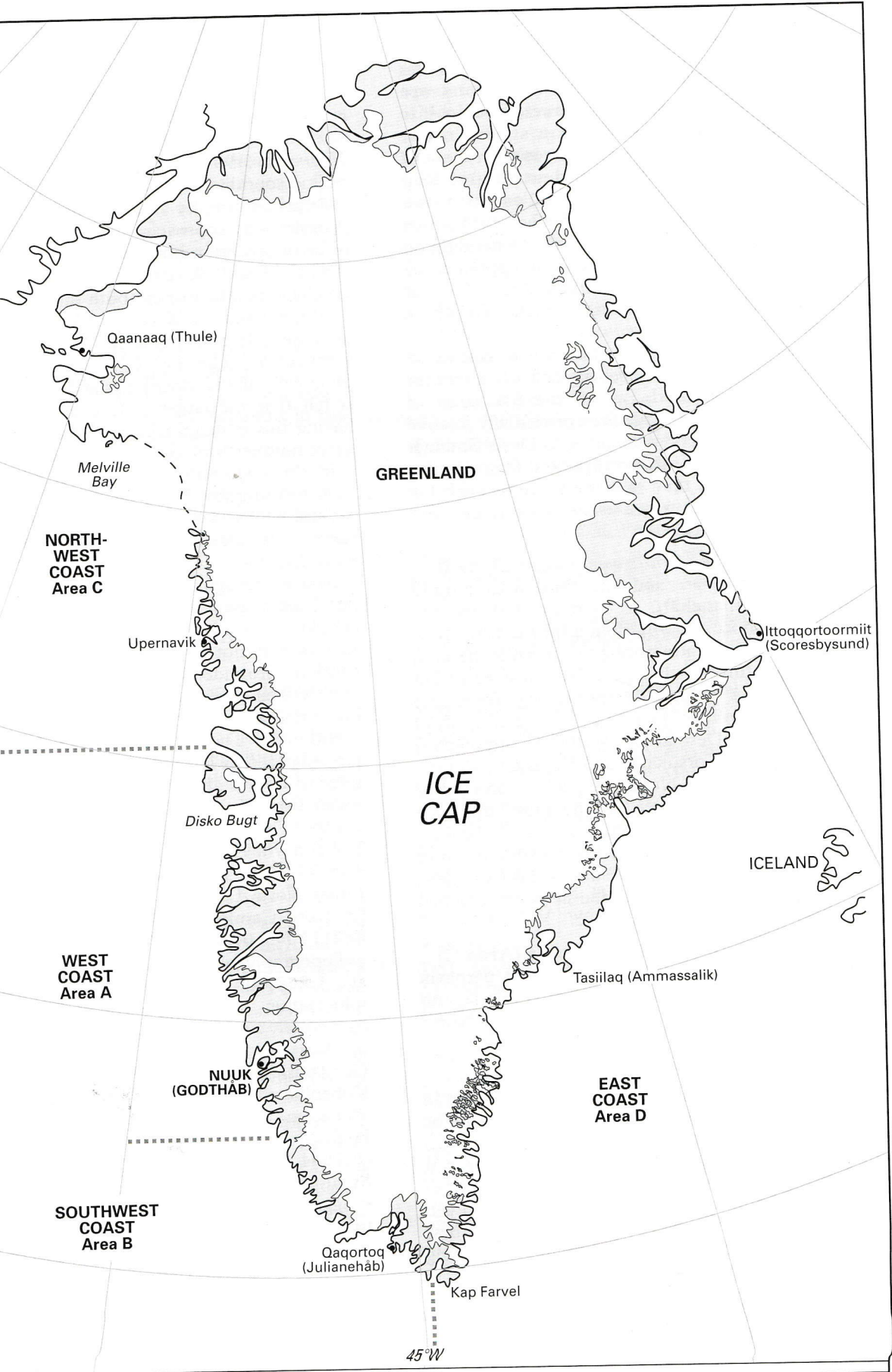


CRUISING INFORMATION



throughout Greenland; but, of course, any items flown in (*flyfresh*) like lettuce and tomatoes are expensive. Wines, beers and spirits are readily available but are heavily taxed.

There is a Brættet (open market) in nearly every harbour, where local fishermen and hunters sell fresh fish, seal and whale meat as well as reindeer and musk ox, depending on locality and season. *Eqaluq* (Arctic char), either fresh or smoked, are excellent and sometimes salmon are also available.

Diesel (*gasolie*), petrol (*benzin*) and kerosene (*petroleum*) are available at reasonable prices. Most large settlements have a small boat jetty with delivery by hose; but in the smaller places, cans have to be filled from 40-gallon drums.

BP/Kosangas (propane) cans are obtainable everywhere, but these have to be shipped in from Denmark as there is no filling plant in Greenland (1995).

Water can usually be obtained from a hose but in the smaller settlements may be a bit dubious. Better by far to fill up from a clear mountain stream, or use a dip net to collect chunks of glacier ice to melt in a bucket.

Repairs

Most large settlements have boat building and repair facilities, but it would be wise to take a full set of engine spares. GRP (fibreglass) is now widely used and major repairs can be carried out in Qaqortoq, Nuuk and Aasiaat. Since most fishing boats have sophisticated electronics – GPS, radar, VHF and echo sounders – there should be no difficulty in getting repairs carried out in the bigger settlements. There are no sail-makers but repairs may be possible in Nuuk.

Money

Currency is the Danish Krone. There are banks in all the major harbours and most have ATMs where cards can be used to draw cash. An increasing number of shops accept Visa, etc. but you may have to key in your PIN number.

