COSMIC DANCER V

GREENLAND REVISITED

A cruise down the west coast of Greenland, Labrador and Newfoundland

Clive Woodman & Angela Lilienthal
Cosmic Dancer V of Tamar – Sweden 38
30 Jun to 03 Sep 2014
2,303 Nautical Miles

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CRUISE LOG

In 2013 we realised a lifelong dream to sail to Greenland with 4 young rock climbers from Oxford University on a sailing and climbing expedition in the Tilman style. It was a fantastic adventure but we ended that season with a nagging sense of unfinished business. We had sailed over 5,200 nm over the course of the season and spent 2 months climbing big sea walls, yet we hadn't even begun to scratch the surface of what the west coast of Greenland has to offer. We were determined to rectify this in 2014.

Cosmic Dancer overwintering in Aasiaat

Having left *Cosmic Dancer* ashore for the winter in Aasiaat, NW Greenland, we were perfectly positioned to make an early start to the 2014 season. The weather had different ideas. The thaw was unseasonably late in arriving and it was not until mid-June that the ice had melted to the point where we could sensibly consider re-launching. As we flew back into Aasiaat we were filled with a heady mixture of excitement and nervousness. Excitement at the prospect of the trip that lay ahead, nervousness as to the state we might find *Cosmic Dancer* in after sitting out a long arctic winter unattended.

Obstruction removed!

On arriving at the boatyard *Cosmic Dancer* looked to be in fine condition, but her way back into the water was blocked by an abandoned fishing trawler which somehow over the course of the winter had managed to position itself between our launching cradle and the sea. "We have a problem" we thought "That trawler isn't moving anywhere in a hurry!". "Don't worry" said the yard manager, "We'll have you back in the water by tomorrow", an assertion which we would have loved to have believed, but somehow didn't quite seem credible. There was not a crane in sight that was going to be capable of moving the hulk anywhere.

However we weren't counting on Greenlandic ingenuity. 10 minutes later the air was filled with a high pitched whine as a single boatyard worker set to work with an impossibly small chain saw that seemed more suited to pruning a fruit tree than cutting up a large trawler. If ever there was a David and Goliath mismatch this was it. "That saw won't be able to do much more than scratch the paint" we thought. How wrong could we be? By late afternoon the trawler was in 3 pieces. The bows had been shifted to one corner of the yard, the stern to another, and the mid-section somehow manoeuvred out of our path. A seemingly impossible task had been accomplished and we had a clear run to the sea.

After a short spell de-winterising the yacht and storing ship it was time for a shakedown cruise. Our destination was Disko Island, a little under 40 nm to the north of us. It started promisingly with crystal clear blue skies, calm weather and a favourable forecast. As we motored out of Aasiaat we were immediately greeted by several whales breaching within a few boat lengths of us. By the time we had reached the open waters of Disko Sound the breeze had filled in enough to make it worthwhile hoisting the sails. We were soon making 6 knots under full Main and No 1 Genoa as we admired the steady stream of icebergs on the horizon, making their way out to sea from Greenland's most prolific glacier, the Sermeq Kujallek. Life could not have been better.

Deckchairs on the beach

It was too good to last. As we approached the iceberg belt the wind picked up and headed us. Within minutes we were reefed down to cutter rig and both we and the decks were getting their first soaking of the season as waves of icy cold seawater started breaking over us. At the same time a thick bank of fog rolled in and we found ourselves threading our way through the icebergs in zero visibility with only the radar to guide us. Normally going down below and doing radar watch at the warm chart table is considered the soft option. However, the short sharp chop made life equally unpleasant below decks for a pair of stomachs yet to get their sea legs.

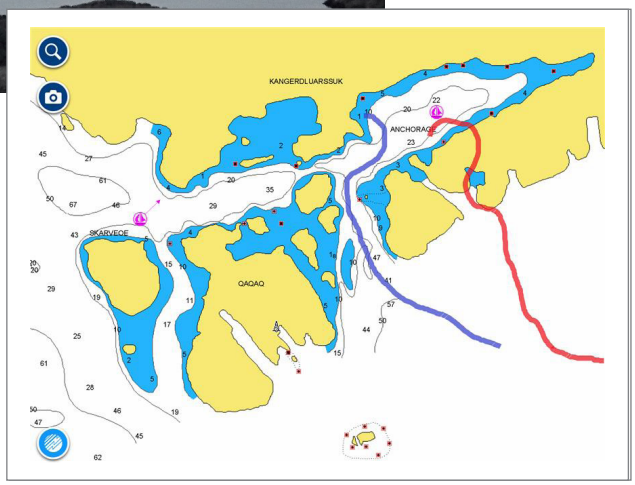
It was a source of great relief when the fog finally lifted as we closed our destination, Qeqertarssuaq on Disko Island. Originally called Godhavn (Good Harbour) it lived up to its name. Despite masses of icebergs grounded in the approaches, inside it was perfectly sheltered and ice free and the one shop ashore even had a bottle of Bombay Sapphire with which to replenish ship's stocks. What more could a sailor ask for!

The second leg of our shakedown cruise took us along the south coast of Disko Island towards Fortune Bay, another well protected anchorage, but with a tricky entrance. It was here we got our first lesson in the dangers of relying on GPS alone in a part of the world where GPS and chart

Godhavn on Disco Island

datums rarely align. If we had blindly believed what our chart plotter was telling us, rather than using eyes and radar, we would have entered by the wrong channel and ended up on the rocks as the screenshot from our chart plotter shows.

Fortune Bay/ Disko Island



GPS-Track
Actual Track

From Fortune Bay, we returned to Aasiaat to pick up another crew member and restock with fuel and water before setting out on our next leg north to Upernavik. Once again the weather was perfect as we set out from Aasiaat and this time it was not too good to last. Conditions stayed fine for the first 30 mile leg to the Kronprinsens Islands which lay roughly halfway between Aasiaat and Disko Island. We anchored for the night in the Baadelob, a narrow channel between 2 islands in what was a near perfect anchorage.

It remained fine for the next leg up the west coast of Disko Island to Disko fjord, a rather grand Norwegian style fjord surrounded by mountains on all sides. It was not until we entered the fjord that things changed. Perhaps not unexpectedly given the topography, the wind instantly increased by 3 forces as we were hammered by a mixture of katabatic and wind funnelling effects. The last 5 miles to the anchorage saw us having to reef down and batten down the hatches. It was not until we rounded the headland into Kangerdluarssuk fjord that we finally found a measure of shelter in the bay by the small settlement of Kangerluk.

On the chart it did not appear particularly promising as an anchorage. However as we were to subsequently discover, wherever there is a settlement in Greenland then the off lying

Disko Island

anchorage invariably offers more shelter than one might expect from looking at the chart. Kangerluk was no exception and we spent a very peaceful night there before a resumption of the katabatic winds and a 180 degree reversal of wind direction forced us to beat a hasty exit the following morning.

