

STATION NORD.

Early considerations.

The station, which was planned and built during the cold war, was officially a Danish weather station, but very likely built with some encouragement, or perhaps pressure, from the United States Government. The activities at Thule Air Base, in northwest Greenland are so closely connected with Station Nord, that it makes sense to give a brief account of some of the developments in northern Greenland.

The Danish settlement at Thule was begun in 1910 and was quite small until 1943, when the U.S. built a weather observation station and a small landing strip for supply aircraft, on a large area west of the old village. The first idea of building a large air base here was made in November 1950 by high-ranking Air Force officers. President Truman later approved it, after recommendation by Joint Chiefs of Staff. A new agreement between the two governments, regarding the defence of Greenland, was signed in April 1951. This replaced the arrangements made during World War II.

The enormous project, codename Blue Jay, began with the arrival of ships bringing men and supplies from Norfolk, Virginia to a newly constructed pier at Thule. The shipping season was short and the loads of more than a hundred ships brought 12,000 men and 300,000 tons of cargo to the site in the fall of 1951.

After the end of the war, Thule was used as a staging point for the establishment of Joint Arctic Weather Stations in Canada. This resulted in the arrival of many aircraft and ships, and the storage of a large amount of freight destined for these stations.

In 1951, there was a great deal of activity by the U.S. on the level area about three kilometers southwest of the Danish settlement. This activity was apparently not agreed upon by the Danish government, but was started, and was well underway, before any official arrangements were made. A Danish liaison officer arrived at Thule in September 1951 when preparations for a very large American base were being made. After some time, an agreement was made between the two governments. There were loose ends in the arrangement, which resulted in many outlying camps being built around Thule, and even on the ice cap hundreds of kilometers from the base. The base was built in the period 1952 to 1953. The size of the project is illustrated by the fact that about 7000 American civilian and military persons were working there in 1952.

Mention of a new weather station on the northeast corner of Greenland was made in connection with plans for the joint US/Canadian weather stations at five locations in Canada's High Arctic. The stations, named Resolute Bay, Mould Bay, Isachsen, Eureka and Alert, had been established soon after the end of World War II. General Haynes, Charles Hubbard and Robert Sykes were some of the people involved. Sykes made several trips to Copenhagen to contact the Danes in this connection.

In 1948 some survey flights using B-29 aircraft were made along the East Coast of Greenland to Pearyland, over the present Nord site and Frederich E Hyde fjord. From there, along Robeson channel and south to the U.S. base, BW-8, from which the flight had started. Sykes took photos on this flight, which was made to investigate the possibility of building a runway in the northeastern area of Greenland. This facility could, in an emergency, be used by large aircraft returning to Thule, but unable to land

there. The plans were not presented to the Danes, probably because it was classified information. Not much became of this project, until meetings with the Danish government were arranged. The object was to come to an agreement about the American activity in North Greenland.

In 1950, a Canadian Lancaster aircraft crashed at the weather station Alert, on Ellesmere Island. The Chief of the U.S. Weather Bureau's Arctic Operations Project, Charles Hubbard, was killed, and this left his unit without a leader. Robert Sykes was chosen to replace Hubbard, and he was transferred from the Air Force.

According to Sykes, there were many problems with discussing the U.S. activity with the Danes, because most of the plans were classified. It was however, also realized that the Danes could probably understand what was going on during the many meetings. The U.S. wanted a runway 3000 meters long and 70 meters wide, with parking area and storage of aircraft fuel, as well as other facilities. An agreement was finally made with the Danes about this project.

Holten Møller, who was in charge of Denmark's radio and weather service in Greenland, attended many meetings in the United States, Canada and Greenland and became the contact person for the project, Station Nord, named "Parkway", by the Americans. The Danish Government wanted it to be a Danish weather station, built entirely from Danish materials and equipment, and staffed with Danish personnel. Only the transportation of people and goods between Thule and Nord, as well as the building and maintenance of the runway, was an American responsibility. The Greenland Department Chief in Denmark, Eske Brun, was involved, and he took care of the political negotiations.

1951.

In 1951, the North Atlantic Ocean Region planning group, an organisation making decisions about new weather stations, gave Denmark, with the assistance of the U.S.A., responsibility for the establishment of a station in Pearyland. In Copenhagen, the preparations for this very large project started in April 1951 with the assembly of the building materials and equipment. One requirement was that all freight be of such dimensions, as to allow loading into a C-54 aircraft. This changed later, as the project progressed, and large, C-119 and C-124, aircraft were used.

A 1. June letter from Mr. Dyer, of the U.S. Weather Bureau to Holten Møller, comments on the maximum size of objects which can be loaded into a C-54 aircraft, and it is a 5.3 meter long triangular tower section, one meter on the side. It is assumed that C-54 will be used for most of the moving of freight.

Three ships departed Copenhagen during July and August bound for the west coast of Greenland and the Thule base. On the fourth of September all the goods for Station Nord had been unloaded at the base. Two buildings were erected on the base for storage of items needing protection from the weather and pilfering. About one third of the alcohol sent up from Denmark was stolen before it could be brought under roof. Edmund Nielsen, of the Greenland department weather service, who had supervised the cargo storage, left Thule, 15. October and reached Copenhagen via New York. 29. October. A meeting took place shortly after between the Greenland department and representatives from the U.S. Air Force and the American Embassy in Copenhagen.

1952.