Accommodation and restaurants

There are hotels in all the bigger towns, some of a high standard, but correspondingly expensive.

There are Seamen's Homes (Sømandshjemmet) in Qaqortoq, Nuuk, Maniitsoq, Sisimiut and Aasiaat, which are excellent, well run and spotless – a good place for a shower and an inexpensive meal; they also have accommodation. They are open to anyone and, because they do not serve alcohol, the cafeterias are popular with local families.

Mosquitoes

Mosquitoes can be a pest, but are not usually a problem, except early in the season. Anchoring off will help. Mosquito repellent and nets are worth taking, as well as smoke coils.

Cruising information

The west coast of Greenland between 63°N and 69°N is virtually clear of sea ice as early as June. The days are long and the weather normally good. Although by September and October ice cover is at its minimum, deteriorating weather and longer nights make this an unfavourable time for yachtsmen and, on balance, July and August are the best months for cruising.

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Cruising Areas and approach

Greenland may be divided into four main areas (A-D) as follows:

Area A – West Coast

63°N–70°N

Qeqertarsuatsiaq (Fiskenæsset) to Disko Bay

This area is accessible to shipping for most of the year and to yachts early in the season, although somewhat later in Disko Bay.

Area B – Southwest Coast

60°N–63°N

Narsaq Kujalleq (Frederiksdal) to just south of Qeqertarsuatsiaq (Fiskenæsset)

This is the area mainly affected by off-lying polar pack ice (*storis*) coming around Kap Farvel, making access difficult and sometimes hazardous until late July.

Area C – Northwest Coast

70°N–78°N

Disko to Smith Sound

This area opens progressively northwards from Disko in July, but drift ice nearly always causes problems in Melville Bay.

Areas A, B and C are covered by *NP12*.

Area D – East Coast

Including Ikerassuaq (Prins Christians Sund)

Heavy polar pack ice (*storis*) makes access to this coast hazardous, if not impossible, until late in the season in most years.

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Approaches to the West Coast (Area A)

If aiming to cruise the west coast of Greenland in June or July from the direction of Iceland and

Northern Europe, a course should be laid to pass to the south of latitude 58°30'N until on the meridian of Kap Farvel (Cape Farewell) (i.e. at least 75 miles to the south). **Severe weather conditions are often experienced off Kap Farvel, and in late June 2000 a yacht was lost in a storm in Lat 58°32'N. For this reason, if there is a forecast of strong winds it would be prudent to give Kap Farvel a berth of at least 120 miles. In a bad year storms can also extend as far as 120M south of Kap Farvel (see NP11 and 12).** Depending on the ice situation it may be possible to approach the West Coast at Paamiut (Frederikshåb) in 62°N; but if not, it is probably better to make for Nuuk (Godthåb), 64°N.

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Approaches to the Northwest Coast (Area C)

There should be no problem in sailing to Upernavik by mid to late July. Progress northwards will depend on the ice situation at the time. (See Area C North of Disko, below.)

Approaches to the East Coast (Area D)

The normal approach is from one of the harbours in Iceland, where up-to-date ice information can be obtained and departure delayed, if necessary, until conditions have improved. In an exceptional year, it may be possible to approach the coast south of Tasiilaq (Ammassalik) in early July or even sometimes in June; however, August offers the best chance in an average year. The difficulty of cruising in this area should not be underestimated and, in some years, heavy polar pack ice bars access to the coast throughout the summer, except to ice-strengthened vessels. Icebergs and bergy bits produced by the numerous tide-water glaciers are always present.

Pilots and charts

In addition to the British Admiralty pilots NP11 and NP12, which are by far the best source for both ice and pilotage information, *Den Danske Lods Vols* 1 and 2 would really only be of use to Danish readers but have some useful sketch plans. *Den Grønlands Havnelods* (1990) contains excellent harbour plans but no soundings are shown and it is not essential.

British Admiralty and US charts can be used for planning and approach, but are at too small a scale to be of use for inshore pilotage.

The Danish Hydrographic Service publishes excellent charts covering both the E and W coast at 1:400,000 and the W coast at 1:80,000 as far north as Disko. It also publishes larger-scale charts of some areas. The 1:80,000 series is adequate for practically all the inner leads and harbours. Where it is felt that the larger-scale chart would be worthwhile this is mentioned in the text, otherwise the sheet number is placed within brackets.

In the text, numbers are prefixed with BA for British Admiralty, D for Danish.

Danish charts are well produced and clear but surveys are not complete and GPS should be used with discretion. In many areas, soundings are not shown on recognised routes. Areas left blank have not been surveyed and areas marked *urent* (found) should be avoided. Not all rocks are marked and may or may not cover. The only rule is to exercise caution. Grounded bergs or ice floes indicate shoals and by their size give a measure of the depth - very big bergs can be aground in 120m.

Although Danish charts can be bought in Greenland, only local coverage is normally held. It is safer to obtain all charts needed before departure either from the chart agents, Iver C Weilbach and Co a/s, Toldbodgade 35, Postboks 1560, DK1250 København, Denmark ☎ +45 33 13 59 27 or Fax +45 33 93 59 27 or in the United Kingdom from Imray Norie Laurie & Wilson Ltd, Wych House, St Ives, Cambridgeshire PE27 5BT ☎ 01480 462114 Fax 01480 496109 www.imray.com

Topographical maps covering the coastal region at 1:250,000 provide much supplementary information, especially north of Disko and more particularly on the East Coast. They are published by Kort og Matrikelstyrelsen (formerly Danmarks Geodætisk Institut), Rentemestervej 8, DK-2400 København NV ☎ +45 35 87 53 10 Fax +45 35 87 50 68, and may be ordered from the Map Shop, 1 High Street, Upton-on-Severn WR8 0HJ ☎ +44 (0)1684 593146 Fax +44 (0)1684 594559 or from Stanfords in London.

