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17

**TOWARDS EAST  
OR WEST?  
DEFENCE PLANNING  
IN FINLAND  
1944–1966**

*Vesa Tynkkynen & Petteri Jouko*

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# Towards East or West? Defence Planning in Finland 1944–1966

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# 1. Introduction

Finland found itself in an extraordinary position in the international political arena during the Cold War, accomplishing a successful balancing act within the sphere of influence of the Soviet Union but managing in spite of political "Finlandization" to preserve its national autonomy and western social order. The period was also an interesting one in a military sense, as Finland was committed to fulfilling, or at least being prepared to fulfil, its obligations under the military clauses of its Agreement of Friendship, Cooperation and Mutual Assistance (FCMA Treaty) with the Soviet Union at the same time as the most concrete external military threat to the country's independence came precisely from the other party to that agreement.

Reviews have been published earlier of trends in Finnish defence policy during that period, but the actual operational plans have remained in the depths of the archives.<sup>1</sup> It has been possible to construct an overall picture of these defence plans only since the transfer of the majority of the confidential material in the possession of the Operations Division at General Headquarters to the Military Archives at the beginning of the present decade. The purpose of this paper is therefore to describe **trends in operational planning aimed at the defence of Finland in the years 1944–1966.**

In order to facilitate the handling of this theme, we may distinguish the following questions to which answers are sought here:

1. How did the spectrum of perceived threats that served as a basis for operational planning alter during that period, and did it correspond to the true situation in which the Finns found themselves?
2. What changes took place in the mobilization system?
3. How did the availability of hardware and equipment for the defence forces develop during this period?
4. Did the exercises held conform to the operational plans?

The relevant defence documentation was for the most part declared either secret (closed for a period of 25 years) or top secret (closed for a period of 40 years), with the actual operational plans falling into the latter category. This is the main reason why the period to be studied here is limited to 1944–1966, although the latter date is also justified on the grounds that the last revisions to the OpPlan-57 were made in the mid-1960s, just before the transfer to

a new peacetime organization. Thus we can with a clear conscience bring our study of operational planning to a close at that point.

We had access to all the material deposited in the Military Archives that is relevant to the period in question, the most important documents for the present purpose being those of the General Headquarters Operations Division, which are now available in the Military Archives for the period up to 1960 in the case of top secret documents and up to 1973 for secret ones. The main source of documentation regarding the mobilization system is the General Headquarters Mobilization Division (järjestelyosasto), while other material of significance includes the documents of the Logistics Division which contain a large proportion of the argumentation lying behind the Operations Division planning. Regarding the status and amount of relevant material, the main archives are those of the Armaments Office (sotavarusteosasto), the Ordnance Division (taisteluvälineosasto) and the War Economy Division (sotatalousosasto).

The peacetime organization of the Defence Forces remained reasonably constant during the period in question, the General Headquarters having three divisions, the Armoured Brigade, the Navy and the Air Force subordinated to it, together with the military provinces and districts, which were primarily responsible for mobilization. The confidential archives of the divisional headquarters were for the most part available to us, although it is probable that some material may not yet have been lodged with the Military Archives or may have been destroyed in connection with reductions in these archives. The reason for the latter situation lies in the common practise of recording the most confidential papers of all as rough drafts in various correspondence ledgers, so that officially they did not exist as recorded documents at all. It was then a relatively straightforward matter to destroy them. Thus it is highly likely that a large number of the draft documents that contained ideas put forward by planners and decision-makers in the form of notes added in the margins will have been lost for ever. Another problem arises from the manner in which the minutes of meetings were recorded. There were some meetings for which no minutes existed at all, and frequently they were no more than laconic statements of the decisions reached. Thus the actual opinions of the participants and possible conflicts of opinion have been sucked into the black hole of history.

Efforts were also made to render the most confidential information secret by reducing the number of people handling it and the



number of documents involved to an absolute minimum. In the case of an infantry brigade in the post-war years of the 1950s, for instance, it may well have been only the commander who was made aware of what the wartime mission of his brigade was. Confidentiality and the classification of information also extended to General Headquarters itself, so that the first defence plan involving the Soviet Union, drawn up around 1959–1960, was known only to a few officers serving in the Operations Division.<sup>2</sup> In the case of the Mobilization Division, whose principal task was to plan and maintain both the peacetime and wartime structure of the Defence Forces, confidentiality was achieved by dividing the division into numerous separate offices. Planning of peacetime force structure within the Mobilization Division was almost entirely independent of wartime deployment and matters were planned in separate offices.<sup>3</sup>

Documentation with regard to the Air Force is problematic, as its headquarters has not handed over any of its confidential material to the Military Archives, but the situation is by no means hopeless, as copies of a large proportion of the documents involving Air Force planning as a whole were sent to the General Headquarters Operations Division as points of information and have been preserved in its archives. In addition, the Air Defence Division (ilmapuolustusosasto) at General Headquarters had an abundant documentation on air defence matters, and the situation is improved still further by the fact that some of the documents belonging to the individual wings under Air Force Headquarters have been deposited in the archives. The situation is more promising in the case of the Navy, as its headquarters and the command levels subordinated to it deposited their top secret material in the Military Archives in 2003.

The headquarters of the Frontier Guard, which was subordinated to the Ministry of the Interior and came to occupy a critical role in the defence of the eastern frontier of Finland in the early 1960s, has still not lodged its confidential documentation with the Military Archives. Its leadership nevertheless looked favourably on the present research project and granted access to the confidential material in the organization's possession.

Virtually no intelligence or counter-intelligence documents were available for the present purpose, however, as they are presumably still in the organization's own archives or else have been destroyed. It should be remembered that the General Headquarters of the Defence Forces did not have a separate intelligence organi-

zation directly after the war, and it was only in 1951 that the Chief of General Staff, Major-General A. Sundman, ordered the chief of the International Division to take charge of intelligence.<sup>4</sup> We have had access to reviews by the International Division. The command structure was clarified in 1959, with the creation of an Inspection Office (*tarkastustoimisto*) within the Information Division (*tiedotusosasto*), and this was extended a few years later to form an Inspection Division. It was not until 1968 that the latter became known as the Intelligence Division.<sup>5</sup> Thus we will not be concerned at all here with military intelligence or the submission of daily situation reports, but will be content to examine the threats, or more precisely the threat scenarios used in operational planning, at the level of accuracy at which they were set out in the Operations Division documents.

The Ministry of Defence relinquished the confidential papers of its Defence Council, founded in 1957, to the Military Archives a couple of years ago. A large proportion of these documents consist of highly confidential reports and proposals drawn up by various divisions of General Headquarters for presentation to that committee. We also had access to memorandums and minutes of the Defence Council for the period 1957–1965.

We have managed to form a fairly clear picture of Swedish and Norwegian plans regarding Finland on the basis of the latest research literature, but a huge gap remains with respect to the eastern frontier, as virtually nothing is known of Soviet operational planning. Although considerable amounts of Warsaw Pact documents have been released for research use in recent years and have been discussed at international conferences arranged by the Parallel History Project, for instance, the Russian Federation has adopted a strictly secretive line with regard to operational plans drawn up in Soviet times. No documents referring to Finland have been discovered in the former Warsaw Pact archives, and current information has it that Soviet operations north of the Gulf of Finland were carried out entirely by Soviet troops, so that the other Warsaw Pact countries will have had nothing whatsoever to do with them, nor were they even informed about them, for reasons of secrecy.

It became evident at the very beginning of the work that the use of archive material alone would create only a partial impression of the situation. In broad terms, one might say that a huge gap remains with respect to the eastern frontier in the case of Finnish planning as well. The threat posed by the Soviet Union is either not discussed

at all or is referred to in covert terms, although there are some allusions to the Soviet Union in the documents, especially from 1960 onwards. In order to ensure that this question did not rest entirely on our own interpretations of the documents, however, we decided to fall back on interviews, mainly to shed light on how the Soviet threat affected operational planning. For this purpose we chose to interview four distinguished General Staff officers who served in the Operations or Mobilization Division of General Headquarters in the 1950s and 1960s: Lieutenant-General Ermei Kanninen (b. 1922), who served in the Operations Division on two occasions, as a staff officer in 1958–1963 and as divisional chief in 1967–1971, Major-General Juhani Ruutu (b. 1922), who served in the Operations Division in several capacities in 1963–1969, Colonel T. Olavi Lehti (b. 1915), the oldest of the interviewees, who served there for two periods in the 1950s, in 1951–1955 and 1958–1962, and finally, in order to determine the role of the Mobilization Division in defence planning, Lieutenant-General Sakari Annala (b. 1928), who served there in 1961–1968.

We would emphasize that this research is concerned above all with planning. We do not attempt to evaluate the real strength or capacity of the Defence Forces, but rather we aim to provide a basic account of their operational plans. Although we put forward some Western evaluations of the readiness of the Finns to defend their country, we do not attempt to speculate on how the Finnish political leadership might have behaved in a crisis. That is something that belongs to the political historians, if it belongs to history at all. It may appear to a foreign reader that operational planning in Finland in the 1950s had very little to do with politics, and if pushed, we might be tempted to admit that this impression is a correct one. Finland did not go in for the same defence policy outlines that were common in Great Britain in the same period, for instance, but rather the Finnish Defence Forces were acting in isolation from the rest of society up until the early 1960s, which was when total defence planning and coordination really got under way. The forces have never traditionally been looked on as a political instrument, but rather as a last resort in the struggle to ensure the survival of the nation. In the Finnish security philosophy the Defence Forces have constituted a “poor man’s deterrent”.

## 2. The operating environment of the defence forces

### 2.1. Internal and foreign policy operating environments

The ceasefire that came into force on 5<sup>th</sup> September 1944 placed Finland in an utterly new, extremely difficult political situation, for in spite of having successfully fended off the Soviet offensive in the arduous battles of summer 1944, the country found itself in the position of one of those defeated in the war. As the Allied Powers had already agreed that the final peace treaty with the Axis block and its allies would be concluded at a joint peace conference, the Soviet Union, Great Britain and Finland signed an Armistice Agreement on 19<sup>th</sup> September 1944, under the terms of which Finland was to expel the total of over 200,000 German troops present in the northern part of the country. The secret agreement between the Finns and the Germans that the latter could retreat more or less in peace fell through when the Allied Control Commission, composed in practise mainly of Russians, called for a more active operation on the part of the Finns. Eventually this "fake war" ended with the Finns landing at Tornio at the beginning of October and provoking some six months of hostilities under strenuous winter conditions that led to the almost complete destruction of the infrastructure of Lapland.

The task of disarming the German troops in northern Finland delayed implementation of the demand for the demobilization of the Finnish Defence Forces by 5<sup>th</sup> December that had been written into the Armistice Agreement. In addition, the Control Commission rejected the Finns' demobilization plans, which would have returned the Defence Forces to their 1941 strength of about 64,000 men. Instead, the Commission ordered their strength to be reduced to that prevailing before the Winter War, i.e. it was not to exceed 37,000 men. The command to implement the order given by the Commission was issued in November 1944.<sup>6</sup>

There was another condition stated in the Armistice Agreement that was also a serious military blow to the Finns, the demand that the peninsula of Porkkala, located only 30 km west of the capital, Helsinki, should be leased to the Soviet Union for 50 years. The relinquishing of the fortifications in this area to the Russians meant

the creation of a serious gap in the strong defensive chain around the capital, and the Russians exploited this to the full and established a powerful base on the peninsula.<sup>7</sup>

Apart from substantially weakening the Finns capacity to defend their capital city, the Armistice Agreement also called for the complete demilitarization of the Åland Islands, which systematically undermined the Finns' ability to protect their marine connections to the west and north. The demolition and elimination of military installations began before the end of 1944, and with the exception of minesweeping operations in some sea areas, the work was completed by the end of September 1945.<sup>8</sup>

The Control Commission also placed numerous restrictions on the activities of the Finnish Defence Forces in addition to the provisions of the Armistice Agreement, among which particular mention should be made of the instructions issued in March 1945 on the composition of the coastal artillery. One consequence of these was that all the heavy artillery batteries located east of Porkkala were to be dismantled and transferred to the Navy depot for storage.<sup>9</sup>

Although the Armistice Agreement did not contain any actual armament restrictions, these were included in the eventual Treaty of Peace, signed in Paris in 1947, the aim of which was to deprive Finland of any offensive capacity and to restrict the activities of the Defence Forces "to meeting tasks of internal character and local defence of frontiers". The total tonnage of the Finnish Navy was limited to 10,000 tonnes and the Air Force to 60 aircraft. Offensive weapons such as bomber aircraft, atomic weapons, motor torpedo-boats, submarines, non-contact types of sea mines and guided missiles were entirely forbidden.<sup>10</sup>

The most problematic point of all in the treaty from a military point of view was the restriction of the total strength of the Finnish Defence Forces to 41,900 men, a figure which included the Frontier Guard, even though this organization was subordinate to the Ministry of the Interior. The treaty required the superfluous equipment (Finland had had 15 divisions mobilized against the Soviet Union at the time of the cessation of hostilities) to be forfeited to the Allies or destroyed within a year of its signing. Literal compliance with this requirement would have deprived Finland of all possibilities for defending its territory. In practise, however, the Cold War came to the rescue of the Defence Forces, as Britain and the Soviet Union were never able to reach agreement over what was to be done with the

superfluous material and so it was never handed over to the Allies at all. Instead it remained in the hands of the Finns and formed the main body of equipment available to the army up until the 1970s.<sup>11</sup>

The years immediately following the Second World War are often referred to in Finland as the "years of danger". Nothing was known of Soviet strategic goals with regard to this country and there were serious fears that the ultimate goal was occupation.<sup>12</sup> This impression was only confirmed by the fact that internal politics within Finland was in a state of turmoil. The difficult economic situation and the internal struggles between left-wing factions within the trade union movement led to frequent unrest and strikes, and there were naturally fears that the fanning of internal dissent was one means by which the Soviet Union would gradually reduce Finland to the same state of submission as the people's democracies of Eastern Europe. As a result, a ring of officers in the Defence Forces organized an arms concealment operation during autumn 1944, and material sufficient to equip some 30 000 men was sequestered.<sup>13</sup>

In actual fact it seems that the Soviet leadership was attempting to avoid any debilitation of the Finnish economy, in order to have the war reparations delivered on time.<sup>14</sup> Thus the pattern of events leading up to a communist coup did not take place in Finland as it had done elsewhere, even though the threat of this was perceived in Finland and in the West alike, especially in 1948.<sup>15</sup> Although the rumours of an attempted communist take-over proved unfounded, at least the Commander-in-Chief of the Defence Forces, General Sihvo, and President Paasikivi were inclined to take them seriously.<sup>16</sup>

The situation was resolved when Finland and the Soviet Union concluded their Agreement of Friendship, Cooperation and Mutual Assistance (FCMA Treaty) in 1948. This, after all, was an advantageous step as far as Finland was concerned, as it did not contain any provision for automatic military assistance but simply obliged Finland to defend its own territory in the event of either Finland or the Soviet Union being attacked by Germany or any of its allies. The attack would be repelled within the boundaries of Finland, with Soviet assistance or by joint action if necessary, but only after joint consultations to establish the true existence of a threat.<sup>17</sup>

The internal political arena was unstable throughout the 1950s, as reflected by the fact that the country had fifteen governments over a period of ten years, and the military situation in Europe as a whole also continued to be tense. The rearmament of West Germany in

particular gave rise to military tensions in Central Europe, or at least the Soviet Union used this as a pretext, and although Finland was somewhat to one side of the focal point of the conflict, the confrontation between the major powers was a reality very close to the Finnish border, as Norway became a member of NATO in 1949, which meant that the organization had bases in vicinity of the Kola Peninsula, which would during later decades become one of the main locations for Soviet strategic nuclear weapons.<sup>18</sup> At the same time the Soviet Union and its allies controlled the southern shore of the Baltic all the way west as far as the West German boundary.

Sweden's neutrality was a matter of great importance to Finland, as it meant that the two major power blocks came face to face only in the very north of Scandinavia, a region that did indeed merit a special position in Finnish defence arrangements. One can only speculate as to the security requirements that the Soviet Union might have imposed on Finland if Sweden had joined NATO, for instance. As it was, a certain sensitive balance prevailed in relations between Sweden, Norway, Finland and the Soviet Union which none of the parties wished to upset. Norway did not wish to exacerbate the military situation in Finnmark, as this might have led the Soviet Union to increase its pressure on Finland, which could in turn have led to an extension of the Russians' air surveillance network into Finnish territory, and the Swedish logic ran along similar lines. On the other hand, it was thought that the Soviet Union did not want to exert pressure on Finland, as that would have pushed Sweden further than ever towards a military alliance, and it was naturally in Soviet interests to keep Sweden unaligned. Neutrality was naturally the best course for the Finns, too, as the only realistic alternative would have been closer cooperation with the Soviet Union.

The highlights of Finnish foreign policy in the 1950s were the acts of joining the United Nations and the Nordic Council in 1955, and perhaps the most significant event from a military point of view was the return of the Porkkala area to Finnish sovereignty in 1956. Although this was viewed in Britain as no more than a Soviet political trick which would also rid it of an unnecessary military base, the withdrawal was a matter of considerable military significance for Finland,<sup>19</sup> as it meant that the defence of Helsinki, which had been under threat for nearly ten years, could at last be reorganized.

The Soviet Union exerted overt pressure on Finland on two occasions in the late 1950s and early 1960s: the "Night Frost crisis" of

1958 and a diplomatic note three years later by which the Finns were summoned for the consultations allowed for under the Agreement of Friendship, Cooperation and Mutual Assistance, but in both cases there are several interpretations in existence as to whether there were any intentions other than to strengthen the position of Urho Kekkonen as President.<sup>20</sup> With its overwhelming superiority in terms of conventional weapons, the Soviet Union scarcely had anything to fear from the rearmament of West Germany that it quoted as the reason for the consultations. Yet, the diplomatic note had positive consequences for the Finnish Defence Forces, as it led to a commitment by the political leadership, and most of all by the President, to purchase new equipment from the Soviet Union.<sup>21</sup> On the other hand, the note crisis was at least seemingly detrimental to Finland's international position.

## 2.2. Defence policy guidelines

The organization of the higher echelons of the command of the Finnish Defence Forces differed markedly from that prevailing in many of the Western European countries at that time, as purely military matters—such as operational planning or peacetime training—as such were entrusted to different authorities from those responsible for defence administration and the determination of defence policy. Under the Constitution, the Supreme Commander of the Defence Forces was the President, while the Ministry of Defence was responsible for the relevant legislation, the drawing up and implementation of the defence budget, and property management, while all military defence functions, including training and both peacetime and wartime operational planning, were in the hands of the Commander-in-Chief of the Defence Forces and General Headquarters.<sup>22</sup>

The radical change in Finland's defence position that was brought about by the signing of the Armistice Agreement caused the Cabinet to set up a separate Defence Revision Committee in May 1945 with the task of reorganizing the country's defences. This committee submitted an extensive report in March 1949 that addressed a wide variety of issues: the peacetime organization of the defence forces, their wartime composition and the international position of Finland in terms of defence policy. The last-mentioned issue, which will be discussed in further detail later, is extremely interesting as it



formed a basis for the threat scenarios that were employed in operational planning.

Once the Revision Committee had completed its work, a period of almost ten years ensued during which the country's politicians and civilian authorities were not committed to any very extensive preparations for defence. There were a number of reasons for this. In the first place, any preparations for mobilization could have been interpreted as infringements of the Peace Treaty of Paris and would have constituted an exclusively Finnish interpretation of that treaty, since the terms of the treaty itself did not distinguish between peacetime and wartime deployment of the armed forces. Secondly, the political situation within the country was such that the extreme left wing felt that it was precisely within the defence forces that the greatest opposition to their objectives was to be found, a suspicion that was indeed mutual, since the leadership of the defence forces was of the opinion that the greatest number of individuals and groups who posed a threat to national security existed among the left-wing extremists. Thus the most characteristic feature of the operational preparations laid down in the 1950s was the meticulous secrecy that surrounded them. The plans were known only to the minimum number of people necessary for their elaboration and were not automatically communicated even to the Ministry of Defence and the President, although the latter was probably informed of them from time to time.

Finland had had a Defence Council prior to the Second World War which had advised the President, issued statements and made proposals on defence arrangements in general, but this had been composed almost entirely of military officers and had not succeeded in gathering representatives of all aspects of the country's defence round the same table.<sup>23</sup> Thus the post-war Revision Committee proposed that a supreme advisory Defence Council should be set up, consisting of all the ministers responsible for the different branches that contributed to the nation's defence. Implementation of this did not succeed in connection with the reorganization of the Defence Forces in 1952, however, and was delayed for a further five years.<sup>24</sup> Finally a statute was promulgated in March 1957 that defined the duties of the Defence Council as being to coordinate the country's overall defences and draw up the necessary financial plans. The council was to be chaired by the Prime Minister, or by the President if present, and its members were to be the Ministers of Defence,

Foreign Affairs, Internal Affairs, Finance and Trade and Industry. The military were to be represented by the Commander-in-Chief of the Defence Forces and the Chief of General Staff.<sup>25</sup>

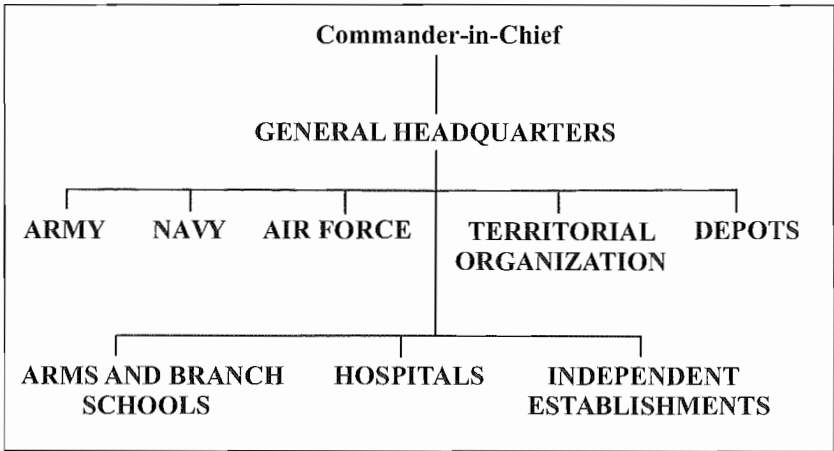
The Defence Council was fairly active in the years 1957–1965, meeting an average of ten times a year and expressing distinct opinions on the matters entrusted to it under the statute. The emphasis was on the allocations made to defence within the national budget, material acquisitions, long-term developmental plans and the peacetime composition of the Defence Forces. It should also be noted that the main outlines of the content of the national operational plans were placed before the Defence Council. The work of the council was not especially consistent in the long term, however, as its composition varied constantly on account of frequent changes of government, on no less than eight occasions between 1957 and 1964, and one is left with the impression that the long-term plans put forward by the Defence Forces for several years at a time suffered considerably from this lack of continuity. It is nevertheless significant that the council succeeded in inducing the politicians to commit themselves to questions of national defence.

### 2.3. Peacetime composition of the Defence Forces

Under the revision of the peacetime composition of the Defence Forces in 1952 the army came to consist of three divisions, each responsible for the development of a defence capability in its own region, and the ground troops were subordinated to these, except for the Armoured Brigade, which remained responsible directly to the General Headquarters. The Coastal and Anti-Aircraft Artillery was incorporated into the army, so that each division also had troops of this category. The country was divided into seven military provinces and 27 military districts for mobilization purposes. At the same time the Air Force was divided into three wings and the Navy into two bases and two flotillas.<sup>26</sup>

This composition remained constant until 1966, being largely unaffected by the new National Defence Statute of 1960. The greatest visible change, which admittedly was of no functional significance, was the restoration of the old historical and provincial names for the units at the beginning of 1957.

