

## SAM airdefence in Denmark

NATO -missile airdefence in Denmark and Norway in the 60ies couldn't cover the whole area of AFNORTH, but only two sectors around the capitals Copenhagen and Oslo. There were not sufficient resources to install a continuous SAM belt like in Central Europe. The Danish parliament (Stortetinget) gave its consent to the deployment of the NIKE airdefence system in the late 50ies. The USA supplied the equipment by a special military aid programme. Since 1959 a NIKE wing with four batteries was deployed on the main island Sealand to cover an air defence cluster around Copenhagen and the Baltic approach between Sweden and Denmark. The unloading of the US-sponsored equipment at Arhus was accompanied by peace demonstrations of socialist groups against nuclear defence policy. The air defence systems fitted into the strategy of nuclear deterrence in the Cold War which reached its peak at the end of the 50ies and beginning of the new decade.

Defence policies of Denmark and Norway didn't accept the deployment of nuclear warheads and permanent presence of foreign troops on their territories in peacetime. So there were no NIKES with nuclear heads and US-Detachments like in Germany, Greece, Turkey or Italy. Nevertheless the warfare plans were a sensitive issue and in the press of both nations there were some critical reports about nuclear options in wartime. Especially the NIKE Hercules-batteries on Sealand would have been a useful nuclear deterrent with their surface to surface capabilities against naval forces of the Warsaw Pact. Another problem for the Danish government was the US-Airforce base at Thule in Greenland which was a part of the Danish kingdom. Thule AFB played an important role in the Cold War theatre of deterrence and was protected by US airdefence

It seems to be certain that the four US-NIKE-Batteries around Thule AFB were equipped with nuclear warheads with secret consent of the government in Copenhagen.

The NIKE air defence regiment in Denmark was formed within the Royal Danish Army as "10. Luftvaernafdeling". This regiment had been the traditional anti-air-gun unit to defend Copenhagen before. In summer 1962 the missile units were transferred to the Royal Danish Airforce (RDAF) which took the whole responsibility for airsurveillance and airdefence. The NIKE batteries now were named like airforce squadrons (Eskadriller 531, 532, 533, 534). In the 60ies the older AJAX-missiles were replaced by HERCULES. The HERCULES had a much better performance (range about 160 km) and was not driven by liquid fuel like the AJAX. The danger of explosion had always been a severe threat for safety in AJAX-batteries.

In 1965 missile air defence in Denmark was improved by the formation of another SAM-Wing of four US-sponsored HAWK-batteries (Esk 541 - 544) which were also deployed on the island of Sealand. The west of Denmark, especially the peninsula of Jutland with its main airforce bases of Skrydstrup, Karup and Aalborg, was not covered by a SAM screen. HAWK Wing east (Luftvaernafdeling Ost) was like all HAWK units planned for mobile operation, but it needed areas for training and accommodation. First they used temporary sites like old coastal forts. The NIKE batteries on Sealand were maintained till the early eighties when the USA began to abolish their NIKES in Central Europe and replace them by the Patriot system. The Danish Airforce didn't prolong the operability of their NIKES to the end of the decade by a technical support programme like Germany, Belgium, Norway and the Netherlands did. Two decades after the last missiles were outphased in March 1983 a discussion about health problems of the crews caused by the radiation of the old NIKE-radarsystems concerned parliament. Today a Nike Hercules missile and launcher are exhibited at the museum of artillery at Varde (Jutland). When the Nike units disbanded between 1981 and 1983 they were not replaced by a SAM system against high altitude targets. Denmark didn't purchase the US-Patriot missile system like the USA, Germany and the Netherlands. Like Norway did when they disbanded their NIKE squadrons years later in 1990/91 Denmark looked for a cheaper solution to maintain groundbased airdefence.