Saga Maps produces a series using the 1:250,000 topographical maps as a basis, but on convenient sheet lines. 18 sheets cover the west coast from Kap Farvel to Thule and sheets 19 and 20 cover Tasiilaq (Ammassalik) and Ittoqqortoormiit (Scoresbysund). They are widely available in Greenland or in the UK from The Map Shop, Upton-upon-Severn or from Stanfords in London.

at one time, sovereignty was in dispute.

There is a protected anchorage between Isbjørneø and Mellemø.

Approach

There are no soundings shown on the Danish Chart but, in 1987, the islands were approached from the E to a point 4M NE of Bordø, course was then altered to the SW using Wordie's sketch. The magnetic compass is too unreliable for bearings to be of any significance, but a course leaving Bordø (which appears to be steep-to) 0.2M to port and aiming at the southern tip of Mellemø leads in depths of more than 80m.

When the sound between Isbjørneø and Mellemø is clearly visible, enter through the channel 0.1M wide between the southern tip of Isbjørneø and a rocky islet, which is 0.2M S and where a least depth of 6m was found. Alternatively leave the islet to starboard, passing 0.1M to the S of the islet, which is not clean.

Anchorage

Anchorage was found in 4m sand and weed close into Isbjørneø. Protection can be found from most wind directions, either further into the sound or under the SE flank of Mellemø. Due to the surrounding reefs it is unlikely that ice of any size would penetrate this anchorage, although sometimes there is a fair amount of small ice. However, this area is normally fairly clear of ice, being in the 'North Water'.

AREA D

The east coast including Ikerasassuaq (Prins Christian Sund)

In most years, *storis* (heavy polar pack ice) makes access to the East Coast of Greenland difficult, if not impossible, until late in the season. In some years, the coast south of 65°N may clear early; **however, icebergs are always present and most of the fjords have active tide-water glaciers which produce a lot of icebergs and bergy bits.** In 2003, the *storis* cleared almost completely from Cap Farvel to Scoresby Sund and beyond. In 2002, while it cleared from the coast north of 68°N, it remained until late in the season around the Ammassalik area and south around Cap Farvel, causing problems in the approach to Qaqortoq. With the reported thinning of the polar ice sheet from which the *storis* is derived, it seems possible that this trend will continue. However, there may well be years when *storis* prevents access to the East Coast, until late in the season.

It is very important to obtain the latest ice information, before making an approach.

There are now no permanent settlements for

300M between Ikerasassuaq (Prins Christian Sund) and Tasiilaq (Ammassalik), but there are some good anchorages which are suitable for yachts if ice conditions permit.

With the exception of the areas around Tasiilaq and Ittoqqortoormiit, the hydrographic charts are at 1:400,000, the topography is somewhat sketchy and there are very few soundings inside the 3M limit. The 1:250,000 topographical maps show much more detail and are almost essential for navigating close to the shore.

Surveys are not complete and GPS should be used with care. Charted positions in some areas differ from GPS (WGS 84) by as much as 4' in longitude – equivalent to 2M – but this is not consistent. The topographical maps generally appear to be more consistent within a given area. Charted positions of anchorages are shown to the nearest minute, with the GPS (WGS 84) position recorded shown in parentheses, where helpful.

This area is covered by the *Arctic Pilot Vol II (NP 11)* and reference is made to relevant paragraphs in the 8th Edition 1996.

Ikerasassuaq (Prins Christian Sund) and vicinity

60°05'N 43°10'W (2001)

Chart D 1103

General

Ikerasassuaq is a deep, relatively narrow and very spectacular sound which joins Ilua and Torsukattak to provide an east-west passage N of Kap Farvel. It is one of the world's most magnificent passages. Mountains rise between 1200 and 1800m on either side and several glaciers reach down to sea level to add their bergs and bergy bits to the pack ice which blocks it for much of the year. By August, the pack ice has normally cleared; but although there was a relatively unobstructed passage in early August 1996, there was still a good deal of ice in the sound at the end of August 1976 and again in 2002. If there is any ice in the E entrance, the sound itself will usually be blocked. Winds are accentuated by the funnelling effect of the narrow passage and tides are strong in the Qornoq narrows. Do not, however, miss the opportunity of visiting Ikerasassuaq, if conditions are at all favourable.

Approach from the east

The E approach brings one in to the weather station at Ikerasassuaq, where there is a sectored light, an Aeromarine beacon, a Racon and a MF and VHF transmitter (Ch 01) controlled by Qaqortoq Radio. Heavy *storis*, sometimes more than 50M offshore, may make this approach hazardous. Study the most recent Ice Charts and seek advice from Ice Central Narsarsuaq before making the attempt. Ice Central may be contacted through Qaqortoq Radio on MF or directly by phone using Satcom (see sections on Sea Ice and Ice information).

Approach from the west

Torsukattak is entered from the W near Narsaq Kujalleq (Frederiksdal) (59°59'N 44°40'W) and is fairly straightforward. From Nanortalik, use either the main passage through Kitsissut Tunuat or the inner lead route N of Nardlussoq. The latter may be useful under certain conditions of wind or ice.

