

# Copenhagen's air defense in the interwar period

## Introduction

As can be seen from the article [Dansk luftværnsartilleri 1940, the 10th Artillery Division 1\)](#), which was part of [the Copenhagen Air Force](#), was at the end of the period equipped with a different type of material than the other artillery divisions.

In the book *Planlægging af det Sjællandske landforsvar 1922-1940* (Source 1), Ole Isgaard Olsen explains the various military and political considerations regarding the defense of the Zealand archipelago, including the plans for the defense of the country's capital against threats from the air. In the book you can read about planning, proposals for ideal units, general staff exercises and much more, and not least how the Army tried to solve its tasks, despite increasingly scarce resources.

Especially during the 1930s, several attempts were made to get resources added to the air force from Copenhagen - a special case for the commanding general, Lieutenant General Erik With. However, these attempts lead to nothing and the result is therefore that an actual air defense largely does not exist. You have to wade through equipment of an older model - mainly equipment from the Coastal Artillery.

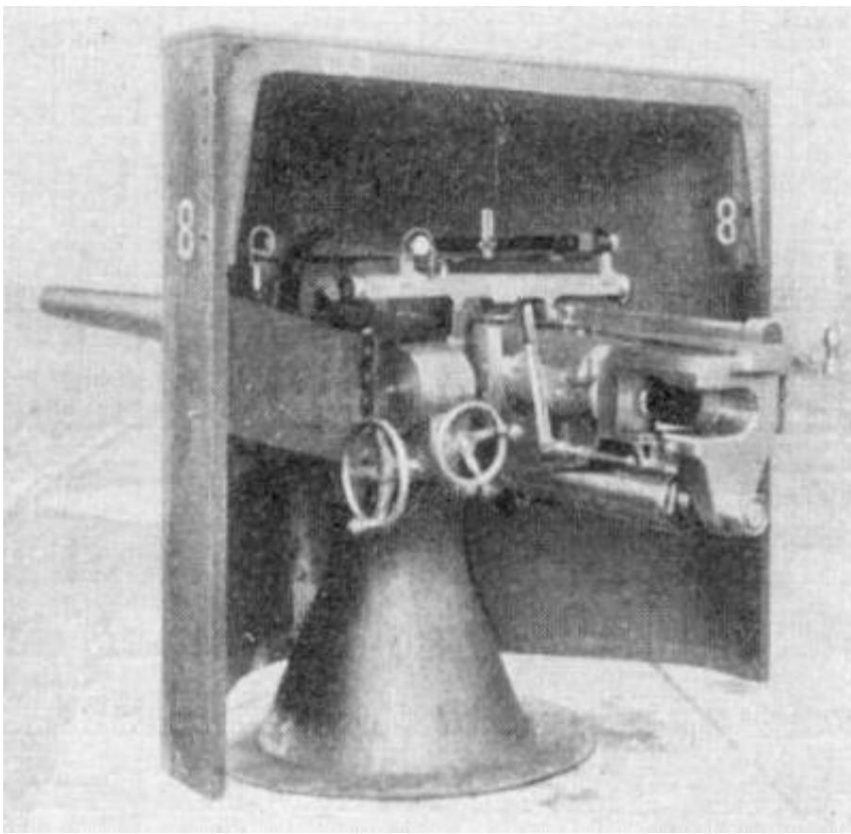
## Status as of January 1934

### Equipment

On orders from the Commander in Copenhagen In 1934, the 10th Artillery Division (Air Force Department) prepared a proposal for the establishment of the military part of Copenhagen's air force, based on existing equipment.

The equipment available consisted of:

- 14 pcs. 75 mm anti-aircraft guns, Model 1914/16 27 pcs.
- 47 mm guns, Model 1886 and 1887 2) 16 pcs. recoilless
- rifles 32 pcs. 90 cm spotlights.
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The 14 pcs. 75 mm anti-aircraft guns were extremely useful if they were provided with modern aiming devices. It was proposed that these guns be set up in 4 batteries with 3 and 4 pamphlets respectively. In advance, 9 units were set up. 75 mm anti-aircraft guns at the Coastal Defence's works.

