood tide current from N meets the flood tide current from S, and it seems that the currents meet near Kap Fraser, 79º43'N 071º30'W, where severe hummocking occurs.

11.4.2.1 The ice-foot and its formation

In several locations from Nuussuaq (Kap Ingersoll) to Kap Agassiz an ice-foot has formed that is somewhat higher than the moving mass of drift ice.
This ice-foot is a safe and smooth sledge route, and at these N latitudes it is always under formation and consists of a broad platform of ice that clings to the cliffs on the coast. It follows the curvature of the bays and the rivers' indentations, and it changes with the seasons, but never disappears completely. The ice-foot forms in places with a sizeable tidal range (the difference between the water level at high and low water). In late September, the cold is so fierce that when the level of the water falls, the coast is covered by a crust of ice up to the high water mark, because a thin layer of ice is formed and deposited on top of the already existing layers, every time the water level falls.
In this way, the surface of the ice-foot shows the year's highest water level, and it reaches its full thickness in November when, seen from the sea, it resembles an ice wall that follows the contours of the coast.
The ice foot is relatively narrow where the coast consists of steep mountains, because in these places it hangs onto the cliff sides without support from below. Where the coast is flat, however, the seabed supports the ice-foot and it can be very wide in these places. It reaches its greatest width in Ikersuaq (Kane Bassin), where it may have a width of up to 100 m.

11.4.3 Kennedy Kanal

Because of the large tidal range, which in Kennedy Kanal can be up to 3 m, the waters freeze late and open early. There is usually open water in the S part of the waters until around the end of December. Floes of polar ice are always on the way S, and some of them gather at the edge of the open water and are then pushed up on the existing ice, forming high and uneven areas.
In mid-August 2002, the ice conditions were relatively favourable and the Danish naval ship "Vædderen" conducted a relatively unproblematic navigation to Tartupaluk (Hans Ø) in Kennedy

Kanal. The N side of the island was free of ice, and landing was possible.
The S side of the island had severe instances of polar ice and winter ice.
The relatively favourable ice conditions that year meant that the ship could continue its voyage all the way to Joe Ø, 81º15'N 063º32'W, in Hall Bassin without special difficulties due to ice.

11.4.4 Hall Bassin

The ice conditions in Hall Bassin depend greatly on the direction and strength of the wind, and they can change from one day to the next. The end of August and early September is considered the best time for transit with icebreakers, but some years the ice does not break up until mid-July and then begins to form again a month later. Strong currents in the waters on the W side of Kap Baird and Distant Cape prevent all ice formation here until late in the year, and causes it to break up early in the spring. In the E part of Hall Bassin, the prevailing ice drift is S, but in 1959 an icebreaker that was lying still reported that it was drifting N as far as the latitude of Kap Lupton, from where it began to drift S.

11.4.5 Robeson Kanal

During the summer and autumn, the ice in Robeson Kanal is under great pressure because of the strong S current and the increased large masses of ice that drift down into the N part of Robeson Kanal from Issittup Imaa (Arktiske Hav).
The ice pressure is greatest in the narrowest part of the waters, where Polaris Forland protrudes out into the waters like a wedge and meets the drifting ice floes. Otherwise, the conditions are highly variable, and in certain periods in August it can be almost ice-free, but a NW storm will once again fill the waters with ice from Imartaq Lincoln (Lincoln Hav).
The waters have also been observed almost ice-free for short periods as late as mid-October and then all the way to Repulse Havn, while it was tightly packed with drift ice in September and early October.
In April 1921, Lauge Koch found that Robeson Kanal was covered with smooth ice, which had apparently formed during the winter, and the thick polar ice was not encountered until the N border of Robeson Kanal, where it lay in large fields with few hummocks.

11.4.6 Imartaq Lincoln (Lincoln Hav)

has fast ice all year round, but currents and winds can cause cracks to form in the ice and create open areas that quickly freeze over again. In the warmest summer months, open channels can form along the NW and N coast of Greenland. Large glacial lakes can also form on the sea ice that look like open water.