G.76 Aappilattoq (Prins Christian Sund)

60°09'N 44°17'W (2001)

Chart D 1103

General

A beautiful natural harbour in a cleft in the rock, with excellent protection. The entrance is about 20m wide. Small fishing village, with a population of about 170.

Anchorage

There is little room in the harbour, but yachts up to 20m may lie, for a short while, alongside the small landing stage at the fish factory. It is possible for a yacht drawing 1.8m to enter the shallow bay to the W of the landing stage, with care. Anchor with lines to both shores, fore and aft, as there are below-water rocks and no room to swing.

Facilities

Small store with most essentials. Post office, telephone, fax and internet services. Fuel available in limited quantities. Helicopter service to Narsarsuaq as well as regular ferry to Nanortalik. Note that there are no facilities for 300 miles on the East Coast between Prins Christian Sund and the Ammassalik area.

Anchorage in Torssuqataq & Prins Christian Sund

Charts D 2100, 1103

Due to submarine cables, anchoring is prohibited in the sound except where indicated on the chart. Those mentioned in the Admiralty *Pilot* (NP 11) are, in general, unsuitable for yachts.

The following have been examined.

G.76a Stordalens Havn

60°09'N 44°27'W (1998)

This is deep and steep-to. It is necessary to anchor in 40m to be clear of the shore; however, holding is good once the anchor has dug in. Liable to incursion of ice under certain conditions, and therefore not recommended.

G.76b Kangerdluk

60°13'N 44°16'W (1998)

If there is much ice in the Nup Kangerdlua this may be carried into the fjord; however, under suitable conditions, anchorage with good holding in sand may be found on the N shore, near the head.

G.76c Kangikitsaq

60°19'N 44°15'W (1998)

This fjord extends 6.5M NNW from the sea and gives access to excellent climbing and walking amongst magnificent scenery; however headnets and repellants are advisable.

According to local information this fjord is frequently free of ice and appears to enjoy some protection, when winds are strong elsewhere. Anchor at the head, in the NW corner, in 20m – good holding in sand. Trout may be caught in the lakes 2–3M up the Tupqusat valley.

G.77 Anchorages S of Prins Christian Sund**G.77a Paakitsuarsuaq**

59°59'N 44°26'W (1999)

This is a spectacular and almost landlocked bay 3M E of Torssuqataq providing a useful safe anchorage. Approaching from Torssuqataq, pass to the N of Sugdlat. The channel between Pamiugdluk and the islets to the NE of Sugdlaq is clean and carries 5m. The entrance to the bay is partially blocked by underwater rocks extending as far as mid-channel from the N side. A course about 25m N of the islet on the S side, carries 20m. Good anchorage can be found in the second bay on the NW side in 10–15m, mud with some weed. It is unlikely that any ice would intrude.

There are a number of other possible anchorages in the area, of which the following have been examined.

G.77b Kangerdlutsiaq

59°59'N 43°52'W (2001)

Anchor at the head of the bay, near an old Norse site. Holding is good in 6m, sand over mud on an alluvial fan. Large ice grounds on the shallows.

G.77c Tasiussaq (Christian IV Ø)

60°05'N 43°48'W (2001)

The entrance is very narrow and steep-to. The fjord provides excellent shelter and no ice is likely to intrude. Good anchorage can be found at the N end on a steadily shelving alluvial fan.

G.77d Tangnera Fjord

60°04'N 43°42'W (2001)

A narrow and spectacular fjord that almost separates Christian IV Ø from Sangmissoq. Anchor at the head with lines ashore. On the other side of the isthmus a likely anchorage was observed 1M to the E in Tunua at the outlet of a lake.

and also at Kangilinnuit (Grønødal) in the south. Walrus and narwhals and other seals and whales live offshore and the Davis Strait is an important feeding ground for the Atlantic salmon. In the air, the gyrfalcon, raven and white-tailed eagle are resident, although many other birds breed here – snow bunting, wheatears, geese and the arctic tern, which makes an annual round trip of 35,000km to the Antarctic.

History

Icelandic sagas attribute the discovery of Greenland in 877 to Gunnbjörn, an Icelander, but it is more reliably known to have been explored by Eirik the Red (Eiríkur Rauðe) in 982 while he was exiled from Iceland. In 986, he brought an expedition of colonists from Iceland to settle the west coast and, although only half reached their destination, settlements were successfully established near Julianehåb (Qaqortoq) and Godthåb (Nuuk). The colony flourished and was reinforced from Iceland. Leif the Lucky (Leif Eiríksson), is credited with the introduction of Christianity in AD 1000, at the same time as it was adopted in Iceland.

In 1261 Greenland recognised the King of Norway as Sovereign, chiefly to ensure continued support and supplies, and sovereignty was transferred to Denmark when the two kingdoms merged in 1381. However, the climate deteriorated, growing conditions worsened and Denmark, whose trade was largely handled by German factors concerned with the Baltic, lost interest and the colony declined.

During the 15th century communication between mainland Europe and Greenland stopped, and by about 1500 the Norse element in Greenland had become extinct. Throughout, the Greenlanders appear to have disputed the presence of the foreigners and attacked settlements on more than one occasion. An English expedition led by John Davis in 1585 found only Greenlanders. The Greenlanders were left alone until 1721 when a Norwegian missionary, Hans Egede, supported by Bergen ship owners and Frederick the Fourth of Denmark, landed at Godthåb; trade followed and the development of the west coast began. Both missionary and commercial activities were soon controlled from Copenhagen and when, in 1814, the Danish king renounced the Norwegian crown, the west coast of Greenland as well as Iceland and Faroe were specifically retained by Denmark.