The Danish Airforce used the resources of the dismantled Nike units to form a second HAWK wing in the western part of the country (Luftvaernafdeling Vest with HQ and DSU at Karup). The four missile squadrons continued the numbers 531 to 534 of the old NIKE wing. Two batteries of the new HAWK Wing West were deployed at Odense-Hjorup on the isle of Fyn and one battery each was placed at Karup AFB and Skrydstrup AFB on Jutland. So the Danish HAWKS were able to cover the blank in the missile air defence belt between Northern Germany and Sealand. The HAWKS could only fight low and medium altitude targets, but four RDAF squadrons with new F 16-fighters at Aalborg and Skrydstrup replacing the aging Starfighters and Super Sabres improved NATO airpower over the Baltic approaches.

HAWK was a mobile SAM-system, but the batteries used permanent sites for training and alert readiness. The older HAWK Wing East (Luftvaernafdeling Ost) with its HQ and DSU at Skalstrup air station near Roskilde could now use the abandoned NIKE sites on Sealand. They had used temporary sites before like the old coastal fort of Mittelgrunden on an island near Copenhagen. At Skalstrup airstation RDAF established a superior SAM-HQ for all eight HAWK batteries in the two wings East and West (Luftvorsvarsgruppen).

In 2001 reduced low defence budgets in the post cold war era meant the reduction of SAM forces. One squadron in each wing disbanded. The airstations at Odense and Store Heddinge were abandoned (see below). The headquarters of the two wings merged with the air surveillance commands to form two "Kontrol- og Forsvarscenters" at Vedbaek (north of Copenhagen) in 2001 and Karup in 2003. The headquarter at Skalstrup became the central command for all radar and SAM units (Kontrol- og Luftvorsvarsgruppen).

The Danish airforce still keep their HAWKS in service and have started a programme for modification and modernisation. The DEHAWK- system (Danish Enhanced HAWK) is going to be kept in service unlike to other airforces like the USAF, German and Dutch airforce which disbanded their HAWK units without providing an adequate predecessor for low altitude air defence. Meanwhile the RDAF HAWK batteries have been strengthened by teams with STINGER-missiles for light short distance airdefence. The Danes contribute one DEHAWK battery to the NATO readiness forces. According to defence plans Stingers are being withdrawn from airforce again and will only remain in the army.

#### **Eskadriller 531 (NIKE) at Gunderod and Eskadriller 531 new (HAWK) at Odense**

Eskadriller 531 was placed in the mountains of Northern Sealand north of the little place of Gunderod belonging to the community of Kokkedal. The IFC (radaromrade) was to be found on Smidsbjerg and the launcher area (afksydningssomrade) a little further east. The crews were placed at the camp of Sjaelsmark which housed and still houses the Sealand Regiment of Royal Artillery. Not far from the Gunderup site is the radarstation of Multjeberg which provides the air control and defence HQ at Vedbaek with air information. Today a meteorological communications station can be found at Smidsbjerg. The map still shows the roads of the former LA but now information about its present use is available. It seems to have a non-military function today. Esk 531 disbanded in June 1981. A new HAWK Squadron with the number 531 was formed at Odense-Hjorup. It disbanded in 2001 when the number of HAWK Squadrons in the Royal Danish Airforce was reduced from eight to six.

#### **Eskadriller 532 (NIKE) and Eskadriller 542 (HAWK) at Dragor**

The coastal defence fort of Kongelund near Dragor became the site of Esk 532 in 1959. The unit was formed within the organisation of army as second battery of airdefence bataillon no 10 (10. luftvaernafdeling). The IFC was placed in the fort. The launcher area for NIKE missiles was installed between the fort and the town of Dragor in the area of Aflandshage. In July 1962 the missile battery was transferred to RDAF and renamed Eskadriller 532. The community of Dragor is on Amager, an island situated east of Copenhagen. The airport of Kastrup and the

gateway of the Oresund link to Sweden can be found there, to. A modern military electronic warfare station of the US-Echelon system was also established on Amager.

NIKE-Sqn 532 disbanded in June 1981. A new 532 Sqn (HAWK) was established at Odense-Hjorup in 1983 and moved to Karup airbase in 2001. The launcher area of Birkelund was rebuilt to a HAWK missile station for Eskadriller 542 from HAWK Wing East which used the Dragor site up to 2000 before it moved to Tune. In March 2003 an EOD unit of the army engineers regiment took hold of the Birkelund site. The campsite on Kalvebodvej has been converted into an immigration centre of the Danish Red Cross.

