INSTITUTE OF CURRENT WORLD AFFAIRS

WGM-6
Greenland and the Air Age - III

Akandevej 7
Lille Vaerløse
Denmark
15 November 1965

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New York 17, New York

Dear Dick,

If the idea of flying to Greenland by rapid jet is becoming commonplace, the present connections in Greenland which distribute passengers and mail along the west coast are not. For the first time anywhere, helicopters have completely replaced a pre-existing air route operated with fixed-wing aircraft. Greenland's new helicopter network is the third in the world using Sikorsky S-61N jet (turbine) helicopters. The other two are BEA's route from Penzance, England to the Scilly Isles and the East Pakistan operation reported on by Louis Dupree of American University Field Staff in Vol. VIII no. 6 of the South Asia Series (1964).

Local helicopter service in Greenland, therefore, is big news for northern areas and points to a possible future trend in other rugged areas of the North. Helicopters were introduced for scheduled flying in Greenland in June 1965. The air service it replaced was also of recent date. This air service with Catalinas and Otters, as well as events leading up to formation of Grønlandsfly A/S, was outlined in WGM-5.

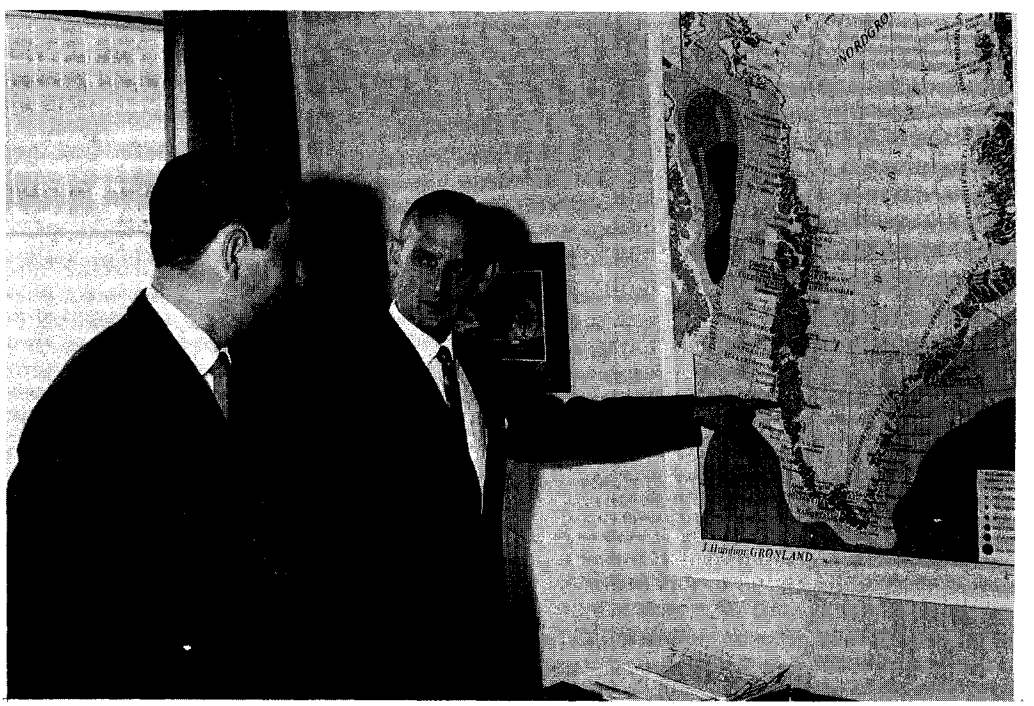
When KGH decided to approach another company to take over flying in Greenland, Scandinavian Airlines System (SAS) was the natural choice. Between KGH and SAS lengthy preliminary negotiations took place for establishing internal civil flying routes in Greenland. But before these negotiations had been completed, a company had to be set up quickly because of an American desire for a Danish company to take over supply and personnel transport to their stations in Greenland. The Americans could deal with a private company but not the Danish government; the contract terms for American transport needs, moreover, would almost certainly yield a sure profit. Therefore, on 7 November 1960 Grønlandsfly A/S was founded by the Cryolite Company (Kryolitselskabet "Øresund" A/S) and SAS with a total share capital of 500,000 kroner. Because of the rushed nature of founding this company and also because a Danish national election was pending, it was not possible to get agreement from government authorities as to the State's participation in the company. Later, the original share capital was expanded by 250,000 kroner on KGH's (State) behalf, and by another 250,000 kroner in 1962 so that the Greenlandic people, represented by the Greenlandic Parliament (Landsraad), could participate as a share-holder with 1/4 interest. This latter financial interest by Landsraad was approved by a vote of 9-4 in Greenland, those in the minority believing that money could be better used in other ways in Greenland.