The Danish monopoly, introduced in 1774 to develop resources without their being exploited at the expense of the Greenlanders, lasted until 1951. Foreigners were only allowed access for specific and limited purposes – for instance, anthropological, topographical or meteorological research. But pressures built up. The Danish claim to the whole of Greenland led to a protest from Norway, whose whalers frequented the east coast; this was settled by the International Court in favour of the Danes in 1933.

The importance of Greenland as a factor in air communications between Europe and America became clearer. After the German invasion of Denmark in 1940 Greenland was declared by the US to be a protectorate. A little-known series of operations took place between 1940 and 1944 when the Germans sent a series of parties to East Greenland to provide weather information.

After the war, and following the conclusions of a Committee of Greenlanders and Danes which reviewed ways and means of forwarding Greenland's interests, the Royal Greenland Trading Company's monopoly was abolished in 1951, though it was allowed to continue its activities in competition with others. The US base at Thule was established in that year.

In 1953 colonial status was abolished and Greenland was integrated into Denmark. There followed a devolution of authority from Copenhagen to Nuuk and, following a referendum in January 1979, home rule was introduced, leading to full internal self-government in January 1981. Denmark remains responsible for foreign affairs and defence; however, Greenland is not a member of the European Union.

Climate

The summer climate is influenced by the arctic high-pressure system (average 1025hPa) and, on the W coast, it is usually dry and sunny. On land the air temperature can be relatively warm, with a mean daily maximum around 15°C in sheltered places and a minimum of 2°C. At sea, however, the air temperature is generally lower, since the sea temperature does not rise above 4°C and the effects of wind chill should be taken seriously. Summer rainfall is light. Fog can be encountered at any time, particularly in association with ice, but is less frequent in the area around Nuuk (Godthåb) 64°N. In an average summer, winds along the coast tend to be light and variable, commonly with a northerly component to them, but the summer winds themselves are variable. 1985 was a record good year and 1987 had only light winds. 1986 was windy, 1982 and 1990 particularly so, with a succession of storms which ignored the statistic given in *NP12* that 'gales are rare'. Some fjords are noted for strong katabatic winds which descend off the ice cap and can be severe, but are infrequent in summer; however, föhn winds, which are a characteristic of SW Greenland, can be equally severe on occasions.

The people

Of the total population of 55,000 (1940: 17,500), fewer than 10,000 were born outside Greenland. The original inhabitants passed through Canada on their way to Greenland and brought an Inuit culture; but their descendants call themselves *Kalaalit* (pl. *Kalaaleq*) rather than Inuit; however the name 'Greenlanders' is used throughout this text. Many foreign residents are of long standing and are mostly Danes, some married to Greenlanders.

throughout Greenland; but, of course, any items flown in (*flyfresh*) like lettuce and tomatoes are expensive. Wines, beers and spirits are readily available but are heavily taxed.

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Area B – Southwest Coast

60°N–63°N

Narsaq Kujalleq (Frederiksdal) to just south of Qeqertarsuatsiaq (Fiskenæsset)

This is the area mainly affected by off-lying polar pack ice (*storis*) coming around Kap Farvel, making access difficult and sometimes hazardous until late July.

Area C – Northwest Coast

70°N–78°N

Disko to Smith Sound

This area opens progressively northwards from Disko in July, but drift ice nearly always causes problems in Melville Bay.

Areas A, B and C are covered by *NP12*.

Area D – East Coast

Including Ikerassuaq (Prins Christians Sund)

Heavy polar pack ice (*storis*) makes access to this coast hazardous, if not impossible, until late in the season in most years.

This area is covered by *NP11*.

Approaches to the West Coast (Area A)

If aiming to cruise the west coast of Greenland in June or July from the direction of Iceland and

Northern Europe, a course should be laid to pass to the south of latitude 58°30'N until on the meridian of Kap Farvel (Cape Farewell) (i.e. at least 75 miles to the south). **Severe weather conditions are often experienced off Kap Farvel, and in late June 2000 a yacht was lost in a storm in Lat 58°32'N. For this reason, if there is a forecast of strong winds it would be prudent to give Kap Farvel a berth of at least 120 miles. In a bad year storms can also extend as far as 120M south of Kap Farvel (see NP11 and 12).** Depending on the ice situation it may be possible to approach the West Coast at Paamiut (Frederikshåb) in 62°N; but if not, it is probably better to make for Nuuk (Godthåb), 64°N.

Approaching from North America it should be noted that, between the iceberg belt off Labrador and the storms and icebergs off the SW coast of Greenland, there is a large area of virtually ice-free water that leads northwards towards Davis Strait. It may, therefore, be better to strike out from Halifax or St Johns, rather than take the route through the Strait of Belle Isle, which is normally foggy and encumbered with icebergs.

Approaches to the Southwest Coast (Area B)

Access to the coast and the fjord area around Qaqortoq (Julianehåb) is complicated by the presence offshore of storms, often until August. There is serious danger in attempting to penetrate the storms and at least three yachts have been lost in recent years for this reason. Approaching from the northwest, there is frequently a shore lead north of Nunarsuit (Kap Desolation), so that an approach is possible through Torsukataq and Knækket (see G50 Inner Lead north of Nunarsuit, below, and NP12 2.12 *et seq.*). Seek advice on the radio from Ice Central, Narsarsuaq (see Ice information below). Late in the season it is normally possible to enter from the east through Ikerasassuaq (Prins Christians Sund), but having negotiated the storms, the channel itself is very often choked with ice.