The majority of the troops were stationed in southern Finland



*Figure 1. Composition of the Finnish Defence Forces in 1952.*

under peacetime conditions, although a gradual reinforcement of the defences in northern Finland was undertaken from the early 1960s onwards, when a significant re-deployment of troops took place, the most notable of which was the transfer of the Jaeger Battalion to Lapland. The principal reorganization in southern Finland was the transfer of the Helsinki naval base and part of the Coastal Artillery Regiment to the Porkkala region after it had been relinquished by the Soviet Union.<sup>27</sup>

## 2.4. Defence allocations from the national budget

The immediate post-war years were economically difficult ones. The conditions of the Armistice Agreement had included the payment of war reparations amounting to 300 million dollars to the Soviet Union. In practice, however, the sum was virtually double this, as the Soviet government unilaterally declared that the goods to be supplied should be assessed at their very much lower pre-war prices.<sup>28</sup> These reparations, the task of resettling more than 400,000 refugees from the territories ceded to the Soviet Union, and the loss of a workforce of some 90,000 men killed in the war and more than 90,000 injured to a greater or lesser extent<sup>29</sup> meant that the resources available for the defence budget prior to the mid-1950s were ex-

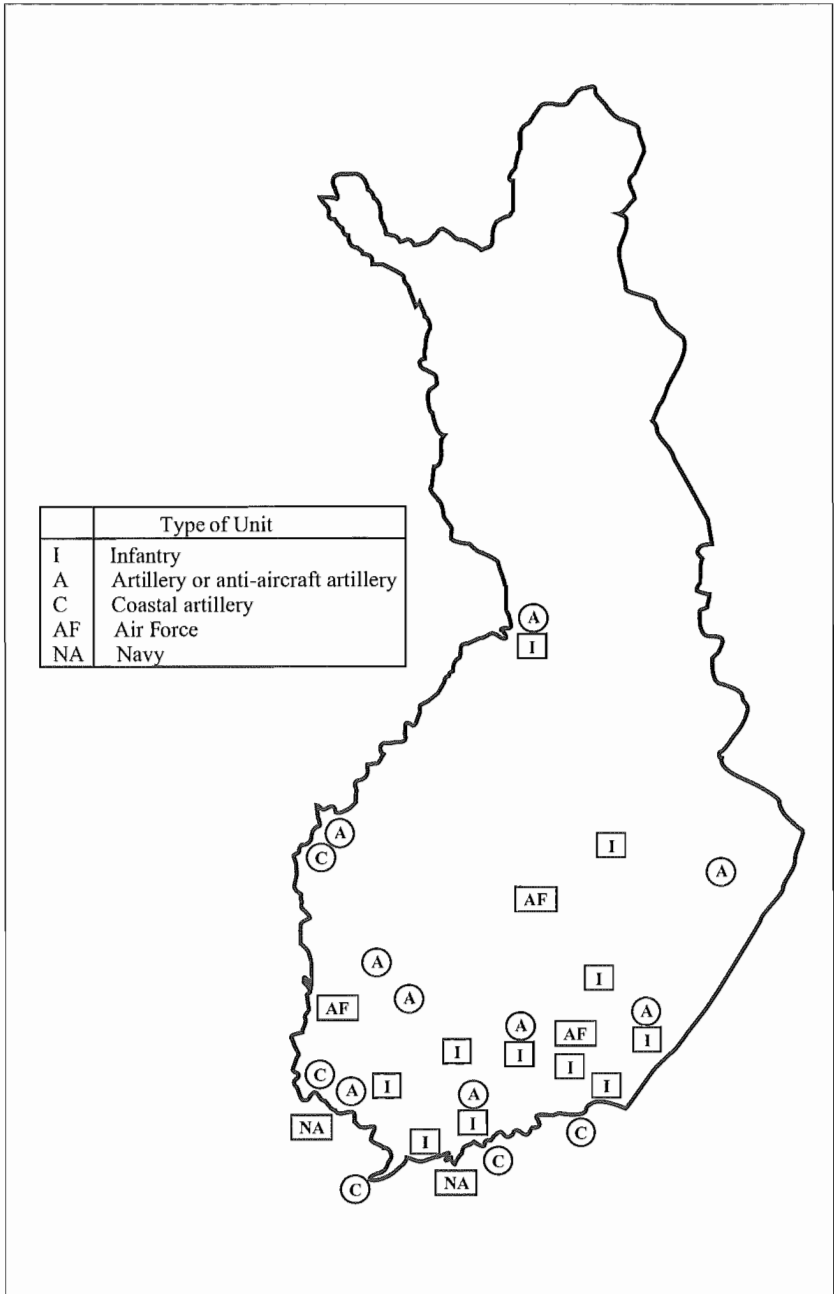


Figure 2. Deployment of the Finnish Defence Forces in 1960

tremely limited.<sup>30</sup>

Defence accounted for its smallest proportion of the national budget, only 3–4%, in the years 1947–1950, after which the figure settled at 5–6%, with the exception of 1962, when the credit of 12,000 million Finnish marks granted by the Soviet Union for material purchases raised the level to 8.4% of total government expenditure. All in all, just over 300,000 million marks<sup>31</sup> were spent on defence in the period 1945–1964.<sup>32</sup>

## 2.5. Finland as an operational area

When setting out to evaluate operational planning in the Defence Forces it is reasonable to begin by taking a brief look at the military geography of the period in question. From the point of view of the structure of its communications network Finland was quite a different country in the 1950s from what it is today. The long distances, sparse population, partly undeveloped connections and harsh climate placed all manner of demands and restrictions on both the mobility and equipment of defenders and invaders alike.

The territory of Finland can be divided in terms of military geography into four regions with distinctive patterns of relief and typical terrain:<sup>33</sup>

- the coastal plains,
- the Lake Region, or inland region,
- the Forest Region of Kainuu, Kuusamo and southern Lapland, and
- the fells of Lapland.

The coastal zone typically had a fairly low relief with broad expanses of fields and large numbers of rivers, forming plains that extended some 50–100 kilometres inland around the whole coast of the country from the Gulf of Finland as far as the head of the Gulf of Bothnia. It was in this coastal area that the majority of the settlement had been concentrated, and thus the infrastructure was relatively well developed for its time. It was naturally here that the major ports were located, and the plains close to the coast formed the most suitable terrain for motorized troops, although there were admittedly substantial regional differences in this respect. The broad agricultural plains of Ostrobothnia and southwestern Finland, for instance, were far more suited to mechanized warfare than was the

southeastern corner of the country, where there were less fields and the road network was less dense. In spite of the fields and plains, southern Finland was basically forested terrain, as the forests began as soon as one passed beyond the fields and centres of population.<sup>34</sup> The substantial agricultural areas in the coastal zone provided ample opportunities for tactical landings, a situation that is summed up well by the statement in one writing on the military doctrines of the major powers dating from 1966 that "An invader can follow the patterns of her offensive doctrine over the majority of the coastal area."<sup>35</sup>

The coast itself had a typical fragmentary nature, especially in the south-west, where the mainland was protected by an archipelago with an abundance of small islands and reefs that placed severe restrictions on the use of large naval detachments or vessels of any notable size. The movement of large ships was restricted to a fairly small number of deep channels. Thus the area between Turku and the Åland Islands was of great importance to Finland, forming geographically a gateway to the Gulf of Bothnia, where in any case movements in the middle of winter were restricted by the sea ice.

The Lake Region begins at the edge of the coastal plains and is bounded by the Salpausselkä ridge in the south and by the vast forests of northern Karelia and southern Kainuu in the north. This is a region that is broken up by thousands of lakes, the fragmentation being especially pronounced close to the eastern border, and the main roads and railways seek out the tongues of land that separate these lakes. Hills become more prominent towards the north. One special feature of the eastern part of this region was the "Salpa Line", which similarly relied on narrow tongues of land between the lakes and was supplied with large numbers of fortifications of different kinds in the years 1940–1944 in order to serve as a last line of defence. The focal point of this line lay in the southeastern corner of the country, stretching from Lappeenranta to the Gulf of Finland coast, which was expected to bear the brunt of the Soviet offensive once the Karelian isthmus was taken.<sup>36</sup>

The characteristic feature of the northern parts of the Forest Region is its sharp relief. This area, which is still largely uninhabited even today, possessed vast expanses of peat bog and dense forest, with a very sparse road network, in addition to which the area was again broken up by numerous lakes. This region occupied a key position as far as the profile of the whole country was concerned, as it

offered a relatively useful, narrow line of defence against an attack from the north. On the other hand, it would have been relatively easy for an assailant from the east to cut the country in half at that point, as the Red Army had planned to do in the Winter War.<sup>37</sup>

The northernmost part of Finland was the least inhabited of all, with a mean population density of less than two persons per square kilometre, and virtually all of the settlement was concentrated along the main roads and beside the rivers. The terrain typically consists of vast peat bogs, relatively low-growing forests, fells rising to heights of a few hundred metres and a very sparse road network. There were two roads crossing the region in a north-south direction, and most important from a military point of view, scarcely any roads running east-west by which an invader could have re-directed the main effort of his offensive, the first road to cross the country in this direction being in southern Lapland. It should also be noted that there were only two roads leading into this region of Finland from the Soviet Union.

The railways occupied a key position in the post-war period as far as both civilian transport and possible military transport in the event of a crisis were concerned, as there was an extreme shortage of motor vehicles in Finland at that time.<sup>38</sup> The rail network was densest in the south of the country, connecting most of the major towns, but it became sparser northwards and was non-existent in the far north. As far as potential Soviet movements were concerned, it is important to note that the Finnish and Soviet railway systems were linked at three points and that by virtue of their common gauge, Russian rolling stock had immediate access to the Finnish network.

The advent of the jet age in the 1950s placed new demands on the country's airports, the network of which was still underdeveloped towards the end of that decade. It was estimated in 1958 that Finland had only four airfields at which jet planes could operate, of which three were located in the south. Five more were under construction, however, and another five were thought to be easily convertible to military use. In terms of their geographical location, it should be noted that there was not a single airport that was suitable for military jet traffic in the very north of the country, nor even one that could be adapted for this purpose.<sup>39</sup>

Climatically, Finland is without doubt a challenging environment for the deployment of armed forces. The mean January temperature at Ivalo during the period under discussion here was -15°C,

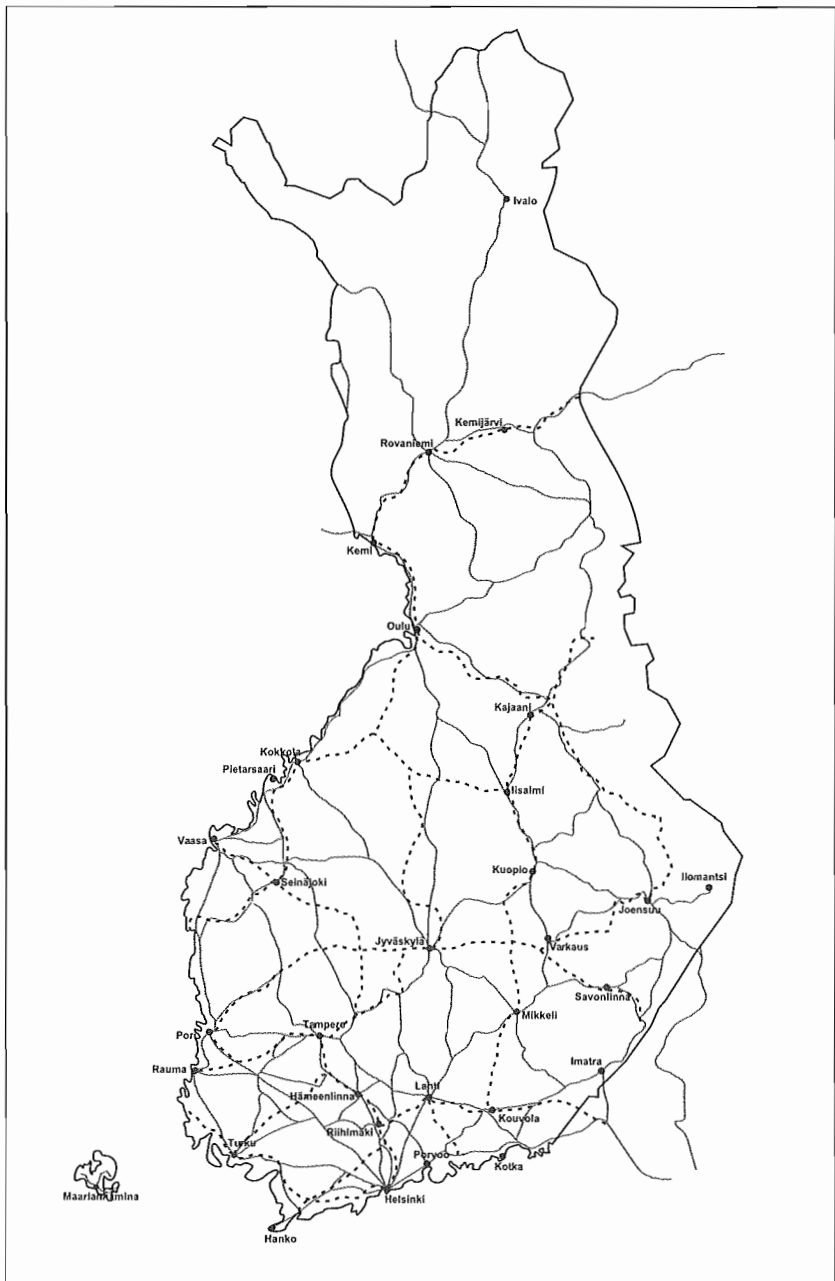


Figure 3. Principal transport connections in Finland in the late 1950s and early 1960s



with corresponding figures of  $-7^{\circ}\text{C}$  in Helsinki and  $-10^{\circ}\text{C}$  in Mikkeli in the Lake Region, while snow depths varied from 60 cm in northern Lapland to 20 or 30 cm on the coast. Conversely, the mean July temperature in the north of Lapland was  $16^{\circ}\text{C}$  and that in Helsinki  $18^{\circ}\text{C}$ .<sup>40</sup> Alongside this there are also the extremes in daylight conditions, as the sun does not rise at all between mid-November and mid-January in the far north, while the south coast has 6–7 hours of daylight, and correspondingly the north of the country experiences up to two months of constant daylight in summer, when even in the south there are just a few hours of dusk.

### 3. Defending the new eastern border

When the ceasefire came into force on 4<sup>th</sup> September 1944, the Headquarters Operations Division gave orders for the army to prepare to retreat behind the boundary determined in the Treaty of Moscow and to assume defensive positions there.<sup>41</sup> The work of drawing up defence plans commenced at the same time as the peace negotiations were proceeding in Moscow, for there was no real confidence in the Soviet desire for peace. Thus preparation for further defensive action went ahead all the time the negotiations continued.<sup>42</sup>

The intention was to deploy the main force in front of the Salpa Line, in order to be able to take advantage of the full depth of this line of fortifications that had been established after the Winter War.<sup>43</sup> Later, when the armistice came into force, the army was obliged to retreat behind the newly defined border by 3<sup>rd</sup> October 1944.<sup>44</sup> Some divisions and brigades had nevertheless been concentrated in northern Finland at the beginning of September, when a severing of relations with the Germans seemed imminent, and for this reason not all the army units deployed at the time are indicated in the diagram.<sup>45</sup>

Gradually the task of patrolling the eastern border was transferred to the Frontier Guard, although initially under the command of the army officers in charge of the local units. It was only when the army began to assume its peacetime deployment on 26<sup>th</sup> November 1944 that responsibility was vested entirely in the Frontier Guard.<sup>46</sup>

Once the Allied Control Commission had arrived in Helsinki, a group of high-level officers from it set out to inspect the General Headquarters at Mikkeli. In addition to the operations against the Germans in Lapland, they were interested in the situation on the Soviet border. After receiving a report on this the inspectors accused the Finns of a breach of the spirit of the Armistice Agreement and demanded that all the orders and maps indicating the deployment of the Finnish field army should be handed over to the Commission.<sup>47</sup> In actual fact the Finnish military leadership had doubted the sincerity of the Soviet Union in autumn 1944 and had placed the troops on the new border in full readiness for a resumption of hostilities.

By the beginning of 1945 the General Headquarters Operations Division had iterated a new basis for mobilization, in which each

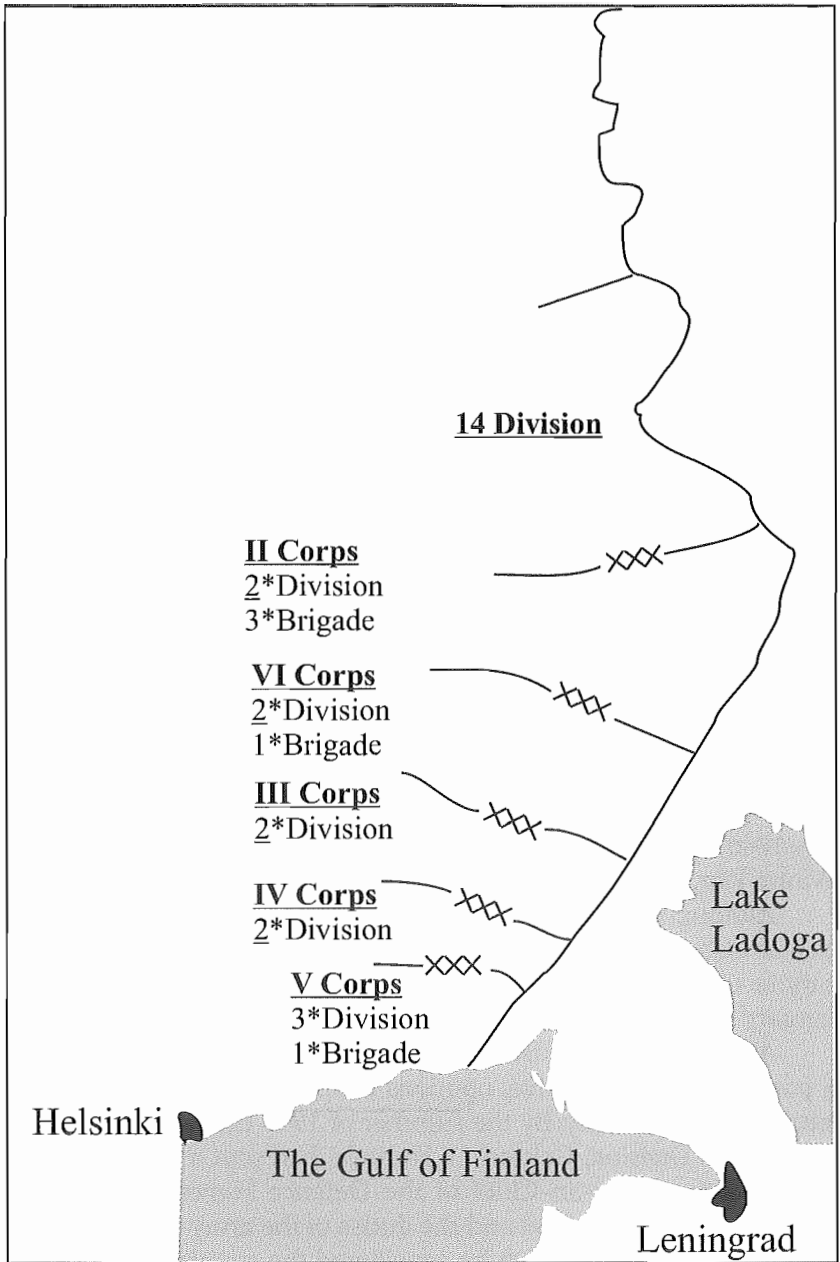


Figure 4. Deployment of Finnish army units on the eastern border in October 1944

military district should establish one battalion at the initial stage and arm this with the weapons that had been hidden away. These battalions should then be responsible for defending crucial military installations and the nine field depots.<sup>48</sup> This was in effect a matter of protecting the mobilization process.

The second stage of mobilization was based on the principle that Finland could not remain a military vacuum, as a severing of relations between the victorious Allied Powers seemed likely. Thus Colonel Nihtilä, chief of the Operations Division, had conceived the idea that the army's infantry regiments, light brigade and independent Jaeger battalions should be supplemented to form light infantry brigades. The aim was to form 11 or 12 of these.

In order to avoid a situation in which the material supplies necessary for these troops were in a central depot and could only be obtained slowly, the material in the possession of the peacetime garrisons had been augmented. The Control Commission drew attention to this and demanded that this material should be curtailed. The idea had been that fourth battalions should be formed that were armed with equipment taken from the hidden stores and that these should be linked to the light brigades. The remaining battalions would then be formed into brigades suitable for guerrilla warfare and border patrol duties.<sup>49</sup>

The third stage of mobilization, provided that sufficient equipment was available, would have been the creation of the main body of a field army in accordance with the procedure adopted after the Winter War.<sup>50</sup>

Although there was talk of a new basis for the mobilization system at General Headquarters in winter 1945, it was deemed necessary to order the cessation of practical preparations for this in the January so as to avoid accusations of provocation.<sup>51</sup>

Although the scheme outlined above was directed at repelling a possible Soviet offensive, opinions adapted to the realities of the situation fairly quickly. By the summer of 1945 the new chief of the Operations Division, Colonel O. Huhtala, had sent a memorandum to the Commander-in-Chief of the Defence Forces dealing with Finland's military position and the duties of the army under the prevailing conditions, in which he considered the country's position as a neighbour to the Soviet Union and came to the conclusion that the Soviet interests were to be borne in mind in everything that was undertaken. In order to preserve its own sovereignty, Finland should be

prepared in the event of a war between the Allied Powers to defend its territory in accordance with Soviet requirements.<sup>52</sup> Where Nihtilä was inclined to direct his defensive preparations towards the east, Huhtala preferred in the light of political realities to regard the west as the primary focus of his defence plans.

## 4. Preparations for defence in the west

### 4.1. The official threat from the west – a strategic evaluation of military defences

Where the Soviet Union had been looked on as the only threat to Finnish independence in the Baltic region prior to the Winter War, the position now was entirely different. In its compilation of the main points of departure for defining the post-war situation, the Defence Revision Committee stated in its report of 1949 that "The friendly relations that prevail with the Soviet Union rule out the possibility of war in that direction."<sup>53</sup> In other words, the Agreement of Friendship, Cooperation and Mutual Assistance combined with the distinct world power status that the Soviet Union occupied had radically altered Finnish views as expressed in official documents.