### **Eskadriller 533 (NIKE) and Eskadriller 541 and 543 (HAWK) at Sigerslev**

From 1960 to 1983 Esk 533 operated its NIKES on the top of the cliffs at Stevns Klint in the community of Store Heddinge. Since 1962 when missiles were transferred from the army to the Royal Danish Airforce the place was called Sigerslev airstation (flyvestation). Tradition of the squadron was continued by a new HAWK Squadron no 533 which was established at Skrydstrup airbase (Jutland) in 1985.

The site Mandehoved was then occupied by two batteries (no 541 and 543) of HAWK Wing East (see above). HAWK Wing east (Luftvaernafdeling Ost) had been formed with four batteries in about 1965. The island fort Middelgrunden near Copenhagen was the temporary home for HAWK missiles of Esk 541 from 1965 to 1984. Then the battery left the island of Amager for Mandehoved where it shared the rebuilt NIKE site with another HAWK Squadron of Wing East, no 543. The mobile HAWK units could improve training and readiness for alert in fixed sites

In 2001 the airstation-at Sigerslev was abandoned when Esk 541 disbanded and Esk 543 moved to Tune.

In wartime the airstation at the eastern coast of Sealand was to be protected by a ground defence squadron of the Danish homeguard (FSE 21). The Danish homeguard consists of citizens from the local area who are reservist soldiers of high readiness in time of war. Homeguard reservists can also provide a net of air observation points which accomplish the radar surveillance system.

### **Eskadriller 534 (NIKE) and Afdeling East (HAWK) at Tune.**

Until March 1983 Skalstrup airstation in the community of Tune was the home of Esk 534. A new HAWK Sqn no 534 was erected at Karup airbase in 1986. The IFC Svaelsgard and LA Lykkeholm were occupied by 544 Sn HAWK. At Skalstrup the HQ of the Danish SAM-Group and the HQ of HAWK Wing East were established. The SAM-HQ controlled the eight squadrons of the two HAWK wings. In 2001 the HQ of HAWK Wing East Ost left Tune and amalgamated with the Air Surveillance Command at Vedbaek to form the Kontrol- og Luftvorsvarsgruppe Ost. A second HAWK Squadron (Esk 543) moved from Sigerslev to Tune. Meanwhile Esk 542 which left Dragor in 2000 has also moved to Skalstrup airstation. It may function as training squadron. The LA Lykkesholm and IFC Svaelsgardeast of the airfield are still needed for the HAWK units at Skalstrup airstation. The military estates have also been part of an environmental programme for renaturation.

At the gate of the airstation an Ajax missile on display reminds visitors of the good old NIKE days. Trainees of a job training centre at Vibog have built a model of this Ajax missile. The military airfield has now become Roskilde airport which has the function as a second airport for the Copenhagen area.

Since 2001 the SAM facilities of RDAF are concentrated at Karup, Skrydstrup and Tune. Redundant location on distant sites doesn't make sense after the threat of cold war has vanished. Central camp sites save costs and favour training. Maybe that the sites at Mandehoved and Dragor are still used for training but mobile operations in an international theatre are the reality of peacekeeping today. Training for action in an expedition force is the main job of SAM units like all military forces in NATO-countries today.

## Annotations:

### Sitenames

The place name for SAM-facilities are sometimes misleading. The name of the political community to which the site belongs does not mean that its next to the town mentioned. Often a smaller village gives the airstation its name and sometimes a topographical term gives the exact position.

<u>Placenames (Community)</u>	<u>Sitenames (military and/or topographical names)</u>
Dragor on the island of Amager	Kongelundsfortet , Aflandshage
Tune near Roskilde	Skalstrup airstation
Stevns or Store Heddinge	Sigerslev airstation, Mandhoved , Stevns Klint

### Links:

[http://www.flv.dk/information/fly\\_nyt\\_arkiv.htm](http://www.flv.dk/information/fly_nyt_arkiv.htm)

[http://www.flv.dk/admins/nyheder/artikel\\_alle.asp](http://www.flv.dk/admins/nyheder/artikel_alle.asp)