In January, Holten Møller wrote a long letter to Robert Sykes outlining the detailed plan,

which the Greenland Department has made up. In a reply, Sykes agreed on the main points, but made a few changes. A large beacon transmitter was one of the wishes of the Air Force, but since it was added after Danish plans for electric power generation was finalised, the practical difficulties in providing the extra powerhouse and cable caused it to be postponed. The plan was to add a 2.5 kW beacon with large tower. This equipment would probably use about 10 kW, and in addition, Americans wanted landing lights on the runway. This, of course, proves that the main purpose of the project, on the American side, was to provide an alternate landing base, besides Alert, in Canada, for the B-29 bombers patrolling the Arctic Ocean.

Another scheme for getting the large amount of freight to Pearyland was to use tractor trains across the ice cap. The tractor train would have 18-ton tractors pull four sleds each.

They would travel up the glacier behind the Thule base, and find a way of getting down at the northeast area of Greenland. The size of the operation is illustrated by the amount of equipment planned.

24 large sleds, with living accommodation for the crew.

Several of the largest size bulldozers

A radio station.

3 helicopters.

The radio-and power sled would have an engine building with three diesel generators, several transmitters as well as sleeping room for the operators. The trip would run 24 hours a day, and investigate several directions on the ice cap. One suspects that part of the plan was to build large radar stations, with crews of up to 100, either on the ice, or in east Greenland. On April 6. Col. Hefner and Victor went to the Danish village in Thule to hire two Greenlanders with their dog sleds to find a way of getting up on the ice cap. The train was to leave Thule 10. April, and the trip would be covered by aircraft from Thule. Much of the rolling equipment would be left on the east coast while some returned to Thule. The personnel would be airlifted out when necessary.

The Danish Foreign Affairs Ministry received the request for this from the U.S Embassy in Copenhagen, and forwarded it to the Greenland Department for comment. There were no objections from the Danes, but the Americans would like a couple of Danish persons to join the trip.

Nothing came of this plan, but it was suggested that Ib Poulsen, and Paul Emile Victor would provide expert assistance. Poulsen, had been chief of the Greenland Sledge Patrol, on the east coast, during the war, and was now an officer in the Danish Army. Victor, a French citizen, had led several expeditions on the Greenland ice cap.

Holten Møller and Edmund Nielsen left Copenhagen, 7 March, and eventually reach Fort Pepperell, an American base, near St. Johns, Newfoundland, Canada. This was the headquarters of the NEAC, North East Air Command.

On the 11. and 12. March meetings were held to discuss the details of the project.

Present, besides the two Danes were the following Americans: Harrison Eddy jr., partner in the large engineering company, Metcalf and Eddy in Boston. Lt. Col. Millikan of the US Air Force from the Washington Headquarters. Lt. Col. Tom Gray of Army Engineers. Barney Trauwicki, Civil Engineer and expert in Arctic permafrost construction. Lt. Col. Robert Sykes of the US Weather Bureau. Colonels Bond, West, Kugel and Wootten from NEAC. A number of officers connected with air transportation

also participated.

Despite much correspondence previously, Sykes or NEAC had planned little. For example, no one seemed to know where the equipment, including the radios to be used for preliminary surveys, was located.

Dates for the phases of reconnaissance and airlift were decided on the basis of snow melting and use of an ice runway. The safety precautions and type of aircraft were discussed. As well as the use of covering aircraft for the dangerous first landings on unprepared sites.

Accompanied by the Americans, Sykes, Grey and Eddy, the Danes flew to Bluie West One, an American base in southern Greenland, established during the second World War, and continued from there to Thule. It turned out that the missing equipment was at Goose Bay, and had not been forwarded to Thule yet. The Danish lot included an American transmitter-receiver, SCR-284 or BC-654, one of the most useful radios for setting up a temporary radio station. The code word for the American part of the project was "Parkway", while the Danish one was "Nord".

One annoying circumstance to the Danes was that most of the Americans had very detailed plans and large maps, as well as aerial photos of possible sites for the new station. These were kept away from the Danes, probably because of security worries during the cold war period. Later the Americans apologised for this, and claimed that it was a mistake. The plans could not be kept secret, especially with so many people involved, and Holten Møller found that the plans called for two 10,000-ft long landing strips at right angles. The approaches had to be free of obstructions over a very large area, and allow for radar view to within a few degrees of the horizontal. He managed to steal a map, which showed how, before the reconnaissance, it was decided to place the runways on Princess Dagmar peninsula.

Several reconnaissance flights, using B-17 aircraft were canceled, much to the frustration of the nine people involved. They had to be ready every morning, only to find the flight canceled. On 23. March, a successful flight was made, using a C-54 plane which happened to come by Thule, and it was discovered that a large snow free area existed at Kap Rigsdagen. This opened up the possibility of landing larger aircraft on wheels, and bringing in vehicles for the survey. The area of the greatest interest to the American observers is on Prinsesse Dagmar peninsula, because of the flat terrain and the possibility of getting drinking water from lakes nearby. The ice at Kap Rigsdagen was thought to be suitable for landing a C-54 on wheels. Holten Møller was radio operator during this flight, and kept radio contact with the Danish station at Thule, the weather station Danmarkshavn, on the east coast, and Alert in Canada. The American station at Thule could not be contacted.

At a meeting at Thule it was decided to concentrate on Kap Rigsdagen as a place to put down a reconnaissance party. For this flight NEAC had chosen two C-47 aircraft on skis. However, the same problem of maintenance, which had surfaced with the use of B-17 was now apparent. The C-47 was on the base, only as rescue aircraft. The matter was further complicated by the fact that, for safety reasons, the two landing aircraft had to be covered by a B-17 overhead. To get eight people with their gear landed, meant a refueling stop at Alert on the way. The efforts to land a party on the ice at Kap Rigsdagen, was hindered by the lack of suitable and reliable aircraft. It was apparently impossible to get three functioning aircraft in the air at the same time, so it was decided

to land just five men using one C-47.