The report noted that it was the mission of the Defence Forces to meet the military requirements for preserving Finland's neutrality and ensuring that the country remained outside any future war, and named the southwestern and southern parts of the country as the most seriously threatened in this respect. It would be impossible to occupy the whole country through a surprise attack because of its size, but a partial surprise restricted to the most important regions was quite possible by means of a bold and ruthless airborne operation, for instance. In the committee's view the loss of one area in connection with renewed hostilities would not be decisive. Lapland, for instance, was not essential to Finland's survival in view of its small population and the underdeveloped nature of its infrastructure, although the committee did predict quite realistically that the various parts of the country could vary in importance depending on fluctuations in the overall situation. Similarly it noted that amphibious operations and associated extensive naval operations were possible only in certain, rather restricted areas.<sup>54</sup>

The Revision Committee reckoned that southern and southwestern Finland were the most important areas as far as ensuring the nation's vitality was concerned—given that the target should be to maintain a hold on the crucial areas under all circumstances. An attack on Lapland was a possibility, however, and preparations should be made to ensure its neutrality by force of arms in order to avoid the country's involvement in a future major war.<sup>55</sup>

But who would the aggressor be? The Revision Committee made every attempt to avoid naming any potential aggressor, contenting itself with mentioning that it would most probably be a question of Finland becoming embroiled in a conflict between the Western and Eastern blocks. The Finnish airspace, and in certain situations its land area, could be of considerable significance to the Western powers in the event of a military operation against the Soviet Union, while in accordance with the spirit of the cooperation agreement, the committee noted that no threat from the Soviet Union existed, on account of the friendly relations between the two countries.<sup>56</sup> Whoever the aggressor might be, it was clear that the Finns could not fall back complacently on international agreements or the apparent support of the United Nations, but would have to defend the country themselves. Otherwise the area would constitute a military vacuum that would inevitably attract foreign forces from outside in the event of a conflict breaking out. The conclusion to be drawn from all this, which was naturally never stated aloud, concerned the Soviet Union, of course, which should never be given a pretext to pursue any right of its own to defend Finland.<sup>57</sup>

The Revision Committee laid down that peacetime preparations should be made that would ensure sufficiently quick and reliable mobilization of fast deployment forces, whose principal task was to cover the full mobilization, and if necessary of the whole extent of the wartime defence forces.<sup>58</sup>

Although, as observed earlier, the Defence Revision Committee's report excluded the Soviet Union from Finland's possible enemies, defence against Soviet aggression was not forgotten. President J. K. Paasikivi's view on this was quite clear, as noted in his diary: "We had to comply with the demands of the cooperation agreement but still be prepared for the Soviets breaking that agreement and invading by force."<sup>59</sup> The view expressed in a secret analysis carried out by the Operations Division at General Headquarters pointed in the same direction, as it concluded that operational plans would have to be made for defending the country from an attack from either the east or the west.<sup>60</sup>

In the light of the above factors the Operations Division evolved three threat scenarios in 1951 which were to become the foundation and official model of the interpretation of the external threat to Finland throughout the 1950s. Operational plans were thus based on three alternative models for western offensives against this country,

in which use of the territory of Sweden and control of the Straits of Denmark formed the main points of departure. Another important feature was that defence would be in the hands of Finnish Defence Forces, so that the outcomes of any possible negotiations with the Soviet Union were not taken into consideration at all.<sup>61</sup> Work on the construction of these scenarios evidently began in 1948 at the latest, at the point where President Paasikivi gave permission to start on the preparation of operational and mobilization planning.<sup>62</sup>

#### **4.1.1. Alternative A—an attack from northern Norway<sup>63</sup>**

The guiding assumption in Alternative A was that the potential aggressor would not be able to make use of Swedish territory and that the Straits of Denmark and the Baltic Sea would be under Soviet control, so that the offensive against Finland would have to be launched from northern Norway, evidently with the strategic objective of pre-empting a Soviet advance through Norwegian territory to the Atlantic coast. Such an offensive would also mean that the Western powers would be able to use northern Finland as a base for proceeding to attack the railway line running from Murmansk to Leningrad, a vital communication line during the Second World War<sup>64</sup> and advance to the coast of the Arctic Ocean in order to disable the Soviet Northern Fleet. It was also presumed that an attack of this kind on Finland would affect Swedish military policy.

The enemy strength was estimated at no more than 6–7 divisions, and the terrain was expected to restrict the advance of motorized troops to the small number of main roads. It was envisaged that probably no more than one airborne division would be used to back up the invading ground troops.



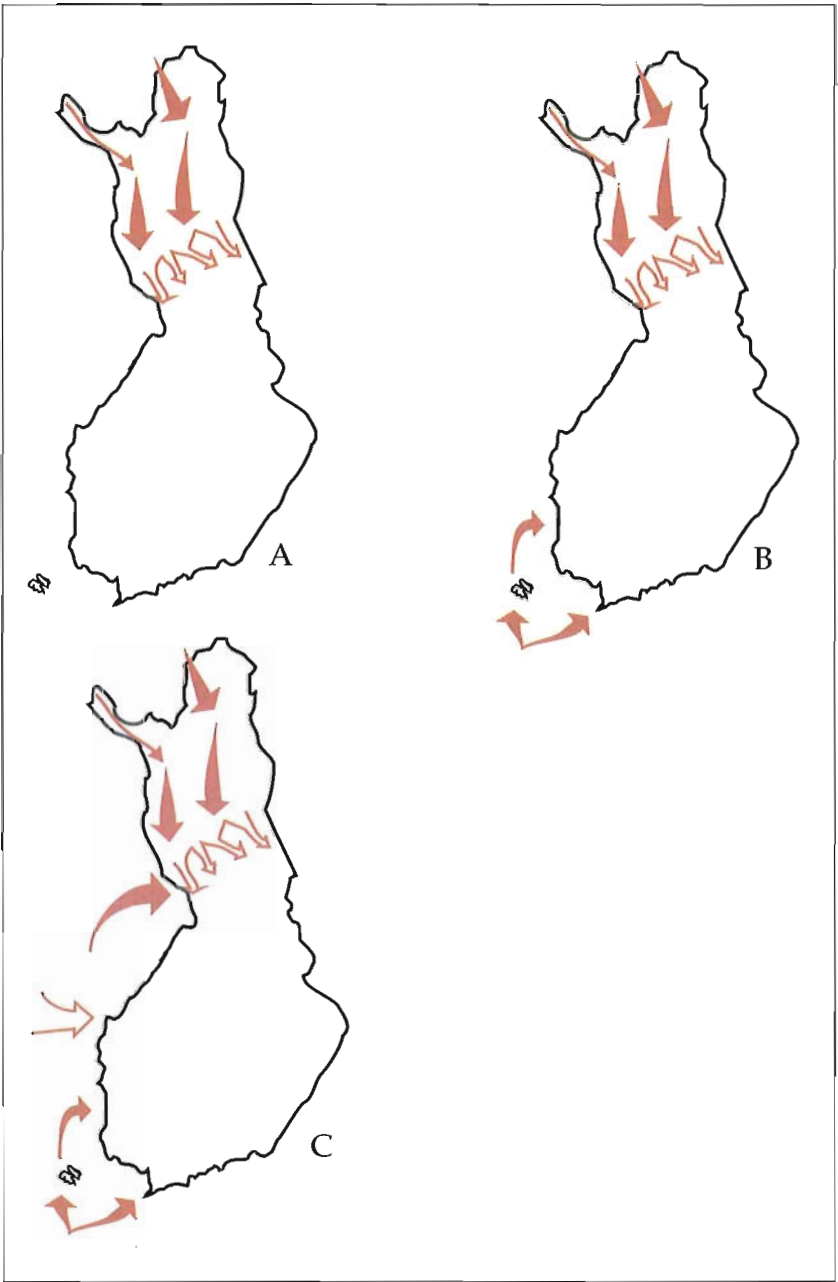


Figure 5. Threat Scenarios

#### 4.1.2. Alternative B—an attack from northern Norway and a landing in Southern Finland<sup>65</sup>

Alternative B was again constructed on the assumption that the aggressor would not be able to make use of the territory of Sweden, but it was now presumed that the Straits of Denmark and the Baltic Sea would be part of the war zone, so that an attack could be made on Finland from the Baltic and through northern Norway simultaneously. The projected strategic objective was that of influencing the attitudes of both Finland and Sweden towards the power groups engaged in the war by occupying all or part of Finland. Again it was assumed that a Western alliance would be attempting to restrict Soviet activities on the Baltic Sea, Gulf of Finland and Arctic Ocean and to create bases for a possible attack on Leningrad.

It was thought that an attack on southwestern Finland might have two main objectives:

- To capture the Åland Islands in order to ensure freedom of movement for naval forces on the Baltic Sea and Gulf of Bothnia, create a good tactical position in relation to the Soviet Baltic Fleet and put pressure on Sweden.
- To occupy the Hanko–Porkkala area in order to isolate the Soviet Baltic Fleet in the Gulf of Finland, achieve partial freedom of movement on the Gulf of Finland and threaten the Soviet flank on the southern shore of the Gulf of Finland.

It was regarded as unlikely that a landing in southwestern Finland would be restricted to just a few directions as would be case in northern Finland, and it was thought to be extremely difficult to estimate the possible strength of the enemy forces. It would be necessary for the enemy to take possession of the ports, as the disembarkation would have to take place from ships. It was also expected that more use would be made of operational and tactical airborne forces than in northern Finland, as the terrain and density of airfields offered better conditions for this. The deployment of forces in northern Finland was assumed to be similar to that in Alternative A.

The capacity of the ports in southwestern Finland was reckoned to be adequate for such an invasion, and it was calculated that, at least in theory, an aggressor would be able to unload about 135 battalions of troops or about 270,000 tonnes of equipment per 24 hours (*sic*). Yet, it was not expected that the invading force would be

particularly strong, however, as Finland was regarded as lying on the flank of the main thrust taking place in Central Europe.<sup>†</sup>

In this alternative a substantial proportion of the available formations would have been occupied in defending southwestern Finland, so that it would have been necessary to manage with fewer in northern Finland. This meant that as it would have been impossible to determine the main axis of the enemy attack in advance, enough reserves would have had to be left with General Headquarters to cope with the situation. The most important battle zones would have been the Åland Islands, Hanko and the Rauma–Pori area, and it was only Åland that could have been abandoned, in which case the defence positions to delay the enemy advance would have been built on the islands between Åland and the coast. If it was not possible to hold the coast and ports against an attack, the enemy would have had to be contained at the latest in a zone with its front line on the coast and rear a few kilometres inland.

#### 4.1.3. Alternative C—Sweden in alliance with the aggressors<sup>66</sup>

Alternative C would have been the most problematic of all for the Finns, since it would have presupposed that the aggressor had access to the territory of Sweden and that the attack would have come from the Baltic Sea and through both Sweden and Norway.

The Western powers' capacity to attack Finland would have improved enormously if they had had access to Sweden, since the danger of a landing in the ports on the Gulf of Bothnia coast of Finland and an invasion across of the land frontier in the Tornio Valley would have been very much greater.

The aggressor's objectives were assumed to be very much the same in as in alternative B, to influence Finnish attitudes towards the power blocks engaged in the war, to isolate the Soviet Baltic and Arctic Ocean Fleets, to tie up a proportion of the Soviet forces and to create a base for an offensive towards the northwestern parts of the Soviet Union.

The immediate objectives of the attack in southwestern Fin-

<sup>†</sup> The basis for this estimate is not known. The figure, however, appears to be totally unrealistic as in 1950 the Finnish ports handled some 10 million tons of materiel per annum, see Merenkuluhallituksen asiak nro 37/Sottsto/711 d/sal/10.11.1970, T 26965/E 3 sal, SARk.

land would likewise have been the same as in alternative B, but with greater emphasis on the role of the west-coast ports, as the principal aim of the offensive mounted from Sweden would have been to cut connections of the troops in the far north of Finland. The possibility of an amphibious landing attempt across the Gulf of Bothnia was a new threat, albeit a less probable one, evidently with the purpose of attacking either the troops operating in northern Finland or those in southern Finland from the rear.

Estimation of the strength of the enemy forces was regarded as being still more difficult in this alternative, but it was evident that size of the force and its technical superiority would have been such that all the troops that could possibly be mobilized would have been needed for a successful defence. The chances would not have been very good with a fast deployment force alone.

## **4.2. A brigade-based field army as the preparatory core for mobilization**

When President Paasikivi approved the proposal by the Commander-in-Chief of the Defence Forces for the commencement of mobilization preparations and the drawing up of operational plans on 13<sup>th</sup> March 1948, the preparations were to apply to a whole field army as well as the maximum deployment of 41,900 men permitted under the Paris Peace Treaty.<sup>67</sup> Although the interpretation by which the restrictions imposed by the treaty would cease to apply in certain situations, so that full mobilization would be possible, was not unambiguous, the conclusion was reached in all discussions and interpretations up to 1950 that the provisions of the FCMA Treaty and the right of an independent state to defend its own territory against aggression justified the commencement of such preparations. Any decision on cessation of the restrictions under the agreement if the situation had demanded would have been purely in the hands of the Finnish political leadership.<sup>68</sup>

Although a division-based field army had still appeared to be a suitable arrangement at the end of the Second World War, the situation had altered once the conditions for peace had been accepted, so that other alternatives had to be considered once new obligations and limitations applied.<sup>69</sup>

The question of the wartime establishments came to the fore in 1948, when the Committee on Wartime Establishments (määrävah-

vuustoimikunta) was set up. This body proposed that the country's wartime defence should be based on a wartime army that was organized into divisions as basic formations, while brigades would be needed as miniature formations for covering the mobilization, defence against airborne attacks or amphibious landings, and mobile operations.<sup>70</sup>

The first draft for the wartime composition of the army and preliminary mobilization plan was completed in the Mobilization Division of General Headquarters in February 1949. Commencement of this planning had been held up considerably by questions surrounding the interpretation of the existing agreements and disputes between General Headquarters and the Defence Revision Committee over the army's peacetime composition. The mobilization plan was further complicated by differences of opinion over the division of the country into military provinces and districts.<sup>71</sup>

The intention as far as mobilization was concerned was to create a wartime army composed of both divisions and brigades, with fast deployment forces amounting to 174,000 men. This would have meant a total wartime strength of about 403,000 men. The aim was to form the 9 infantry brigades, 2 armoured brigades and 27 independent battalions of the fast deployment forces within the peacetime troops on the cadre principle. In the event of mobilization each military province would have been responsible for supplying one division, so that seven of these would have been formed in all.<sup>72</sup>

The Operations Division, however, did not regard the Mobilization Division's proposal as the only possible alternative in its discussions of July 1949, and simply labelled it Alternative A. Alongside this an Alternative B was drawn up in which the fast deployment forces were restricted to 41,900 men, as allowed for under the peace treaty, and mobilization would have entailed, in addition to these, the formation of 13 infantry brigades, one armoured brigade and 27 independent battalions, giving a total army complement of 336,000 men.<sup>73</sup>

During the same year the Committee on Wartime Establishments came to conclusion that the brigade would be a more flexible basic formation than the division, since a possible war would require the creation of a defence capability on all land and sea boundaries and against airborne landings and a small number of divisions would not provide adequate flexibility over the whole country in this respect.<sup>74</sup> Thus a decision in principle was taken towards the end of

1949 to the effect that the army would change over to an organization based entirely on brigades,<sup>75</sup> the existing divisions being retained just as long as it took the military provinces to transfer to the new wartime composition. The threat of a war between the Eastern and Western powers and Finland's obligations under various agreements had demonstrated that the division was too heavy a formation for mobile operations.<sup>76</sup>

### 4.3. Formation of the auxiliary complement (täydennyskoonpano)

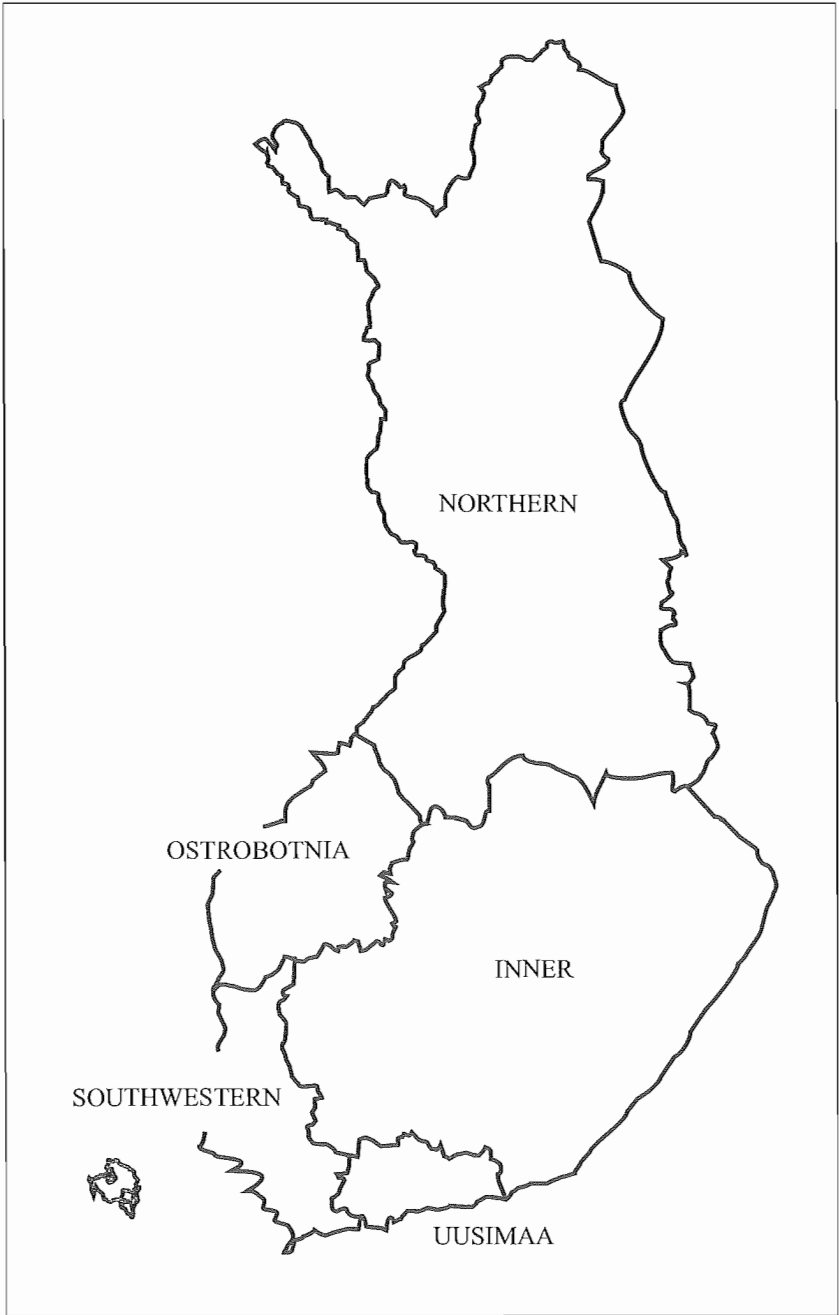
When work began on drawing up the first defence plans on 4<sup>th</sup> January 1950, on the orders of the General Headquarters Operations Division, a plan was prepared for supplementing the peacetime complement of the Defence Forces to attain the maximum strength permitted under the Treaty of Paris, 41,900 men. This strength was referred to as the "auxiliary complement", or A-complement.<sup>77</sup>

The tasks of the A-complement were:

- to guarantee the country's neutrality,
- to maintain internal order and protect targets that were of economic or military importance to the country, and
- to carry out military operations to repel any penetration of enemy forces into the country's territory.<sup>78</sup>

The country was divided into five areas of operational responsibility: the Southwestern Area of Responsibility (SWAR), Inland Area of Responsibility (IAR), northern Area of Responsibility (NAR), Uusimaa Area of Responsibility Region (UAR) and Ostrobothnia Area of Responsibility (ORR). The peacetime troops in each area and some troops in the various arms of the Defence Forces as laid down by General Headquarters were subordinated to the respective area commander.

The order also set out operational tasks for each area of responsibility. The Southwestern Area was to be prepared to transfer an infantry regiment and a field artillery battalion together with naval forces to the Åland Islands, to secure the local defences of the Hanko Peninsula and to seal off the borders of the leased peninsula of Porkkala. The Inland Area was to concentrate on protecting its railway junctions and all routes leading to Porkkala, and the northern Area was to protect the nodes in its transport network and its rail connec-



*Figure 6. Division of Finland into areas of responsibility*

tion with the south and to make preparations to move some of its troops into northern Lapland. It was the task of the Uusimaa Area to defend the capital, Helsinki, and to protect and seal off the borders of the Porkkala Peninsula and the connections leading to it. Finally, the Ostrobothnia Area was to guard the ports of that coast and the important railway line running north. The Light Brigade stationed at Hämeenlinna was held in reserve by General Headquarters to be deployed as necessary. The area commanders were expected to include the Frontier Guard forces of their area in their operational plans, but there was no intention at that stage of involving the civilian administration in the planning process.<sup>79</sup>

The commanders of the Navy and Air Force also received planning duties of their own in connection with the establishment of the A-complement. The intention was that the Air Force should be directly subordinate operatively to the Commander-in-Chief of the Defence Forces in terms of the A-complement and should be responsible for the planning of air operations, anti-aircraft defence and air raid warning duties. These activities were to be dovetailed in with the planning carried out by the areas of responsibility.

The main functions of the air force squadrons were to be reconnaissance, fighter defence for certain important targets, aerial surveillance of the national borders and of sea traffic, support for the army and naval forces and fighter cover for transport convoys in and out of the Åland Islands. It was to be possible to concentrate the majority of the fighter squadrons in different parts of the country as required.<sup>80</sup>

On transition to the A-complement the Commander of the Navy was to become inspector of the coastal defences and the coastal defence forces were to be placed under the commanders of the areas of responsibility, while the naval vessels on operational duties would be subordinate to the Commander of the Defence Forces. The Navy was to draw up a plan for surveillance of the country's maritime boundaries, with the focus of attention in southwestern Finland, so that the deployment of ships in the area was geared towards protecting Åland from a surprise attack and ensuring the safe transport of troops to the area. It was also important to guarantee the free and safe passage of commercial vessels and to protect the channels leading to the Porkkala base. The use of defensive mining in order to defend the country's neutrality was to be considered in a separate plan.<sup>81</sup>

The Commander-in-Chief of the Defence Forces approved these



plans with certain additions and alterations on 19<sup>th</sup> June 1950.<sup>82</sup>

As far as internal protection was concerned, the order was to reach agreement on cooperation between the military and civilian authorities. Arrangements were to be made for the protection of factories, large storehouses, railways and post offices in such a way that each would protect these with the personnel available. Within the border zone responsibility for such matters could also be delegated to the Frontier Guard.

The transfer to this A-complement plan was a response to three estimated threats, and a separate area of responsibility was set up in General Headquarters with respect to each of these. The Inland Area clearly constituted a rear zone where attempts were made to take Soviet needs into account in the manner laid down in the FCMA Treaty and execution were highly confidential matters, as may be appreciated from the General Headquarters' directive that operation orders were to be seen only by the commander and chief of staff in the area concerned. Other officers were to see only those parts that applied to their own duties.<sup>83</sup>

The internal defence instructions were standardized in November 1950 and the orders gathered together into one document. It was also at this point that the concept of "maintaining internal order and security" was coined. The tasks of the Defence Forces in this respect were defined as follows:

- to perform duties of an internal nature requiring military measures as laid down by the legal government of the country,
- to render assistance to the civilian authorities as required if police action were to prove insufficient for maintaining internal order and security,
- to ensure free passage and communications in and out of the Soviet base at Porkkala in accordance with the peace treaty, and
- to guarantee the continued functioning of the country's government and economic and business life and to protect sites of importance to the Defence Forces.<sup>84</sup>

There had been substantial differences of opinion between the Commander-in-Chief of the Defence Forces and the Defence Revision Committee with regard to both the peacetime military division of the country and the wartime composition of the armed forces, and this had made operational planning much more difficult, as

there was no sound foundation on which the preparations could be based.<sup>85</sup>

### 4.3.1. The wartime complement as a basis for a decentralized mobilization system

Although permission had been received from the President for the commencement of preparations for mobilization in 1948, no clear basis existed for planning such a system. It was only after a brigade-based composition for the armed forces had been approved in June 1950,<sup>86</sup> a statute for the formation of military provinces and districts had been promulgated in January 1951 and a unanimous interpretation of the country's obligations under the FCMA Treaty had been reached that the way became clear for the commencement of mobilization planning.