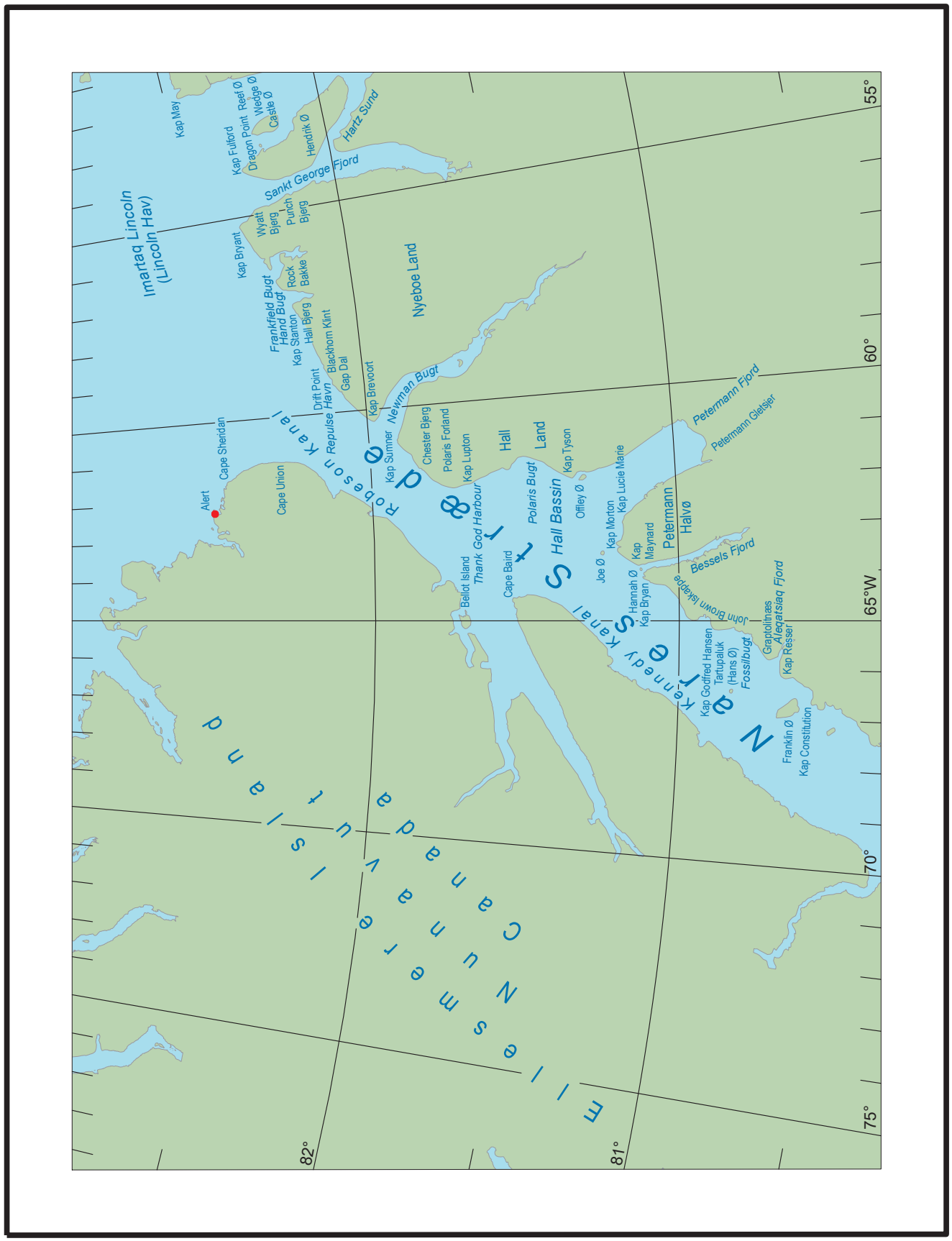


Fig. 11.2 – Map 2
Franklin Ø – Kap Bryant

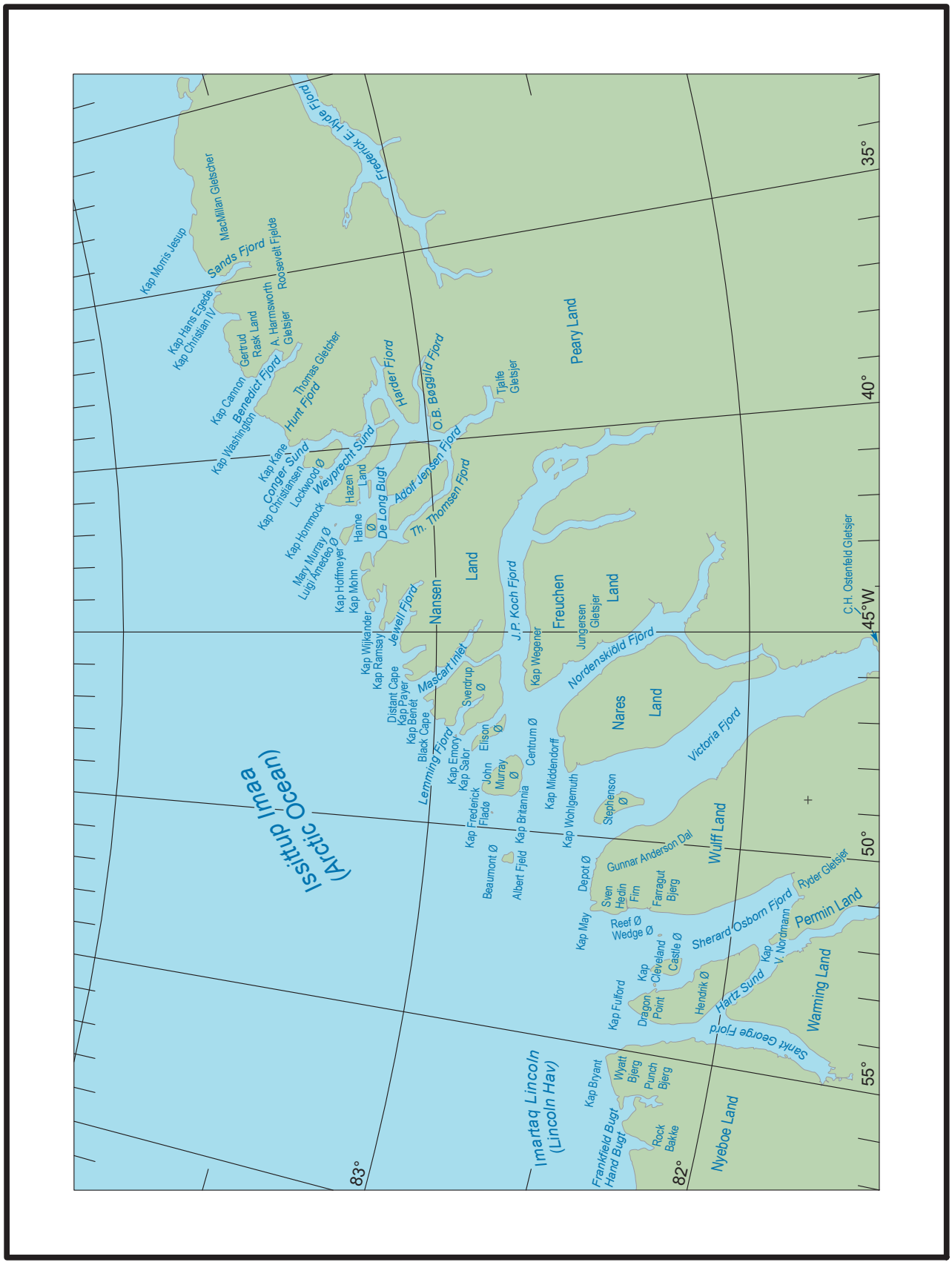


Fig. 11.3 – Map 3