Edmund Nielsen's description of one of these efforts is enlightening:

"We started from the base in a C-47 (DC-3 or Dakota) aircraft on skis, intending to land on the east side of Independence fjord. About half an hour into the flight, it was discovered that the cover for the fuel tank had been left off while fuelling at Thule. We turned around to correct this mistake, and started again for the US/Canadian weather station at Alert in Ellesmere Island. After an hours flight an unusual sound was heard coming from one of the engines. It was again decided to turn around since it was a twin-engine plane, and no one would like to experience an emergency landing in the desolate country. Shortly after the other engine failed, so we were left with one engine, which was even suspected of having a fault. The progress was slow on only one engine, but we reached Thule. The airport control had been advised of the problems, and ordered the plane to land on an old gravel strip. Here it was met by a tractor, which towed it to the maintenance workshop. The engines were examined while we had a well-deserved rest. No fault was found in the aircraft and a test flight was thought to be unnecessary. To be on the safe side the passengers pressed the point, so it was decided to make a test flight after all. The aircraft crashed shortly after take off and became totally wrecked. Fortunately the two member crew could walk away with only minor injuries".

Harrison Eddy, one of the passengers, who was an engineer whose company was involved with the building of the Thule base, expressed the American view on this. In a letter to Sykes, 25. March, he complains that 13 days of waiting have not produced an aircraft suitable for the planned reconnaissance flights. The flight, described by Edmund Nielsen above, is called foolhardy, and the P.S., at the end of the letter, mentions that the C-47 has just crashed.

The Americans, who were to participate in the preliminary flights, and were also to spend some time at each of the chosen sites, were: Harrison Eddy, engineer and civilian, Barney Twericki engineer and civilian, Lt.Col. Gray of the Army Engineers, Lt.Col. Millikan Special Services from Washington, Lt. Col. Sykes U.S. Weather Bureau, Major Franks from the Air Force, and Morgan, civilian U.S. Weather Bureau.

The choice of a B-17 for some of the flights was a poor one, because of the very limited space inside. The number of passengers had to be limited, but this problem became of little interest, since it was apparently impossible to get the aircraft ready. Ten days was spent with the passengers getting ready each day, and finding the flight canceled at the last moment. The Air Force explanation for this was that the base was not set up to service this type of aircraft, but rather the C-54 transport plane.

After this fiasco, pressure was put upon NEAC from both Sykes and Holten Møller, to make suitable transportation available very soon, or consider calling off the operation until next year. Because many people were getting ready in Copenhagen, Holten Møller set a deadline of April 1. for a decision.

On March 26. still no final decision, but several experts had arrived at Thule, among them Bernt Balchen, of Arctic and Antarctic fame, 64 year old Sir Hubert Wilkins, and Maj. Gen. Myers. Sykes had lost much of his authority with NEAC, which put the Danes in a difficult position.

On March 30. a meeting was held, in which sharp criticism was voiced by several Americans, towards the Air Force representatives. It was the first time that the American side had mentioned the possibility of canceling the project.

31. March, no decision, despite several meetings with NEAC brass, and the promise that “We will go all out, and render every possible support”. There was a promise of a C-47 flight and landing on the Blue Ice next morning, where the ice thickness would be determined by test drilling.

A C-54, assigned to the project finally arrived, but a few hours later, were declared out of commission pending repairs. In desperation NEAC sent two C-119 (flying boxcar) aircraft up.

On 4. April, a C-47 with a B-17 as cover started for the Blue Ice. Four hours later the two C-119 took off with another B-17 as cover. The plan was that the three passengers in the C-47 should measure the ice thickness, which had to be greater than 60 inches (152 cm), it turned out to be 87 inches, to allow the loaded C-119 to land. The operation went well, and Sykes, Edmund Nielsen, Millikan, Grey, Capt. Baker, Trawicki and Morgan were landed with the following supplies: Tents, provisions, gasoline, diesel oil as well as these vehicles: D-4 bulldozer, Weasel, Snowjeep and 6 sleds. The party should then examine the two possible sites, Kap Ludovika and Prinsesse Dagmars Peninsula. One of the B-17 aircraft with Bernt Balchen and Paul Emile Victor on board, went on to examine the possibilities for descent from the ice cap near the bottom of Danmarksfjord. This apparently put so much strain on the machine, that one engine stopped, and another developed an oil leak. Thule was reached only with difficulty. The other B-17 also needed repairs upon return, so once more the B-17 was not available. The Air Force was persuaded to let a C-119 make one more trip, bringing more fuel for possible clearing of an ice landing strip at the chosen site for the station. Morgan had to return on this flight, because he had cut his hand while unloading the Weasel. Holten Møller explains, in his letters to Denmark, that this is very unfortunate, but in the light of what later happened in connection with Morgan, it could have been an advantage not to have him involved.

The team on the Blue Ice reported by radio, that all was well, and they had good radio contact with Danmarkshavn and Alert.

The C-119 returned to Fort Pepperell and no other aircraft were ready to fly Morgan back.

Several pieces of information picked up by Holten Møller during casual conversations in the officer’s mess, and elsewhere indicated that the Americans had very large plans for installations in Greenland. Any airfield near Pearyland should have one or two 10,000-ft. runways.