The command structure for mobilization proved to be a difficult matter. Operational preparations were to be led by the commanders of the five areas of responsibility at their own peacetime headquarters. The General Headquarters, however, maintained direct control in matters of mobilization over the military provinces and the military districts that were under them. Thus only a coordination relationship prevailed between the military provinces and the command levels responsible for operational preparations.<sup>87</sup> This meant that General Headquarters had too many instances directly under its control, as it were, and that coordination between the peacetime regional headquarters and the military provinces was felt to be extremely difficult.<sup>88</sup>

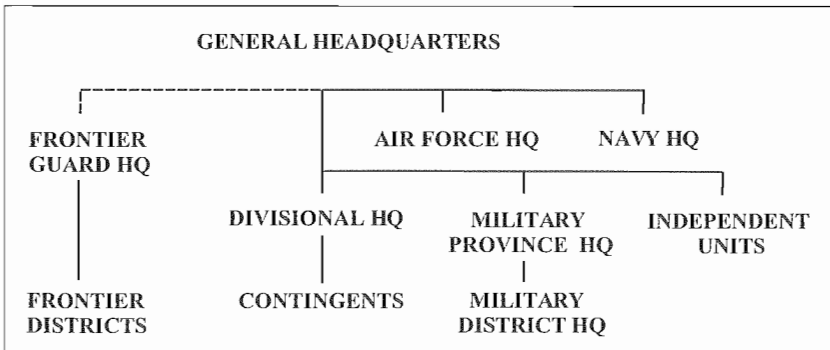


Figure 7. Mobilization command structure

The mobilization of wartime troops had relied heavily on the Civil Guard organization in the 1930s,<sup>89</sup> and the military districts had been left without any fixed lower-level organization once the Civil Guard had been disbanded after war. Thus it was soon realized in the early 1950s that the headquarters of a military district was unable to carry out the mobilization in its geographically relatively large area without an adequate sub-organization responsible for actual execution. This led to the creation of a new command level below the military district, known as the military area (*sotilasalue*), to be headed by a reserve officer who had achieved sufficient status in the civilian community. The military districts made preparations for their division into military areas during the first half of 1952.<sup>90</sup> The military areas had several mobilization centres, which were responsible for the actual execution of the mobilization. As early as March 1950 there had been more than 200 of these centres throughout the country.<sup>91</sup>

The aim was to raise the complement of the peacetime Defence Forces to its wartime level in three phases as demanded by the perceived threat: first the A-complement, then a fast deployment force complement and finally a full wartime complement. The A-complement conformed to the maximum strength permitted under the Paris Peace Treaty, in addition to which some 11,000 persons (including over 9000 women) were to be employed in an air defence capacity under the air-raid precautions legislation and the police forces was to be increased in strength to 10,000 men in order to cope with various guard and warden duties.<sup>92</sup> The strength of the fast deployment forces, as confirmed on 22<sup>nd</sup> December 1950, was to be approximately 320,000 persons. The plan was to create 15 brigades within the army, for which equipment was already available, while the Navy and Air Force were to be raised to their maximum strength and the Frontier Guard was to be doubled in strength. The wartime complement, confirmed on 28<sup>th</sup> March 1951, was to be more or less 500,000 persons, including 46,000 women. It was estimated that about 100,000 persons would be exempted from service for one reason or another. This full complement would imply an increase in numbers in the army above all.<sup>93</sup>

The formation of these troops was concentrated mostly in the more densely populated areas of the country, where people could be gathered rapidly at the mobilization centres for deployment in accordance with the operational plan. It is thus necessary to appreci-

ate the difference between the mobilization scheme and the operational plan for the deployment of the forces. This difference meant in practise that a brigade might be mobilized in Oulu, for instance, but might then be transported hundreds of kilometres north from there for its first mission under the operational plan, as part of the defence of the northernmost part of Lapland.

#### **4.4. National defence under the code name “Polttoainehankinta”**

##### **4.4.1. Planning based on territorial defence and defence zones**

Once the framework required for operational planning purposes was completed in General Headquarters it was possible to issue a command for the commencement of work on national defence plans on 17<sup>th</sup> September 1951. After a period of intensive work on these plans, they were approved by the Commander-in-Chief of the Defence Forces in an operation order issued on 13<sup>th</sup> June 1952 which was given the code name “Polttoainehankinta” (OpO-52, from here on).<sup>94</sup>

This extensive order classified as top secret was more than a hundred pages in length and existed in only 15 copies, of which those in the possession of the chiefs of the Operations Division and Mobilization Division and the inspector of infantry, all within General Headquarters, were complete copies with all the appendices, while the others contained only those parts that were of relevance to the holder. The plans were drawn up for the event of an attack on Finland or on the Soviet Union through Finnish territory in accordance with the three scenarios detailed above. The plans for the deployment of troops were based on Alternative C, the least likely but most dangerous of the three. In simplified terms, the document was a defence plan for implementation in the event of an attack from the west of the kind that would constitute a clear indication for invoking Finland’s obligations under the FCMA Treaty.

The nature of warfare was regarded as having altered since the Second World War, for that it would be likely to affect the whole country in a more comprehensive manner than before. It was thus envisaged that hostilities would extend to the interior of the coun-

try and that the traditional division into a home front and a battle front would no longer apply. Also, the earlier assumption of a threat from the Soviet Union had now been replaced by the possibility of a threat from both east and west, so that the defence plan started out from the notion of territorial defence.<sup>95</sup> This was in effect the first concept of national defence in which all the resources available over the whole country were to be mobilized in order to repel an attack, the regions being formed with a view to operational, economic and civil defence requirements.

The decisive factors from the operational point of view were the extent of the threat to each region and factors related to military geography, while it was also important to preserve economically and logistically uniform regional units. In order to facilitate coordination and a centralized command with respect to the defence preparations made by different branches of the administration, every attempt was made to keep the administrative boundaries unchanged.<sup>96</sup>

Under the orders concerning the main principles of this territorial defence system issued in September 1951, each commander of an area of responsibility was in charge of the defence of his area in all situations. He would direct and supervise military and economic preparations for mobilization and see that the necessary civil defence precautions had been taken, and he would have practically all the defence forces present in the area under his command, the exceptions being the Air Force and Navy units that were under the direct General Headquarters command. The commander of an area of responsibility was also authorized to take all necessary measures for the defence of his area independently should communications with the supreme command be cut off.<sup>97</sup>

OpO-52 served to integrate all the previous ideas on the deployment of the Defence Forces in the various complements:

- peacetime complement
- auxiliary complement
- fast deployment complement
- full wartime complement.

The peacetime complement would now apply to the performance of duties of an internal nature, given that the auxiliary complement was not deemed necessary, while the auxiliary complement of troops would be used primarily for the maintenance of order and protection of the country's neutrality. The fast deployment complement then represented the maximum strength of the armed forces

to be deployed for safeguarding neutrality, being determined by the quantity of equipment already available or obtainable rapidly, and would imply mobilization of about half of the country's potential ground force strength and the placement of the Navy and Air Force on full strength. The wartime complement then implied the full strength of the Defence Forces that could be mobilized in the event of war, and could be achieved either at once or incrementally, through the above stages.

Although the defence planning that began in September 1951 had based on the concept of five areas of responsibility that were subordinate to General Headquarters, the division had altered as planning proceeded, so that when the actual orders were issued in June 1952 wartime preparations were based on four areas, the Southwestern Area of Responsibility and Uusimaa Area of Responsibility being combined into one Southern Area of Responsibility.<sup>98</sup>

According to the basic concept of operations, the defence against an enemy attack would be mounted all over the country, beginning in the border areas. If Finland was able to remain neutral or outside the sphere of hostilities the troops that were deployed along the borders would be used for guarding the border.

In order to add depth to the defences, a series of successive defence zones were to be set up. The troops were to be deployed initially so that they were concentrated most in the outer zone of their area of responsibility. In addition, the commanders of the areas of responsibility would take charge of the defence of their coasts, with the coastal forces under their command. In order to contain any surprise breakthrough and create the possibility for a counter-attack, an inner defence zone was also to be created, preparations for which were to be made by the Inland Area of Responsibility in conjunction with the other areas.

Border patrolling formed an entity of its own which was connected with the other defence preparations. The principal aim of this patrolling was to prevent illegal crossings of the border. The commanders of the areas of responsibility were expected to make plans for this in collaboration with the Frontier Guard during peacetime in order to integrate their activities.<sup>99</sup>

The Frontier Guard, could be ordered in its entirety or in part to step up its surveillance of the national frontiers as required, and it could also be subordinated totally or in part to the Defence Forces by means of a separate order. This transfer to intensified surveillance

implied an increase in the Frontier Guard's own duty personnel and the drafting of Defence Force personnel to these functions as necessary. The aim was to double the peacetime strength of the Frontier Guard force.

The intention was that the Frontier Guard should retain its own peacetime name and duties even at times of war or the threat of war, except in Lapland, where it would be divided into the Western Lapland Frontier Guard and Eastern Lapland Frontier Guard. The doubling in manpower was to take place on advancing from the A-complement to the fast deployment complement.<sup>100</sup> The organization's main tasks at times of war or the threat of war would continue to be patrolling and surveillance of the national borders, and it was expected to be capable of repelling weak minor local attacks.

	Brigade	Armoured Brigade	Corps HQ	Independent Battalion
NAR	2/6/8	-	-2/3	2/3/3
SAR	2/6/9	-	-1/2	2/4/4
IAR	-1/3	-	-	-3/3
OAR	-1/2	-	-	1/3/3
Reserves	2/4/8	1/1/2	-1/2	-
	<b>6/18/30</b>	<b>1/1/2</b>	<b>-4/7</b>	<b>5/13/13</b>
Explanation: Auxilliary Complement/Fast Deployment Forces/Full Wartime Forces.				
Note: Three Jaeger Brigades are included to the total amount of Brigades.				

*Figure 8. The order of battle according to OpO-52*

#### 4.4.2. Defence of the Northern Area of Responsibility (NAR)

The plan for the defence of the Northern Area of Responsibility in the face of threats of the three alternative kinds and in all states of preparedness was a complicated matter. The idea of a series of consecutive defence zones and the deployment of troops in accordance with these can nevertheless be simplified to the point where it is possible to form some sort of mental picture of the situation.

Some of the available troops were to be used to repel the enemy immediately at the border, the focus of attention for this being beside the roads leading in from Norway and the Soviet Union in northern Lapland, and if Sweden had allied itself with the Western powers the defence of the frontier along the Tornio Valley would have been a further point of emphasis from the outset. The important thing was to prevent all attacks, patrolling and destruction that might be perpetrated at the Jäniskoski power station and the Petsamo nickel mine in the Soviet Union by penetrating through Finnish territory.

The majority of the troops available for this would be assembled in southern Lapland, where their task would be to maintain control over the rail and road connections in the area that then led over the Soviet border, and also the airports and industrial installations. They were also expected to protect the rear of the troops already in the north by preventing landings on the coast of the Bothnian Bay. The area also formed a crucial element in the operational alternatives, and was strategically well-placed, as all the roads running north-south converged here, so that troops could be concentrated in the area and dispatched in whatever direction was appropriate in the given political or military situation.<sup>101</sup> The southernmost level of the Northern Area of Responsibility was the defence zone that crossed Finland at its narrowest point, for it was here that the troops had the task of preventing the enemy from penetrating into the Inland Area and gaining control of the railway connections there. It would be in this zone at the latest that counter-attacks would be mounted with General Headquarters reserves in order to destroy the enemy. If the troops became involved in a delaying action between these defence zones particular attention should be paid to the maintaining of active guerrilla warfare.

#### **4.4.3. The Ostrobothnia Area of Responsibility (OAR)<sup>102</sup>**

The intention was to develop the Headquarters of the Ostrobothnia Military Province into the Ostrobothnia Group Headquarters to take command of this area of responsibility as the level of readiness was increased.

It was the task of this area of responsibility to repel enemy attacks across the Gulf of Bothnia from Sweden if that country were to be used by an aggressor. The front line of defence ran approximately along the coast, including the larger islands, and the emphasis



was to be on protecting the ports and railway junctions. The troops were also required to be prepared to repel an attack from the north, through the northern Area of Responsibility. If the Ostrobothnia area itself was not under attack, these forces were to constitute part of the General Headquarters reserve and could be deployed elsewhere at short notice.

#### 4.4.4. The Southern Area of Responsibility (SAR)<sup>103</sup>

The Southern Area of Responsibility formed three consecutive, closely associated defence zones:

- the Åland defence zone, comprising the Åland Islands and the outer parts of the southwestern archipelago,
- the Archipelago defence zone, the front line of which ran from Helsinki through Hanko to the islands off Turku and from there as far as Isokari and Pyhämaa, and
- the Coastal defence zone, the front line of which followed the coast from Helsinki to the west-coast ports.

The idea was that the Southern Area of Responsibility should employ the majority of its troops to repel enemy attacks in the Archipelago and Coastal defence zones, the main effort being on the Hanko Peninsula and the Helsinki area. The Coastal defence zone nevertheless marked the last line at which any enemy invasion was to be repulsed, and large-scale counter attacks by the reserves of the General Headquarters would be launched. Under Alternative C it would also be necessary to prepare to defend the islands in the Gulf of Bothnia and on the west coast of mainland Finland. The Soviet base at Porkkala also came into these plans, in that the main over-land connections and sea channels leading to the base were to be protected under all conditions.

It was planned that the Southern Area of Responsibility should assemble an army corps in the Hanko-Kemiö area and a brigade in the Helsinki area and that one more brigade should be subordinated to each at the stage of a declaration of war.<sup>104</sup> The defence of the west coast should be primarily in the hands of the coastal artillery, with mobile reserves in the form of one Jaeger battalion.<sup>105</sup> A brigade should be concentrated in the Åland zone at the fast deployment phase, and an army corps consisting of two brigades in the war-time complement.<sup>106</sup> The Southern Area of Responsibility planned to have a Jaeger brigade and an Infantry brigade as reserves, prepared

to mount a counter-attack in the event of an enemy landing in the vulnerable strip of land in Western Uusimaa.<sup>107</sup>

#### **4.4.5. The Inland Area of Responsibility and reserves under the supreme command<sup>108</sup>**

The Inland Area of Responsibility was regarded above all as a hinterland in which the majority of the country's munitions factories and the supreme command's supply depots were located. In addition, most of the reserves under General Headquarters command were to be grouped in this area before being concentrated in their first operational assignment.

In the event of an attack on Finland it would be the task of this area to repel any attempted invasion from the Gulf of Finland, destroy any airborne assaults that attempted an incursion and secure the critical Soviet sea and land connections with Porkkala. In addition, it would be important to stop and destroy any surprise enemy breakthrough from the west at the point of the innermost defence zone.

The main reserves at the disposal of General Headquarters in the A-complement were the 5 and 6 Brigades, to be formed in the Inland Area of Responsibility, and the Light Brigade. These were prepared to be concentrated in northern Finland, to strengthen the defences and launch counter-attacks into the north of Lapland, or to the areas north of Helsinki, where they could be used to strengthen the coastal defence zone, mount counterattacks and protect the capital. The aim was to leave the Light Brigade initially in the area in which it had been formed, around 100 kilometres from the capital, from where it was to be prepared to go into action primarily around Helsinki or Hanko.

The areas of troop concentrations in southern Finland at the fast deployment stage and from the time of preparation for war onwards had not altered relative to earlier plans, although their numbers had increased greatly. In northern Finland, however, the plan was now to concentrate reserves belonging to the supreme command to strengthen the main defence zone in southern Lapland and to mount counter-attacks into this zone. In addition, preparations were to be made to use the reserves to reinforce the more distant lines of defence.

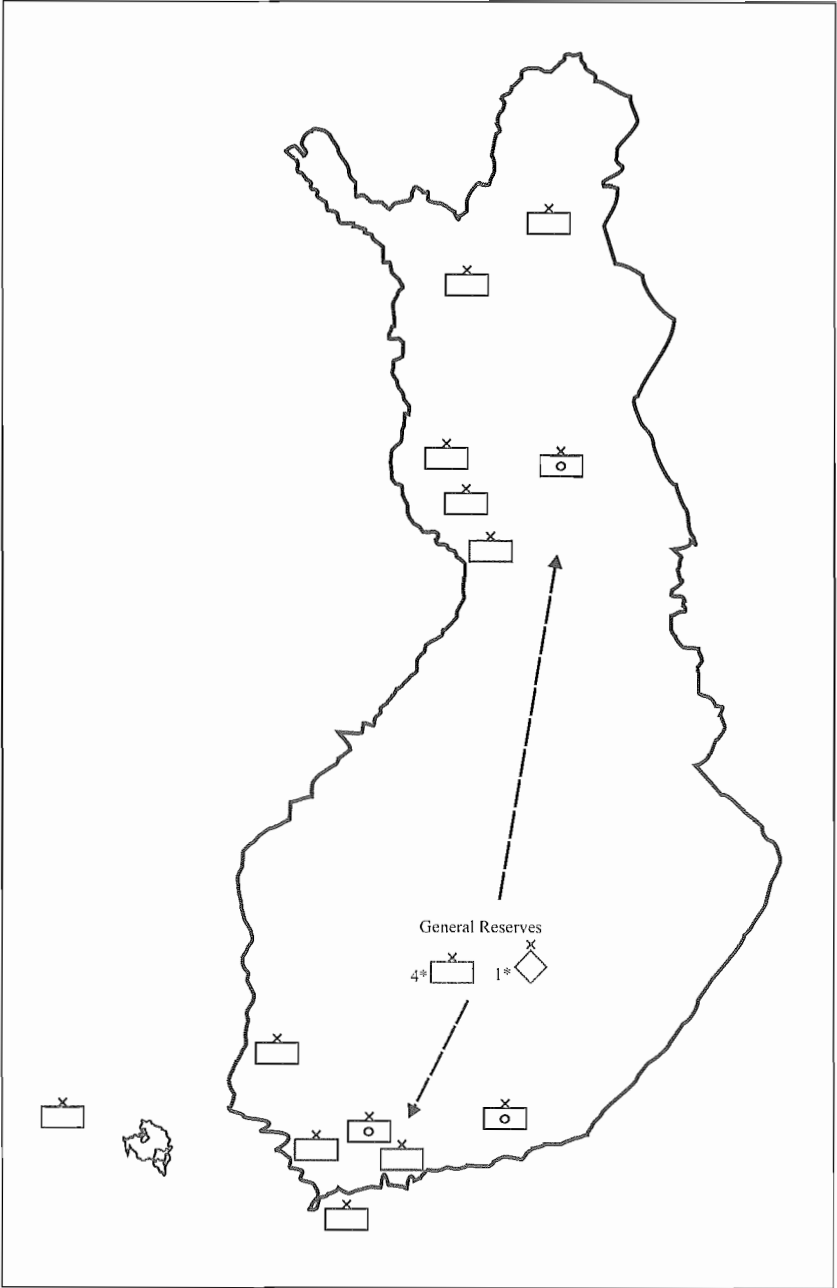


Figure 9. Planned concentration areas of fast deployment forces (OpO-52)

#### 4.4.6. Air defence<sup>109</sup>

The task of the air defence system, consisting of air squadrons, air-raid warning personnel and anti-aircraft artillery, was to intercept the enemy's aerial attacks, and detract from its fire-power. Under wartime conditions the use of air power was to be subordinated to this overall air defence system, with the aim of attaining a uniform command for the Air Force, concentrating its use for the repulsion of air attacks over the whole country and creating a basis for supportive co-operation with the army formations.

The air defences of the four areas of responsibility, under the commanders of these areas, were to consist of anti-aircraft troops and air defence troops deployed for the protection of certain potential targets. As the level of readiness was stepped up, the Commander of the Air Force would become an inspector of air defence at the General Headquarters and commander of the air squadrons and aerial surveillance troops. The country was divided into four flight districts for air command purposes:

- Northern flight district (NFD)
- Ostrobothnia flight district (OFD)
- Southern flight district (SFD)
- Inland flight district (IFD)

The boundaries of these districts corresponded to those of the earlier air defence regions, so that they did not correspond entirely to the operational areas of responsibility, but it was possible to change them as the level of readiness was increased.

Each flight district was to have a wartime complement of one air brigade, the commander of which was also to be in charge of the air surveillance troops and those parts of the Air Force assigned to him in each situation and was to act as commander of air defence in the area of responsibility. Each flight district was to have one or two combat control centres for the conduct of air combat operations.

The Air Force was to have four squadrons of fighter aircraft and one of transport aircraft at its disposal at the A-complement stage. Thereafter it had no separate fast deployment complement, but was to move directly to the wartime stage, at which there would be fourteen squadrons of fighter aircraft and a transport detachment formed from the transport squadron. A reconnaissance squadron and two night fighter squadrons would also be created at this stage.

The concentration of the air arm was to be determined by the

Commander of the Air Force, by issuing assignments to the air brigades, placing the necessary number of squadrons under them and giving orders to the formations under his command. In the case of Alternative A six fighter squadrons could be based in the northern Area of Responsibility, three in the Southern Area of Responsibility, three in the Ostrobothnia Area of Responsibility and two in the Inland Area of Responsibility. In the event of a threat from the direction of the Baltic Sea as well, there could be five squadrons in action in the Southern Area of Responsibility.

The general tasks of the air arm were connected with surveillance of Finnish airspace and the prevention of incursions, also defence against air attacks, aerial reconnaissance, air strikes and the protection of land or naval operations. In addition, each flight district had tasks of its own in relation to aerial reconnaissance and the protection of railways, industries, population centres and transport convoys.

The Air Force Commander would be responsible for national air surveillance and the commanders of the air brigades for surveillance in their own areas. The intention was to create an air surveillance network of 36 sectors covering the whole country, backed up by a radar network.

The anti-aircraft artillery was to play an important role in the overall air defence system. As the Defence Forces moved to the A-complement stage the peacetime anti-aircraft troops would be formed into anti-aircraft units charged with defending the main potential targets of importance to the country, such as the capital, Helsinki, and the principal railway junctions. The units stationed in the Inland Area of Responsibility were to serve as reserves under the General Headquarters for deployment in the south of the country if necessary.

The intended command structure for anti-aircraft activities was to consist of 15 regimental command posts, 21 heavy artillery battalion command posts and 28 artillery battalion command posts. In addition to the anti-aircraft companies that formed organic parts of the brigades, there were to be 57 heavy anti-aircraft batteries, 84 light batteries and ten anti-aircraft battalions, together with a number of railway-mounted anti-aircraft units.<sup>110</sup> It was planned to use the heavy batteries chiefly to protect urban targets and the main railway stations, while the light artillery and anti-aircraft battalions were with only a few exceptions to be placed at the disposal of the

commanders of the areas of responsibility for the protection of the combat troops and their support lines.

In actual fact the Air Force plans were quite unrealistic, as was widely acknowledged in Air Force circles. Although trends in equipment supplies merit a chapter of their own in this work, it should be mentioned at this point that the Air Force did not in practice have the capacity to discharge the duties assigned to it in this plan. Its fleet of aircraft was still based on the Messerschmitt ME 109s that it had used during the Second World War, of which it had the maximum number in operation that was permitted under the Treaty of Paris.<sup>111</sup> The Air Force did not possess a single jet aircraft.

#### **4.4.7. The Navy and coastal artillery<sup>112</sup>**

With an increase in the state of alert of the armed forces the Naval Commander would have the same forces under him as in peacetime but reinforced in numbers in accordance with the A-complement. Like the Air Force, the Navy would achieve its maximum strength mainly at the Fast Deployment phase, and only a few extra units would be formed on transfer to a wartime complement. The plan was to divide the naval forces in action at the fast deployment stage into a general force and local forces assigned to three maritime districts.

On transfer to the A-complement the main additions would be made to the general forces while the majority of the local units would be formed at the fast deployment stage. The numbers of vessels available at these two phases are set out in the table below:

Unit	General forces	Local forces			Total
		Archipelago Maritime District	Gulf of Bothnia Maritime District	Gulf of Finland Maritime District	
	A/Fast (War)	A/Fast (War)	A/Fast (War)	A/Fast (War)	
HQ Flotilla	1/1	-/2	-/-	-/1	4
Escort squadron (sqn)	1/1	1/1	-/1	-/1	4
Patrol boat sqn	1/1	-/-	0.5/-	0.5/-	2
Patrol vessels sqn	-/1	-/-	-/-	-/-	1
Fast gunboat sqn	1/2	-/-	-/-	-/-	2
Gun vessel sqn	-/-	-/1	-/-	-/-	1
Minelayer sqn	1/1	-/1	0.5/1	0.5/1	4
Minesweeper sqn	2/2	2/4	1.5/2	2/3	11
Transport vessel sqn	-/-	1/2	-/-	-/1	3
Transport sqn	-/-	1/4	-/1	0.5/2	7

Figure 10. Principal naval units.