Kap Bryant – Kap Morris Jesup

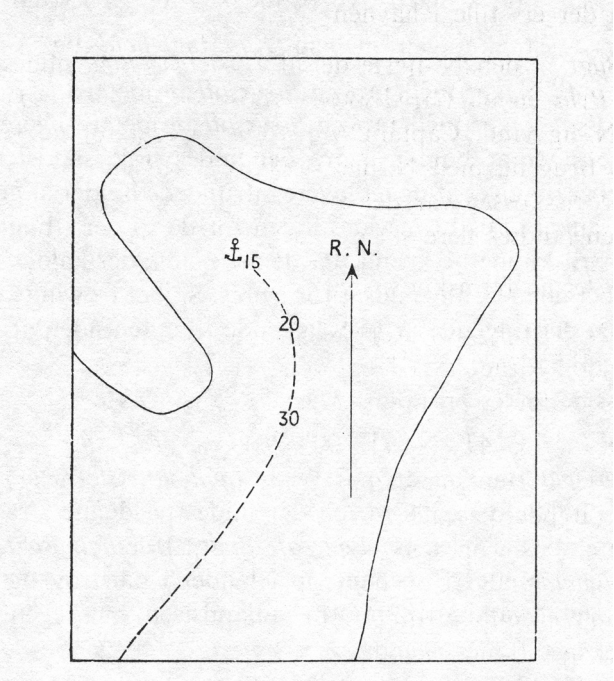


Fig. 11.4 – Sketch of Refuge Harbour.

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