The forecast suggested we could expect light and variable winds for our next leg northwards round the notoriously rough Svartenhuk Peninsula. Once again we were to learn that there is only one rule that consistently applies when it comes to weather in Greenland, namely "Expect the unexpected"! Within 10 minutes of leaving the fjord we were in the grip of a full gale, fortunately blowing us in the direction we wanted to go, but hardly the sort of weather we wanted for a rounding of Svartenhuk. After 8 hours of running before the gale at speeds of over 8 knots, the wind disappeared as quickly as it had arrived. In the space of 20 minutes we went from having 40 knots of wind over the deck to 4 knots and we spent a very rolly next 12 hours motoring around Svartenhuk.

With the wind forecast to increase from the north we were keen to press on before it picked up too much. The next 80 miles were spent beating into a bitingly cold northerly wind but with the off-lying islands keeping the seas mercifully calm. With only 5 nm to run to Upernavik the wind had picked up to 25-30 knots + and we rapidly lost our appetite for continuing to beat into it. Instead we bore away down the channel which passes to the north of Sanderson's Hope and found shelter in what is possibly the most spectacular anchorage we have ever been in, Sarpinat, a small nook on the NE corner of the island of Akia. Perfectly sheltered and with splendid views across the sound to the 1000 m high sheer wall that is the NW face of Sanderson's hope, it is the sort of anchorage it is worth sailing 5,000 miles to reach.

Approaching Sarpinat

Sortehul in the Midnight Sun

The next day it was a short hop under motor in the lee of Akia and Upernavik Islands to reach Upernavik Harbour. From there we hoped to spend a week or so exploring the Nordre Sunds, a 1,500 square mile area of interlinked fjords and islands bounded in the north by the ice choked Upernavik Isfjord and in the south by the foreboding Svartenhuk Peninsula. Offering sheltered cruising in largely ice free waters and with a wealth of readily accessible and sheltered anchorages, the Nordre Sund was an enticing prospect after the rather exposed and largely bolt hole free coastline that we had sailed along to get there.

Anchorage in Qornoq south bay

We were not to be disappointed. For the next week the weather remained glorious and the views stupendous, varying from stark, jagged peaks and 1000m high vertical rock faces in the Sortehul and Sanderson's Hope area, to more green and gentle Hebridean style scenery further inland. Unlike Umanak Fjord the year before, where good anchorages had been few and far between, in the Nordre Sunds we were spoilt for choice. Every 10 miles or so another stunning well protected anchorage presented itself.

Approaching Uppernavik Isfjord

However, it was not a place for the faint hearted navigator. To all intents and purposes the Nordre Sunds remain unsurveyed and in the entire 1,500 square mile area not one depth sounding was shown on our charts. For the most part depths in the fjords are well over 50m, but submerged lateral and terminal moraines can reduce that to less

Polar bear skin hanging out to dry

than a couple of metres within the space of 100 metres. Unfortunately our forward looking echo sounder had succumbed to the gremlins by that stage and we had to resort to the lo-tech alternative of posting a rock spotting lookout upon the bows whenever we thought the risk of finding a submerged moraine or rocks was high.

With food and water starting to run low, we reluctantly returned to Upernavik to resupply and seek shelter from an incoming gale. Returning to restock was essential, but in retrospect we made a mistake in choosing to sit out the gale in what we thought would be a relatively sheltered harbour for a gale from the SE. We were not alone in making this mistake. After cruising for almost 4 weeks without seeing another yacht, we were suddenly besieged by 5 others rafted up outside us. Being the inside boat was not a comfortable place to be when all the yachts outside of you are at least 10 feet longer, steel hulled, and on average twice our displacement.

With a heavy swell already running into the harbour we decided it was time to extricate ourselves before we were completely crushed. Getting out through a spider's web of shorelines was quite an undertaking and once free we stuck our nose briefly out of the harbour to see whether there was any chance of reaching a more sheltered anchorage a few miles to the south. It was too late. The wind was already blowing 40 + knots and to beat into would have been foolhardy. Reluctantly we returned to the harbour and rafted up outside of the other yachts for what turned out to be a very uncomfortable 36 hours. However, whilst being far from stress free, being a plastic boat with 5 steel fenders inside of us was infinitely preferable to being the plastic fender for 5 steel yachts moored outside of us!

Looking west from Upernavik

Alongside Skonnertkaj in Upernavik

Refueling at Atlantkaj, Upernavik

Once the gale had blown itself out, it was decision time. All the larger steel hulled yachts with us were waiting for the fast ice to melt on the Baffin Island coast, before crossing the Baffin Sea and either cruising down the east coast of Baffin or making a NW Passage attempt. They all decided to continue waiting a bit longer, but being one of the very few GRP yachts cruising in these latitudes called for more conservative decision making. With over 1,600 nm still to cover, almost all of them against the prevailing winds, to reach our intended winter lay-up destination, we decided it was time for us to turn south and get some of those miles under the belt before the worst of the early autumn depressions started tracking in.

Bergy bits in light fog

Fog in Upernavik

Fog, icebergs, tidal races, strong headwinds, freezing cold temperatures, and a notorious headland to round. Any one of these can be enough to make a passage uncomfortable but our 200 nm return passage from Upernavik to Disko had them all; Svartenhuk, northern Greenland's most notorious headland with its associated tidal race, 48 hours of continuous fog, temperatures only marginally above zero and numerous bergy bits, too small to paint on radar until the very last moment, but large enough to do us serious damage if we hit one. We were spared the strong headwinds for the first 36 hours of the passage but when they eventually arrived they were the straw that broke the camel's back. We could not face the prospect of bashing into a bitingly cold F7 for a further 18 hours to reach Aasiaat. Instead we bore away and ran for cover in Diskofjord. Nipisat, an extremely exposed bight on the south western tip of Diskofjord would normally be regarded as a pretty marginal anchorage. However, under the circumstances it was like manna from heaven, allowing us an uninterrupted night's sleep and time for the wind to moderate and

go around to a much more comfortable northerly direction.

Setting sail again the following morning left us with just 50 nm to cover, no fog, and only bitterly cold temperatures left to contend with, a veritable stroll in the park compared to the previous 48 hours. On reaching Aasiaat in theory life should have become easier, since we then had the option of proceeding down the coast in more comfortable days sails, with the possibility in many places of taking a scenic inner lead route inside the off lying rocks and skerries.

However by then we were into August and the weather had taken a turn for the worse. Gone were the largely stable polar high conditions we had experienced for much of July, to be replaced by a series of deep depressions tracking in every 3 or 4 days or so. Our passage south from Aasiaat was characterised by a series of relatively short dashes followed by several days sitting out gales in the most sheltered anchorage or harbour we could find.