Approaches to the Northwest Coast (Area C)

There should be no problem in sailing to Upernavik by mid to late July. Progress northwards will depend on the ice situation at the time. (See Area C North of Disko, below.)

Approaches to the East Coast (Area D)

The normal approach is from one of the harbours in Iceland, where up-to-date ice information can be obtained and departure delayed, if necessary, until conditions have improved. In an exceptional year, it may be possible to approach the coast south of Tasiilaq (Ammassalik) in early July or even sometimes in June; however, August offers the best chance in an average year. The difficulty of cruising in this area should not be underestimated and, in some years, heavy polar pack ice bars access to the coast throughout the summer, except to ice-strengthened vessels. Icebergs and bergy bits produced by the numerous tide-water glaciers are always present.

Pilots and charts

In addition to the British Admiralty pilots NP11 and NP12, which are by far the best source for both ice and pilotage information, *Den Danske Lods Vols* 1 and 2 would really only be of use to Danish readers but have some useful sketch plans. *Den Grønlands Havnelods* (1990) contains excellent harbour plans but no soundings are shown and it is not essential.

British Admiralty and US charts can be used for planning and approach, but are at too small a scale to be of use for inshore pilotage.

The Danish Hydrographic Service publishes excellent charts covering both the E and W coast at 1:400,000 and the W coast at 1:80,000 as far north as Disko. It also publishes larger-scale charts of some areas. The 1:80,000 series is adequate for practically all the inner leads and harbours. Where it is felt that the larger-scale chart would be worthwhile this is mentioned in the text, otherwise the sheet number is placed within brackets.

In the text, numbers are prefixed with BA for British Admiralty, D for Danish.

Danish charts are well produced and clear but surveys are not complete and GPS should be used with discretion. In many areas, soundings are not shown on recognised routes. Areas left blank have not been surveyed and areas marked *urent* (found) should be avoided. Not all rocks are marked and may or may not cover. The only rule is to exercise caution. Grounded bergs or ice floes indicate shoals and by their size give a measure of the depth - very big bergs can be aground in 120m.

Although Danish charts can be bought in Greenland, only local coverage is normally held. It is safer to obtain all charts needed before departure either from the chart agents, Iver C Weilbach and Co a/s, Toldbodgade 35, Postboks 1560, DK1250 København, Denmark ☎ +45 33 13 59 27 or Fax +45 33 93 59 27 or in the United Kingdom from Imray Norie Laurie & Wilson Ltd, Wych House, St Ives, Cambridgeshire PE27 5BT ☎ 01480 462114 Fax 01480 496109 www.imray.com

Topographical maps covering the coastal region at 1:250,000 provide much supplementary information, especially north of Disko and more particularly on the East Coast. They are published by Kort og Matrikelstyrelsen (formerly Danmarks Geodætisk Institut), Rentemestervej 8, DK-2400 København NV ☎ +45 35 87 53 10 Fax +45 35 87 50 68, and may be ordered from the Map Shop, 1 High Street, Upton-on-Severn WR8 0HJ ☎ +44 (0)1684 593146 Fax +44 (0)1684 594559 or from Stanfords in London.

Saga Maps produces a series using the 1:250,000 topographical maps as a basis, but on convenient sheet lines. 18 sheets cover the west coast from Kap Farvel to Thule and sheets 19 and 20 cover Tasiilaq (Ammassalik) and Ittoqqortoormiit (Scoresbysund). They are widely available in Greenland or in the UK from The Map Shop, Upton-upon-Severn or from Stanfords in London.

at one time, sovereignty was in dispute.

There is a protected anchorage between Isbjørneø and Mellemø.

Approach

There are no soundings shown on the Danish Chart but, in 1987, the islands were approached from the E to a point 4M NE of Bordø, course was then altered to the SW using Wordie's sketch. The magnetic compass is too unreliable for bearings to be of any significance, but a course leaving Bordø (which appears to be steep-to) 0.2M to port and aiming at the southern tip of Mellemø leads in depths of more than 80m.

When the sound between Isbjørneø and Mellemø is clearly visible, enter through the channel 0.1M wide between the southern tip of Isbjørneø and a rocky islet, which is 0.2M S and where a least depth of 6m was found. Alternatively leave the islet to starboard, passing 0.1M to the S of the islet, which is not clean.

Anchorage

Anchorage was found in 4m sand and weed close into Isbjørneø. Protection can be found from most wind directions, either further into the sound or under the SE flank of Mellemø. Due to the surrounding reefs it is unlikely that ice of any size would penetrate this anchorage, although sometimes there is a fair amount of small ice. However, this area is normally fairly clear of ice, being in the 'North Water'.

AREA D

The east coast including Ikerasassuaq (Prins Christian Sund)

In most years, *storis* (heavy polar pack ice) makes access to the East Coast of Greenland difficult, if not impossible, until late in the season. In some years, the coast south of 65°N may clear early; **however, icebergs are always present and most of the fjords have active tide-water glaciers which produce a lot of icebergs and bergy bits.** In 2003, the *storis* cleared almost completely from Cap Farvel to Scoresby Sund and beyond. In 2002, while it cleared from the coast north of 68°N, it remained until late in the season around the Ammassalik area and south around Cap Farvel, causing problems in the approach to Qaqortoq. With the reported thinning of the polar ice sheet from which the *storis* is derived, it seems possible that this trend will continue. However, there may well be years when *storis* prevents access to the East Coast, until late in the season.