Sykes’s own taped description, done in 1989, agree that many of the plans for Greenland could not be discussed with the Danes for security reasons. This made his job difficult since he had to deal with the Nord project in detail. Runways, 3000-meter long 70 meter wide, as well as navigation aids to air traffic were desired. More than one station was contemplated in north and northeast Greenland. Sykes also mentioned that Edward Goodale, of the Weather Bureau, recommended Morgan. Morgan had been involved in the construction of the runway at Alert, Canada, in 1950. Sykes left Greenland in 1952, after receiving strong criticism from both the Air Force and the Danes at Thule. He was on loan to the Weather Bureau for two years. As part of the general intrigue, Morgan, who had learned a bit of Danish, claimed to have heard Holten Møller, in Thule, say, “Sykes will not get his long airstrip”.

The lack of respect for other countries, and the generally relaxed attitude by the

Americans, is clear from a couple of incidents in this period. Several Americans had unofficially mentioned that they were looking forward to seeing the two flags flying at Nord, although the U.S. flag could only be used within the defence area at Thule and at other U.S. bases in Greenland. This resulted in a message from the Danish foreign affairs ministry in Copenhagen to the U.S. embassy. It pointed out that Station Nord was a Danish project, and only the Danish flag would be flying there.

Secondly, some people from Newspapers and Magazines, journalists and Photographers, came from the U.S. to Thule with the intention of covering the story about Station Nord. The U.S. Airforce had allowed a journalist from Colliers magazine, Bill Davidson, to travel to Thule for coverage of the events to be published in his magazine. The result was a detailed story with pictures, in Colliers magazine, about the Nord project and this caused quite a stir in Denmark. It had earlier been agreed that news people from both countries should have access to this project at the same time. The U.S. Airforce had, in this period of preliminary operations, sent a film crew to Thule with the idea of recording the effort to get Nord established. It appears from several messages that Sykes had made arrangements for some of these activities. This was only discovered accidentally when Holten Møller saw photographers with their cameras come back from one of the flights over Nord. A meeting resulted where the press people and Sykes were told that any publication of the Nord story had to be agreed upon by U.S. Airforce, U.S. state department as well as the Danish government. All this caused another critical note to be sent to the American embassy. Colliers' magazine brought the article with photographs in its issue printed by 20. May. When this magazine, with its somewhat premature story, appeared on the Thule base it caused quite a stir, especially since it described the successful construction of an ice runway at Nord by the three heroes, Morgan, Courtney and Moore. As later shown, the runway could not be built, and the heroes were less than successful. Major General Stamford later apologised on behalf of the Airforce for this unfortunate affair.

The camp by the Blue Ice was established and on 7. April, the six people drove to Kap Ludovika in the Weasel. This site turned out to be unsuitable for a long runway. The 75-km long round trip was done in fine weather and minus 35 degree Celsius temperature. After a day's rest, they traveled the much longer distance to Prinsesse Dagmar's peninsula. This was the site, which eventually was chosen as the most suitable. The weather was good on the way out, and after finding the site well suited, they started the return trip, although they could have camped. Everyone wanted to return as soon as possible. After a while a snowstorm overtook them. The weasel had room for only four people, so two of the group had to sit on the sled, which was loaded with the camping gear. Edmund Nielsen, who was dressed in bearskin pants and reindeer anorak, had to spend most of the time on the sled, together with one of the hardier Americans. In a storm, and with temperature between minus 20 and minus 30 Celsius, it was a hard job to spend time on the sled.

The visibility was near zero, so the navigator had to leave the cab for every kilometer driven, walk away from the magnetic influence of the vehicle, come back and give the direction to the driver. The magnetic compass does not work well in the high Arctic, because the deviation in most places is large, and the horizontal component of the earth's field weak close to the magnetic pole. The course was due west in order to reach the coast, and then follow this until the camp was reached. 38 hours after leaving the camp

they were back, exhausted from the struggle. Waking after 14 hours sleep, the storm was still raging, and there was some uncertainty about the time of day. Danmarkshavn was called on the radio, and the correct time was obtained, but the date had to be confirmed also, since the 24-hour daylight confuses day and night.

Easter was celebrated with pemmican soup, pork cutlets, thawed on the weasel exhaust and ice cream made by mixing lemon powder and snow, while waiting for the weather to clear.

When this finally happened, no C-47 was available for their return, but a C-54 was ready, but not well suited to land on the ice after the storm had formed snowdrifts on the surface. It was decided to try, after all, and after some hours the plane, piloted by Bernt Balchen, landed plowing through the snow. Morgan and two companions were passengers, and were to drive the vehicles to Nord. During take off, the plane was caught in a gust of wind, and it came very close to the steep cliffs. The nose wheel hitting a snow bank only prevented a collision. Before the next attempt at getting airborne the pilot smoothed a bit of a runway by driving back and forth over the snow. He later admitted that the take off was the worst he had experienced, and he must have had quite a few experiences, having been a pilot for many years under Arctic and Antarctic conditions.

On 16. April, the final decision was made to place the new station Nord at Prinsesse Dagmar's peninsula with the immediate plan that Morgan when reaching the site should attempt construction of an ice strip by the beach.

Morgan was accompanied by two more Oklahomans, Courtney and Moore. They were probably doing their best in the unfamiliar surroundings, but did not appreciate how careful one has to be with the equipment in a place where tools and spares are over a thousand kilometers away. For example, Courtney and Moore would for their entertainment have a match, using two small bulldozers pushing against each other with their blades. The larger D-4 machines suffered from lack of maintenance, and later broke down frequently. When I, in my ignorance, once asked Morgans cohorts what a hillbilly was, they looked at each other and answered that they were considered hillbillies at home in Oklahoma.