Whenever the weather allowed we took advantage of the shelter offered by the inner lead routes. Looking at these inner leads on the chart for the first time, the prudent navigator might be forgiven for thinking that it would be nothing short of lunacy to try and pick one's way through the narrow rock strewn channels with often nothing more than a single line of soundings on the chart to guide one. However, in practice many, but by no means all of them, proved to be nowhere near as intimidating as they looked on the chart and invariably had more water than the chart soundings and tidal heights suggested. Nonetheless, we baulked at taking some of the shallower and more exposed ones and steered well clear of them

Hamborgersund

Leaving Kangamiut Sound

Approach to Aasiaat

Heading south from Sondre Stromfjord

Huskies in Proven

Muskox hooves

Whale Skeleton

Dried fish

if there was any significant onshore component to the wind.

By mid-August we had got as far south as Fisknaesset and were looking for a suitable weather window to cross the Labrador Sea. After sitting out another short, sharp gale in Fisknaesset the GRIB files promised us a ridge of high pressure which was forecast to persist for 5-6 days. It was far from perfect as it meant we would potentially be beating into Force 5-6 winds for much of the crossing, but it seemed preferable to the gales we had been encountering recently.

We decided to take it and for once the weather did exactly what it was forecast to do. The winds were on the nose for the entire 7 day crossing and with the high pressure came an equally persistent bank of fog. Visibility was little more than 20-30 m during the day, and now that we were far enough south to experience darkness again, was virtually zero at night. With ice still an ever present risk, and since by this stage we were back to sailing 2 handed without the ability to simultaneously keep a 24/7 visual watch on deck and radar watch below decks, we made the decision to heave to during the hours of darkness.

Lack of visibility was not the only problem that came with the fog. Within minutes of sailing into it both decks and crew were soaked to the core, just as surely as if we had sailed into to a tropical cloudburst. However, unlike a tropical deluge, going below decks offered no respite. Such was the level of moisture in the air that every surface in the cabin was ridden with streaming rivulets of freezing condensation running downwards to saturate anything left exposed in its path. Bunk mattresses, sleeping bags, clothing, all fell victim to it. Putting one's clothing in waterproof Ortlieb sacks offered no defence. Somehow the moisture got through that too. Even our Gore Tex foul weather gear became supersaturated and no longer offered the warmth and comfort we would normally expect from it.

At the time we did not fully appreciate the extent to which this fog was slowly eroding our reserves, both physically and mentally. Sure, the call to get out of one's sleeping bag and go on watch was inevitably greeted with a resigned groan, but that's nothing new, it's often like that when we are on a long passage! It was not until we finally pulled into Cartwright, Labrador and the adrenalin levels from the passage slowly started to subside that the full extent of our exhaustion kicked in. The skipper was seen to be behaving strangely and making all sorts of irrational decisions about how fenders should be placed and lines taken ashore, before going below and descending into a bout of uncontrolled shivering which even the cabin heater on full blast couldn't cure, text book symptoms of hypothermia which despite our many years of sailing experience and occasionally seeing these symptoms in others, we had singularly failed to recognise in ourselves.

It was a sobering experience. We had badly underestimated the fog and the long term effect it was having on us. 2 years ago, before we embarked on this current trip, and before we had fitted radar and AIS, we had always dreaded the approach of fog. However, after 2 years of sailing in Newfoundland and Greenland where fog banks are just another part of everyday sailing life, we had somehow become blasé about it. We are now a little older and wiser. Fog patches and fog banks are one thing, but 7 days of a full blown Labrador fog are something completely different!

Who is more worn out? Crew or flag?

On landing in Cartwright it was some consolation to be told by the locals that we had just sailed through the worst weather they had experienced all summer. Whether this was true, or whether this was just a manifestation of the unfailing optimism that one needs to survive in an environment as harsh as this, was for the locals to know and us to guess! Either way, the

helpfulness and warmth of all we met in Cartwright was amazing. Within 5 minutes of landing the local trawler men had invited us on board for showers and a beer, had loaned us extra fendering for the slightly less than fibreglass friendly wharf, and offered us the use of their car so we could get supplies in. Later that evening we were treated to a tour round Cartwright in a very smart Royal Canadian Mounted Police truck, not because we had transgressed in the local bar, but simply out of good old fashioned hospitality to visitors!

Having crossed the Labrador Sea, we had hoped to day sail down the southern Labrador coast to Newfoundland but the weather had different ideas. Along with *Young Larry* (Andrew and Maire Wilkes RCC) who had sailed into Cartwright some 24 hours after us, we found ourselves trapped for 7 days whilst we waited for Hurricane CRISTOBAL to pass over the Grand Banks to the south of us.

In the end there was no time for leisurely cruising down the Labrador Coast. Once the hurricane had safely cleared the Newfoundland coast we made a quick 200 nm dash to St Anthony in the fresh northerlies that followed in its wake, with *Cosmic Dancer* and *Young Larry* both carrying a little more sail than the conditions warranted and indulging in what looked suspiciously like a bit of passage racing en route!

After what had been a fairly punishing August, September finally saw the weather relent for the final 2 day leg of our cruise from St Anthony to Lewisporte. Clear blue skies, calm seas and a F4 wind on the beam made for a perfect end to what had been in equal measure a challenging but massively rewarding season.

Having laid *Cosmic Dancer* up for the winter in Lewisporte, we returned home this time having slightly appeased that nagging feeling that there is still an awful lot more of Greenland waiting to be discovered.

However it hasn't gone away and just as Tilman's accounts inspired us to do this trip in the first place, they also suggest that the "lure of the north" is something that can persist for an awful long time in those who catch the bug! *(3,701 words)*

Life saving!