The new company Grønlandsfly agreed to undertake flying to Canada and Iceland for American military interests in Greenland and also to supply several

DEW line stations in Greenland. The flying for American transport requirements was carried out in one DC-4 and two Sikorsky 55 helicopters rented for this purpose. The helicopters were chartered from Kenting Helicopters Ltd. and the DC-4 from Icelandair. The DC-4 flew irregularly between Cape Dyer on Baffin Island, Søndre Strømfjord, and Kulusuk in East Greenland. Grønlandsfly had nothing to do with route flying in Greenland until May 1962 when it formally took over the internal traffic by air from KGH. Booking and ticket handling, as well as boat transportation out to aircraft, was handled locally by KGH.

For the internal route flying in Greenland, Grønlandsfly continued to charter the services of Eastern Provincial Airways. One advantage of the charter arrangement with EPA was that Danish personnel were used to some extent, thus providing Grønlandsfly with a pool of trained personnel.

One feature of Grønlandsfly's organization is rather unusual and should be noted carefully. Air transport of material and personnel for the American interests in Greenland is kept separate from the second function of internal flying in Greenland. As KGH's director Hans C. Christiansen said to the 1962 Landsraad meeting, the American contract "gives a nice profit". Internal flying, on the other hand, shows only a deficit which the State makes good. The books are kept separately so that the profit from the American contract is paid in dividends to the four shareholders, while the loss from regular route flying is not borne by the shareholders but by the State. Dividends paid by Grønlandsfly are, however, limited to 6% of invested capital, any remainder is reinvested in new plant.



Grønlandsfly's Managing Director, V. Lauritzen, outlines helicopter routes in Greenland to his assistant Jørgen Høy.

Share capital in Grønlandsfly was increased from 1 million to 2 million kroner on 3 December 1964 with the same four shareholders having equal interest: SAS, the Cryolite Company, Royal Greenland Trade Company (KGH), and the Greenlandic Parliament (Landsraad).

At a meeting in January 1964, Grønlandsfly decided upon use of helicopters for route flying in Greenland. At the same time it bought a DC-4 aircraft to fly the Canadian-East Greenland service, with trips to Thule at irregular intervals. In the spring of 1964 the Greenland Technical Organization got the task of building six heliports in West Greenland. These were finished quickly and by November 1964 pads were to be found at Julianehaab, Frederikshaab, Godthaab, Sukkertoppen, Holsteinsborg, and Egedesminde.

In August 1964, Grønlandsfly signed a contract with United Aircraft International (Sikorsky Division) to buy three jet helicopters of the type S-61N for a total of 25 million kroner, including spare parts and various polar equipment. Financing was through a loan from the Danish Government to be paid back through KGH in ten years at 6-6½% interest.

For the first time, helicopters were delivered outside the United States by being flown instead of crated and shipped. The delivery itself showed what could be done in northern flying. The first two S-61N's flew together to Greenland from Stratford, Connecticut via Montreal, Mont Joli, Sept Iles, Schefferville, Fort Chimo, Frobisher, and Cape Dyer.

After putting in about 300 hours of test flying in Greenland, the two new helicopters named "Ugpik" (owl) and "Nagtoralik" (eagle) were set into regular Greenland flying in June 1965. The third chopper, delivered in August, takes care of the American contract and serves as stand-by during repair and servicing of the other two. The two route helicopters are flying 20 flights a week between them, for a total of 35 flying hours.