It is very important to obtain the latest ice information, before making an approach.

There are now no permanent settlements for

300M between Ikerasassuaq (Prins Christian Sund) and Tasiilaq (Ammassalik), but there are some good anchorages which are suitable for yachts if ice conditions permit.

With the exception of the areas around Tasiilaq and Ittoqqortoormiit, the hydrographic charts are at 1:400,000, the topography is somewhat sketchy and there are very few soundings inside the 3M limit. The 1:250,000 topographical maps show much more detail and are almost essential for navigating close to the shore.

Surveys are not complete and GPS should be used with care. Charted positions in some areas differ from GPS (WGS 84) by as much as 4' in longitude – equivalent to 2M – but this is not consistent. The topographical maps generally appear to be more consistent within a given area. Charted positions of anchorages are shown to the nearest minute, with the GPS (WGS 84) position recorded shown in parentheses, where helpful.

This area is covered by the *Arctic Pilot Vol II (NP 11)* and reference is made to relevant paragraphs in the 8th Edition 1996.

Ikerasassuaq (Prins Christian Sund) and vicinity

60°05'N 43°10'W (2001)

Chart D 1103

General

Ikerasassuaq is a deep, relatively narrow and very spectacular sound which joins Ilua and Torsukattak to provide an east-west passage N of Kap Farvel. It is one of the world's most magnificent passages. Mountains rise between 1200 and 1800m on either side and several glaciers reach down to sea level to add their bergs and bergy bits to the pack ice which blocks it for much of the year. By August, the pack ice has normally cleared; but although there was a relatively unobstructed passage in early August 1996, there was still a good deal of ice in the sound at the end of August 1976 and again in 2002. If there is any ice in the E entrance, the sound itself will usually be blocked. Winds are accentuated by the funnelling effect of the narrow passage and tides are strong in the Qornoq narrows. Do not, however, miss the opportunity of visiting Ikerasassuaq, if conditions are at all favourable.

Approach from the east

The E approach brings one in to the weather station at Ikerasassuaq, where there is a sectored light, an Aeromarine beacon, a Racon and a MF and VHF transmitter (Ch 01) controlled by Qaqortoq Radio. Heavy *storis*, sometimes more than 50M offshore, may make this approach hazardous. Study the most recent Ice Charts and seek advice from Ice Central Narsarsuaq before making the attempt. Ice Central may be contacted through Qaqortoq Radio on MF or directly by phone using Satcom (see sections on Sea Ice and Ice information).

Approach from the west

Torsukattak is entered from the W near Narsaq Kujalleq (Frederiksdal) (59°59'N 44°40'W) and is fairly straightforward. From Nanortalik, use either the main passage through Kitsissut Tunuat or the inner lead route N of Nardlussoq. The latter may be useful under certain conditions of wind or ice.

G.76 Aappilattoq (Prins Christian Sund)

60°09'N 44°17'W (2001)

Chart D 1103

General

A beautiful natural harbour in a cleft in the rock, with excellent protection. The entrance is about 20m wide. Small fishing village, with a population of about 170.

Anchorage

There is little room in the harbour, but yachts up to 20m may lie, for a short while, alongside the small landing stage at the fish factory. It is possible for a yacht drawing 1.8m to enter the shallow bay to the W of the landing stage, with care. Anchor with lines to both shores, fore and aft, as there are below-water rocks and no room to swing.

Facilities

Small store with most essentials. Post office, telephone, fax and internet services. Fuel available in limited quantities. Helicopter service to Narsarsuaq as well as regular ferry to Nanortalik. Note that there are no facilities for 300 miles on the East Coast between Prins Christian Sund and the Ammassalik area.

Anchorage in Torssuqataq & Prins Christian Sund

Charts D 2100, 1103

Due to submarine cables, anchoring is prohibited in the sound except where indicated on the chart. Those mentioned in the Admiralty *Pilot* (NP 11) are, in general, unsuitable for yachts.

The following have been examined.

G.76a Stordalens Havn

60°09'N 44°27'W (1998)

This is deep and steep-to. It is necessary to anchor in 40m to be clear of the shore; however, holding is good once the anchor has dug in. Liable to incursion of ice under certain conditions, and therefore not recommended.

G.76b Kangerdluk

60°13'N 44°16'W (1998)

If there is much ice in the Nup Kangerdlua this may be carried into the fjord; however, under suitable conditions, anchorage with good holding in sand may be found on the N shore, near the head.

G.76c Kangikitsaq

60°19'N 44°15'W (1998)

This fjord extends 6.5M NNW from the sea and gives access to excellent climbing and walking amongst magnificent scenery; however headnets and repellants are advisable.

According to local information this fjord is frequently free of ice and appears to enjoy some protection, when winds are strong elsewhere. Anchor at the head, in the NW corner, in 20m – good holding in sand. Trout may be caught in the lakes 2–3M up the Tupqusat valley.

G.77 Anchorages S of Prins Christian Sund**G.77a Paakitsuarsuaq**

59°59'N 44°26'W (1999)

This is a spectacular and almost landlocked bay 3M E of Torssuqataq providing a useful safe anchorage. Approaching from Torssuqataq, pass to the N of Sugdlat. The channel between Pamiugdluk and the islets to the NE of Sugdlaq is clean and carries 5m. The entrance to the bay is partially blocked by underwater rocks extending as far as mid-channel from the N side. A course about 25m N of the islet on the S side, carries 20m. Good anchorage can be found in the second bay on the NW side in 10–15m, mud with some weed. It is unlikely that any ice would intrude.