Mounties helping us refuel

Saved a long carry back to the boat

Cosmic Dancer V at anchor in South Nako

Angela Lilienthal

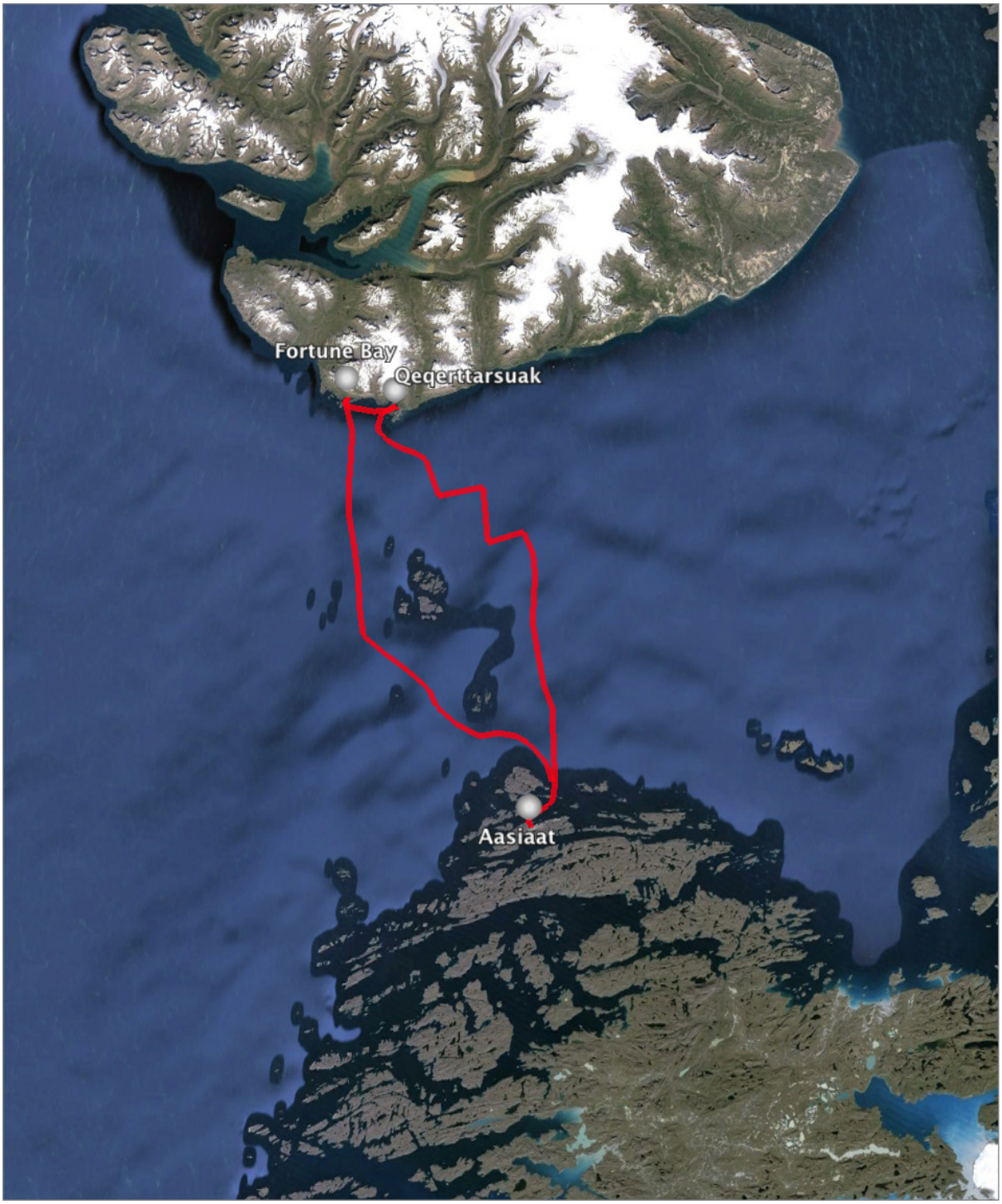
Clive Woodman

PLACES VISITED AND DISTANCES TABLE

Date	Place	Log distance (nm)	Time Taken (hours)	Engine (hours)
30/06/2014	Aasiaat			
30/06/2014	Qeqerttarsuak	39.9	8.5	1.5
02/07/2004	Fortune Bay	5.0	1.2	1.2
30/06/2014	Aasiaat	40.7	8.3	1.0
07/07/2014	Baadelob	23.1	5.5	4.3
08/07/2014	Kangerluk	54.8	11.0	6.4
10/07/2014	Sondre Upernavik	187.1	35.0	15.5
11/07/2014	Sarpinat	52.9	11.5	3.2
12/07/2014	Upernavik	5.7	1.5	1.5
14/07/2014	Torssut	9.6	2.0	2.0
15/07/2014	Qornoq	20.1	4.5	4.5
16/07/2014	Nutarmiut	27.7	7.0	7.0
17/07/2014	South Nako	10.1	2.5	2.5
18/07/2014	Umiarssuaqarfik	35.5	7.0	6.2
19/07/2014	Upernavik	3.0	0.8	0.8
22/07/2014	Umiarssuaqarfik	3.1	0.6	0.6
23/07/2014	Proven	36.7	8.1	3.0
26/07/2014	Nipisat	205.8	52.5	10.7
27/07/2012	Aasiaat	65.2	14.2	2.1
29/07/2014	Satue	59.6	12.8	5.8
30/07/2014	Sisimiut	71.5	12.8	3.1
01/08/2014	Anders Olsen Sound	36.3	7.0	2.6
02/08/2014	Kangamiut	57.1	9.8	1.9
03/08/2014	Timerlit	4.0	1.1	1.1
04/08/2014	Appamiut	20.1	5.4	5.4
04/08/2014	Manitsoq	40.0	8.0	7.5
07/08/2014	Nuuk	99.8	31.2	12.0
11/08/2014	Nordafar	37.1	6.8	2.1
12/08/2014	Sydhavn	4.2	0.8	0.8
12/08/2014	Polaroil Depot	0.8	0.3	0.3
13/08/2014	Fisknaesset	62.7	13.5	5.9
21/08/2014	Cartwright	640.2	169.0	18.3
30/08/2014	St Anthony	198.9	32.8	4.6
01/09/2014	Twillingate	109.7	18.4	3.1
03/09/2014	Lewisporte	34.7	7.0	7.0

TRACKS: Shakedown Cruise

Aasiaat to Disko Island and back
30/06/14 – 03/07/14
86 nm
Crew: Clive Woodman, Angela Lilienthal



TRACKS: Leg 1

Aasiaat to Upernavik
07/07/14 – 12/07/14
324 nm
Crew: Clive Woodman, Angela Lilienthal, Reinhart Schulz

TRACKS: Leg 2

Cruising in the Nordre Sund
14/07/14 – 19/07/14
106 nm
Crew: Clive Woodman, Angela Lilienthal, Reinhart Schulz