The job of clearing an ice strip was made impossible by the amount of snow at the site. Morgan had to give up after some days of trying. The three who had left the Blue Ice site on 16. April, probably took a couple of days to reach Nord, and then cleared snow until the 24. At that point they gave up and sent a message to that effect to Sykes at Thule. Sykes's message of 28. April, to Holten Møller, mentions that it will be impossible to airlift the cargo for Nord as planned originally.

The reason was, that the Weather Bureau had failed to provide the Air Force with an ice airstrip suited for landing aircraft on wheels. Morgans group had found it impossible to move the amount of snow with the machines available. The amount of snow at the site was vastly different from the situation, just two weeks earlier, when visited by the survey party.

A number of unfavourable events, such as lack of available aircraft during March and April had delayed the start of work on the ice strip.

On 13. April the Danish personnel for Nord left Copenhagen via Scandinavian Airlines for the Blue West One base in southern Greenland. The 24 construction workers, and 10 station staff continued to Thule on an American Air Force C-54 a couple of days later,

arriving on 16. April. Eigil Knuth, a Danish archaeologist was among the passengers. He, who had conducted the Pearyland expedition, and spent two years at its station on the shore of Brønlundsfjord, wanted to find traces of early Eskimo culture at the chosen Nord site.

The Thule base was extremely busy at that time. About 7000 construction workers and military persons were building the huge town. The Danes were amazed to see the American effort, which for example involved an endless chain of dump trucks, carrying gravel from the hills to the runway. The work was done continuously in the 24-hour daylight. The Danish crew ate in the enormous mess hall, in which was also used as a movie theater. The film was projected on a large screen in the center of the hall, and it could be viewed from both sides. The base dump had, besides the usual waste, broken machinery, and unopened crates of parts, probably ordered in error. A C-47 aircraft was left on the dump after being stripped of equipment.

After several meetings in Thule it was finally decided to abandon the planned, large project at Nord, and instead build a small station and bring in as much material as possible during the summer. Many of the Danes were sent down to work at other places on the west coast, and only a few construction people, and the ones who were going to spend the winter at Nord, stayed.

On May 2. the first landing took place at Nord. It was a C-47 on skis, and three days later it brought in Kristen Sørensen, a radio operator with a BC-654 portable radio. I left Thule on a C-119 plane with some freight for Nord. At Alert in Canada, the gear was transferred to the ski equipped C-47 and we then flew to Nord. On the way we passed over an abandoned station, 200 km from Nord at Brønlundfjord. This was the site where Kristen Sørensen and I had spent a year on Eigil Knuth's Pearyland expedition. My job at Nord was to be radio technician as well as radio operator. This trip was interesting in that i got to alert to transfer the load from C-119 to a C-47, and while there i made a few contacts on amateur radio. Little did i know that i would later immigrate to Canada and visit Alert many times.

On May 5. Eigil Knuth, the Danish machinist, Heering Hansen and Bill Morgan were landed on the Blue Ice together with a D-4 bulldozer. They were to drive the machine across the ice to Nord. Eigil Knuth later described this trip. He was an experienced traveler and wanted to make camp at night, have a meal and get some sleep. Morgan, on the other hand, only wanted to keep driving. He was satisfied with heating a can of beans on the tractor exhaust manifold and eating it while steering the vehicle.

It turned out to be impossible to clear the deep snow from an ice runway, and the effort was directed towards a land strip.

Two Atwell huts were erected near the beach, one housing Bill Morgan and his crew while the other became the temporary weather and radio station. The Atwell hut was a good shelter heated by an oil burning stove. It assembled from easily handled pieces of wooden arches, supporting an insulated canvas cover. The three Danes, Knuth, Sørensen and I occupied the second shelter, and we immediately started the three hourly weather observations, which were sent by Morse code to Scoresbysund and to Thule. After arriving at Nord, Eigil Knuth was going to walk across the ice of Independence fjord to Herlufsholm Strand, where in 1948 he had found the remains of a large Eskimo boat. He had only seen the site in winter, when snow covered the land, so he would take

the opportunity to spend the summer there. The plan was to return to Nord when the ice again covered the Independence Fjord. He left Nord on June 6. and had asked to have a supply drop on June 15. On his way, and near Herlufsholm Strand, he had second thoughts about spending that much time alone, and returning on new, perhaps unsafe, ice. An American pilot, Captain Stover, was to drop the two containers with supplies for Knuth. Returning in a C-47 from Nord, June 14, Stover found Knuth walking near the archaeology site. The aircraft dropped a note, asking if Knuth was all right. The reply was stamped in the snow, " AM OK - DO NOT DROP RETURNING TO NORD ". Knuth arrived in camp, starving, and very tired on June 19. He stayed for about one month at Nord, investigating archaeological sites in the area.

The revised smaller plan for Nord was to build a small, temporary station. This would make it possible to start the weather observations right away, and would make the construction of the larger station in 1953 much easier with people already at the site. If possible, a runway would be built on land, when the snow was gone, and as much building material as possible brought in to be stored on site. The four people chosen for the small station were: Edmund Nielsen, station manager. John Andersen, cook. Kristen Sørensen, radio operator. Børge Haagenen, radio technician and - operator. The radio operators were also trained weather observers.

A number of flights, using C-47 planes on skis, were made, and some of the construction workers brought in to build the first small house.