*Note:*

The anti-aircraft gun was the so-called "Lomholt gun", named after its designer Lieutenant Colonel NE Lomholt. The cannon was originally a coastal artillery cannon, manufactured by Hærens Tøjhus, which was part of the equipment in Copenhagen's Sea Fortification. Fitted with a newly made one, it was transformed into an anti-aircraft gun. The cannon is not one of the most photographed; a picture of the pamphlet is shown later under *The voluntary air force*.

The 27 pcs. 47 mm anti-aircraft guns, on the other hand, were described as "unusable for shelling air targets", and it was suggested that these guns were not fielded for the air defense of Copenhagen.

The recoilless rifles were serviceable, but air target sights and recoilless rifle supports were missing. The spotlights had too little brightness, and their practical value was therefore not very great.

Implementation of the proposal would cost approx. 2 million kroner and the air defense department suggested that they immediately set about preparing the air defense of Copenhagen.

The usable equipment had to be set up and an air defense center and 3 air defense section centers had to be set up. Aircraft warning stations were to be set up in the city, and the air reporting service was to be set up according to a plan drawn up by the department.

#### **10. Artillery Department's own assessment of the possibilities**

The Air Defense Department itself described the value of the solution as follows:

1. "The air reporting service will be able to provide the necessary notification of the presence of aircraft in such a timely manner that the alarm can take place in time. The situation becomes most difficult if air attacks occur from the east or south-east, but it will not be possible to improve on this situation without through any agreements with Sweden regarding the exchange of air messages.

2. The flight alert service will be able to alert both the air force's military and civilian units, and the city's population itself. However, a high degree of preparedness for all air defense units is required due to the conditions mentioned under the air reporting service in the event of an attack from the east or south-east.
3. During daytime attacks from heights between 800 - 2,000 m, the cannon defenses will be able to operate with 2 batteries of fire in an eastern and southern direction, while attacks from the north or west will generally only be able to fire with 1 battery. This ratio noticeably diminishes with increasing flight height, and it becomes particularly sharp when the flight height is approx. 4,000 m and above, as there will then be parts above the city that cannot be fired upon by any battery...

Deploying the existing battery 75 mm Model 1932 will of course help somewhat in this regard, but in the main it must be recognized that air attacks directed at the city from heights greater than approx. 2,000 m in reality will not be able to be fired effectively with the available ammunition.

At night, the cannon defenses will not be able to work against air attacks from heights above approx. 1,500 m, as the searchlights cannot illuminate targets at a greater height. But even at lower altitudes, it will probably be a case of airplanes being caught in the light and held for such a long time that shelling can take place, because the lack of listening devices and suitable movement devices on the searchlights is compromising the use of the searchlights.

The cannon defense is therefore quite inadequate. The production of a new high-explosive grenade for the pamphlets will in all cases be required, as the batteries will thereby be able to achieve a greater range of effect.

4. The light defense is - quite unusable if the attack height is above approx. 1,500 m and quite insufficiently effective against lower altitude attacks. Insertion of the existing 2 modern Sperry sets 3) will only mean a necessary help.
5. During the day, the recoilless rifle defense will be able to act against attacks at heights below approx. 500 m, but wants to change the night be paralyzed in its effect by the ineffective light defense.
7. There is quite a lack of opportunity both during the day and at night to be able to effectively shell an attack that is deployed at heights between approx. 500 and approx. 800 m height, as there is a complete lack of machine guns for deployment in the air force."

Independently of the Air Force's funds, plans were drawn up for the air reporting service. In this case, the commander in Copenhagen became responsible for all of Zealand and surrounding islands, as well as Samsø and Anholt.

The air reporting service had both the purpose of alerting the active air defense and the civilian population. In December 1936, work on the reporting service was largely finished. Alerts were prepared for all major cities on Zealand, a large number of reporting points were set up and preparations were made for a blackout.

## The war breaks out

10. Artillery division is increased with staff and 3 batteries. 1. Battery at Bådsmandsstrædes Barracks, 2. Battery in the camp at Amager and 3. Battery at Artillerivejs Barracks.

2. Battery, which was a searchlight battery, was already ordered to Jutland the following week to be part of the Sønderjysk Air Defense Command - see *Glimt af luftvernsartilleriet effort in the defense of neutrality 1939-40 - 2nd edition*).