TRACKS: Leg 3

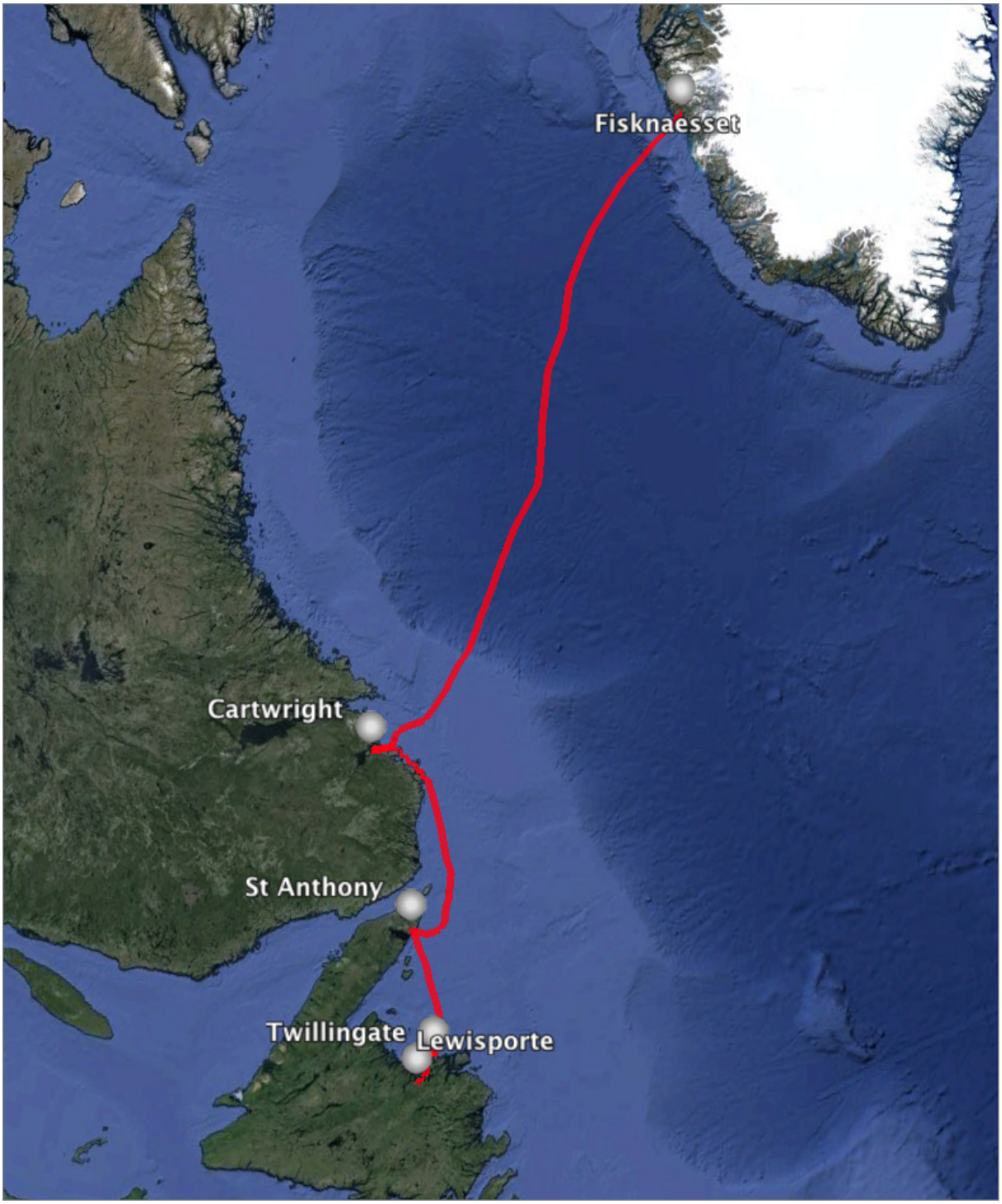
Upernavik to Sisimiut
22/07/14 – 30/07/14
442 nm
Crew: Clive Woodman, Angela Lilienthal, Reinhart Schulz

TRACKS: Leg 4

Sisimiut to Fisknaesset
01/08/14 – 13/08/14
362 nm
Crew: Clive Woodman, Angela Lilienthal

TRACKS: Leg 5

Fisknaesset to Lewisporte
15/08/14 – 02/09/14
984 nm
Crew: Clive Woodman, Angela Lilienthal



HARBOUR, ANCHORAGE AND PASSAGE NOTES

Note:

1. All page numbers refer to the Arctic and Northern Waters Pilot (first edition)
2. All harbours and anchorages listed below were visited by ***Cosmic Dancer*** during the 2014 season and the comments are based on first-hand experience.

Key:

Correction to information in current edition of pilot (i.e. where the information in the pilot is out of date/factually incorrect)

Supplement to information in current edition of pilot (i.e. information currently in pilot is correct and information supplied merely supplements the current information)

Information about a harbour/anchorage/passage not currently contained in pilot

Inner lead passage from Faeringehavn to Fiskenaesset

The first 8 miles of the inner lead route southwards from Faeringehavn is very open and exposed, littered with rocks awash, relatively shallow in places, and probably best not attempted if there is any significant onshore wind or swell.

However, the inner lead route can be safely entered at Evqitsut, just to the north of marker post 508, and thereafter is very well sheltered from offshore swell all the way to Fiskenaesset. This part of the route is generally wide and easily followed even in poor visibility (provided you have radar since GPS positions cannot be relied upon in this area),with no depths of less than10m encountered.

Although not officially part of the marked inner lead route, if time permits an interesting and very scenic diversion can be taken to reach Fiskenaesset by the "back door". Shortly after passing marker 504 head NE up the Ugarsiorfiup Svudlua for 2 miles before turning SE down Tuno for a further 2 miles. Turn NE up Aniggoq and continue for 6 miles before once again turning SE for a further 6 miles to reach Fiskenaesset.

Fiskenaesset (p151)

The pilot is perhaps a little disingenuous in describing Fiskenaesset as a "a bit of a backwater". It is a very clean and attractive fishing village which is as vibrant and lively as any other village of similar size that we visited in Greenland.

Shelter in the small western harbour bight is excellent and we sat out a F9 gale relatively comfortably here. Although the chart shows an anchorage in this bight, the depths in general seem to be significantly greater than charted and in most places are greater than 20m. The tides also swirl strongly into the bight setting up a circulatory flow, adding to the difficulties of anchoring.

However there are 2 sturdy quays in the bight, one wooden, one stone, on which it is possible to safely berth with 3m depth at LWS. The 2 smaller floating pontoons in the harbour are only suitable for small motor boats and are filled with local craft.

The Royal Denmark fish factory also has a substantial wooden quay on the northern side of the village in the main sound where one could temporarily berth with permission. However this berth is susceptible to swell in strong southwesterly winds.

24 hour fuel from credit card operated pumps on the wooden pier. Good store and bakery.
Water from stand pipes in village.

Mobile phone but no 3G

Faeringehavn (old harbour) (p152)

Not only have the buoys been withdrawn, but many of the marker posts shown on the chart are no longer in place. In view of the large number of unmarked rocks, entry and anchoring could now only be recommended in the most settled of conditions with good visibility and the sun behind you.

Orsivik (Polaroil) (p152)

The bay immediately to the W of Orsivik, shown on the charts as Qasigiaqarfa or Sydhavn, has a number of anchoring possibilities in the mini bays around the edges depending on wind direction. Shelter is reasonably good provided the wind is blowing from a southerly sector but if there is any northerly element to the wind then the anchorage a mile further in the fjord, just to the NNE of Nordafar, provides much better shelter. Moderately good holding in very thick kelp and matted weed on mud in about 10 m.

If no tankers are expected, it may also be possible to go alongside the superbly maintained and well-fendered main quay of the Polaroil depot (6m approx at LWS). The small depot staff of 5 or 6 people maintain a listening watch on VHF Channel 6 and are incredibly helpful and friendly. They invited us to dine with them, offered us showers and laundry facilities and provided us with copies of the latest weather forecast from the internet.

Kangerluarsorusek (p152)

The anchorage just to the NNE of the abandoned Nordafar fish plant provides excellent shelter in all but fresh south westerly winds when an uncomfortable fetch penetrates the anchorage. Holding is reasonably good in 7-8m in weed on stiff clay.