The S-61N's are magnificent machines. Each carries a 5-bladed rotor driven by two gas turbines (General Electric CT 58-110) and can carry 26 passengers (24 in Greenland in order to enlarge the baggage compartment) at a top speed of 241 kilometers/hour, cruising speed 226 kilometers/hour, range 740 kilometers. The Greenland helicopters are modified for service down to -40°F., have additional fuel capacity of 225 gallons, extra equipment for cabin heating, and special tie-down provisions for winds up to 105 knots.

As I mentioned previously, Greenland is the first place in the world where helicopters have completely replaced an existing conventional airline. Even more important, for the first time helicopters have been set in regular scheduled routes under polar conditions. Helicopters are a direct answer to the rugged topographic conditions in Greenland which make landing strips difficult and costly to build.

It is perhaps too early, and a bit unfair, to make judgment on the helicopters' performance in this their first season. The inevitable initial difficulties were encountered. The biggest problem will be Greenland's weather conditions. Winter operation has only just begun at this time in Greenland, so that possible cold weather problems remain unknown. As yet,

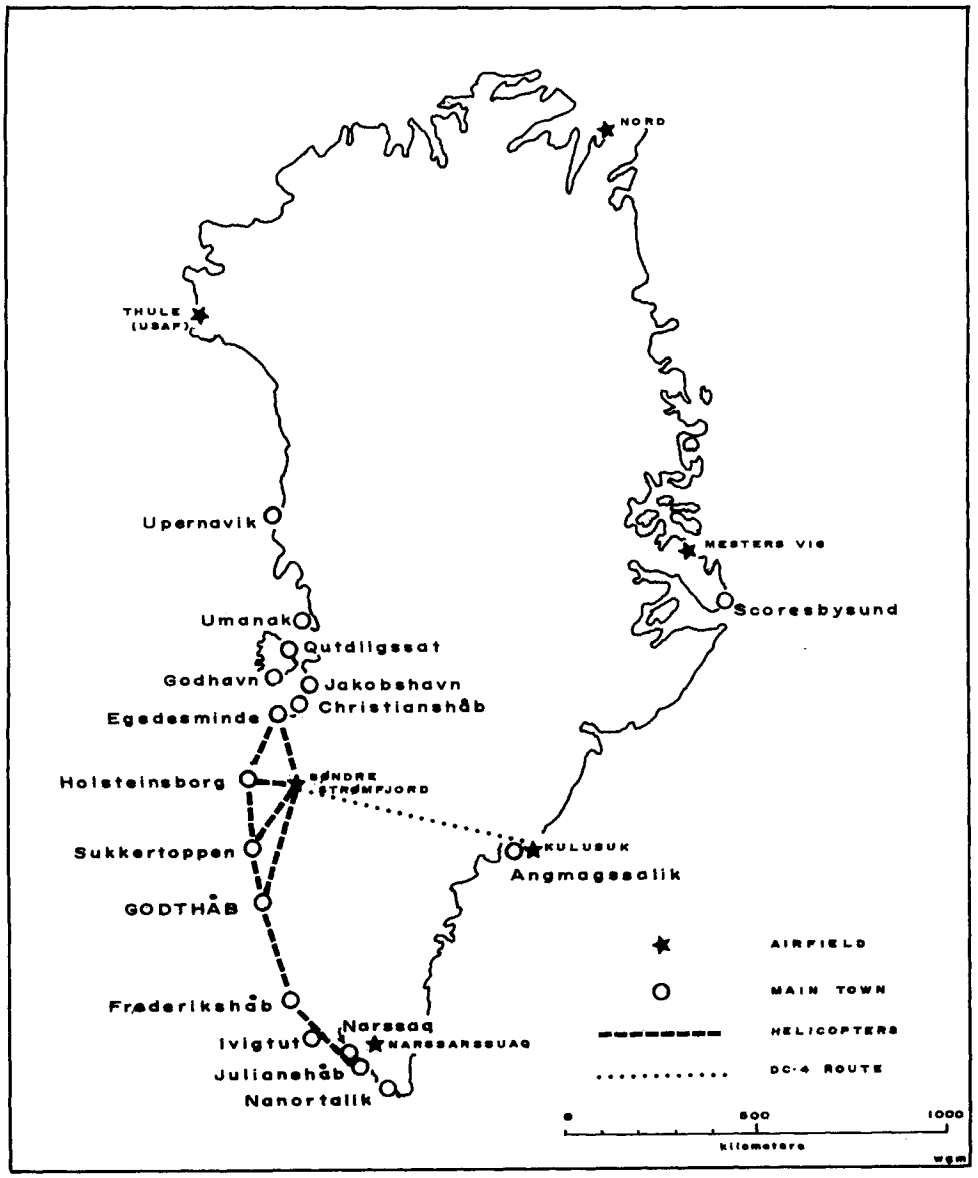
S-61N's are not equipped for operating on IFR (instrument flight rules) and must therefore fly with sight of ground (VFR) at all times with a minimum ceiling of 500 feet and visibility of 5 kilometers. It is estimated that such conditions will be encountered during 200 days out of the year in Greenland. The Greenland helicopters can be equipped with IFR instruments after IFR operations for helicopters are approved by Danish Civil Aviation authorities, who traditionally wait for United States FAA approval.