This order was carried out as follows: In Copenhagen, on Saturday 9 September 1939, patrols from the Artillery Road Barracks were sent around to the city's restaurants and entertainment venues, primarily Tivoli, with orders to commanding officers and privates to go to the barracks irretrievably. Here, people were taken out immediately after arrival, were ordered to pack up the most necessary things, after which they were sent to the Balloon Park, where they were probably thrown onto floodlight and listening wagons as well as ordinary trucks, which were then sent off on the long march to Southern Jutland. A few are said to have had an abrupt awakening on the ferry in Korsør, which was reached in the morning.

On 2 September 1939 - the day after the outbreak of war - the General Command had requested the Ministry of War for permission to prepare Copenhagen's air defenses. It was suggested that the Commander in Copenhagen prepare stands for the heavy anti-aircraft equipment (20 mm and 75 mm) - however, so far only earthwork and carpentry work was to be carried out. 14 pcs. 90 cm floodlights had to be set up, and through the storage of weapons, 59 recoilless rifle stations around the city's rooftops had to be made battle-ready.

Two months later, the General Command's wishes were partially fulfilled and the Ministry of War announced that the searchlights could be erected and the earthwork for the heavy shield carried out. Preparations could be made for setting up recoilless rifles at the installation sites, but on the other hand the ministry prohibited the deployment of recoilless rifles and ammunition. The installation of the floodlights was not allowed to take place in educational institutions and schools. Furthermore, no earthworks were to be carried out in parks, on ball fields, etc.



The rescue corps ZONEN assisted the army in setting up the 14 units. 90 cm spotlights.

From *the ZONE-Redningskorpset in Copenhagen during the Occupation* by Arne Vagn Jensen, Zone Redningskorpsets Museum, Holbæk 1994, which can be found at the Royal Garrison Library.

The pictures come from the book.

On September 9, 1939, the Ministry of War issued the "General order regarding foreign military aircraft". Foreign military aircraft did not have access to Danish airspace - however, passage was permitted over the Øresund, the Belts and the Kattegat. The Port of Copenhagen and Red were restricted areas.

Among other things, the order stated that a protest against any overflight at

firing 3 loose warning shots. If the foreign aircraft was recognized as belonging to a belligerent power, then the warning shots had to be fired sharply. If the protest was not upheld, then the flight was to be countered by all available means. Attacks directly on Danish territory should, "when hostile intent is undoubted, be countered without further orders with all available means!"

## Status as of October 1939

In a statement from October 1939 - just over a month after the start of the Second World War - the General Command gives a status of Copenhagen's air defence.

The needs were assessed in relation to a proposal from May 1936, drawn up jointly by the Navy and the Army [4](#).

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The needs of the army	Have
36 fighters	None.
28 pcs. modern 75 mm anti-aircraft guns with accessories	12 pcs. (10th Artillery Division's gunnery) <a href="#">5</a> )
14 pcs. 75 mm anti-aircraft guns of older model (modernized)	14 pamphlets exist; 16 shells cast in 4 locations (Only 6,000 modern shells exist.)
56 pcs. 20 mm guns in double barrel	No equipment completed, but allocated.
28 pcs. 1 m stereo telemeter	24 pcs. for Copenhagen's air defense or other purpose.
160 recoilless rifles	Available.
160 pivots or supports	108 footplates exist; 46 pivots for burial (No equipment set up.)
14 listening devices	7 listening devices are available; 3 in work.
52 pcs. 150 cm spotlights	12 pcs. 150 cm spotlights; 8 in work, which will be completed approx. 1.4.1940.
32 pcs. 90 cm spotlights	30 pcs. 90 cm spotlights available, only 2 installed.
50 barrier balloons	No material.

The navy's contribution to Copenhagen's air defense was calculated as follows:

- 18 aircraft (fighters) 20
- pcs. modern 75 mm anti-aircraft guns with accessories 2 pcs. 75
- mm anti-aircraft batteries of an older model 32 pcs. 20 mm guns
- with accessories 70 pcs. 8 mm recoilless rifles 8 listening devices
- 23 pcs. 150 cm spotlights.
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but as far as the General Command was aware, none of the proposed acquisitions had been carried out.