The Nordafar fish plant, built by the Norwegians and originally operated by a Norwegian, Danish, Faroese consortium (from which the name derives) although abandoned is still largely intact and an excellent example of Norwegian plants from that era, bearing a remarkable similarity to the whaling stations the Norwegians built and operated in South Georgia. Although the buildings are still largely intact the jetties are in a dangerous state of disrepair and are not suitable for berthing alongside.

General note on all anchorages in Kangaluarsorusek

Although the anchorages in Kangaluarsorusek described above (Nordafar, Faeringehavn and Orsivik) make perfectly good passage anchorages in normal conditions , none of them have sufficiently good holding and shelter to be considered as comfortable places sit out a gale. If a gale is expected then either Nuuk to the north or Fiskenaesset to the south are more protected and secure bolt holes.

Approaches to Nuuk (p155)

Tidal streams run strongly in the southern approach channel (Narrsaq Lob) and at springs reach up to 5 knots at springs in the narrows, and 1-2 knots elsewhere. If heading south, leaving Nuuk around HW Nuuk should ensure a fair tide is carried to Faeringehavn. Heading north, the ideal time to arrive at Saatut would appear to be around LW Faeringehavn.

Nuuk (p153)

Laundry in town - purchase pre-pay tokens from the tobacco counter in the Brugsen supermarket. Cheaper and better quality wash than the service provided by the Seamans' Home.

Excellent private dentist who will do emergency dental work at short notice.

If you fancy treating yourself the rooftop bar of the Hotel Hans Egede serves a very fine G&T and the steak restaurant on the same floor of the hotel can also be recommended.

Although fresh water is available by arrangement with the harbour master, it seems disproportionately difficult to arrange, and filling our tanks took us almost an entire day to achieve. If the situation permits you may find it easier to take on water in other harbours.

Kosangas cylinders are also available from the fuel pontoon, which may be more convenient than making a separate trip to the Polaroil Depot.

Mantisoq (p158)

The first pontoon in the harbour (the one immediately opposite the hotel) now appears to be reserved for local boats but there is space for visitors on the outside of the next pontoon in. The shore gate to this pontoon is locked at night but the key is available from the hotel.

Mobile phone and 3G coverage

Hamborgersund (p159)

The passage east of Hamborgersund is every bit as spectacular as the pilot suggests. In high pressure conditions we found that in this area the fog tends to descend from the high mountains in the late evening and then persists until around midday the following day. Under these conditions it may pay to delay your departure until midday so the full splendour of this area can be appreciated.

If the weather is fine then a side trip up the 6 mile long Sermilinguaq offers views which are at least the equal of those in Hamborgersund and possibly even better. At the head of the fjord the

icecap descends almost to sea level, whilst the north facing shore sports a splendid collection of hanging glaciers and waterfalls, and the south facing one sheer cliffs teeming with Guillemot and Fulmar colonies.

Although unsurveyed, we found the mid line of the Sermilinguaq carried depths greater than 50m up to within a mile of the head of the fjord. It looked as if it might be possible to anchor off the terminal moraine at the head of the fjord, but since the water is extremely milky with glacial silt at this point it would be unwise to approach too closely without either the aid of a forward looking echo sounder or taking soundings in a dinghy (unfortunately we didn't have the former, nor have enough time to do the latter, so couldn't verify depths at the head).

Appamiut (p159)

The pilot already says it all - without doubt the finest anchorage we have come across in Greenland!

Inner lead route from Kangammiut to Hamborgersund

Another richly rewarding route if followed southbound, culminating in a spectacular views of the mountains on Hamborgerland and a particularly fine anchorage at Appamiut.

Winding and narrow in places and but navigable with care and close attention to the chart. Least depth encountered was 5m.

Timerlit (p161)

Provides excellent shelter in a south westerly and far more comfortable than Kangammiut in these conditions.

We did not manage to find the 5m depths mentioned in the pilot but anchored in 10-12m in the blind channel to the W. Good holding in mud and filamentous weed. Allow yourself plenty of swinging room as the wind swirls around in the anchorage.

The only thing that now remains of the old settlement is a single concrete foundation block.

Kangammiut (p161)

Possible to temporarily lie alongside the wooden jetty with 2.4m at LW neaps but a surprising amount of swell enters the inner gut if the wind is blowing from the south west and lying alongs-

ide is not comfortable in these conditions.

Several anchoring possibilities in the narrow channels to the north and south west of the settlement, but none of them are ideal and they do not offer as much shelter as the chart would suggest if the wind is blowing from the north or south west. Anchoring in the inner gut would not be possible without using shore lines and obstructing the channel for other users.

Fuel is available by hose from the pumps located on the jetty. Power lines do cross the harbour but do not prevent access to the wooden jetty. The exact vertical clearance could not be confirmed but a small to medium sized yacht could pass underneath them if necessary.

Mobile phone coverage but no 3G

Inner Lead Route from Sondre Stroemfjord to Kangaaamiut

A spectacular route, particularly if followed southbound, in which case the jagged mountain peaks of Kong Frederiks IX Land and then Hamborgerland progressively open up in front of you, with stunning new vistas on every turn.

The route is intricate and requires concentration but is reasonably well marked and even at LW we encountered no depths less than 8m.

If heading southwards enter the inner lead route by following the leading transits for Sondre Stroemfjord and then passing to the north and east of the Island of Qeqertasugssuk. Thereafter follow the marks until reaching the narrow channel which leads into Kangammiut.

Very strong tidal streams around Qeqertasugssuk but at neaps it was possible to motor against them so no need to anchor and wait for favourable tide.

Anders Olsun Sound (p 163)

A well sheltered anchorage with some spectacular mountain peaks as a backdrop in the distance. Anchor as described in the pilot, although we could not find depths of 4-5m without getting uncomfortably close to the shore. Anchoring in 10-12m gives ample swinging room and avoids the need for shore lines.

Holding is excellent in thick mud with filamentous weed. We sat out a northerly gale on a single CQR anchor without dragging.

However whilst the shelter and holding are good, this is not an anchorage to approach in bad weather. Very confused and slab sided seas quickly build up over the banks outside of the mouth of the sound and a heavy swell runs through the narrow entrance. We entered with a Northerly F5-6 blowing and conditions in the entrance were marginal. We would not recommend entering

in anything stronger.

The low lying island of Ikardlugssuaq referred to in the pilot is probably more accurately described as a large rock awash. We found it to be almost completely covered at HW neaps and very difficult to spot. Even in perfect visibility the breakers over the rocks were only visible when closer than 0.5 nm and whilst the rock might just show on radar in flat calm conditions, with a F5 blowing we found it to be completely indistinguishable from the general sea clutter.

Approaches to Sisimiut from the north

Our Navionics electronic charts showed a 200 metre long islet in position 67 06.2N 53 59.9W (approx 11 nm NW of the entrance to Sisimiut). Even at LW neaps we could see no evidence of this islet existing and there was no disturbed water to indicate the presence of underwater rocks in this position.

