

## GERMAN MARINE WEATHER STATIONS OF WORLD WAR II AT SPITSBERGEN

Cornelia Lüdecke \*

From 26 August to 11 September 2000 the Swedish Polar Research Secretariat organized a cultural science expedition to Spitsbergen (SWEDARCTIC 2000) under the scientific leadership of Urban Wråkberg, Royal Swedish Academy of Sciences. Pär Eliasson, Umeå University, was leader of project "History of Climatology in the Arctic: German Weather Stations at Spitsbergen 1941-1945" and I had been invited to join his group as German expert.

It is well known that Germany supported naval weather stations at Spitsbergen from 1941 to 1945. Since 1939 data of foreign weather services were no more available to prepare the important forecasts. So the German navy and airforce decided to install their own weather stations in the Arctic at Spitsbergen, Hopen, East Greenland, and Franz-Josefs-Land. They were supported through new designed automatic stations on land at Spitsbergen, Bear Island, Labrador, and Nowaya Semlya as well as buoys on sea. They should fill the gap of missing meteorological information from the Arctic, which was essential for wartime activities concerning England and Russia.

Some original reports and popular books have been published about these weather stations and their operation, while Selinger (2000) had described their history in detail. Unpublished diaries, pictures and even documentary movies are still in private possessions. Personal contacts made it possible to receive valuable information to plan our visit at Spitsbergen.

Station „Haudegen“ (1944-1945) at in Rijpfjord on Nordaustlandet is the only German station, which had not been destroyed after its discovery. The house is still existing, but it is in a bad shape and should be conserved very soon. "Haudegen" is a highlight of official tourist cruises at Spitsbergen, so it is visited nearly every second year. Although the Cultural Heritage Regulations and the Tourist Regulations of Spitsbergen protect all installations and material originating before 1946, not every private expedition obeys. Therefore something has to be done to preserve and protect station "Haudegen".

During SWEDARCTIC 2000, we wanted to document the remains of German naval weather stations at Spitsbergen called "Knospe", "Nussbaum", "Kreuzritter", and "Haudegen". Due to unfavourable ice conditions, we could not visit the „Haudegen“ site on Nordaustlandet. Instead we turned to station „Kreuzritter“ (1943-1944) at Liefdefjord at the north west coast of Spitsbergen. It was not easy to locate the winter station from the information given in the literature. A party went ashore to search for the grave of the

expedition leader Hans Robert Knoespel, who died by accident when he tried to defuse some explosives in a small hunting hut near by. The grave and the station were successfully located by the SWEDARCTIC team. A GIS-system was used for measuring the remains of the station, which were more or less concentrated on one spot, as well as the surroundings (figure 1). At the same time the most prominent remaining materials (rusty aerial-delivery container for supplies, 20 litres fuel tanks, standard U-boat provision boxes, antenna parts, batteries and woodwork) were identified using the information of the German reports. Detailed documentary photographs were also taken (figure 2). The findings will be compared with the original checklists of the weather stations. As the stations were easy to be made invisible during wintertime, the personnel had to retreat

Figures 1 and 2



to a save place in the mountains during spring, where they installed their summer camp. Due to bad weather, our search for the summer station of “Kreuzritter” had to be abandoned.

Then we turned to station „Nußbaum“ (1942-1943) at Lilliehöökfjord (west coast of Spitsbergen), which had been the place of the former station „Knospe“ (1941-1942). The place is well known and easy to find. Here we could not only document the remains of the automatic weather station operating in 1942 (figure 3), but also the winter station with its typical rusty oil barrels, remains of two generators, and a self made handcart (figure 4). After a long search, we had found the summer station hidden in the hillside nearby. It was divided in a living house and a separate small wireless station (figure 5), some military look-outs, a weather hut, a site of gas production needed for the balloons of the radiosondes, and several places of rubbish. Favourably, the summer station is not accessible by tourists, so it seems to be in a rather original shape after its destruction in 1943. We also found some destroyed depots, which were distributed in the landscape (figure 6).

Due to this, a further investigation of the “Nußbaum” summer station will reveal much insight in the operation of such naval weather stations, and how civil science (meteorology) and military life was combined. A further visit will be prepared with the help of original movies in private possession. They show the wintering over at “Kreuzritter” and “Nußbaum”, which not only describe everyday life, but also meteorological work. Especially we can see, how gas is produced and a radiosonde is launched at the summer camp of “Nußbaum”. Franz Nusser (1902-1987, leader of „Nußbaum“) had written a very detailed report for the Allies. A copy is available together with several maps from the Bundesamt für Seeschifffahrt und Hydrologie at Hamburg. The summer camp of “Kreuzritter” may also be found with the help of the information given in the documentary movies.

Besides these stations on Spitsbergen, there had been some more manned stations in the Arctic. Station „Schatzgräber“ (1943-1944) had been installed at Alexandra-Land (Franz Josefs-Land), which first had been used and then destroyed by the Russians. There are also some remains of the destroyed station „Holzaue“ (1942-1943) on Sabine Island and „Bassgeiger“ (1943-1944) on Shannon Island, both at East Greenland. Two little stations of the airforce (“Svartisen” (1943-1944) and “Helhus” (1944-1945)) operated at Hopen. It is very little known on their condition of today. As they are far away of tourist routes, the remains of these stations – although destroyed – may still be in a rather original condition. A visit of their location will show, whether they had been a good choice from the meteorological point of view and how they were determined through military aspects. A scientific documentation of these sites is still a desiderata.

Station “Haudegen” is already on the Norwegian list of “Historical Sites”. It is urgent to put it on the “Monitoring

List” of places, which should be conserved. Otherwise it will disintegrate soon. As the German naval weather stations of World War II are focus of tourist cruises, it is high time to document all remains in detail within the next years. The results of our investigations in the field will help to apply for financial support of their conservation. A co-operation with Norway seems to be essential to establish a German Polar

**Figure 3**



**Figure 4**



**Figure 5**



**Figure 6**



Heritage program. The German weather stations at Spitsbergen are very good candidates to be included in the polar heritage list.

**References:**

Selinger, F. (2000): Von "Nanok" bis "Eismitte" – Meteorologische Unternehmungen in der Arktis 1940-1945. Schriftenreihe des Deutschen Schiffahrtsmuseums, Bd. 53, Convent, Hamburg, 384 S.

**\* Cornelia Lüdecke**

Dr. Cornelia Lüdecke has got a diploma in meteorology of the university at Munich. Working at the industry for ten years doing literature research for various projects, she received a PhD in History of natural sciences with a thesis on German polar research in the period from 1900 to 1939. She is chairwoman of the History of Polar Research Specialist Group of the German Society of Polar Research and the History of Meteorology Specialist Group of the German Meteorological Society. She is Vice President of the International Commission on History of Meteorology and corresponding member of the International Polar Heritage commission of ICOMOS. She has a broad experience from various international meteorological field-experiments, several archaeological field-campaigns in Austria and a documenting campaign at Spitsbergen.