### **On April 9, 1940**

On April 8, 1940, the reports from outside became so alarming that an "alarm alert" was ordered at 12:00. At 23.00 the alertness was lowered to "increased alertness", but all commanders were ordered to stay at the barracks.

On the morning of April 9, 1940, the city was overrun by German bombers, and soon after an order came that no resistance was to be made against the German troops.

### **Could it have gone differently?**

A symbolic marking of Danish neutrality by means of Copenhagen's air defense had not changed the inevitable result, on the contrary it might have triggered the bombardment that Germany threatened if the government did not bow to the German ultimatum.

The country was as it had been, and the events of 9 April 1940 were a logical consequence of the policy that had been pursued for many years.

General With stated in mid-October 1939 - in a last attempt to improve Copenhagen's air defense - prompted by "the present situation" that he wanted to "point out the unsustainability of the current state of affairs, which is that Copenhagen's air defense does not exist".

### **Sources**

1. The *planning of the Zealand land defenses 1922-1940* by Ole Isgaard Olsen, Published by the Defense Command, 1985.
2. *Denmark's Army, Volumes I and II* under the editorship of Captain Hector Boeck, Captain SE Johnstad-Møller and Captain Lieutenant CV Hjalff, Society for the publication of cultural writings, Copenhagen 1934-1935.
3. *For Peace and Freedom for 50 years - Home Guard Region VI 1949-1999* published by Home Guard Region VI, Copenhagen 1999.
4. *Danish Land Artillery 1400-2000* by Ole L. Frandsen, Tøjhusmuseet's 1997 (Special print of Dansk Artilleritids-skrift, No. 4, August 1997, 83rd volume.)
5. *Copenhagen Fortification 1886-1986* by Ole L. Frantzen and Bjørn A. Nielsen, Tøjhusmuseet, Copenhagen 1986, ISBN 87-7491-188-0.

Per Finsted

### **The voluntary part of the Copenhagen Air Force**

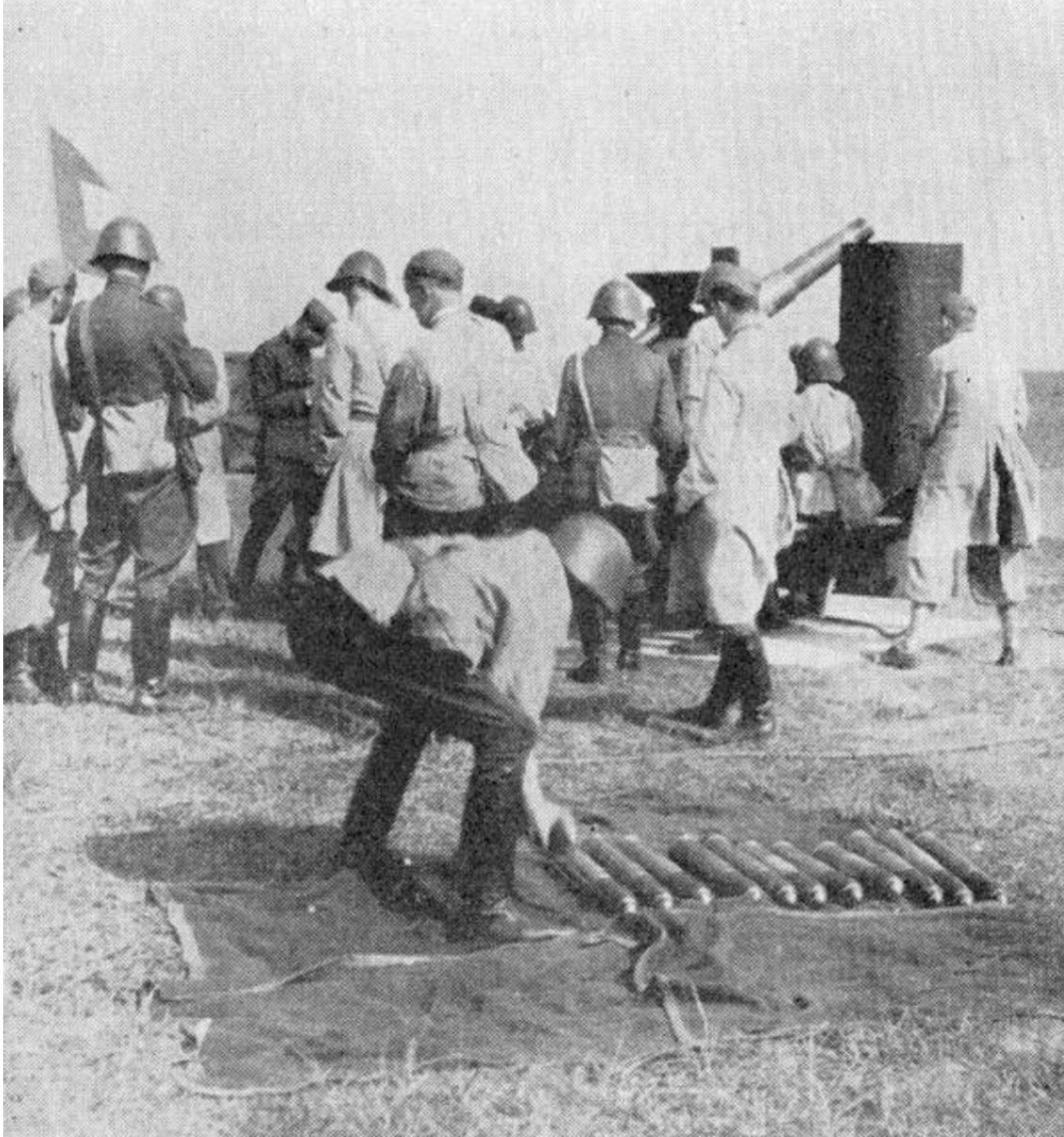
In 1911, by agreement between the Ministry of War and the corps, the Copenhagen Rifle Association's Recylkorps (KSR) formally became part of the forces manning the Copenhagen Land Fortification.