Sisimiut p163

The shipyard previously reported to be closed , now seems to be thriving and we met a couple of yachts who had successfully over wintered in the yard. Prices are reportedly significantly cheaper than laying up in Aasiaat, although it is understood that completion for space is tight so early booking would be advisable if wishing to overwinter there. The yard was full to capacity when we visited Sisimiut beginning of Aug, in stark contrast to the boatyard in Aasiaat which appeared to have relatively little custom.

Fresh water available by hose from the Royal Greenland Fish factory Quay on the western side of the inner harbour. Depths alongside 2.5 to 4m around HW. Fuel from a small floating pontoon on Eastern side of harbour. Gas from the Polaroil depot a km to the west of the inner harbour.

We could not find the Chinese restaurant mentioned in the pilot but there is very upmarket restaurant attached to the Sisimiut Hotel on the eastern edge of town. Not cheap, but a good place to try local delicacies such as smoked whale and musk ox, both of which were excellent. For the less adventurous palate, a selection of fish, steaks, burgers and pizzas are also on offer.

Inner lead route from Faeringe Nordhavn (p 166)

A very scenic route and a lot less constrained and easier to follow than the chart might suggest.

Moreover, we and several others we spoke to who had navigated it, found that the depths in the narrow choke points were in general significantly greater than shown on the chart. The shallowest water we encountered on this route was 8m and for the vast majority of the time the depths were over 50m.

The only part of the inner route we didn't navigate was the 7 mile stretch immediately north of Faeringe Nordhavn which passes to the east of the Island of Kangeq, so we cannot comment on the depths in that leg.

Attu (p166)

The anchorage off the village is marked by 2 intersecting transits and one should anchor at this exact point to avoid swinging into shoal ground on either side. There is strictly only room for one boat to anchor in the anchorage. The apparently promising bay just to the NE of the marked anchorage is too shoal for anchoring.

The anchorage 2 miles to the NW of Attu just SE of Satue is a delightful spot and offers much better protection than the anchorage off the village. Reasonable holding in 10-12m, thick kelp on sand.

Kangatsiaq (p167)

Lie alongside the small quay temporarily with 2m+ at LW or anchor off in the bay clear of the small boat moorings. Fuel, shop and good mobile phone and 3G data signal.

Nipisat (p178)

A rather exposed and not particularly scenic anchorage with indifferent holding on a rocky bottom in 6-7m to the ENE of the ruined jetty. However, it offers reasonable shelter if the winds are blowing from the S to SE and provided a very welcome respite for the night when beating southwards down the west coast of Disko Island.

Kangersuatsiaq (Proven)(p186)

The inner part of the cove is now filled with fishing boats and possibly too crowded for a yacht to moor even if shore lines are used. However the outer anchorage was perfectly acceptable in 12-14m of water and good holding in sand. It is still possible to come alongside the quay for short periods to refuel and load stores.

The store does now accept credit cards and there is a public water supply in the form of a blue standpipe in the far NE corner of the village. However it is a relatively long walk back to the jetty from the standpipe so not really suitable for taking on large quantities of water.

Mobile phone coverage but no 3G data signal.

Approaches to Upernavik (p198)

Although not indicated on the chart, The waters off the SE corner of Lango, in the unsurveyed channel between Lango and Sanderson's Hope, are relatively shoal with consistently less than 10 m. Keeping to the Sanderson's hope side of mid channel avoids these shoals with soundings in excess of 50m.

Umiarssuaqarfik (p201)

The pilot appears to have got the description for the 2 coves that make up this anchorage mixed up. Contrary to the description in the Pilot, it is the westernmost of the 2 coves which has more swinging room, with the eastern cove being more restricted and possibly requiring shore lines depending on wind conditions.

We anchored in both coves on different occasions. Both appear to have good holding, but the depths in the western cove are generally more suitable for anchoring and there is enough swinging room for at least 2-3 yachts.

However if anchoring in the western cove beware of a large flat topped unmarked rocky outcrop with less than 0.3 m of water over it at LW. It lies on the eastern side of the western cove, approximately 30 metres from the shore, and almost exactly where the 2m sounding is shown on the chart. It is easily visible with the sun behind you, but if lighting conditions are unfavourable it can be avoided by anchoring in the western half of the cove.

If there is bad weather in the offing this is a far more suitable place to sit out a gale than Upernavik just a mile or so to the north.

South Nako (p 195)

Excellent anchorage in the innermost pool with approach as described in the pilot. Adequate holding in mud and filamentous weed.

The shoals in the entrance and outer 2 pools are extensive but are very light coloured rock and are relatively easy to spot even from deck level as long as the sun is behind you.

Anchoring in the small second pool would not be recommended in view of the reefs almost completely blocking the southern and western entrances to this pool.

The rocky NW pointing outcrop in the approach to this anchorage, which is shown as a peninsula in both the nautical charts and the pilot sketch map, is in fact an Island with a narrow 20m wide rock strewn channel between it and the main island of Nutarmiut.

Quornok Kangigdleq (p 202)

Excellent anchorage on the southern side of the peninsula. Anchor either in outer mouth of inlet in 10m, or inner end of inlet in 3-4m with lines ashore. Good holding in sand.

Kingistup Ilua (not described in pilot) 72 40N 55 56.5W

Scenic fair weather anchorage off the beach in a small cove on the western side of the inlet. The Fangsthus shown on the Saga map is at the northern end of this cove. Anchor in 10m, sand, approx 60m off the beach. Not tenable if there is any southerly element in the wind.

Nutarmiut SE Bay (p123)

The pilot is perhaps a little disingenuous in describing this as a "rather sombre" anchorage. In fine weather this is as scenic an anchorage as any other in the area. We found the depths in the inner pool behind the Island to be a little shallower than described in the pilot. Anchor in the western entrance to the inner pool in 10-12m or in the very centre of the pool in 7-8m. Large amounts of filamentous weed on bottom but adequate holding with our CQR.

Upernavik (p198)

Skonnertkaj is used by the smaller supply ships and by the fishing boats for offloading their catch to the local fish factory. However, when not in use it is possible to lie alongside there temporarily. Irrespective of wind direction, the tide/current seems to bring a disproportionate number of small growlers onto the western wall of the Skonnertkaj around high water and this is not a particularly good place to lie if there is any loose ice around in the harbour.

It is also possible to lie alongside the more northerly Atlantkaj which is used by the Arctic Line supply ships and larger fishing trawlers, but there are many miscellaneous comings and goings on this quay and you need to be prepared to move at short notice.

There is just enough space for one yacht to anchor in the SE corner of the harbour between the Skonnertkaj and the fishing boat moorings and this is possibly the most protected spot in the harbour since both quays are subject to heavy swell if any wind is blowing outside.

Anchoring in the NE corner of the bay would also be possible in calm conditions but is very susceptible to both swell and ice.