On June 3., the U.S. Air Force decided to make a great effort to bring equipment and building materials in by parachute drops. This may have been prompted by the exchange of letters between governments, and by the many meetings held at Thule. It was pointed out, by the Danes, that if the program for 1952 were to be abandoned, it would be best to do it before the construction crew left Denmark. This would save money for transportation and wages, and save face for both governments. It would appear to be a failure, if the announcement was made after the construction crews had reached Thule.

However it was now too late. The Danes had set a deadline of June 1. as a cut off date for bringing the freight to Nord, and all was ready at Thule. The Air Force had now mustered a squadron, ten C-119 aircraft, which arrived at Thule, June 3. They brought 200,000 dollars worth of parachute equipment as well as experts in preparation of loads on aluminum pallets. They would transport as much freight as possible and drop it by parachute at Nord. The snow was still deep at the site. Heavy items, such as a weasel vehicle, would be dropped using three 100-foot parachutes. Explosive release disconnected the load from the parachutes after landing, thus preventing the wind from dragging the load over the snow. The vehicles at Nord, needed to collect dropped material, were at this time in very poor condition, mainly because of the rough and incompetent handling by the Morgan group.

The Air Force was at first very optimistic about the effort, expecting to drop all of the freight and making it possible to finish the entire project. However, after the first few parachute drops had been made with some damage to the goods, it was clear that the packing had to be improved, and the loads reduced.

It was now decided to finish the temporary station only, mainly because it was likely that more building materials would be damaged in drops, and that replacement would not be available at Thule.

At a meeting in Copenhagen on June 23, 1952, the responsibilities of the two governments regarding the Nord project were discussed between, on the Danish side; Eske Brun, Finn Nielsen, Holten Møller. The Americans were: Bernt Balchen, Robert Sykes and the U.S. Ambassador, Virgil Elliott. The reduced program for 1952 was decided upon, and the Air Force would endeavour to bring all the goods stored at Thule to Nord. This assumed that a usable runway was available. The future resupply of the station would be done by the Air Force in the same way as the joint U.S., Canadian stations in the Canadian arctic.

In the period of all the aircraft activity, some of the radio station was moved out in the open air, where the operator had a clear view of the sky and the many aircraft circling the area. The communication with the planes took place on a frequency of 4220 kilohertz, which was the Air Force voice frequency. The weather reports and all the telegram traffic at the station took place using Morse code telegraphy. On several occasions an aircraft, which could not spot the station, would call and ask to be told in which direction to reach the site. Our answer was that he would have to tip his wings to be identified, since several aircraft were in sight simultaneously.

The difficulty of getting the building materials to Nord, and the problems with the vehicles collecting the freight is illustrated by Edmund Nielsen's telegram of June 15, to Holten Møller, who was in Copenhagen at that time. "The new Weasel tractor has been ruined by the Weather Bureau personnel, after being used less than 48 hours. It is doubtful if a drop, made about 5 to 6 miles from the station, and not yet localized, can be transported to the building site. At least one of these drops landed on the ice. The summer's building program may be jeopardized, since some material, not yet found, may not be replaceable from Thule. A scraper was completely wrecked by being dropped, because the parachute did not open. This may bring the construction of a landing strip on land in danger. I must admit that the behavior of the present Weather Bureau personnel does not bode well for the finish of a land strip. 24 pieces of foundation iron bars were ruined because the connection between parachute and load broke. This may possibly be replaced by lumber from the Air Force. If the station's program is to continue through the winter, it will be necessary to make major changes. The building program has to work independently of the US Weather Bureau. This is especially true with regard to transportation before the snow melts and the ice breaks up. The US Air Force does not, after Captain Stover's visit, want to supply the Weather Bureau with vehicles."

The problems with Morgan and Co. gradually became worse during the month of June. Their Atwell hut was incredibly dirty. All the windows were darkened because they could not sleep in the 24-hour daylight. A small gasoline stove was burning much of the time, emitting soot, which covered everything inside. Over the oil heater hung a large container with soaked prunes, raisins and other fruit. They had made a still from copper pipe, on which they produced alcohol from the fermented mush. Captain Stover had visited Nord on June 15, found Morgan dead drunk, and saw the mess in their Atwell hut. The flight with the ski equipped C-47 took off with great difficulty because of the soft and wet snow. Stover had reported on Morgan's conditions to Colonel West at Thule. West reported to NEAC headquarters, and recommended that Morgan's group be removed from Nord at the first opportunity. A telegram apologising to the Danes was received from Thule. Despite all this, Morgan managed to get a landing strip finished during the month of July, and all the dropped materials were collected.

At a meeting at the Greenland Department in Copenhagen on July 23 the following persons participated: Department chief, Eske Brun. Assistant chief, Finn Nielsen. Holten Møller. Bernt Balchen. Robert Sykes and the American Vice Consul. The reduced program was decided upon and the details of delivery of the Nord supplies discussed. The U.S. agreed to mount a major airlift to Nord in the spring of 1953, and to make flights any time in case of emergency. The maintenance of the landing strip would be an American responsibility. After the publicity problem earlier it was decided that future press releases would be agreed upon by both governments. The Americans would replace loss of materials in airdrops, as well as pay for any extra expenses brought about by the change in Nord plans.

As late as July 1. the tractor train across the ice cap was mentioned by the Americans who would like to continue surveying the route during July, August and September. The Frenchman Victor was to be their expert advisor. The Danes had no objections.

Many more drops were made during the next three weeks, and on July 3. the site for the small winter house was cleared of snow. The Americans had produced a lot of alcohol in preparation for the celebration of Independence Day, July 4. It was consumed by them during the day, and at night they shot their rifle many times while staggering around outside. The Danes, trying to sleep, kept close to the floor in their Atwell, to escape the bullets.