Although no previous rules exist for instrument flying in helicopters, it would appear only a matter of time before IFR approval is given. Regulations for IFR operations will probably limit passengers to one-half present helicopter capacity and will probably demand proven hovering ability at a certain altitude on one motor. Clearly, in order to allow any regularity in route flying at all, Grønlandsfly must get instruments for their operations in Greenland. Grønlandsfly paid extra for helicopters which could accommodate instruments when approval for IFR operations came through.

In the first months of operation, weather often grounded the helicopters with passengers having sometimes to wait days for connections to Søndre Strømfjord. Hotel sleeping accommodations, always tight in Greenland, were strained beyond capacity, especially at Søndre Strømfjord. At times, regular SAS flights from Copenhagen were canceled because of passenger backlog in Greenland.

The hourly operating cost for helicopters is high (4-5,000 kroner). It

Grønlandsfly's two new helicopters arriving in Greenland.



Grønlandsfly's flying routes in Greenland

is estimated that the cost to the State for internal flying in Greenland will be about 3.8 million kroner yearly and, since most passengers are being flown on Danish government business, ticket revenues are largely coming from the State too.

In an attempt to bring income and costs a bit closer together for all coastal transport in Greenland, both air and ship ticket prices were raised in April 1965. Air tickets went up 50%, ship tickets, 25%. A ticket to Julianehaab from Godthaab, for example, now costs 480 kroner by air and 228 kroner by ship.

In 1963, 22,500 passengers were carried by all transport means along Greenland's west coast. Of these, 8800 traveled with the three main coastal

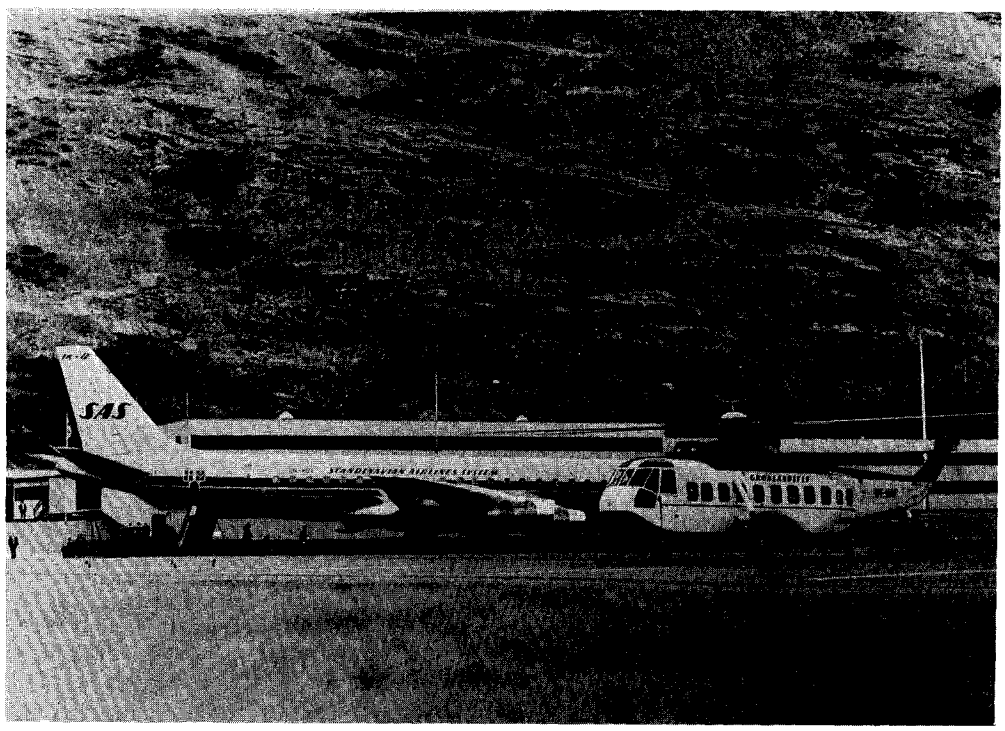
ships, 4500 with smaller coastal vessels, and 200 with various ships arriving from Denmark. The remainder (9000) went by air.