Upernavik is not a good place in which to sit out a gale. Even with the wind blowing from the SE, the sector from which the harbour offers most protection, the entire harbour is subject to heavy swell, rendering the Atlantkai completely untenable and the Skonnertkaj only barely tenable. The

swell gets significantly worse at high tide when the rocky promontory (Havnesten) partially covers and the waves refract around it into the inner harbour.

Fuel by tanker or by jerry can from the 24 hr pumps (credit card payment) close to the Polaroil depot. Water can also be delivered by tanker but probably not cost effective for a yacht as the minimum order well exceeds the tank capacity of a normal yacht.

3G data coverage but connection speeds slow. If you want a shower or to use a shoreside internet connection you will need to befriend a local as there appear to be no publicly available facilities for either.

Aorrussaarssuk (p200)

This bay had 4 apparently abandoned fishing trawlers and lots of fishing tackle dotted around the shoreline when we visited. Whilst it would still be possible to anchor in the bay, it is no longer quite the picturesque anchorage depicted in the pilot. If you need an anchorage that is close to Upernavik then there are far more attractive options within easy striking distance.

We could not see any evidence of Dodo's Delight 1 on the bottom so it may now be covered with weed.

Sarpinat (p201)

A splendidly located and well protected anchorage which was clear of ice despite large quantities of it in the channel outside.

However, if you have a draught of 2m or more we would not recommend attempting to anchor in the smaller bay on the SW side of Sarpinat. Notwithstanding, the advice in the pilot "to keep close to the S shore" we were none the less still brought short by a rocky ledge with less than 1.5m of water over it at LW when attempting to enter the SW bay.

Given that the protection and holding in the larger NW bay proved excellent, there would appear to be no real reason to try and negotiate one's way way through the submerged rocks guarding the entrance to the SW bay, unless the wind was blowing from a SE direction in which case the anchorage at Umiarssuaqarfik (p201) would be a better alternative for deep draught yachts.

Torssut (p 201)

Another splendidly sighted and relatively well sheltered anchorage within easy striking distance of Upernavik.

Sondre Upernavik (p186)

Indifferent holding on rocky bottom off the beach in the bay 10-12m. Bottom is foul in places. Mobile phone but no 3G data coverage. Shop ashore.

Kangerluk (p178)

Good holding in 8m off the quay. Both fjord and anchorage subject to wind funnelling and katabatic effects with wind strengths in the fjord up to 2-3 forces higher than out at sea. Mobile phone coverage but no 3G data signal.

Baadelob (p168)

Possibly technically one of the best anchorage we have come across in Greenland with good shelter, reasonable depths and plenty of swinging room. Bottom appears to be a mix of kelp on rock but reasonable holding.

Aasiaat (p167)

Water available by hose from Royal Arctic Quay for which a charge may sometimes be levied. Water was of variable quality. On 2 occasions it was clean but on the third occasion was very discoloured. Alternatively fill up by jerry can from the blue stand pipes in town.

Yachts may lie alongside the metal pontoon off the boatyard. However, the pontoon is separated from the shore by a locked gate which the boatyard would not open for yachts moored there. The only way ashore from the pontoon is by dinghy to the public quay. Notwithstanding this, it is still a more comfortable place to lie than the main harbour quay.

The sound outside harbour good for whale watching. In 10 entries/exits from the harbour only once did we fail to see whales here.

Qeqertarsuak (Godhavn) p176-177

Despite reports of a foul bottom and variable holding we found Eulners Bugt offered good clean holding. Good supermarket ashore but the hotel now appears to be closed.

Killit (Fortune Bay) P 177

We found the recommended anchorage halfway along the N shore to be prone to ice if the wind

is from a westerly sector. We also found the recommended approach from the W (the narrow channel which passes to the north of Qaqaq) to be blocked with ice.

However the approach to the E of Qaqaq was open and the small bight in the NW corner of Kangerluarrsuk provided shelter in 10-12m in these conditions, with the possibility of taking lines ashore if necessary.

GENERAL NOTES

Note:

1. All page numbers refer to the Arctic and Northern Waters Pilot (first edition)

GPS and Chart Datums (p128)

The pilot refers to the IMO warning about plotting GPs positions on Greenlandic paper charts because of discrepancies in the datums used.

This warning can also be extended to electronic charts. Although there is an implicit assumption that electronic charts on a GPS plotter have been adjusted to the WGS 84 datum, this appears not to be the case for all Greenlandic charts.

Once north of Aasiaat we found significant discrepancies between reality and our position as shown on our plotter's electronic charts and had we relied on our plotter alone to enter anchorages or navigate narrow channels in poor visibility we would certainly have run aground on numerous occasions. In poor visibility we found it essential to use radar overlaid on our electronic charts, or radar alone, to effect safe entries.

The only area north of Aasiaat where chart and GPS plotter Datums agreed was in Upernavik and the immediately surrounding area. This is possibly because the charts for Upernavik appear to have been updated and datum adjusted more recently than other areas north of Aasiaat.

South of Aasiaat we found the datums to be generally more accurate, but nonetheless in places there were significant discrepancies and it would be imprudent to rely on GPS positions alone, especially if navigating through the inner leads.

Tidal Streams and Currents (p 134)

The pilot refers to the West Greenland Current " .. setting northwards along the west coast at a rate of up to 3 knots inshore and about 1 knot offshore". In 2 seasons of cruising the west coast of Greenland we encountered no real evidence of this current and experienced at least as much south going current/tide as we did north going, leading us to the conclusion that, at least for coastal cruising, tidal streams are the dominant factor.

Although tidal streams are not well documented , we found that in general for the region between Paamiut and Aasiaat the flood stream flows northwards and the ebb southwards, with the ebb tide being significantly stronger than the flood. The strength varied, but even offshore proved a significant factor, especially when tacking against a foul ebb tide.

North of Aasiaat the situation was not so clear cut, but in general the tidal streams appeared weaker and were only significant around headlands and narrow channels.

Navtex (p132)

The pilot refers to 2 Navtex stations covering S Greenland and one broadcasting from Nuuk. There now appears to be a 4th station broadcasting in the Upernavik region with a signal that extends as far south as Disko Island. Unlike the other Greenlandic Navtex stations this station does broadcast very good short range weather forecasts for the surrounding areas in addition to the general synopsis and storm warnings that are broadcast by all the stations.

GRIB files

We found the universally available GRIB files to be a useful source of weather information for the Greenland coast with a few provisos. The files were generally very accurate in predicting the nature and timing of weather systems and wind direction, but less accurate in predicting wind strength. In general we found that actual wind strengths were often 5-10 knots stronger than predicted by the GRIB files, especially when the predicted wind strengths were in the range 10-25 knots.

AIS

Although usually thought of as a collision avoidance tool, we found AIS to be of use as a navigational aid, particularly early in the season when there was still a lot of ice about. Almost all boats operating commercially in Greenland, and most of the pleasure yachts we encountered, have active AIS. We were able to identify the positions (or absence) of favourable routes through the ice by plotting the tracks of local commercial and fishing vessels in the area.

Graffiti seen in Sisimiut