The winter house was finished on July 15. and the four permanent residents moved in. One of the Atwells became the radio and weather station and all the equipment was now installed and made ready for the winter. The airdrops continued, and the foundations for some of the larger buildings were made.

The first landing on the newly finished strip was made on July 27. by a C-47, and during the next four days many landings by C-119 brought much materiel in. A period of bad weather with some inches of snow lasted until August 19. and prevented further flights, but on the 20. the first C-54 came in. It was followed by a C-119 and then two C-54. The Frenchman Paul Emile Victor and Robert Sykes came to visit. John Andersen, the cook, returned to Thule for a medical check up. Many landings were made the next days, the C-54 aircraft bringing fuel, so that the C-119 planes could bring a larger load in, and then fuel up before returning.

Something of a scandal developed August 24. when a so-called "Blue Nose" aircraft, brought big brass for a visit to Nord. There was Eske Brun, the chief of the Greenland Department, Holten Møller, in charge of the radio and weather service in Greenland, Stærmose, the Danish liaison officer at Thule, and Colonel Arnold from the U.S. base in southern Greenland. Morgan had been drinking heavily, and staggered out to welcome the guests. The visitors took one look inside the black Atwell, and then came into the Danish hut for coffee etc.

On the 28, two people from the Geodetic Institute came to determine the precise location of the station. During the next few days, much freight was flown in, on August 30., 11 C-119, and several C-54 landings took place.

Before the summer was over, the runway had been cleared and levelled, so that larger aircraft, C-54 (Skymaster), and C119 could land with full cargo. The total amount of cargo brought in was 150 tons by parachute drop and 25 tons by free fall onto the snow, (fuel drums, lumber and steel bars). 125 landings on the runway had brought another 600

tons.

Much of the material was assembled into several large buildings before snow started to interfere with the work.

A letter to Edmund Nielsen at Nord, from Holten Møller in Thule, was written August 28. Holten Møller mentions that his health is failing, and he will not be able to visit Nord again this year. There will be no more work done at Nord by U.S. Weather Bureau. All the vehicles are to be put away for the winter. No other persons than the four already chosen, will be sent to Nord. The runway can, of course, not be kept open. Edmund Nielsen's answer in September discusses the possible construction problems next year. The permafrost is found at less than one meters depth, and this means that buildings have to be supported by gravel built up to about one meter above natural ground. All Nord material was flown in from Thule in just five days. The aircraft were C-119 and C-54.

The carpenters were evacuated by a C-47 on skis at the last moment. This flight became rather dramatic because the aircraft had to use JATO, (Jet Assisted Take Off), bottles mounted, one on each side of the fuselage. This was necessary to allow take off in the deep and loose snow. The aircraft swerved during take off, and the tail wheel was damaged by hitting a large stone, and one wingtip was slightly damaged by dipping into the snow. The aircraft became airborne, and made a pass over the station so that we could have a look at the damage. The pilot decided to continue to Thule, and was met at the half way point by a B-17 which escorted them home, where they were ordered to land on the old landing strip. The landing was also dramatic, with fire engines racing along the gravel runway while sparks were flying from the damaged wheel. All ended well, much to the relief of the crew and passengers. At that period of the cold war, the Thule Air Base had fighter planes ready with pilots in their seats, 24 hours a day, and any damage or blocking of the main runway would have been a serious matter.

The four at Nord now settled down to the routine weather observations, and the chores involved in keeping the station operating. There was a shortage of gasoline for the generators, so battery lights were used most of the time. The batteries were charged when the generators were running, usually for three or four hours a day.

Shortly before Christmas, a message was received about the station being considered for a mail drop. Every year a C-54 aircraft was assigned to make Christmas drops to the five remote weather stations in Arctic Canada. It would come from Westover Air Force Base in the U.S., and fly to the stations from Thule. Unfortunately it was not possible for the plane to navigate well enough in the dark to get close to Nord, so after trying for several hours, it returned to Thule. The radio signals from the plane were weak, which meant that it was very far from the station. The mail was finally received by parachute in February 1953, after daylight allowed visual navigation.

1953.

The Danish newspaper, Berlingske Aftenavis, printed an article about Station Nord on 5. January 1953. It was a translation of the controversial story, published in Colliers Magazine the previous summer, by the American journalist Bill Davidson. In the description of the events of the spring and summer, it is amazing how they differ from

the facts. It had, of course, no mention of the many problems, and dramatized the story with false information. For example: The temperature in the area where "three" people spend the winter was reported to be minus 60 to 70 degrees. Whether Celsius or Fahrenheit, it is far too cold. To make up for this, the summer temperature is said to reach 34 degrees.

On 6. March, according to a message to Edmund Nielsen from Holten Møller, the Americans had not yet made it clear what plans they had for the finished Station Nord. Rumors had it that Nord could become a large new base, or that this new base could be built near the south end of Danmarks Fjord. Nothing was heard later about this scheme.

Amateur Radio had been a very good hobby for Kristen Sorensen and me during the year we spent with the Pearyland Expedition in 1949-1950. We tried to get a licence to operate at Nord, but the application, which in Denmark is dealt with by the Post and Telegraph Ministry. In Greenland also has to be approved by the Greenland Department. Holten Moller probably had so much business to deal with in connection with the Americans, that a permit to operate Amateur Radio from Nord was far down on his list of priorities. He was obviously also concerned with the Americans security problems, and may have thought it safer not to allow any more radio communications at Nord than necessary. When I reminded him of my wish to use Amateur Radio during his visit to Nord in the summer of 1953, he excused himself with having the necessary papers buried in his correspondence.