KGH's internal prognosis for Greenland shows an increasing number of passengers expected in the coastal traffic. By 1970, 36,000 passengers are forecast, so that coastal vessels will still be needed.

Roughly two-thirds of the passengers coming to Greenland from Denmark go to the area between Sukkertoppen and Cape Farewell. The remainder go to the area north of Holsteinsborg with about 5% to Upernavik, Umanak, and Thule districts. In coastal traffic Godthaab is important: one-third of all persons traveling in Greenland are either going to or coming from the capital. Egedesminde accounts for 14% of all coastwise passengers, while each of the other towns accounts for less than 8%.

Not only are more people traveling to or from Godthaab than any other town, but most of these passengers are traveling between Godthaab and Søndre Strømfjord. Unfortunately, the Godthaab - Søndre Strømfjord leg is the longest in Greenland (1 hour 45 minutes by helicopter).

Most air passengers in Greenland travel in the 6-month period May-October, but this seasonal trend is expected to even out with the new helicopters.



Grønlandsfly's new helicopters connect with SAS jet flights on the Los Angeles-Copenhagen route, or special flights from Denmark.

If the present annual population growth rate of 3.5% continues, by 1984 the Greenlandic population will reach 60,000. During this time, personal incomes will also be increasing so that more and more people will be traveling for business and pleasure in Greenland. The very existence of a rapid, comfortable, and reasonably regular air route in West Greenland will no doubt stimulate an interest in local travel by Greenlanders as well as by tourists from Europe and North America.

The new helicopters in Greenland are part of a very small operation compared with the 1800 helicopters in use in the United States for route traffic (which, like that in Greenland, is also supported by government subsidy). Although a small operation, Grønlandsfly plays an important part in today's tempo of development in Greenland and will continue to do so as the passenger traffic between Denmark and Greenland increases each year.

Another potential for helicopters, already demonstrated in Greenland, is in air-sea rescue work. On 3 July 1965 one of Grønlandsfly's helicopters plucked from the sea an injured West German fisherman from the trawler "Kap Walloe" 37 kilometers southwest of Julianehaab. Because of ice conditions and high seas, this rescue mission could be carried out only by helicopter.

Depending on demand and suitable landing facilities, Grønlandsfly hopes to expand its service to include Grønnedal, Ivigtut, Narssaq, and Nanortalik in the south, plus Godhavn, Christianshaab, and Jakobshavn in the north. Some day Umanak and Upernavik might even be included.

The suitability of helicopters in Greenland will be interesting to watch in the future. If some sort of regularity can be maintained until such time as instruments are approved for IFR operations, helicopters should prove a successful adaptation in northern flying. They are certainly as reliable and safe as other means of air travel. Greenland's stormy and cloudy weather will, at times, hinder their operations--at the same times when conventional aircraft would also be grounded.

Sincerely,

Bill Mattox

W. G. Mattox

Photograph on page 8 - One of Grønlandsfly's new S-61N helicopters in front of the Sikorsky factory in Stratford, Connecticut. (Photo by courtesy of Grønlandsfly A/S)

Grønlandsfly's staff in Copenhagen kindly supplied for this letter much of the information on their new helicopters.

Received in New York November 18, 1965.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