In response to an operation order from General Headquarters, the Naval Headquarters drew up its own plan for naval deployment by the end of 1951, under which the best vessels in terms of performance were to be assigned to the general forces under the direct command of the Naval Commander.<sup>113</sup>

The tasks of the general forces were focused most of all on the Archipelago Sea, especially the area around the Åland Islands. The first and most important task was to protect the neutrality of Åland until such time as army units could be moved there, and to mine primarily the Archipelago Sea. The general forces should also be capable of protecting the troop movements to Åland and commercial shipping via Åland until it reached Swedish waters. Once the ground forces had grouped on Åland the task of the naval general forces was to be prepared to prevent infringements of the islands' neutrality and to repel any attacks on the Åland or Hanko areas and the intervening defence zone.<sup>114</sup>

The objective in all defensive encounters in the area between Åland and the south-west coast of Finland was to close the sea area by defensive sea mining and use artillery fire to prevent the enemy from penetrating into the southwestern archipelago. If the situation permitted, the general forces were also to attempt to mount an offensive against any enemy naval vessels operating around Åland and to mine the routes that they were using.<sup>115</sup>

Defensive minelaying operations played a key role in the naval operations. Mines were to be laid in accordance with the perceived threat, as a defensive measure at the fast deployment stage and with an increase in intensity as the threat of attack grew, although some of the mining was planned to take place only upon the commencement of hostilities. The principal aim of the defensive mining was to prevent a surprise occupation of the main ports, with emphasis on those of Åland and southwestern Finland. As the numbers of mines required would be in excess of those held in stock, mining would be intensified only in accordance with the prevailing perceived threat. In all cases it was to be subject to a specific order from the Naval Commander, and each operation was to be completed within 2–6 days, depending on the area concerned.<sup>116</sup>

The commanders of the maritime districts were to be responsible for coordinating naval activities with the plans and operations specific to their military areas of responsibility. The maritime districts were to support the area of responsibility and carry out the tasks



assigned to them by the higher command levels, so that their main duties were:

- to maintain the security of the shipping channels,
- to direct, inspect and protect shipping in Finnish waters, and in international waters if separately commanded to do so,
- mobile surveillance of the sea areas,
- defensive mining,
- to support the areas of responsibility in repulsing attacks and infringements of neutrality,
- to perform transport functions in the areas of responsibility as required, and
- to maintain the naval forces located in their area.

The Gulf of Finland Maritime District sea area comprised the coast of the Inland Area of Responsibility and that of the Southern Area east of Porkkala together with sea traffic passing Porkkala. Its headquarters was that of the Helsinki naval base. It was to be particularly responsible for the safety of the shipping channels and sea traffic in and out of the Porkkala base, and also for routes passing by Porkkala and directed towards the south coast of the Gulf of Finland. In terms of defence against possible attacks, the emphasis was to be on the Helsinki area.

The Archipelago Maritime District corresponded to the Southern Area of Responsibility with the exception of Porkkala and the coastal strip to the east of it. The headquarters was that of the Turku naval base. Again it was to be particularly responsible for the safety of shipping channels and sea traffic from Porkkala through the Archipelago Sea to Åland and the Gulf of Bothnia and for the coastal routes leading north through the Bothnian Sea, but it was also to take charge of the transportation of troops to Åland and the maintenance of their supply lines. The emphasis as far as the protection of neutrality and defence against aggression was to be on the Hanko area and the Archipelago defence zone.

The Ostrobothnia sea area comprised the coast of the Ostrobothnia and northern Areas of Responsibility, the headquarters being that of the Ostrobothnia Maritime Frontier Guard. The principal task was to ensure the safety of the sea channels and protect shipping to the west. It was also to arrange for the transportation of supplies to the north by sea in the event of the rail connections being severed.

As the modernization of the Finnish Navy was postponed to

the 1960s for economic reasons, the static coastal artillery batteries occupied a particularly important role in the coastal defences. This powerful element owed its origins to the powerful defence system created by the Russians along the Gulf of Finland coast at the very beginning of the century, mostly with possible German aggression in mind and for the purpose of protecting St. Petersburg.<sup>117</sup> When Finland became independent the majority of the fortresses in its area and the coastal artillery batteries located in them were left in the hands of the Finns, and these batteries were exploited to the full during the Second World War, becoming a significant factor in the defence of the south coast alongside defensive mining of the sea areas.

The new plan for deployment of fixed coastal artillery batteries approved by the Commander of the Defence Forces in 1954 was based on three phases, units to be formed at the A-complement phase, a Wartime-1 phase and a Wartime-2 phase, where the Wartime-1 phase could be implemented rapidly and with relatively little expenditure, while the wartime-2 phase called for new building and would thus be expensive and slow to implement. The emphasis in both wartime groupings was to be on the areas around Helsinki and Hanko, with a number of heavy coastal artillery batteries concentrated on the protection of the main channels leading to each.<sup>118</sup>

#### 4.4.8. Improvements to the plan

By the end of 1952 the process of operational planning that had commenced a few years earlier had reached the stage where a reasonably practicable outline plan for the defence of Finland was in existence, although its details were known only to the upper echelons at General Headquarters, Naval and Air Force Headquarters and in the Areas of Responsibility.

Preparations for the A-complement had advanced the furthest, whereas the planning of fast deployment forces and wartime forces that were in excess of the maximum strength permitted under the Treaty of Paris was still in its initial stages. The duties involved in the mobilization of such troops were preliminarily defined in May 1953,<sup>119</sup> when General Headquarters distributed "exercise mobilization books" which corresponded to the actual force structure but represented a convenient means of circumventing the Treaty of

Paris for purposes of planning mobilization and preparing defence plans.<sup>120</sup> The same scheme was employed for constructing the plans for wartime army corps and brigades, the activities being disguised as exercises designed to maintain the professional capabilities of the soldiers, for instance.<sup>121</sup>

The plans very soon had to be revised, however, as the new peacetime complement of the Defence Forces, which had been under dispute for eight years, finally came into law on 1<sup>st</sup> December 1952. This meant that the traditional infantry regiments were replaced by brigades and the units and garrisons were either reduced in size or disbanded.<sup>122</sup> These changes affected not only the A-complement but also most significantly the plans for maintaining internal order and security. New principles for this were laid down in July 1953 by means of an order that carried the code name "Aluetuotanto".<sup>123</sup>

The command structure required under this new definition of the maintaining of general order and security conformed to that laid down in the new operational plan, in that the commanders of the areas of responsibility were in charge of all measures taken in their areas, which were in turn divided into smaller sub-areas for this purpose in accordance with the boundaries of the military provinces and military districts. This meant that the chief of each military district was responsible for all the preparation to be made in that district. A sentry battalion consisting of a company from each constituent military area, together with one unit from the reserves, would be set up in each district at the initial stage of raising the level of alert.

The targets of national importance that were to be protected were classified into five levels of significance for the country's war effort in order to ensure uniform and comprehensive preparations over the whole country. The intention was to use Defence Force sentry units to protect mainly the forces' own installations, while the police and guards from the organizations concerned should be responsible for the others. The plans for the areas of responsibility were completed by the end of 1953.<sup>124</sup>

## 5. Defence of the core area takes precedence

### 5.1. The return of Porkkala – revision of the operational plans

The departure of the Russians from the Porkkala base in January 1956 altered the whole perspective of Finnish military policy and led to a thorough revision of the operational plans that had been drawn up in the early part of the decade. In addition, the highly complex command structure that the plans had required called for partial revision and updating.

In the first place, the return of Porkkala left a gap in Finland's coastal defences. The Frontier Guard station at Porkkala was closed once the Russians had left, and in March 1956 General Headquarters ordered the inspector of maritime defences and the Naval Commander to plan defence arrangements for the restored area. The aim was to locate the Helsinki naval base and the 2<sup>nd</sup> Flotilla of the Finnish navy there and also to re-draw the boundaries of the coastal artillery contingents and maritime districts.<sup>125</sup>

The basic General Headquarters operation orders that remained in force until the mid-1960s were drawn up in 1956–57, for although some details were updated in the course of the years, no entirely new orders were issued until the changeover to a territorial defence system. In fact, it was not so much a matter of drawing up new plans as of adapting and improving the existing ones. There were altogether four orders that standardized the procedures and steered all the planning operations:<sup>126</sup>

- The order on defensive preparations (11th February 1956), which laid down guidelines for raising the readiness consistent with the tasks of the Defence Forces.<sup>127</sup>
- The order regarding protection of the nation's neutrality (12th December 1956), which defined the measures to be taken for this purpose.<sup>128</sup>
- The order on the maintenance of general order and security (15th June 1957), which defined the duties for which the Defence Forces were to be responsible or in which they were obliged to participate. This was mainly a matter of the protection of military installations and the provision of as-

sistance to the civilian authorities in the maintenance of law and order and the protection of sites of national significance.<sup>129</sup>

- The order on national defence (20th December 1957), which defined the tasks of the Defence Forces with respect to an attack on the nation.<sup>130</sup>

## 5.2. The military threat scenario and points of departure for strategic defence

The strategic threat scenario of the 1950s was one in which it was envisaged that NATO forces might penetrate deep into Finnish territory, although it was concluded in a General Headquarters operation order of 1957 that Western military resources were insufficient for an extensive overland operation in northern Europe.

From a military point of view the main areas of interest had not changed greatly. The points of departure for estimating the existing threats continued to be the north, the south-west and the narrow part of the Gulf of Bothnia. The possible threat from the Soviet Union in the east was still not treated as a topic in its own right, although the content of the threat estimate had altered to the extent that mention was made of possible Soviet action against Finland in the event of war between the East and West.<sup>131</sup>

Alternative A entailed a threat focused on northern Finland to the extent that it would be possible in the south to concentrate mostly on maintaining surveillance of the borders in order to protect the country's neutrality and on protection for major installations. A large-scale Western offensive eastwards from northern Norway in the Arctic Ocean area was not considered possible, at least in the initial stages of a war,<sup>132</sup> as it was assumed that Norway would concentrate on defending the Skibotn-Narvik area. The initiative for hostilities was thought likely to come from the Soviet Union, which the Finns estimated would have the best chances of mounting an attack westwards with its large ground forces. But whichever party might open fire first, it would be essential for Finland to maintain control over northern Lapland by all available means so that there would be clear grounds for remaining neutral.

In Alternative B the situation on the Norwegian boundary was assumed to be the same as in Alternative A, but the Western allies

were now assumed to be capable of entering the Baltic Sea via the Straits of Denmark. Given the existence of the Warsaw Pact, NATO could be expected to have less forces in the Baltic than its Eastern counterpart, so that any offensive against Finland was likely to be restricted at the early stages to reconnaissance and commando raids and the use of submarines along the coast. Nevertheless, although no major landing was to be expected at the early stages, preparations should be made for such an eventuality or for a large-scale incursion by airborne troops. Åland would be in a crucial position as far as the defence of the nation's neutrality was concerned, while preparations should be made to repel possible landings on the Hanko Peninsula and in the area between the Porkkala Peninsula and Helsinki.<sup>133</sup>

In Alternative C the situation on the Norwegian border and in the Baltic Sea was taken to be as in B above, but with the additional assumption that Sweden had had to abandon its policy of neutrality and ally itself with the West. This policy was regarded as so reliable, however, that the whole Alternative C was deemed extremely improbable in the existing political situation. If it had come about, it would have entailed coordinated defence against amphibious landings with associated airborne operations along the southern parts of the Finnish west coast.<sup>134</sup>

Although the chances of a powerful NATO assault on Finland by land and sea at the early stage in a conflict were regarded as minimal, the threat of an air attack was taken far more seriously, as it was estimated that NATO might well wish to mount an offensive against the Soviet Union via Finnish airspace, and even hostilities aimed at Finland itself were regarded as a probability, including the threat of extensive bombing at the initial stage in order to attain certain strategic goals.

It was the general part of the 1958 Field Regulations that introduced the term "strategic defence" into Finnish parlance, to indicate the use of ground, naval and air forces to prevent a possible enemy from capturing areas that were vital to the continuity of the country's independence, its own military operations or the livelihood of its citizens and the protection of the population and community functions that were essential to the continuation of resistance. A crucial role in this was seen to be played by the maintenance of communications with the outside world.<sup>135</sup>

The idea of vital areas that was underlined in these Field Regulations gained more concrete form in a new appreciation in 1960,

when a core area was defined for defence purposes, comprising the area in which the majority of the population lived, the majority of recruitment activities took place and the majority of the nation's agricultural land and industrial production was located. The area of southern and central Finland was to be defended at all costs. In addition, a land connection with Sweden was to be retained for as long as possible.<sup>136</sup>

The point of departure was defence of the whole country. This was to be especially resolute in the case of the core area, in which the aggressor should be given no foothold. Outside the core area delaying tactics were to be adopted in the case of an overwhelming opposing force. Only the essential minimum of troops should be assigned to other threatened areas such as northern Finland, Åland or the south-west at the initial stages. The majority of the troops should be concentrated on defending the core—and this was to include the use of troops in an easterly direction, troops that would be regarded as reserves with respect to the above directions of principal threat. It was admitted that stringent requirements were placed upon Finland's intelligence organizations by its geographical position between two major alliances.<sup>137</sup> The definition of the core area for defence purposes evidently remained unchanged throughout the 1960s.<sup>138</sup>

### **5.3. Improvements in the command structure and the speed of mobilization**

Although the general outlines of the mobilization system had been brought to some degree of readiness in the early 1950s, there was general dissatisfaction with the system and its performance. The greatest drawbacks lay in the complex command structure and slow execution of the system.

Mobilization preparations were hampered and partly prevented by the fact that the planners had not been allowed to contact the civilian authorities on matters connected with mobilization. This had been possible only in the case of basic preparations for the A-complement, that allowed for in the Paris Peace Treaty. This restriction on collaboration nevertheless made it very difficult to plan mobilization centres, arrange for local purchases of equipment and supplies, plan the requisitioning of vehicles and ships and prepare various sectors

of the community for the eventuality of war.<sup>139</sup>

In spite of these difficulties, personnel eligible for call-up had been apportioned to the units to be mobilized. The problem simply lay in inspecting and maintaining these placements.

A further problem concerned the plans to issue the new troops with equipment from the Defence Forces' stores or from material purchased locally,<sup>140</sup> for although the central depots had internal plans for delivering the material, the question of decentralizing the war stores to military districts was still under consideration. The need for locally acquired material had been calculated for the various categories of troops separately and the main sources had been traced, but the planning and preparations had not yet advanced to the level of details because consultations outside the Defence Forces themselves were forbidden.

Industrial preparations for mobilization had only been planned in a preliminary manner, and as nothing was known of the personnel and transportation requirements of society at large, the planning was based on an inadequate foundation. Similarly the preparation of mobilization centres (*perustamiskeskus*) had been carried as far as was possible without direct consultations with the civilian authorities.

The slow pace of mobilization was also felt to be a problem, especially since a surprise attack was still regarded as being the most plausible threat. The General Headquarters Mobilization Division estimated that mobilization would require a preparation time of several weeks or even months.<sup>141</sup>

The command structure for mobilization had been reviewed in 1956 to the extent that the military provinces had been subordinated to the peacetime divisions and the division headquarters had been ordered to supervise the mobilization preparations of certain units and departments that had remained subordinated to General Headquarters. The aim of the new command arrangements was to make the preparation for mobilization more uniform throughout.<sup>142</sup>

The mobilization command structure remained unchanged from that time onwards until 1966. Although these arrangements simplified the work of the General Headquarters, they made the situation more difficult as far as the divisional headquarters were concerned, in that the 2<sup>nd</sup> Division, for instance, had no less than 52 subordinates.

Training for the main categories of staff involved in mobiliza-



tion was extended only in the early 1960s, training on this basis being commenced in 1964. Since the storage of equipment had been concentrated in the central depots of the three branches of the armed forces from the end of the war onwards, the decentralization of the stores and distribution of the equipment in the event of mobilization was likely to be slow and complicated. The first decentralization to the military districts had therefore been set in motion in 1956, although in practice it was not implemented until the early 1960s, when the military districts received new storage space.<sup>143</sup>

Under the new definitions of Defence Force tasks issued by the Defence Council in 1962 the veil of secrecy over mobilization plans was lifted slightly, but General Headquarters still ordered preparations to continue in the form of implementation exercises for the various troops and command levels.<sup>144</sup>

#### 5.4. Protection of neutrality

Since the greatest threat to Finnish independence was perceived to lie in a surprise attack, the basis for mobilization was taken to be a plan for the creation of a defence force with the same capabilities as had existed throughout the war. The restoration of the leased Porkkala area to Finland in 1956 nevertheless provided a much more credible starting point for maintaining the country's policy of neutrality, and increasing emphasis came to be placed on a long-term political crisis, possibly with violations of this neutrality, as a lower level of threat than actual war.<sup>145</sup>

In a crisis of this kind it was essential for the Defence Forces to be able to carry out the measures required to protect the country's neutrality with their peacetime complement, reinforced at most to the level permitted under the Treaty of Paris, i.e. the A-complement. If these forces were still insufficient it would be possible to obtain government permission to call up more troops as the situation required, including the creation of a separate neutrality surveillance force in the case of a prolonged crisis.<sup>146</sup> Troops could only be formed in such a situation, however, up to the point where this began to interfere with the economy and the smooth functioning of society at large. In fact General Headquarters issued orders for the creation of such a neutrality surveillance force in 1956.<sup>147</sup>

These orders applied to all branches of the armed forces. The

intention was to establish six brigades along with other necessary arms and services in the army, mostly on the cadre principle within the existing garrisons, enlisting the two youngest age groups of reserves. The preparations were to be headed by the commanders of the peacetime units in collaboration with the head of the region's military district. In practice this meant that some of the duties involved were transferred to the peacetime troops. According to the order, the troops should be established at 7–10 days' notice.<sup>148</sup>

The fundamental idea behind neutrality surveillance was expressed most clearly in an operation order issued by General Headquarters in December 1956, that if protection measures had to be initiated rapidly, use should be made of the peacetime troops and further troops should be formed to build them up to the A-complement. The next stage after that would be to assemble, reinforce and station the neutrality surveillance troops, while the conscripts were to return to barracks to continue their training. These would form part of the reserves at the disposal of the Commander-in-Chief of the Defence Forces and the regional commanders.

The overall field of neutrality protection was divided into surveillance and patrolling on the one hand and armed defence on the other. The commands were to be responsible for the protection of neutrality within their respective areas of operations, while surveillance of the land and sea boundaries was to be the responsibility of the Chief of the Frontier Guard, unless the border troops had been subordinated to the defence forces. Air surveillance was to remain in the hands of the Commander of the Air Force. Responsibility for armed defence was the task of the troops belonging to the Defence Forces. The basic principles, common to all commands, were as follows:

- The troops on the land borders were to be stationed so that the local Frontier Guard units could be brought under the same command with relative ease.
- The troops on the coasts and islands were to be grouped so as to ensure surveillance and occupation of the outermost islands. The other ground forces were to be stationed at the most significant defence points.
- The troops reserved for surveillance and defence purposes were also to prevent intelligence operations, raids or other incursions from Finland into foreign territory.

General Headquarters provided very precise orders on the use

of the neutrality surveillance troops and concentrated most of the formations in northern Finland, where the most concrete danger of a confrontation between the major powers existed. Thus three brigades were assigned to the Northern Command, two of which were to be deployed in the far north of Lapland, while the 5 Jaeger Brigade was to be deployed as a reserve on the border with Sweden.<sup>149</sup>

The emphasis within the Southern Command was to be on the most probable areas for an amphibious landing. One infantry brigade was to be marshalled in the Hanko area to repel attempts at landings or parachute drops, and the Uusimaa Brigade, composed predominantly of Swedish-speaking reservists, was to be transported to Åland.<sup>150</sup> Neutrality surveillance in Ostrobothnia and the Inland Region was to be the responsibility of the coastal artillery and marine surveillance troops. General Headquarters then planned to retain the 1 Jaeger Brigade and a tank battalion in full wartime establishment as reserves of its own.<sup>151</sup> Once mobilized, the Jaeger brigade would be stationed 100 kilometres north of Helsinki, where it would go into intensive training immediately.<sup>152</sup> Surveillance of the long eastern border would remain largely the responsibility of the Frontier Guard, where the new troops to be created would amount to 6000 men in all.<sup>153</sup>

The principal task of the Air Force in connection with the protection of neutrality would be air surveillance over the whole country, which would be divided into two surveillance regions, a Southern Region and a Northern Region, for the purposes of centralized command. In addition to nine fixed radar stations, a number of radar systems normally used for training purposes would be deployed to cover gaps in the radar coverage. Ten control centres were to be set up to form a functional basic network that would increase the efficiency of air surveillance, and the air surveillance companies that would have to be established to supplement the network would be deployed so as to be able to observe primarily flights crossing the country in an east-west direction, especially in Lapland.<sup>154</sup> The Air Force was nevertheless able to carry out its flight duties only to a limited extent, on account of the shortage of aircraft and the primitive network of airfields.<sup>155</sup>

The main task for the Navy was to supplement the marine surveillance by means of intelligence gathering, guard duties and supervision of sea traffic over the whole of the country's sea area, together with armed intervention against actual threats to its neu-

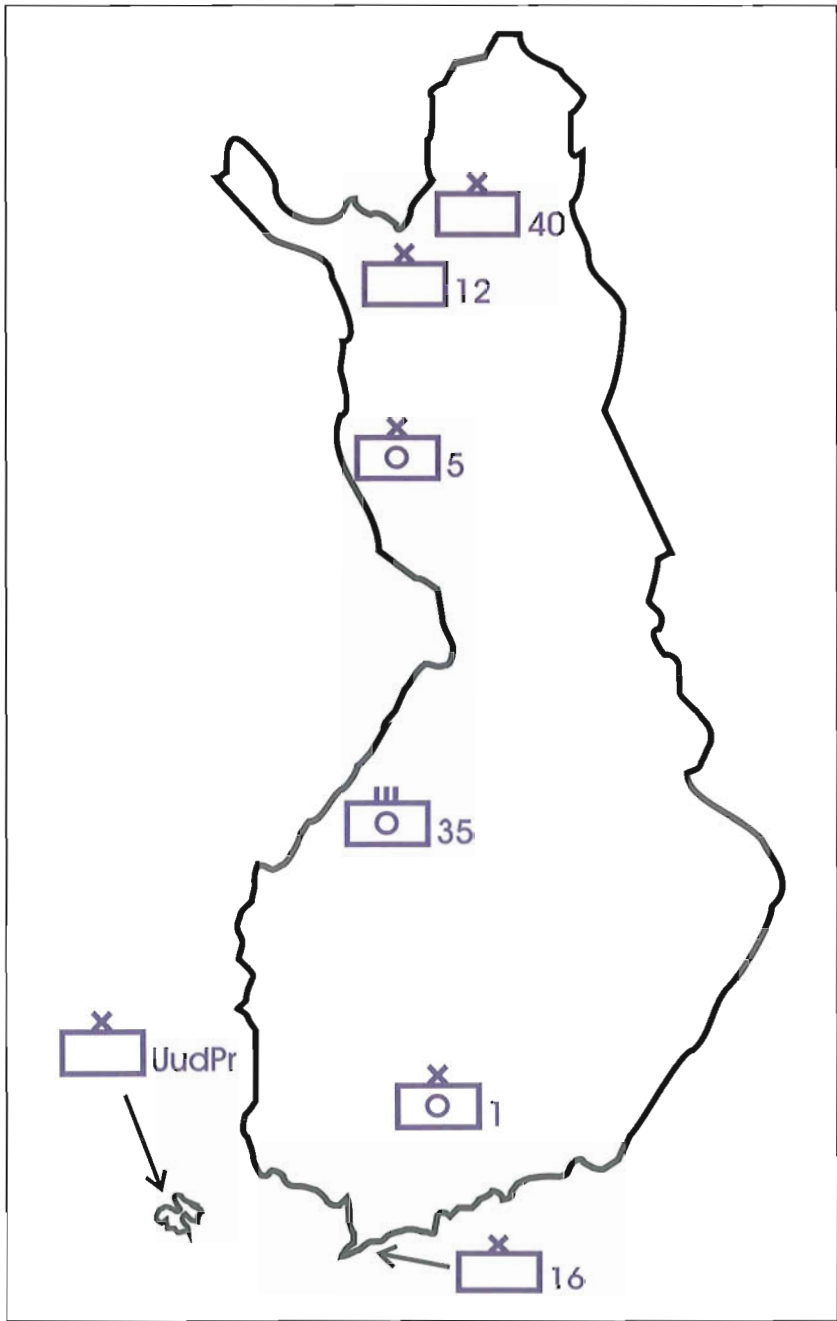


Figure 11. Deployment of neutrality surveillance forces

trality. It was also to be prepared to lay first defensive minefields, to engage in minesweeping operations and to transport army units by sea. The reserves called up for naval service in the protection of neutrality were to form a Helsinki Flotilla belonging to the general forces and marine districts belonging to the local forces. The focus of marine surveillance was to be on the Archipelago Sea, where reconnaissance was to be extended to the sea area around Åland and the northern Baltic Sea. Particular preparations for the closure of sea areas by minelaying were to be made in the area between Åland and Helsinki, while the main focus of minesweeping operations was to be the channel leading from the eastern boundary of Finland's sea area to the Gulf of Bothnia. The main transport duties were likely to consist of the movement of troops to Åland.<sup>156</sup>

The naval order of battle planned for these neutrality surveillance duties corresponded to the A-complement level as far as the number of vessels was concerned, which in practice meant that when the entire peacetime fleet was mobilized the Navy would have at its disposal one squadron of gunboats, two squadrons of fast gunboats, three squadrons of fast patrol boats, three squadrons of minesweepers and one squadron of minelayers. In addition to these, a large number of civilian craft would be requisitioned for use by the marine surveillance companies and coastal artillery.<sup>157</sup>

The commands were engaged in preparing their plans for neutrality surveillance troops and the implementation of the duties assigned to them during the years 1957–58, after which the plans remained in force for the rest of the decade.<sup>158</sup>

## 5.5. National defence under the code name “Valpuri”

The aim of operation order no. 13, code-named “Valpuri” (OpO-57), signed by General K. A. Heiskanen, Commander-in-Chief of the Defence Forces, in December 1957, was to replace the national defence order of 1952 (OpO-52) and re-define the tasks of the military forces with respect to interception of any attack on Finland or on the Soviet Union via Finland and compliance with Finland's military obligations under international agreements. Once more, in the spirit of the Cooperation Agreement with the Soviet Union, the order was based on a threat scenario that implied aggression from the west.