The corps was attached to the Fortress Artillery Regiment and the gunners were dressed in the artillery's uniform. On

on the left sleeve, according to the agreement, the special mark of the corps was worn: two crossed recoilless rifles and the initials KSR

A new danger - air raids - appeared during the war, and thus the problem - air defense - presented itself. With the funds that the state could devote to this, a Copenhagen Air Force was then formed, as quickly and as well as possible, consisting of a number of recoilless rifle stations on rooftops and the like and a number of cannon stations on the outskirts of the city.

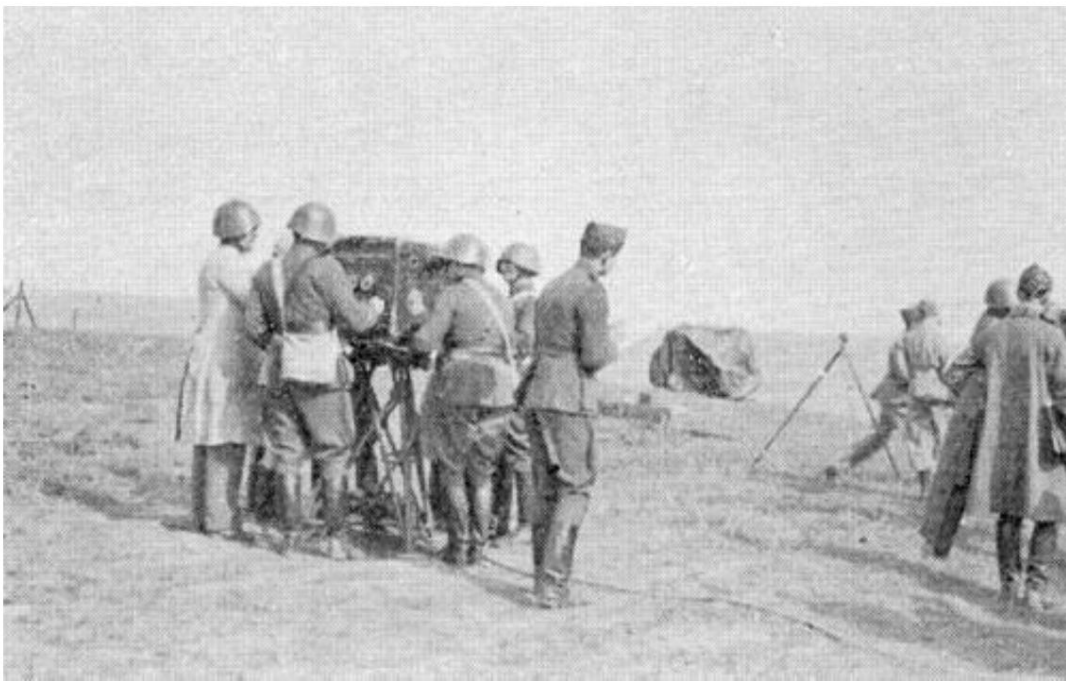
To take over the service at some of these stations, it was believed that there was suitable personnel within the Copenhagen Shooting Association's Reckylkorps, and in the spring of 1916, a small hundred shooters were made available to the Commander in Copenhagen, to whom the air defense had been subordinated.