I thought it safe to ignore the bureaucracy, and let common sense rule in my work as Radio Operator and Radio Amateur. Holten Moller, having been Telegraph Inspector for the West Coast of Greenland, was keen on having all the rules of telegram traffic observed. However, when he was safely out of earshot, we dealt with the large amount of radio traffic between Nord and Thule in an efficient manner. The correct procedure would have been to make proper telegrams out of every message. This means that the charge for these messages would have to be calculated, recorded and via the Post and Telegraph office in Copenhagen charged to the Greenland Department. It would create a lot of paperwork just for the purpose of having Government money go from one pocket to another. As a contrast, messages sent as notes, were not recorded anywhere, and would get to the recipient quickly and without any fuss.

I operated my Amateur Radio station illegally during the two years at Nord, using my Greenland call sign from Pearyland, OX3UE. I had many radio contacts with stations in Arctic Canada, and had several interesting contacts with Northice, a British expedition's icecap station wintering in the central part of the Greenland Inland Ice. At this site, a British Aircraft, dropping supplies to the men on the ground, crashed with only injuries to the crew. Captain Stover, who was involved with several early flights to Nord, and was the pilot flying over Eigel Knuth in 1952, was a passenger in the ill-fated aircraft. He suffered a back injury, and was evacuated to Thule with a US Airforce Albatross aircraft, which managed to land on the Ice Cap and remove crew and passengers.

26. May, it was possible to make a ski landing on the snow. A C-47 brought in a Captain Noel and six troops, in order to get the Bulldozers going and clear the snow from

the runway. This ended the many months of peace and quiet we had enjoyed during the winter. Noel was a very efficient and pleasant person to have in camp.

The C-47 was damaged while attempting to take off for Thule and had to remain at Nord, so now we had to house Noel and his crew as well as the aircraft crew. Fortunately two large buildings had been erected the past summer and came in handy with this several fold increase in population.

Another C-47 arrived a few days later, bringing in a repair crew with spare parts. Soon both planes were able to leave for Thule.

During the winter we needed to get some fuel to the radio beacon site, located about two kilometers from the station. The beacon was run in order to aid the plane bringing our Christmas airdrop. One of the D-4 bulldozers was started with some difficulty. By using blowtorches, it was possible to get the small starting engine running. This would heat up the diesel engine, and after several hours it was possible to start the machine. It was buried in the deep snow, but by building a snow ramp, it was driven out of the hole. Both bulldozers were equipped with lugs welded onto the tracks, in order to give them the much larger footprint necessary to stay on top of the snow.

When Captain Noel was told about our system for getting the bulldozers out, he had his men build the ramp, and not having faith in the success of the scheme, he slapped me on the back saying, "OK Professor, you drive it out". Fortunately it worked well.

There was a shortage of gasoline at the station and C-54 aircraft, making free drop of fuel drums on the snow, made several flights. Falling broke about ten percent of drums, but that was an acceptable loss.

Later the runway was sufficiently cleared to allow wheel landings by both C-54 and C-119 aircraft, and a lot of material was brought in from the stores at Thule. At times four or five aircraft was on the ground at the same time. A student, Harold Schumm from Port Gibson, New York, had the summer job of providing coffee and snacks for the aircrews while waiting to unload. He had a small hut put up at the parking area, and painted a sign marked: Ye Olde Coffee Shoppe. Prop. H. Schumm.

During the month of June, negotiations and agreements between the two governments were made in Copenhagen. It became clear that the Americans wanted Nord to be an emergency airport, with facilities for housing aircrews and maintenance people. The aircraft parking area had to be large enough to enable three B-36 aircraft to stay on the ground with the necessary safe distance between them. The runway had to be enlarged to 200 by 8000 feet (61 by 2500 meters), and the buildings would consist of two living quarter houses with room for 65 persons, two garages, a large storage building and two fuel tanks. It was impressed upon the Americans that the new facilities were to be used for emergencies caused by weather or mechanical breakdown only.

It was decided that the necessary maintenance garage and living quarters for 65 Americans be placed by the parking area, about 450 meters from the Danish part of Nord.

5. July, 44 tradesmen and helpers, as well as the new personnel for the weather station itself, arrived from Denmark via Narssarsuaq and Thule. They came on two C-54 aircraft from Narssarsuaq, and this was the first landing on wheels on the newly prepared runway. It was planned to have the following people permanently stationed:

One engineer
One machinist

Three helpers to work as bulldozer and snowplough drivers and handymen
Seven radio operators of which one is radio technician
One radio sonde specialist
Two cooks

8. July, 1953 a Colonel Cathcart visited Nord while Holten Møller was there and noticed that the Nord landing strip was not very well placed, and would need a lot of improvement before it could be called good. Among other things it would require 60,000 cubic meter of fill. This work could not be done with the present equipment, so he planned to send in bulldozers, scrapers, a grader, snowblowers, a jeep, a truck, trailers and a forklift.

October 1953:

The newly installed electric power generators were both damaged beyond immediate repair when the speed governor failed, and they sped up and broke connecting rods and pistons. It was thought that the reason for the failure was the use of diesel oil from Thule. This fuel apparently had additives to allow it to flow at very low temperatures, and because of this it did not provide sufficient lubrication to the fuel injectors on the engines. As a result the two remaining emergency engines, was used to supply the station during the winter.

Borge Haagensen.