OpO-57 set out the military action required for defence against

an attack on the whole country, detailing the goals on the basis of which

- control could be retained over areas of vital importance for the country's continued defence,
- the aggressor would be subjected to active harassment and delaying action from the outset, so that once a propitious situation prevailed the invaders could be destroyed or forced into a ceasefire on conditions favourable to Finland, and
- the aggressor could be prevented from reaching the Soviet Union via Finnish territory.

The aim of this order was to create a basic grouping of the Finnish forces that met the needs of the complex set of alternatives facing the Finns at that time, so that the fast deployment troops would cover the full mobilization. Then a sufficient force could be concentrated in each area of defensive significance that the situation could be stabilized and the reserves available to General Headquarters could be concentrated at decisive points, while at the same time complying with Finland's military obligations under existing international agreements to which the country was a signatory.<sup>159</sup>

The new operational level created for this purpose, the command, has already been referred to in the above section on neutrality surveillance. It was observed in the general part of the Field Regulations published in 1958 that the regional organization responsible for the preparation and implementation of conscription, supervision of the conscripts and the preparation and implementation of mobilization was to be based on the military provinces and military districts, the boundaries of which broadly followed those of the country's civilian administration. For the implementation of operational plans, on the other hand, it was possible for the Commander-in-Chief of the Defence Forces to divide the country into commands each comprising one or more military provinces. The commander of each command was in charge of all peacetime preparations carried out in his area,<sup>160</sup> but after mobilization the commands would be replaced with areas of responsibility for armies and groups. Under the new operational force structure Finland was divided into four commands:

- Southern Command (SC)
- Ostrobothnia Command (OC)
- Northern Command (NC)
- Inland Command (IC)

The peacetime headquarters for these commands were to be the divisional headquarters, except in the case of Ostrobothnia, where it was to be the headquarters of the military province. Upon transfer to the wartime command structure following mobilization, these regions would be replaced by three armies and the Ostrobothnia Group.<sup>161</sup> The command relations for defence preparation purposes were thus far clearer than in the 1952 operational plan, although the new distribution into commands still did not conform to the general administrative division of the country but was based on purely military considerations.

The defence zones for the above regions mainly conformed to those defined in the 1952 plan, with the exception that the Inland Defence Region was no longer responsible by 1960 for preparations for the defence of the innermost zone against an attack from the west.

The number of brigades of fast deployment troops to be formed had been reduced considerably relative to the 1952 situation, and was now set at 10 instead of 15, but the total complement of the additional forces was still considered high, around 150,000 men, because it was still not certain whether they could be called up and equipped sufficiently quickly. The number of brigades to be formed for the wartime complement remained at 28.<sup>162</sup>

For the planning of wartime operations a zone of operations was defined in each command such that all tasks and operations were to be carried out forward of the rear edge of this zone. Preparations for the repulsion of a major invasion or airborne landing or for the prevention of an air attack were also to be extended to other parts of the command outside the zone of operations.

For the purposes of discharging assignments and maintaining control over areas of importance, one or more defence zones were defined within each zone of operation, and defence positions were to be set up in the parts of these zones that were most critical as far as the combat situation was concerned. Sufficient depth in defence was to be created by planning additional zones in the rear of the defined zones of operations, so that the troops assigned to them would be able to block any surprise breakthroughs, ensure that terrain of crucial importance remained in the troops' possession and create favourable operational conditions for the deployment of the General Headquarters' reserves.

The role of systematic guerrilla warfare as part of the defen-

sive operations was emphasized in this plan, and it was noted that preparations should be made for engaging the enemy in the sparsely populated forest areas of the country by means of guerrilla tactics, so that as large a proportion of the conventional combat forces as possible could be reserved for counter-attacks aimed at achieving a decisive outcome.

The OpO-57 orders also included planning and preparation connected with evacuation of the civilian population. This was to be led by the head of civilian protection (väestönsuojelupäällikkö) in close cooperation with the high command of the Defence Forces and with the help of the provincial and local civilian authorities. The population was divided for evaluation purposes into two urgency categories, those who were unable to work, comprising the elderly, children and the sick, and those who were capable of working.

Evacuation was seen as taking place in three phases: voluntary evacuation, evacuation of the population that was unable to work to nearby areas, and finally evacuation of the population and property from a potential battle zone under the supervision of the military authorities. Under the new plan it was the commands that were entrusted with the task of planning this final stage of evacuation, the emphasis being on the population living close to the national boundaries. It was still not possible to enter into any extensive cooperation with the civilian authorities on these matters, however.

	Brigade	Armoured Brigade	Corps HQ	Independent battalion
NC	3/6	-	1/2	3/4
SC	2/9	-	3/3	4/8
IC	0/2	-	1/2	3/4
OC	0/2	-	-	0/2
Reserves	2/8	1/1	1/4	2/4
<b>TOTAL</b>	<b>8/27</b>	<b>1/1</b>	<b>6/11</b>	<b>9/22</b>
Explanation: Fast Deployment Forces/Full Wartime Forces				

Figure 12. The order of battle according to OpO-57

### 5.5.1. The Southern Command

It was the task of the Southern Army in the event of an invasion from Norway in the north to secure the coast of its region and pre-



pare to repel parachute landings in the Åland area in particular. If hostilities were to extend to the Baltic region—alternative scenario B, for which the army's basic plan was to be constructed—it was to repulse any attacks on the coast or Åland and cooperate with the Navy in preventing the enemy from entering the Gulf of Bothnia via Åland and the Archipelago Sea.<sup>163</sup>

The Southern Army was assigned two defence zones: Åland and the Archipelago Sea, which included the Åland Islands and the islands of Turku, and the coastal zone, the outer edge of which ran from the islands off the coast east of Helsinki as far as those located north-east of Turku, while the inner edge was drawn some 30–50 kilometres inland.<sup>164</sup> For these purposes two brigades and a Jaeger brigade were to be assigned to the Southern Army at the fast deployment stage and the number of brigades was to be raised to eight upon transfer to the full wartime complement.<sup>165</sup>

General Headquarters issued fairly precise instructions regarding the deployment of troops, which was to take place in such a way that both the Hanko Peninsula and the Åland Islands could be defended efficiently at the fast deployment stage by assigning a brigade and a Jaeger battalion under the command of the corps headquarters to each area. The section of the corps operating on Åland would then be augmented to two brigades under the full wartime complement and that defending Hanko to three brigades. Similarly the defences of the Helsinki area would be reinforced with an army corps of two brigades, while another two brigades would be held in reserve for counter-attacks primarily in the Hanko Peninsula and Helsinki areas.<sup>166</sup>

### 5.5.2. Northern Command

In the event of an attack directed at its area of responsibility exclusively from Norway, the Northern Army would concentrate on repulsing that attack, maintaining control over the main intersections of transport routes in northern Lapland and preventing the insurgent from reaching the Soviet Union via Finnish territory. If the attack were to come from Sweden as well, the army's duties would alter to the extent of concentrating its defensive action in the Kemi-joki Valley.

Three defence zones were defined for the Northern Army,<sup>167</sup> which would have three brigades at its disposal at the fast deploy-

ment stage, one of which would be held in reserve for use in the west, on the Swedish border, while the remaining two would be deployed in the far north of Lapland. The additional brigades to be assigned to the region under the full wartime complement—a maximum of four—would be deployed in the Oulu–Kemi–Rovaniemi area under all the scenarios.<sup>168</sup>

### 5.5.3. Inland Command

The area of responsibility of the Inland Army was defined under the Opo-57 as a rear area in which a large proportion of the country's armaments industry and the majority of the high command's supply depots and reserve troops would be concentrated. If the attack were to come entirely from Norway, it would be the task of the Inland Army to secure its own area and prevent raiding parties from infiltrating into the Soviet Union through that area. This would be a more demanding proposition if the Baltic Sea were also to become a scene of hostilities, for then the Inland Army would have to mount a defence against offensives from the Gulf of Finland, protect the industrial plants in its area and prevent the enemy from penetrating as far as the Soviet Union through its territory.<sup>169</sup>

The Commander of the Inland Army would have three Jaeger battalions under him at the fast deployment stage, and these would be deployed along the main communication routes to the Soviet Union. Transfer to the wartime complement would mean the arrival of two new infantry brigades, one of which would be deployed on the coast to prevent landings and the other on the narrower isthmuses in the Saimaa regions to hold these strategic points, and a Jaeger brigade, which would be held in reserve for deployment around the major water barrier in Southern Finland, the N-S-oriented channel of the River Kymi. The potential tasks for these reserves were detailed as being the prevention of parachute landings, counter-attacks towards the coastline and the manning of a north-south defence line.<sup>170</sup> Two Frontier Guard detachments would be stationed to the east of the brigades, immediately adjacent to the Soviet border.

### 5.5.4. The Ostrobothnia Area of Responsibility

The task of the Ostrobothnia Group would naturally depend on the probability of a threat from Sweden. Thus the starting-point for plan-

ning was taken to be scenario B, in which an attack over the Gulf of Bothnia was regarded as fairly improbable and the troops assigned to the Ostrobothnia Group would be responsible simply for supervision of the sea area. After mobilization the group would receive two further brigades and would be expected to repel attempted landings or parachute drops from the Gulf of Bothnia and protect the crucial rail junction at Seinäjoki. It was also expected to cooperate with the Navy to prevent enemy troops from passing through the Quark and into the Bothnian Bay and thereby posing a threat to the rear of the northern Army.

### 5.5.5. High command reserves

The reserves remaining under General Headquarters in full wartime complement would comprise 10 brigades, including one armoured brigade. These reserves were intended initially to remain in the areas where they had been formed, seven in the Inland Command, two in the Southern Command and one in the Ostrobothnia area of responsibility, and to prepare for concentration in the direction of perceived threats, of which the order from the General Headquarters recognised three.<sup>171</sup>

Two of the areas of deployment for the reserves were located to the north and north-west of Helsinki, where their main tasks would be to prepare to respond to enemy landings with counter-attacks in either the Hanko or Porkkala area, to defend Helsinki and to react to a major airborne operation focused in the area north of the capital. A maximum of three brigades would be grouped in this area at the fast deployment stage, but the number could increase to eight altogether, under the command of two corps headquarters, at the wartime complement stage.<sup>172</sup>

The high command reserves to be assigned to the Northern Command at the fast deployment stage, a maximum of three brigades, would be stationed mainly at the level of Kemi and Rovaniemi, from where they could be used to reinforce the defences on the main road leading from north to south and also cover the direction of the Swedish border. At the full wartime complement stage the number of reserve brigades would increase to a maximum of eight and they would be concentrated at the Oulu–Kajaani level, their main task very probably being to mount counter-attacks northwards from Oulu or to hold the rear defence zone of the Northern Command.<sup>173</sup>

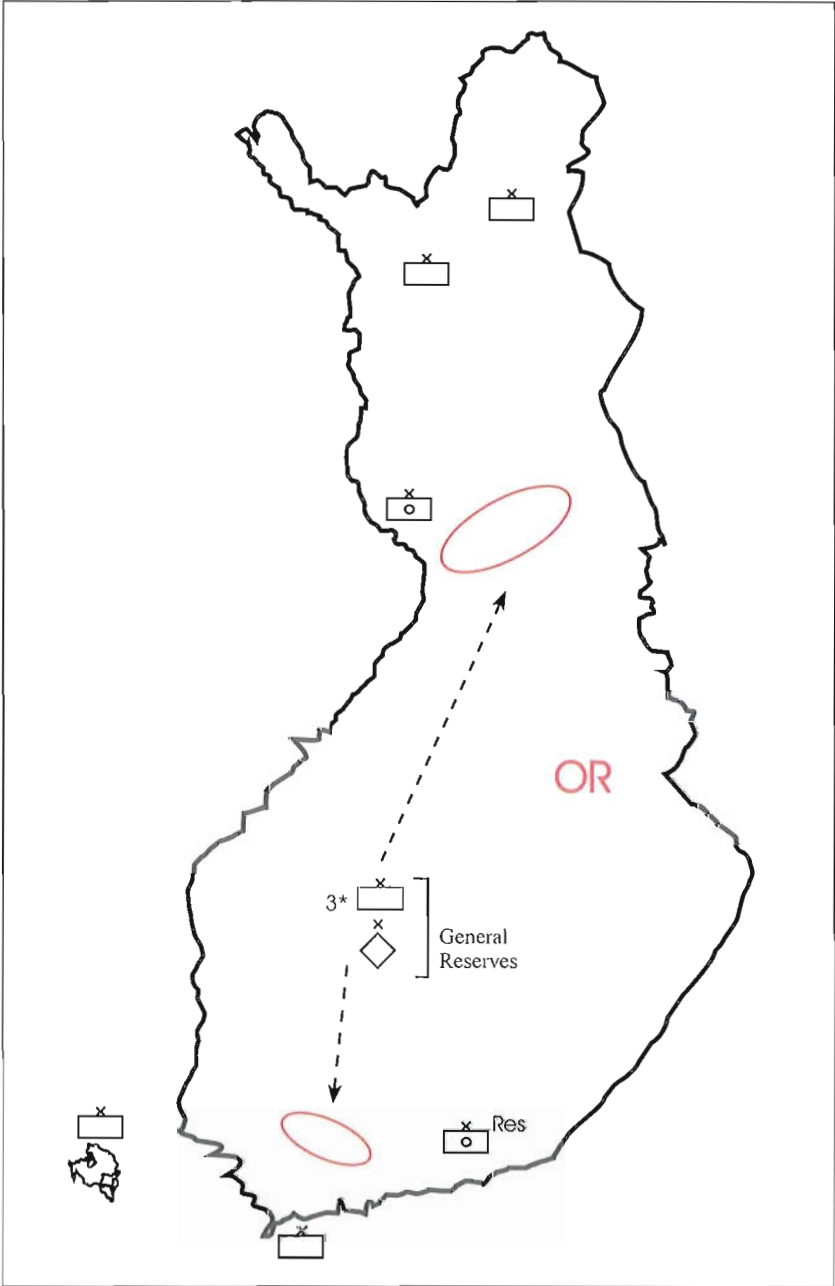


Figure 13. Planned concentration areas of fast deployment forces (OpO-57)

### 5.5.6. Air Defence

The Field Regulations defined air defence as comprising air surveillance, anti-aircraft measures, fighter defence and air-raid warning.<sup>174</sup> The developing of Finland's air defences in the 1950s had been primarily a matter of improving air surveillance, but the dramatic advances in performance capacity that ensued with the introduction of the first jet aircraft meant that surveillance by visual observation, on which the country's air surveillance had been almost entirely dependent during the Second World War, in spite of the existence of about twenty radar stations, had become thoroughly outdated.<sup>175</sup> The basic air surveillance plan, completed in the early 1950s, had included a network of 23 fixed and 10 mobile radar stations, the first-phase locations of which were approved by the Commander-in-Chief of the Defence Forces in March 1954.<sup>176</sup> The first phase was then completed over the years 1954–1956, when the first 10 stations were installed. This initial network was fairly modest in terms of performance and there were many gaps in radar coverage, especially near the Norwegian border on the north-western "arm" of Finland, in southern Lapland and in the eastern parts of Kainuu, and it was impossible to observe aircraft flying at altitudes of over 10,000 metres at all. Also, the observation distance was so short that even at best the range could be extended only a few tens of kilometres over the border. Another problem was the slowness of communications.<sup>177</sup>

By the early 1960s, however, the air defence network, comprising a radio link system for the rapid communication of air surveillance data, visual observation units and command centres in addition to the radar stations, had been developed to a substantial degree. The decision to proceed to the second stage in its construction had been taken in 1955, and the network had subsequently been expanded, first with ten new Finnish radar devices capable of measuring cruising height as well as position, and then with ten American mobile devices. The following year the Cabinet had decided that a directional radio network should be acquired, and the development plan also included the founding and equipping of some 40 air surveillance companies designed for visual observation.<sup>178</sup>

As far as radar equipment was concerned, the surveillance network was constructed more or less as planned, and there were 19 fixed and 10 mobile radar stations in operation by the end of 1961,<sup>179</sup> but the performance of the network was still not satisfactory. Only

the newest of the radar devices was capable of detecting targets at altitudes of 10–20 kilometres, and supersonic targets were difficult to identify in any case. In addition, there were still notable radar dead zones in the northernmost parts of Finland in spite of efforts to plug the gaps.<sup>180</sup>

In order to improve observation distances and the timing of early warnings, the Defence Forces were authorized to purchase three high-power radar devices during the years 1961–1965,<sup>181</sup> to be located at the Air Force command centres at Tampere, Kuopio and Rovaniemi. The detection efficiency of this system was considerable better, implying a range of 300–400 kilometres depending on flight altitude.<sup>182</sup>

As far as the deployment of fighter aircraft was concerned, the Commander-in-Chief of the Defence Forces set up a separate Aircraft Committee in 1956 to make a thorough survey of the tasks of the Air Force at different stages in a military crisis and to submit proposals for the complement of the Air Force and the numbers of pilots required.<sup>183</sup>

The committee identified the deployment of interceptor aircraft as the principal task of the Air Force in the event of a crisis, maintaining that these should be capable of preventing incursions into Finnish airspace if the threat of hostilities arose and of inflicting losses on the enemy at times of war. A force should be created that could be concentrated on specific targets and would thereby constitute a deterrent against enemy attacks on protected installations etc. Reconnaissance and close air support were regarded as being of secondary importance.<sup>184</sup>

Successful peacetime surveillance of Finnish neutrality alone would call for a fleet of 60 fighter aircraft, while in the event of war—i.e. at the stage of rapid deployment of the ground forces—the Air Force should be capable of intercepting three fairly large formations of bombers and of protecting the main junctions in the routes used to concentrate the ground forces, all of which would require virtually a hundred subsonic fighter aircraft and 36 high performance supersonic aircraft. The requirement was then likely to be almost doubled as the war proceeded. By the time the committee had added other categories of aircraft—ground attack planes, transporters and reconnaissance planes—the total requirement amounted to more than 300.<sup>185</sup>

The plan for the acquisition of aircraft was far too ambitious and

entirely divorced from reality, so that by the end of the decade the Air Force had only about twenty jets, none of which was armed with air-to-air missiles.<sup>186</sup> The situation regarding airstrips had greatly improved, however, partly on account of an expansion in civil aviation and partly through government job-creation projects. Thus a report of 1961 placed the number of facilities suitable for jets at 13, although it admitted that the majority of these were located on the coast, close to the larger concentrations of population, and that there were still substantial gaps in the support system.<sup>187</sup>

The command structure was to be revised under the OpO-57 orders, and the Commander-in-Chief of the Defence Forces had also approved major changes in the mobilization book at the end of 1957. The intention was to scrap the brigade-based wartime organization and replace it with a command structure based on a peacetime complement, as in the ground forces. Each wing commander was to be responsible for operational preparations in his area, and upon transfer to a higher level of alert a system of flight districts was to be adopted, the number of which had been raised to six. The wartime complement of the Air Force was to consist of eight fighter squadrons, two reconnaissance squadrons and three all-weather interceptor squadrons.<sup>188</sup>

<b>Peacetime complement</b>	<b>Wartime complement</b>	<b>Flight district</b>
<b>Satakunta Wing</b>	<b>2nd Wing</b>	<b>Southwestern Flight District Pohjanmaa Flight District</b>
<b>Häme Wing</b>	<b>1st Wing</b>	<b>Lapland Flight District Kainuu Flight District</b>
<b>Karelia Wing</b>	<b>3rd Wing</b>	<b>Savonia-Karelia Flight District Kymi Flight District</b>

*Figure 14. Complements of the Air Force*

The operational tasks assigned at each level of alert did not differ radically from those laid down in the 1952 orders, in that the Air Force was still expected to arrange for aerial surveillance, provide fighter defence for installations of national importance and support the ground forces and navy as the situation required. The emphasis in fighter defence operations was to be on protecting the main

centres of population and industry, in addition to which protection was to be provided, wherever the situation permitted, for the main movements of troops by rail following full mobilization. The focus of anti-aircraft units should be on the same areas as for Air Force operations. It should be noted, however, that the wartime complement of the Air Force was assumed in these plans to be that recommended by the Aircraft Committee and not the actually existing level.<sup>189</sup>

### 5.5.7. Sea defence

The tasks assigned to the Navy in the OpO-57 orders remained more or less unchanged in spite of the return of the Porkkala Peninsula by the Soviet Union in 1956. The focus of its activities in the event of the outbreak of war was still to be on the Archipelago Sea and the Åland Islands.<sup>190</sup> The best vessels and those at the highest level of alert were to be subordinated to the 1<sup>st</sup> Flotilla and dispatched to defend the Åland Islands until such time as units of the Southern Army could be moved there. It was to accomplish this defence by mining the main entry channels to the islands, preparing to attack any enemy amphibious forces and preventing the enemy from entering the Gulf of Bothnia. Once this was completed the flotilla would transfer to supporting the operations of the ground forces in southern Finland.<sup>191</sup>

The task of the Gulf of Finland Maritime District consisted of reconnaissance and support for the ground forces in the Helsinki–Porkkala and Hanko areas, which would also be the main areas for defensive minelaying operations. The Archipelago Sea Maritime District would be responsible for transporting troops to Åland in cooperation with the 1<sup>st</sup> Flotilla and for mining of the sea area if commanded separately to do so. The reconnaissance and combat activities of the Gulf of Bothnia Maritime District were to be focused in the Quark, the narrowest part of the gulf. In addition to the above tasks, each district was to be prepared to control sea traffic in its own area, transport troops as required and organize sea and air surveillance.<sup>192</sup>



Unit	1st Flotilla	Gulf of Finland Maritime District	Archipelago Sea Maritime District	Gulf of Bothnia Maritime District
Gunboat squadron	1	-	-	-
Training ship	1	-	-	-
Fast gunboat squadron	2	-	-	-
Patrol boat squadron	-	1	3	1
Minesweeper squadron	1	3	4	1
Minelayer squadron	2	-	-	-
Transport squadron	-	1	2	-
Transport boat squadron	-	3	3	1

*Figure 15. Principal naval units according to OpO-57*

As may be seen in the accompanying table, the main concentration of naval forces, at least on the outbreak of hostilities, was to be in the Åland and Archipelago Sea area, while defence in the Gulf of Finland was to rely largely on the coastal artillery and the use of sea mines. These latter two elements were closely linked in order to prevent the enemy from entering areas of particular importance to the national defence. The defensive minefields were so sited that they would close off the majority of the main sea channels, while the coastal artillery was charged with preventing any enemy minesweeping attempts. Defensive mining was to begin around Åland, which would have no resident defence force on the outbreak of hostilities, and would then be extended to the Helsinki–Porkkala and Hanko areas.<sup>193</sup>