There are a number of other possible anchorages in the area, of which the following have been examined.

G.77b Kangerdlutsiaq

59°59'N 43°52'W (2001)

Anchor at the head of the bay, near an old Norse site. Holding is good in 6m, sand over mud on an alluvial fan. Large ice grounds on the shallows.

G.77c Tasiussaq (Christian IV Ø)

60°05'N 43°48'W (2001)

The entrance is very narrow and steep-to. The fjord provides excellent shelter and no ice is likely to intrude. Good anchorage can be found at the N end on a steadily shelving alluvial fan.

G.77d Tangnera Fjord

60°04'N 43°42'W (2001)

A narrow and spectacular fjord that almost separates Christian IV Ø from Sangmissoq. Anchor at the head with lines ashore. On the other side of the isthmus a likely anchorage was observed 1M to the E in Tunua at the outlet of a lake.

and also at Kangilinnuit (Grønødal) in the south. Walrus and narwhals and other seals and whales live offshore and the Davis Strait is an important feeding ground for the Atlantic salmon. In the air, the gyrfalcon, raven and white-tailed eagle are resident, although many other birds breed here – snow bunting, wheatears, geese and the arctic tern, which makes an annual round trip of 35,000km to the Antarctic.

History

Icelandic sagas attribute the discovery of Greenland in 877 to Gunnbjörn, an Icelander, but it is more reliably known to have been explored by Eirik the Red (Eiríkur Rauðe) in 982 while he was exiled from Iceland. In 986, he brought an expedition of colonists from Iceland to settle the west coast and, although only half reached their destination, settlements were successfully established near Julianehåb (Qaqortoq) and Godthåb (Nuuk). The colony flourished and was reinforced from Iceland. Leif the Lucky (Leif Eiríksson), is credited with the introduction of Christianity in AD 1000, at the same time as it was adopted in Iceland.

In 1261 Greenland recognised the King of Norway as Sovereign, chiefly to ensure continued support and supplies, and sovereignty was transferred to Denmark when the two kingdoms merged in 1381. However, the climate deteriorated, growing conditions worsened and Denmark, whose trade was largely handled by German factors concerned with the Baltic, lost interest and the colony declined.

During the 15th century communication between mainland Europe and Greenland stopped, and by about 1500 the Norse element in Greenland had become extinct. Throughout, the Greenlanders appear to have disputed the presence of the foreigners and attacked settlements on more than one occasion. An English expedition led by John Davis in 1585 found only Greenlanders. The Greenlanders were left alone until 1721 when a Norwegian missionary, Hans Egede, supported by Bergen ship owners and Frederick the Fourth of Denmark, landed at Godthåb; trade followed and the development of the west coast began. Both missionary and commercial activities were soon controlled from Copenhagen and when, in 1814, the Danish king renounced the Norwegian crown, the west coast of Greenland as well as Iceland and Faroe were specifically retained by Denmark.

The Danish monopoly, introduced in 1774 to develop resources without their being exploited at the expense of the Greenlanders, lasted until 1951. Foreigners were only allowed access for specific and limited purposes – for instance, anthropological, topographical or meteorological research. But pressures built up. The Danish claim to the whole of Greenland led to a protest from Norway, whose whalers frequented the east coast; this was settled by the International Court in favour of the Danes in 1933.

The importance of Greenland as a factor in air communications between Europe and America became clearer. After the German invasion of Denmark in 1940 Greenland was declared by the US to be a protectorate. A little-known series of operations took place between 1940 and 1944 when the Germans sent a series of parties to East Greenland to provide weather information.

After the war, and following the conclusions of a Committee of Greenlanders and Danes which reviewed ways and means of forwarding Greenland's interests, the Royal Greenland Trading Company's monopoly was abolished in 1951, though it was allowed to continue its activities in competition with others. The US base at Thule was established in that year.

In 1953 colonial status was abolished and Greenland was integrated into Denmark. There followed a devolution of authority from Copenhagen to Nuuk and, following a referendum in January 1979, home rule was introduced, leading to full internal self-government in January 1981. Denmark remains responsible for foreign affairs and defence; however, Greenland is not a member of the European Union.

Climate

The summer climate is influenced by the arctic high-pressure system (average 1025hPa) and, on the W coast, it is usually dry and sunny. On land the air temperature can be relatively warm, with a mean daily maximum around 15°C in sheltered places and a minimum of 2°C. At sea, however, the air temperature is generally lower, since the sea temperature does not rise above 4°C and the effects of wind chill should be taken seriously. Summer rainfall is light. Fog can be encountered at any time, particularly in association with ice, but is less frequent in the area around Nuuk (Godthåb) 64°N. In an average summer, winds along the coast tend to be light and variable, commonly with a northerly component to them, but the summer winds themselves are variable. 1985 was a record good year and 1987 had only light winds. 1986 was windy, 1982 and 1990 particularly so, with a succession of storms which ignored the statistic given in *NP12* that 'gales are rare'. Some fjords are noted for strong katabatic winds which descend off the ice cap and can be severe, but are infrequent in summer; however, föhn winds, which are a characteristic of SW Greenland, can be equally severe on occasions.

The people

Of the total population of 55,000 (1940: 17,500), fewer than 10,000 were born outside Greenland. The original inhabitants passed through Canada on their way to Greenland and brought an Inuit culture; but their descendants call themselves *Kalaalit* (pl. *Kalaaleq*) rather than Inuit; however the name 'Greenlanders' is used throughout this text. Many foreign residents are of long standing and are mostly Danes, some married to Greenlanders.