In the autumn of 1917, it was decided by the High Command that the entire Copenhagen Shooting Association's Reckylkorps should be transferred to the Copenhagen Air Force. The corps' then 253 volunteers then staffed 10 units. 47 mm anti-aircraft guns, 14 recoilless gun emplacements, 12 searchlight stations and 3 siren stations.

After the war there was a decline in interest in the voluntary defense cause, but in 1927 the Corps was brought into a more military framework, with the Ministry of War establishing grades [6](#)) that corresponded to various ones of the Army. Furthermore, a new corps uniform (khaki) was introduced. The special mark of the corps was continued on the new uniform.

The 13th of May 1934 was a great day in the history of the corps, because that day at Mosede Batteri, the corps for the first time carried out sharp shooting with 75 mm L/30 anti-aircraft gun M.1914/16 with corrector, against towed targets pulled by an aviator.



In 1935, the corps changed its name to the Copenhagen Volunteer Luftforsvarkorps - colloquially KFL - with the support association Foreningen for Copenhagen's volunteer air defense corps. In 1937, KFL was disbanded like the other volunteer corps, but the support association continued as a shooting association.

In February 1940, when the war had broken out, but Denmark was still unoccupied, it was decided to set up a course at the 10th Artillery Division for the old members of the KFL. There met 125 men who received training in the latest anti-aircraft equipment and, among other things, manned a 75 mm anti-aircraft battery at Stricker's Battery 7) on Amager.

The company continued until 29 August 1943, when the modern equipment was taken over by the Germans. The association continued its work as far as possible, and many of the members joined the resistance movement.

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1) The Army Act of 1932 determined that the old 10th Artillery Division (heavy reserve division) was to be converted into a motorized line division - anti-aircraft division - with 8 batteries. The department was directly subordinate to the General Command. The Army Act of 1937 established the Luftvænsregimentet, but until December the staffs of the regiment and the 10th Artillery Division were identical, just as the regimental commander was also the commander of the 10th Artillery Department. In terms of command, the 10th Artillery Division remained directly subordinate to the General Command after the regiment was established.

2) The 27 items 47 mm guns, Model 1886 and 1887, were originally set up as anti-balloon guns on the forts around Copenhagen..

3) Sperry-set or Sperry-Gruppe was the term for spotlights and listening devices and named after the equipment's American supplier Sperry Gyroscop Co.

4) That the two branches of the defense worked together seems natural today, but one must bear in mind that the two authorities lived a life where, at best, they competed for the scarce resources that were made available from the political side .

5) The overview obtained from Source 1 specifically mentions the 10th Artillery Division, but if the number of 75 mm guns is to match, then it should probably have read the 13th Artillery Division, i.e. the Zealand Division's air defense division.



6) From Source 2's overview of serving commanders, the following rank structure is derived: recruit in KSR, bombardier, gun commander of the 2nd degree, gun commander of the 1st degree, battery commander of the 2nd degree, battery commander of the 1st degree, corps commander. The latter was a line officer - captain NSJ Bjerre, from 10. Artillery Department.

7) The battery, which is now decommissioned, was located on Raffinarederivej, between Kløvermarken and Prøvestenen (Fredningstyrelsen's map of Copenhagen's sea and land fortifications, 1986).