The greatest alteration to the peacetime composition of the coastal artillery took place in the area west of Helsinki once the Soviet Union had relinquished control over the Porkkala Peninsula, the Commander-in-Chief of the Defence Forces issuing an immediate order for the establishment of a powerful coastal artillery in the area.<sup>194</sup>

A second significant change concerned the heavy artillery pieces that the Control Commission had ordered to be confined to the Navy depot, as the Defence Council decided in 1959 that these should be replaced in their fortresses.<sup>195</sup> This naturally improved the response capacity of the static coastal artillery considerably, as it would have taken months to position these guns in the event of an outbreak of war. The early 1960s did indeed mark a boost in the development of the coastal artillery as a whole, a trend that continued into the 1980s, and the situation in 1963 was that this arm of the defence forces had a wartime complement of eight artillery regiments manning 16 coastal artillery battalions consisting of some 50 artillery batteries.<sup>196</sup> The main batteries were located in the fortresses used for training national servicemen, fortresses which were both structurally in relatively good condition, fairly well armed and at a high level of readiness.<sup>197</sup>

The coastal artillery network was supplemented with 12 mobile coastal artillery battalions,<sup>198</sup> and other mobile solutions for developing the coastal defences were also adopted around the end of the decade, including the creation of troops of a new kind, coastal Jaeger battalions intended for counter-attack purposes alongside the static coastal artillery positions and somewhat inflexible coastal defence battalions.<sup>199</sup>

Surveillance of the sea areas played a major part in the protection of Finnish neutrality, and work on the improvement of this system had begun in the early 1950s—as in the case of air surveillance. Patrolling of the sea areas was the joint responsibility of the Defence Forces, the Frontier Guard and the Maritime Administration. A memorandum from the General Headquarters Operations Division in 1959 nevertheless indicated that there was a great deal still to do to improve marine surveillance and that an intensification plan drawn up three years earlier had only been about half implemented.<sup>200</sup>

The situation developed more rapidly in the early 1960s, however. A new statute on land, sea and air surveillance was promulgated in 1963, and in the same year the Commander-in-Chief of the Defence Forces approved a set of instructions for maritime surveillance which defined its practical implementation and command relations. These instructions assigned ultimate responsibility for maritime surveillance to the Defence Forces, in cooperation with the Frontier Guard and Maritime Administration, the headquarters for this

activity being located in the Naval Headquarters, which was to be responsible for compiling and maintaining real-time maritime situation reports. A total of 18 maritime surveillance stations, of which ten were to be equipped with radar, were to be set up for implementation purposes. As it would not have been useful, nor feasible in terms of communications systems, to have all of these stations directly subordinated to Naval Headquarters, the four peacetime coastal artillery contingents and the Gulf of Bothnia Marine Frontier Guard formed regional command centres that were responsible for the maritime surveillance centres in their areas and compiled situation reports. The system was not entirely comprehensive, however, as underwater activity continued to go largely unsupervised in the absence of the necessary sonar equipment, the process of acquiring which had only just begun. There were also large gaps in the visual observation and radar networks.<sup>201</sup>

## 6. Development of plan-57, aimed at tighter defence of the eastern border

The operational orders issued by General Headquarters in 1957 were chiefly intended to define the defensive preparations to be made with respect to a threat arising from the west and were highly confidential and conformed with the country's political commitments at that time. Thus Plan-57 could be said to have been primarily a political plan, the underlying aim of which was to demonstrate to the Soviet Union that Finland was capable of fulfilling her obligations under the FCMA Treaty if required. Major-General Juhani Ruutu summed up the true significance of Plan-57 very well in his interview when he said that "An attack from the west was not regarded as being even to the slightest degree probable, but the threat posed by the "helper" in the east was a real and serious one. It was therefore necessary to be prepared for consultations and to be able to demonstrate convincingly that we were able to manage without help from the east. It was for this reason that great care was taken to shape Plan-57 into an impressive set of documents."<sup>202</sup>

It was more difficult, of course, to outline a strategic line of defence against the threat posed by the Soviet Union itself, as no such plan could exist in an official sense. Finland nevertheless had a long land boundary with the Soviet Union and earlier experiences of dealing with that country did not arouse any great feelings of trust, any more than did the events of 1956 in Hungary or the "night frost" period in Finnish-Soviet relations in 1958. The defence of the eastern border with ground forces had been planned on the basis of the Salpa Line in 1944, and contingents had been designated to maintain the fortifications and weaponry of that line during the post-war period.<sup>203</sup> The accent during the 1950s, however, had been on stabilizing political relations in that direction, and plans and preparations for military action had effectively been impossible in such a situation.

Little written documentation remains on the perceived threat from the Soviet Union in the 1950s and 1960s, as all speculation on the subject was of an exceedingly delicate and confidential nature. But attention was inevitably paid to this threat, especially at the heart of the Defence Forces' operational planning, in the Operations

Division at General Headquarters.

An overall impression of the perceived threat during the late 1950s and early 1960s may be obtained from an analysis entitled "Finland's strategic position and the strategic principles laid down for the national defence", produced by the Operations Division and dated 11<sup>th</sup> November 1960. The analysis considered both NATO and the Warsaw Pact as threats to Finland.<sup>204</sup>

The document regarded Finland's position in the Cold War opposition between East and West as a major starting point for such an analysis, alongside the existing treaties and agreements, and came to the conclusion that "Finland regards itself as a neutral state that is obliged to take into account the demands placed on it by the Agreement of Friendship, Cooperation and Mutual Assistance and to a certain extent the opinions of the Soviet Union on political and economic issues."

The analysis dealt in some depth with the threats to Finland's non-aligned position likely to be posed by both NATO and the Soviet Union in different situations and in different parts of the country, and concluded that the initiative and overwhelming power rested with the Soviet Union. The outcome of its deliberations was summed up in two concluding statements:

a) "The greatest immediate threat to Finland in an unexpected crisis situation will always arise from the Soviet Union, but preparations should also be made to counter Western action in the air, in northern Finland and in the Baltic region.

b) Only the development of a military situation that is more favourable to the West or Swedish membership of NATO can give rise to an immediate threat of a Western offensive against Finland."

Although an internal communist revolution was no longer regarded as probable by this stage, the evident Soviet intention to spread communism by peaceful means was taken as a more serious threat. This new approach was regarded as a matter of some importance because, as an immediate neighbour of the Soviet Union, Finland was always in danger of becoming a satellite Soviet state by this means.<sup>205</sup>

The analysis nevertheless set out not from political expediency but from the military potential existing in the surrounding areas. It was estimated in the early 1960s that the Soviet Union had at least 10 army divisions in the Leningrad Military District alone, i.e. close to the border with Finland, and that these included two airborne divi-

sions.<sup>206</sup> In addition, the Baltic Fleet was regarded as being the most powerful of the Soviet naval fleets, with about fifty heavily armed surface vessels, almost a hundred submarines and several hundred smaller ships, so that it would easily be able to make tactical landings on the Finnish coast to back up overland operations.<sup>207</sup>

The development of the Soviet armed forces and their high level of alert were the main reasons for the Finnish decision to put a greater effort into the development of the readiness of the defence forces. The starting point for operational planning and the raising of the level of readiness was increasingly taken to be a surprise attack. The limitation of any such attack and the gaining of time for mobilization would call for peacetime forces that were at a high level of alert and readily available fast deployment forces.<sup>208</sup>

The demand for faster mobilization led to a substantial increase in the troops to be formed on the cadre principle under an order issued in 1960. In accordance with this new philosophy, the peacetime troops would directly raise their complement to the wartime level, forming what were to be known as "standing troops", a new concept that replaced the former A-complement.<sup>209</sup>

The primary aim of this new system was to speed up the mobilization and deployment of new troops, the demand for standing forces being that they should be ready to march to their first operational stations on the first or second day of formation, while the other fast deployment forces should be capable of doing so by the second to fourth day. The interval was then somewhat longer for the main body of troops, but the understanding was nevertheless that the combat forces should be ready for deployment in their entirety within a week of formation.<sup>210</sup>

The first troops to be formed—the standing troops of some 30,000 men—would include a Jaeger battalion based on each peacetime brigade and a light detachment of a few hundred men formed by each peacetime battalion. The six of the former would be created and seven of the latter. In addition, the Armoured Brigade would form part of the wartime Armoured Brigade and the field artillery contingents would form five artillery battalions that could be attached Jaeger battalions if necessary, to form versatile independent battle groups. The peacetime coastal artillery would form the main batteries for their fortresses, backed up by a number of anti-aircraft units. The Frontier Guard would bring its companies up to full strength, and the new system of standing troops would imply as far as the Navy

TROOPS	1a.	1b.	1c.	1a. Standing troops 1b. Troops formed by peacetime contingents 1c. Troops formed by military districts
Light detachment	7	-	-	
Jaeger battalions	6	6	1	
Brigades	-	6	-	In cooperation with the military districts
Armoured brigades	-	1	-	NB. Armoured Brigade would form a separate detachment of standing troops
Jaeger brigade headquarters	-	2	-	
Corps headquarters	-	5	-	
Frontier companies	19	-	-	
Frontier Jaeger battalions	-	13	-	
Anti-aircraft batteries	6	14	7	27
Field artillery regiments	-	7	-	
Field artillery battalions	5	2	-	7
Fighter squadrons	-	3	-	
Gunboat squadrons	-	1	1	NB. part of the squadron in the standing troops
Fast gunboat squadrons	-	2	-	NB. part of the squadron in the standing troops

*Figure 16. Fast deployment forces, by units responsible for their mobilization.<sup>212</sup>*

was concerned that the crews of the ships already deployed would be made up to full wartime strength. In the case of the Air Force the standing troops corresponded to the main body of radar-equipped troops required for air surveillance duties.<sup>211</sup>

The formation of standing troops would be followed by the creation of the remainder of the fast deployment forces, the majority of the combat troops belonging to which would be formed around the existing peacetime contingents. These would comprise six infantry brigades and an armoured brigade raised to its wartime complement, together with four border brigades set up by the Frontier Guard.

It could be claimed with some justification that the aim of this refinement of the Plan-57 was specifically to improve the Defence Forces' response to the Soviet threat. According to the plan about half of the infantry troops available to the ground forces should be deployed initially in the main areas of emphasis, the north and the south-west. A third of the brigades and most of the Jaeger battalions were to be retained in the Inland Command. Most of these troops would be General Headquarters reserves, however, with only three brigades subordinated to the Inland Command itself. Although they had preparatory tasks elsewhere, these ground forces in their initial wartime deployment represented in reality a response to the Soviet threat,<sup>213</sup> and the use of these reserves against a possible Soviet invasion had been planned jointly by the General Headquarters Operations Division and the 3<sup>rd</sup> Division in the late 1950s and early 1960s.<sup>214</sup>

Preparations were also made for using the Salpa Line for the defence of the long eastern border, and it was intended that a large proportion of the troops assigned to the commander of the Inland Defence Region should be deployed on this line.<sup>215</sup>

In addition to the above, some of the operational tasks detailed in the OpP-57 orders were of a kind that they could be performed regardless of the direction from which the attack might come. A case in point was that of the Åland Islands, which were to be occupied as quickly as possible in all situations.<sup>216</sup>

The role of the Frontier Guard was emphasized as the readiness developed. General Headquarters had already been interested in increasing this organization's responsibility as part of Finnish defence principles in 1959, and the Chief of the General Staff had noted in March of that year that this was a question of 360° protection of the



national frontiers in accordance with the principle of neutrality and had nothing to do with military policy. He was quite right in emphasizing this, of course, although it was a new policy statement to make in public at that time.<sup>217</sup>

The plans for action were nevertheless adapted in this direction, and preparations were made for creating a border brigade in each of four Frontier Guard districts in the event of the level of alert being raised, although it was assumed that actual patrolling of the border would continue to take place in the same manner as before, with responsibility resting with the border companies and battalions. At the fast deployment stage each brigade would also include Frontier Jaeger companies and battalions and separate units belonging to other arms and services. The composition of a Frontier Jaeger battalion (*rajajääkäripataljoona*) was equivalent to that of a Jaeger battalion. At the same time each brigade was to have a unit designed specifically for guerrilla warfare. On the completion of their border patrol and fast deployment assignments, all the troops in a brigade were to prepare to transfer to guerrilla warfare.<sup>218</sup>

The order for making preparations for the creation of border guard detachments, issued in February 1960, meant a major change relative to the earlier mobilization tasks, as the wartime complement of the Frontier Guard was to increase by almost 12,000 men and the transfer of responsibility for this from the military districts to the existing units, on the cadre principle, would mean that the troops could be formed more quickly.<sup>219</sup>

This change led to a revision of the operational plans. The fast deployment forces attached to the Inland Army, for instance, would increase by a third under these new arrangements, as there would be two frontier brigades functioning in its region, with more demanding duties than earlier. These would be responsible for covering the mobilization and concentration of the main forces on the eastern border at the fast deployment stage.<sup>220</sup>

## 7. War games and exercises

The preparation and development of operational plans naturally required the holding of exercises and war games to test the functioning of existing plans and frequently also developing the new ones. The questions we have to ask are whether these exercises were truly connected with the operational plans and whether the enemy action envisaged in them corresponded to the real threats.

Exercises in response to the danger of an invasion began in the early 1950s. A typical war game was arranged by the headquarters of Helsinki Military Province in 1951, in which the initial scenario was that the Blue army (the Soviet Union) had captured Narvik in the course of an attack on northern Norway at the same time as the Yellow army (NATO) had succeeded in breaking through the Soviet defences in Central Europe, leading to major overland hostilities in Poland. The Yellow army had also occupied the island of Gotland, which had aroused a protest from Sweden, although the Swedish government had decided to content itself with observing the situation and had re-affirmed its neutrality. One factor contributing to the Yellow success had been its possession of atomic weapons. The scenario was an interesting one in that it assumed that Finland was a Soviet ally, so that the Soviet Union had not only its troops stationed in Porkkala but also fighter squadrons based at airfields in southern Finland.<sup>221</sup>

The aim for the Yellow side was to capture the Soviet base at Porkkala by means of a force comprising two army corps, the basic idea being that one corps would make a landing at a point west of Helsinki and aim to cut off the road and rail connections with the Soviet Union, while the other would land on the Hanko Peninsula, west of Porkkala. The Yellow side would have the similar naval forces available for these landings as for those that had taken place during the Second World War. Hundreds of landing craft would be backed up by powerful naval detachments that included battleships and aircraft carriers as well as other surface vessels. In addition to these the Yellow side would have an air force amounting to hundreds of modern aircraft.<sup>222</sup>

A large-scale landing was also the theme of a war game organized by the War College in 1956, when it was imagined that two

armies and an operational group equipped for mobile warfare had landed in southern Finland with the aim of eliminating the troops deployed there. This exercise corresponded at least to the threat envisaged in alternative scenario B, as the area was to be defended by a total of 14 Finnish brigades. Again nuclear weapons were involved in the exercise.<sup>223</sup>

The first extensive war game in northern Finland was held in 1953, on the theme of the mounting of an operational counter-attack. It was assumed that three divisions of an enemy force had attacked from the north and succeeded in driving the defenders back to the Kemi–Rovaniemi defence line, i.e. the main defence zone of the Finnish forces in the existing operational plan. This caused the defenders to adopt delaying tactics, taking as their back line the southernmost defence zone in the real operational plan. The plan of battle was a fairly typical one for the Finns: after a certain delaying period they would defeat the attacking force at a suitable point in the terrain where they could marshal sufficient troops and then they would begin a counter-attack with the aim of destroying the enemy troops that had been contained in front of the defensive position.<sup>224</sup>

Preparations for a nuclear war was the theme of a wide-scale war game initiated by the 3<sup>rd</sup> Division in 1961 and led by the Chief of the General Staff. In this scenario it was envisaged that NATO would have no confidence in Finland's position of neutrality but would assume that Finland would relinquish its transport and communications network for Soviet use. This would lead the NATO air force to commence air attacks specifically on transport connections in southern Finland. After battles lasting several months the initiative would pass to the West, leading to landings on Åland and the Hanko Peninsula, the areas perceived to be in the greatest danger. This would be followed by a major landing in the area between Hanko and Kotka, and extensive bombing would ensue, including the use of a nuclear device on a rail junction. The exercise was realistic in the sense that the levels of command involved were virtually identical to those required in the real operational plans, and thus the war game itself, like all the war games designed at the operational level, was arranged only for certain carefully defined troops. The brigades, for instance, were represented only by their commanders or chiefs of staff.<sup>225</sup>

The courses for commanding officers in all branches of the services decided upon by the Commander-in-Chief of the Defence

Forces in 1960 were a separate thing again. Their purpose was to develop the operational capacity of the participants dealing with an army or the whole body of the Defence Forces. Thus the programme included numerous strategic tasks covering areas varying from a single command to the whole country. The task arranged in the first year was concerned with retention of control over the core area of the country. The point of departure was an imaginary North State occupying the northernmost part of Finland and having resources that amounted to 15–20 divisions, while the area south of Oulu belonged the South State, i.e. Finland, defended by 15 brigades, which corresponded fairly accurately to the combined strength of the actual northern Army and General Headquarters' reserves. The first three parts of the assignment were traditional exercises in the appreciation of situations and decision-making. Measures were taken to repulse the enemy attack and a counter-attack was mounted, causing the enemy serious losses. The subsequent situations were more unconventional, however, as it was then assumed that both sides gained access to nuclear weapons. First the assailant detonated several such devices in the course of its attack, and then the participants in the course were left to consider how they would deploy ground-to-ground tactical missiles equipped with nuclear warheads and megatonne-class nuclear bombs to be dropped from aircraft.<sup>226</sup> Unfortunately the suggestions made on that occasion have not been preserved, but it may be said that the exercise was directed more towards obtaining an understanding of the use of nuclear weapons than towards their actual use.

Operations directed against the Soviet Union were practiced only in a clandestine manner. The 1962 course for commanding officers, for instance, included a strategic map exercise which enabled an assessment to be made of the chances of the Soviet Union invading southern Finland. Here an entirely fictitious military policy situation was envisaged in which a single country existing in the territory of the three Baltic States had determined to deny the Soviet Union access to the Baltic Sea and for this purpose had set out to conduct an amphibious operation with associated airborne landings in southern Finland. In order to avoid the inevitable question of military cooperation with the Soviet Union as provided for in the Agreement of Friendship, Cooperation and Mutual Assistance, it was assumed that no such agreement existed. Thus preparations needed to be made for action against the Soviet Union on Finland's eastern border.<sup>227</sup>

The next war game arranged for the commanding officers assumed that the attack had come from the Soviet Union, the main purpose of the exercise being to assess the need for troops to repel an attack on the south coast. A politically sensitive situation was avoided by imagining a situation in which an enemy had been attacking the Soviet Union along the southern coast of the Gulf of Finland for months and had succeeded in capturing the area of the Karelian Isthmus on the other side of the border with Finland and had now mounted an attack on Finland involving more than ten divisions, including a divisional-sized airborne operation in an area just east of Helsinki. The operation had been backed up with an attack on Finnish Lapland from Norwegian territory. For the defenders this was a question of fighting for the country's whole existence, as seen from the fact that as the game proceeded all 15 brigades were placed under the commander responsible for that area, i.e. practically all the troops set aside for the Southern and Inland Commands under Plan-57 together with the majority of the High Command reserves.<sup>228</sup>

The exercises and war games described above were performed without troops, but there were also some exercises that involved actual troops as well as the commanding officers, the most typical being various emergency and alert exercises aimed at testing the deployment of the troops formed on the cadre principle to their first assignment. One example of such an exercise was that arranged in the area controlled by the 3<sup>rd</sup> Division in September 1962 to test how quickly standing troops composed of conscripts could be deployed for the first time to protect a target of vital importance, in this case an airport not far from their barracks. It was characteristic of exercises of this kind that they did not have any broader scenario attached to them, i.e. there was no speculation regarding a possible enemy or development in the international political situation; the most important thing was speed of action.<sup>229</sup>

On account of her neutrality, Finland could not afford to be committed to resisting any particular enemy, and thus the enemy in the exercises was given various troop configurations: opposing force B reminded one of Russian organizations, opposing force C was a version of an American organization, and finally opposing force D was an unidentified alliance involved in developing atomic warfare, whether in the East or the West.<sup>230</sup>

Embarrassing questions were also avoided by carrying out the

field exercises, which of course could not be kept secret like war games, in areas which did not presuppose any particular assailant. Thus the major exercises in the years 1960–1968 involving two or more parties were held in the north on two occasions, in the east on two occasions and in the south or south-west on three occasions. Similarly the large-scale exercises involving one or more formations called for by General Headquarters were mostly held in southern or southwestern Finland.<sup>231</sup>

It must thus be concluded that it is impossible to say anything regarding the true perceived threat to Finland or the actual deployment contemplated for the Defence Forces on the basis of the military exercises conducted during this period, as these, like the operational plans, were designed so as to support the official policy of neutrality and the conditions of the Agreement of Friendship, Cooperation and Mutual Assistance. This was a justifiable state of affairs, as the military attachés stationed in Finland were eager to find out what enemy the country was really preparing to defend itself against. Relations with the Soviet Union were naturally the most difficult of all, as its representatives were constantly on the look-out for evidence of the spirit prevailing in the armed forces and would protest through their embassy whenever they detected any anti-Russian activity. A typical discussion was that held at the office of the Soviet military attaché in January 1960, when the Finns attempted to ascertain the Russians' views on a possible alteration to the limitation on missiles contained in the Treaty of Paris. An embassy representative by the name of Filipov cast doubts on the trustworthiness of the Finns on the grounds that they were still using enemy configurations that corresponded to the Soviet military organization in their exercises, whereupon the permanent secretary to the Ministry of Defence assured him that the enemy in such an exercise was simply a typical world power and certainly not specifically the Soviet army, and pointed out that the majority of the exercises were held in southwestern Finland and not on the eastern border, which was indeed true.<sup>232</sup>

## 8. Arms and equipment

### 8.1. The state of armaments in the early 1950s

One of the foundations for the credibility of the defence plans was naturally the availability of equipment. It was estimated in 1952, for instance, that the fast deployment complement of roughly 320,000 men could be armed and equipped tolerably well, although there would still be gaping deficiencies in this respect. The fast deployment ground forces would suffer from a shortage of both arms and ammunition of all descriptions, and the Air Force was expected to manage almost entirely with initial training aircraft, so that its actual combat effectiveness was regarded as virtual nil. The jet age had irrevocably passed it by.<sup>233</sup>

The situation in the Navy was equally desperate. It possessed no modern combat vessels. The armoured vessel *Väinämöinen* had been sold to the Soviet Union in part settlement of the "German debt", the submarines had been withdrawn from service and sold for scrap under the terms of the peace treaty and the motor torpedo boats had been converted to motor gunboats.<sup>234</sup> There were only a few ships that were even looked on as suitable for peacetime training purposes. The principal weapons system available to the Navy, its arsenal of sea mines, was largely awaiting repair, and the existing stock of serviceable mines was estimated to correspond to only 50% of the minimum requirement.