<http://www.flv.dk/admins/links/links.asp?mode=id&id=54>

<http://www.flv.dk/admins/links/links.asp?mode=id&id=116>

[http://www.flv.dk/information/flynyt/2001\\_5\\_okt/tfw.htm](http://www.flv.dk/information/flynyt/2001_5_okt/tfw.htm)

[http://www.flv.dk/flyvevaabnet/historie\\_flyvevaabnet.htm](http://www.flv.dk/flyvevaabnet/historie_flyvevaabnet.htm)

<http://www.flv.dk/information/flynyt/2003/FLY%2020031%20si%2030%20-39.pdf>

<http://www.forsvaret.dk/>

<http://www.forsvaret.fvr.dk/flv/flv.htm>

<http://www.fko.dk/fside.htm>

<http://www.fko.dk/omforsvaret/fforlig.html>

<http://www.fko.dk/>

[http://www.fko.dk/nytogpresse/diverse/ForsvaretsUdvikling/ForsvaretsUdvikling\\_flv.htm](http://www.fko.dk/nytogpresse/diverse/ForsvaretsUdvikling/ForsvaretsUdvikling_flv.htm)

<http://www.crcved.dk/>

<http://www.ftk.dk/>

<http://www.crc-skrydstруп.dk/chef.htm>

[http://www.jubii.dk/Forvaltning\\_Politik/Statsinstitutioner/Forsvar/Flyverhjemmevaern/](http://www.jubii.dk/Forvaltning_Politik/Statsinstitutioner/Forsvar/Flyverhjemmevaern/)

[http://www.jubii.dk/Forvaltning\\_Politik/Statsinstitutioner/Forsvar/Flyvevaabenet/](http://www.jubii.dk/Forvaltning_Politik/Statsinstitutioner/Forsvar/Flyvevaabenet/)

[http://www.jubii.dk/Forvaltning\\_Politik/Statsinstitutioner/Forsvar/Flyverhjemmevaern/](http://www.jubii.dk/Forvaltning_Politik/Statsinstitutioner/Forsvar/Flyverhjemmevaern/)

<http://www.geocities.com/armdury/dda.pdf>

<http://www.snakepit.dk/thule%20raketbatteri.htm> -> Thule AFB

<http://www.teamfreelance.dk/historie.htm> -> Dragor, Kongelundsfort

[http://www.din-bog.dk/dlf/arr\\_birkelund.dlf.html](http://www.din-bog.dk/dlf/arr_birkelund.dlf.html) -> Dragor

<http://www.kms.dk/C1256ADF004C9677/> -> maps

<http://users.cybercity.dk/~bbo1309/bog.htm>

<http://www.fmn.dk/andet/2002.pdf>

<http://www.sns.dk/udgivelser/nye2002.htm>

<http://www.hod.dk/ARKIVET/HOD-NEWS/2002/87.HTM>

<http://www.ftv.dk/031002-002.htm>

<http://www.hawk.dk/dehawk.asp> -> DEHAWK

<http://www.fbt.dk/Pressemeddelelse/PMrullemarie.htm> -> EOD at Dragor

<http://www.scramble.nl/mil/2/kdf/orbat.htm> -> map of Danish Airforce stations

## Dictionary

afskydningsområde	= launcher area
flyvabnet	= airforce
fly	= aircraft
flyvestation	= airstation (airforce base or missile/radarsite)
forsvarsafdeling	= airdefence bataillon of the airforce
forsvaret	= forces
Kontrol- og Forsvarsgruppen	= central staff for radar air surveillance and SAM units in Tune
Kontrol- og Forsvarscenter	= joint staffs for radar air surveillance and SAM units ( Ost in Vebaek, Vest in Karup)
luftvaernafdeling	= army air defence bataillon
nedlagget	= disbanded
oprettet	= formed, established
radarområde	= IFC
RDAF	= Royal Danish Airforce

I hope Danish readers will pardon errors in translation

## Author of the article:

Jürgen Dreifke, Germany, information entirely found in websites, no official publication, some helpful information provided by Erik Roggenkamp, Canada, who had served in former Nike-Esk 531 and 534.