### 8.2. The initial programme

Towards the end of 1952 the Commander-in-Chief of the Defence Forces put forward comprehensive proposals for a new defence initiative and the resources necessary for this, in connection with which two basic acquisitions programmes intended to form the core of rearmament during the 1950s were laid before the President of Finland: a short-term Initial Programme (*Alkuohjelma*) and a longer-term Emergency Programme (*Hätäohjelma*).<sup>235</sup> The aim of the Initial Programme, worth about 5,200 mill. Finnish marks and intended for completion within a couple of years, was to obtain the

necessary equipment for training purposes and particularly for air surveillance and the deployment of fighter aircraft.<sup>236</sup>

The plan could not be carried through in the desired manner, however, and was adapted in the form of a new programme costing 6,500 mill. marks in 1954. This laid less emphasis on the Air Force and was directed more towards increasing the Defence Forces' operational capacity and acquiring the necessary equipment for peacetime training purposes. A large proportion of the material concerned was to be purchased from Finnish sources.<sup>237</sup>

Approximately 4000 mill. marks out of the total sum invested over the period 1955–57 was spent on equipping the army, 900 mill. marks on the Navy and about 1700 mill. marks on the Air Force.<sup>238</sup> This included the first stages of a complete refurbishment of the ground forces' anti-tank system, with the ordering of a trial series of Finnish-built recoilless rifles. Similarly, the outdated radio equipment was replaced and the availability of small arms was improved through a large order for sub-machine guns from Britain. Although funds were insufficient for solving the problem of the shortage of ammunition, orders were placed for the first large batches of Finnish-made percussion fuses for mortar ammunition and the efficiency of the coastal artillery was improved by fitting the old guns with new barrels.<sup>239</sup>

Funds had already been set aside in 1951 for developing the air surveillance system,<sup>240</sup> and these together with the money apportioned under the Initial Programme enable a total of 30 radar devices of various kinds to be purchased in order to create the first national radar network. The purchase of fighter aircraft fell badly short of the target, however, as rising prices, procurement difficulties and the need to replace the training aircraft first meant that much less money was available for fighter purchases than had originally been planned. In the end 12 Folland Gnat fighters were acquired<sup>241</sup> in addition to the 15 De Havilland Vampires bought in 1953–56, the latter being regarded as more suitable for use primarily as jet trainers.<sup>242</sup>

In 1955 the Navy put forward a shipbuilding programme aimed at acquiring two minelayers, four patrol vessels, 16 fast patrol boats, 16 patrol boats and 12 transport vessels. Some of these were included in the Initial Programme and the first procurements were set in motion immediately. Since the programme enabled the first ships to be ordered from Finland, a shopping list was drawn up consisting of a minelayer, six minesweepers and a transport vessel, in addition



to which two fast patrol boats were ordered from Britain. A few hundred sea mines were also produced for naval use.<sup>243</sup>

The ammunition issue posed a major problem, as the wartime stocks had been used up over the subsequent decade. Thus a report produced in 1956 claimed that stocks of ammunition for field guns and mortars amounted to only 10–20% of the estimated consumption over six months at standard ammunition rates during a war. Nor was the situation regarding small arms ammunition any better, and a large proportion of the ammunition in stock was in need of servicing before it could be used.<sup>244</sup>

### 8.3. The Emergency Programme

The aim of the Emergency Programme, inaugurated at the same time as the last orders were placed under the Initial Programme in 1957, was to equip the Defence Forces to the extent that Finland could meet her responsibilities under international agreements and maintain a defensive stand for the few months required to set the domestic armaments industry in motion and arrange to import essential items of equipment from abroad. The total value of this programme was around 40,000 mill. Finnish marks.<sup>245</sup>

This programme would have meant a substantial improvement in Finland's defence capabilities. The largest single purchase was to have been a fleet of 60 fighters, 20 advanced training aircraft and 47 primary training aircraft, as air surveillance remained a topic of emphasis in the programme.<sup>246</sup>

More than half of the approx. 26,000 mill. marks assigned to the ground forces was earmarked for ammunition. The weapons used in the war were evidently still reckoned to be in reasonable condition, as only 6000 mill. marks were set aside for actual weapons, chiefly infantry sub-machine guns and anti-tank weapons and new hardware for the anti-aircraft units. A total of 5000 mill. marks was planned for the replacement of outdated communications equipment.<sup>247</sup>

The shipbuilding aspect of the Emergency Programme comprised two corvettes, a minelayer, four escort vessels and nine fast motor gunboats. Defences were also to be strength by acquiring more than 2000 new sea mines and a few dozen torpedoes. The main expenditure on coastal defence was to be the reconditioning of the artillery pieces and strengthening of the fortifications.<sup>248</sup>

The general outlines for the first years of the Emergency Programme, 1957–1959, were approved by the Commander-in-Chief of the Defence Forces in 1956. This first phase, which partly overlapped with the Initial Programme, was based on the assumption that annual funding for basic purchases would be of the order of 4000 mill. marks.<sup>249</sup> The plan fell short of its target in the very first years, however, so that it was estimated that 20 years would be required for its completion.<sup>250</sup>

When the Commander-in-Chief of the Defence Forces ordered a revision of the Emergency Programme in 1960, the new target was the spending of a total of 60,000 mill. marks on the programme over the years 1961–70, primarily on improving the performance of the fast deployment forces. The lion's share of this sum was to go on ammunition. The emphasis in purchases for the army was to be on Finnish manufacturers, and additional anti-tank equipment and long-range field artillery guns were to be acquired in addition to modern small arms. The capacity of the Navy was to be enhanced by completing the shipbuilding programme approved in 1955, but the plan for the Air Force still fell far short of the Aircraft Committee recommendations. Efforts were to be made to purchase two squadrons of fighters and the three high-power radar devices needed to form the core of the new air surveillance system.<sup>251</sup>

A new milestone was reached in equipment purchases in 1959, when budgetary funds were used for the first time to acquire material from the Soviet Union. This was primarily a delivery of ammunition, raw materials for the munitions industry, engines for patrol boats, a reconnaissance aircraft, various vehicles and some main battle tanks.<sup>252</sup> Opportunities for still larger purchases opened up when the Soviet authorities announced that Finland could obtain commercial credit for the purchase of arms and military equipment.<sup>253</sup> Thus General Headquarters drew up its first list of such purchases in June 1958, to a total of 5,000 mill. marks, consisting of military equipment belonging to the Emergency Programme, largely radar devices and radio communications equipment for the air surveillance system. The intention was also to purchase a squadron of MIG-19 fighter aircraft for the further development of the air defences.<sup>254</sup>

The commercial credit obtained nevertheless turned out to be a good deal larger than had originally been planned, so that the total sum laid down in the agreement ratified in 1960 was 8,000 mill. marks and another credit two years later amounted to 12,000 mill. marks.<sup>255</sup>

The first consignment of equipment obtained on commercial credit was delivered more or less in the form in which the Commander-in-Chief of the Defence Forces has approved it in March 1960,<sup>256</sup> consisting, among other things, of main battle tanks, anti-aircraft tanks, small arms, a few transport helicopters and a second reconnaissance aircraft. It also led to a substantial improvement in the ammunition situation, as in addition to actual ammunition, it included almost 300 machines of various kinds that were needed in munitions manufacture. The Russians were not willing to sell surface-to-air missiles at this stage, however, in spite of the fact that they had preliminarily indicated in negotiations held early in 1960 that these would be available and had shown amazement at the Finns' desire to purchase anti-aircraft guns, which their military attaché referred to as "fireworks".<sup>257</sup> The planned high performance interceptors were not acquired at this stage, as the Soviet Union was unwilling to sell MIG-21 planes to Finland.<sup>258</sup>

In a decision in principle taken in December 1961 regarding commercial credit to be granted by the Soviet Union in 1962, the Defence Council placed the equipment to be purchased in order of importance, giving first place to air defence, second place to maritime defence and third place to the ground forces. The highest priority was assigned to fighter aircraft, 21 of which were to be purchased, the minimum number estimated to be necessary for the defence of Finland's neutrality. This would enable two squadrons to be formed for deployment in different parts of the country. Surface-to-air missiles were now in second place on the Defence Council's list, the minimum quantity being set at two batteries, sufficient to defend Helsinki and its surroundings, although it would be possible to obtain as many as seven batteries, depending on the price, whereupon protection could be provided for all the major cities of southern Finland. The number of missiles to be purchased for these batteries would be in the range 200–700.<sup>259</sup>

The Navy was to be supplied with powerful marine diesel engines to be installed in the Nuoli-class patrol boats to be built in Finland later, and also with two Riga-class frigates. Top priority on the ground forces' list was given to a set of 3–5 long-range artillery battalions with ammunition and adequate artillery tractors, main battle tanks and anti-aircraft tanks intended as support for these.<sup>260</sup>

The second part of the commercial credit was indeed used as planned for the 21 MIG-21 fighters, which the Soviet Union was

now willing to sell to Finland,<sup>261</sup> and for the frigates and diesel engines for the navy, while the level of armament of the ground forces was improved, especially through the acquisition of the first 130 mm long-range field artillery guns and of reconnaissance tanks and armoured personnel carriers.<sup>262</sup>

The most problematic part of the commercial credit deal turned out to be the surface-to-air missiles. The leaders of the Defence Forces had suggested to the newly elected President of Finland in December 1957 that a change should be made in the regulations in the Treaty of Paris with regard to missiles,<sup>263</sup> and that the Finnish government should apply to the other signatories for the prohibition on the possession of missiles to be rescinded. The issue had nevertheless dragged out into a complicated sequence of events typical of the logic of the Cold War, in which the major powers assessed the situation purely from the viewpoint of their own advantage. The West suspected that the sale of missiles was merely a means for the Soviet Union to commit Finland more closely than ever to cooperation with its eastern neighbour. This might lead in peacetime to a situation in which Russian military advisors were placed in Finland, while in the case of war the Soviet Union might well insist that the Finnish air defence system was linked with its own in order to improve the overall early warning capability, which the West estimated in the worst case to amount to almost 30 minutes.<sup>264</sup> The motives underlying the Soviet decision to allow this re-interpretation of the peace treaty have never been entirely explained, but it is clear that one aim was to increase military cooperation between the two countries. It is known, for example, that General Malin of the Soviet Army, when visiting Finland in 1957, stated categorically that President Kekkonen had been informed that the military clauses should be deleted from the Treaty of Paris because of Soviet military interests in Finland.<sup>265</sup>

Thus it was evidently not a question only of surface-to-air missiles, which would have a relatively short range, but of the whole air surveillance network, which Finland was in the process of improving by means of new high-power radar equipment bought from Britain.<sup>266</sup> This problem was a particularly embarrassing one for the British government, which was trying to reach a balance between the political and economic rationality of the deal and the potential threat posed by Finnish acquisition of such missiles. The British political leadership regarded the deal as politically and economically

advantageous, provided the Finns could also be induced to use British missiles. It would create new orders for the British arms industry and at the same time bind Finland to the Western alliance. Thus the deal was also in the interests of the United States, which had vowed to promote economic and political measures that would support Finnish independence from the Soviet Union.<sup>267</sup> After assessing the situation, the British government condescended to a change in the peace treaty, but the stand adopted by the Americans turned the whole matter upside down, as they were against any change on the grounds of the possibility of the Russians succeeding in pressurizing Finland into joining their air defence system in the event of a crisis. It may nevertheless have first and foremost been a question of the United States mistrusting Finnish foreign policy, for in the Western view the policy pursued by President Kekkonen, which he used from time to time as a lever to keep his party and himself in power, was already too strongly biased towards Moscow.<sup>268</sup>

The process of altering the peace treaty and acquiring missiles came to a dramatic conclusion in July 1962, when President Kekkonen called the whole thing off, as he deemed the military advantage to be gained from such missiles to be less substantial than the threat to Finland's neutrality that might ensue from the country drifting too far into the Western camp as a consequence of the arms deal.<sup>269</sup>

Although Britain agreed in October 1962 to a change in the provisions of the Treaty of Paris regarding missiles, none of these politically sensitive weapons were in fact bought for another 15 years.<sup>270</sup> Air-to-air missiles for the MIG fighters were bought from the Soviet Union, however, and so that the deal would not be a one-sided affair, Vigilant anti-tank missiles were acquired from Britain at the same time.

## 8.4. The Development Programme

While delivery was still being received of the material ordered under the commercial credit scheme, the Commander-in-Chief of the Defence Forces sent a new Development Programme (Kehittämisohjelma) to the Ministry of Defence to replace the Emergency Programme, even though this had only been in force for a few years. This new programme, described by him as a statement of the forces'

minimum requirements, had a total cost of 139,000 mill. Finnish marks, of which the largest sum, about 50,000 mill. would be spent on renewing the air defence system. The money would be used to purchase four squadrons of fighter aircraft, estimated to be the minimum required to safeguard Finland's neutrality and prevent incursions into the country's airspace. Air surveillance would be stepped up by acquiring high-power radar devices and about twenty target acquisition radars, and altogether nine batteries of surface-to-air missiles would be purchased to protect the main towns and cities.<sup>271</sup> In addition, the anti-aircraft capabilities of the field army would be modernized by investing 12,000 mill. marks in low-level anti-aircraft weapons.<sup>272</sup>

Of the figure of nearly 30,000 mill. marks available for improving the maritime defences, the majority would be devoted to implementing the recommendations of the shipbuilding programme committee, which had completed its work in spring 1962. The programme would be a continuation of the one that had been in force since 1955 with the aim of increasing the tonnage of the Navy to the maximum level allowed for in the Treaty of Paris.<sup>273</sup> The efficiency of the coastal artillery would be increased by supplying it with automatic gun batteries and anti-ship missiles. The Development Programme would also double the stocks of sea mines.<sup>274</sup>

The share of the army in this programme was to be about 40,000 mill. marks, the majority of which would be spent on improving the combat efficiency of the existing units. Only one new formation was to be established: a second armoured brigade for counter-attack operations. The main points of emphasis for the ground forces were to be modernization of their small arms, improvement of the long-range anti-tank system, modernization of the brigades' artillery regiments and the acquisition of long-range artillery pieces. Stocks of heavy ammunition and mines were to be raised to a level corresponding to about a month's wartime consumption.<sup>275</sup>

The remainder of the money, about 20,000 mill. marks, was to be spent on communications equipment, vehicles and maintenance and medical supplies, and also on improving the state of readiness of the armaments industry, with emphasis on increasing the capacity for manufacturing ammunition.<sup>276</sup>

## 8.5. What was achieved with these programmes?

It is very difficult to evaluate precisely how well the programmes were carried through, what was achieved by them or what their overall effect was, because of the rapid changes that took place in their duration and content. The Initial and Emergency Programmes partly overlapped, for instance, and the commercial credit granted by the Soviet Union and the new Development Programme sent the Emergency Programme into confusion before it had properly begun. We shall therefore consider the general trend in the arms and equipment situation without adhering rigidly to the acquisition programmes.

Considerable progress was made in questions of small arms and anti-tank weapons for the ground forces, the latter especially in terms of close and medium-range equipment. The purchases of small arms under the commercial credit scheme were followed by mass orders for Finnish-made assault rifles and light machine guns, which gained momentum in the mid-1960s. Similarly the recoilless rifles obtained from Finnish suppliers brought the ground forces' anti-tank capabilities up to a level that could at least be regarded as satisfactory. The question of long-range anti-tank capability remained unresolved, however, despite the acquisition of about forty Charioteer tanks from Britain, which were assigned to anti-tank battalions directly responsible to the supreme command.<sup>277</sup> The Vigilant missiles ordered from Britain and the SS-11 missiles ordered from France in 1964 existed in only small quantities, however, and the project to develop a light anti-tank vehicle in Finland came to an end without any orders being placed. Thus long-range anti-tank fire remained the province of the wartime German anti-tank artillery.<sup>278</sup>

Since the main battle tanks acquired from the Soviet Union were insufficient for setting up a second armoured brigade, they were used to replace the outdated equipment remaining from the Second World War. Thus in spite of the additional equipment obtained in the 1960's the founding of a second armoured brigade was postponed until the 1980s.<sup>279</sup>

The long-range capacity of the field artillery was improved, even though the commercial credit purchases enabled only a half of the target of 10 artillery battalions to be created. The brigade artillery renewal promised in the Development Programme began with the modernization of the Finnish howitzers, after which there was

enough modern equipment for ten artillery battalions. These renewals continued in the second half of the decade, when the first D-30 howitzers were ordered from the Soviet Union.<sup>280</sup>

The ground forces' ammunition situation improved considerably, so that where there had been enough ammunition in store for about two weeks' consumption on a war scale in 1960, the situation six years later was that most types of ammunition were held in amounts corresponding to about a month's requirements. The main shortages continued to be in mortars, anti-aircraft cannons and ammunition for the newer types of field gun.<sup>281</sup>

These purchases meant that the fast deployment troops, amounting to some 180,000 men in the early 1960s, were now satisfactorily armed, and they received the best and newest of the equipment available. The General Headquarters evaluation was that they were armed and equipped to an 80% level. Their greatest shortages concerned vehicles, particularly field gun tractors, and communications equipment. The situation for the troops making up the main force of about 250,000 men was not so good, and they were estimated to be only 60% armed and equipped. Their equipment was mostly older, and frequently not yet modernized, the greatest deficits being in hand weapons, communications equipment and personal equipment such as clothing, helmets and field accommodation equipment. In addition to the fast deployment forces and main force, a further 60,000 men had been assigned to troops for which no proper equipment was available other than an outdated personal rifle.<sup>282</sup>

It must also be admitted that the air defence programmes were never entirely completed. The Air Force had a total of 11 Gnat fighters and 21 MIG-21s at its disposal in 1964,<sup>283</sup> but no new fighters were acquired after that until the arrival of Draken planes from Sweden in the early 1970s to become the other main type of aircraft used. On the other hand, training aircraft—an essential requirement for any expansion of the Air Force—were obtained in sufficient numbers,<sup>284</sup> and the purchase of Fouga Magister planes from France and Saab Safir planes from Sweden resolved the question of training aircraft.<sup>285</sup> In spite of the modernization of the outdated anti-aircraft artillery and the purchase of new equipment from Switzerland, the refurbishment of anti-aircraft facilities was postponed until the 1970s, when the first surface-to-air missiles were obtained from the Soviet Union. The first large-scale purchases of anti-aircraft artillery



equipment from the Soviet Union also began in the late 1960s.

The Navy's shipbuilding programme was carried through moderately well, albeit with some delay. The majority of the vessels ordered under the programme approved in 1955 had been commissioned by the late 1960s.

Finally, it may be noted that the commencement of arms purchases from the Soviet Union altered the direction of trade in this sphere considerably. Concerning the period 1955–1962, we may observe that all the deals that took place before 1959 were concluded with Western countries or firms within Finland, whereas after that date the Soviet Union accounted for 60% of the total and Western countries for 40%. This later situation also prevailed in the years 1960–1967.<sup>286</sup>

## 9. Western estimates and plans regarding Finland

### 9.1. Estimates of Finland's desire and ability to defend herself against the Soviet Union

As shown in the chapters above, Finnish war plans were at least officially directed at coping with a potential NATO threat, but did such a threat really exist? What was the Western, and Swedish, view of the likelihood of a major war in the Nordic region of northern Europe? Was an attack on Finnish Lapland part of the operational plans for either NATO or the Norwegians? What view did the externally strictly neutral Swedes take of Finland, and what operational plans did they have with respect to this country? And how did the West look upon Finland's neutral position and the country's desire and ability to defend that position?

The Western intelligence organizations were constantly assessing Finland's position in the future struggle between the major political blocs, and pessimistic views were expressed regarding the country's future when the Cold War set in the late 1940s. The general conclusion was that a communist election victory and infiltration of the state administration, together with pressure from the Soviet Union, would inexorably mean that Finland would become a Soviet satellite and would align itself with its eastern neighbour in the event of an outbreak of war. It would then become an outpost for Soviet troops involved in an offensive against Norway and possibly Sweden.<sup>287</sup>

A threat assessment produced by the British in 1948 laid particular emphasis on northern Finland, maintaining that the Russians would carry out their onslaught against northern Norway, Finnmark and possibly northern Sweden by way of Finnish Lapland, and that these hostilities would be part of a broader scheme with the probable aim of capturing the Straits of Denmark in order to secure the Baltic Sea region, establishing a number of bases for future action against the sea routes between Europe and the United States and forming a front-line air defence system to pre-empt a US nuclear strike.<sup>288</sup>

It was envisaged that the Russians would carry out their offen-

sive in northern Norway by attacking through Finnish Lapland with one division while landing another division in the Narvik area. In the event of an operation directed at northern Sweden, two divisions would be dispatched to that area via the Tornio Valley.<sup>289</sup>

Examined from a defensive viewpoint, the situation was that the Soviet Union was expected to use Finland to some extent as part of its buffer zone, one indication of which was regarded as being the Control Commission directive that restricted deployment of the Finnish coastal artillery entirely to the area east of the Porkkala Peninsula. This incorporation of the coastal defences of southern Finland into the extensive protective zone constructed in front of Leningrad, to which the Porkkala base was regarded as belonging, could be seen as creating a powerful defence system for the city comparable to the Peter the Great marine fortifications during the First World War.<sup>290</sup>

A new estimate produced in 1949 detected an improvement in Finland's position, however. In spite of Soviet pressure and a certain measure of internal unrest, there had been no actual uprising or communist revolution. On the contrary, the electoral defeat of the communists was judged to have given the country more room for manoeuvring. All the evaluations laid great store by the internal situation in Finland, which was interpreted as reflecting a commitment to national defence.<sup>291</sup>

In their assessments of the danger of another world war, drawn up in the early 1950s, the United States and Britain regarded a separate war in northern Europe as unlikely. Any Soviet invasion in the north would merely be part of an operation directed against Central Europe, and no more than ten divisions could be expected to be deployed in the north of Scandinavia, eight of which would be used in an attack on Sweden, which could most conveniently be accomplished down the Tornio Valley, through Finnish territory, while one or two divisions would enter Norway over land. One attractive alternative for this would be a route through Finnish Lapland, where there were two roads leading into Norway, whereas there was no direct land connection between Soviet territory and northern Norway. It should also be noted that a rapid advance to the sea at Skibotn would have cut the Norwegians' lines of communication with their troops in the high north. Similarly, the Soviet Union could have used the Finnish railways for concentrating troops against Sweden, and this system was capable in theory of transporting and maintaining up to 18 divisions.<sup>292</sup>

The suitability of Finland as a springboard for an attack on NATO, together with the provisions of the Agreement of Friendship, Cooperation and Mutual Assistance, meant that Soviet demands in the event of war would have above all concerned free and safe passage through Finnish territory. In order to extend the war to the Gulf of Bothnia, the Russians would have had to make use of the ports on the west coast of Finland, as they would not have been able to demand access to Åland until just before the attack, so as not to arouse the Swedes' suspicions, and similarly, air operations would have necessitated use of all the airfields in northern Finland, at least. Would the Finns have acceded to these demands in a peaceable manner? The British view was that they would, provided the demands were restricted to the extreme north of the country, but if they had extended to the south, by including the airports of southern Finland, for instance, the Finns would probably not have acquiesced.<sup>293</sup>

The general assessment did not alter decisively during the 1950s. Finland would have served as a buffer zone and defence zone for the Soviet Union, and the role of northern Finland gained slowly in importance with the adoption of submarine-mounted intercontinental ballistic missiles in the Soviet nuclear triad. It was thus in Soviet interests to develop military cooperation, especially as far as air surveillance was concerned.<sup>294</sup>

The Swedes' view of Finland as a springboard for a Soviet offensive was very similar to that prevailing in Britain. A memorandum from the chief of the Swedish General Headquarters, Major-General Richard Åkerman, to the British Air Force attaché sheds some light on the prevailing opinions at that time. Any Soviet military action against Sweden would be part of a larger operation against NATO, and a separate war between Sweden and the Soviet Union was highly unlikely. If the Soviet army were to attack northern Sweden it would have two alternative approaches. It could either invade northern Norway first and then enter Sweden after preparing its passage through Finnish territory, or else it could commence operations against northern Sweden and northern Norway simultaneously. Finland was ill-equipped both politically and militarily to resist Soviet intentions and would be obliged to yield to Soviet pressure, if only on account of the Cooperation Agreement. And even if the Finns were to resist, it would only take a few days for the Russian troops to reach the Swedish frontier. They could well deploy up to twenty divisions against Sweden, although this would admit-

tedly require a month of preparations in Finland. One reason for this highly pessimistic evaluation of the situation as far as Finland was concerned was that its troops were restricted to the above-mentioned complement of 41,900 men under the Treaty of Paris and the Swedes—somewhat surprisingly—had not taken account of the Finnish mobilization system, or else they had assumed that the Soviet Union was capable of mounting a surprise attack.<sup>295</sup>

It was assumed that a Soviet attack on northern Sweden would be directed primarily over the border with Finland and that it might include at a later stage a landing from the Gulf of Bothnia in the rear of the Swedish troops defending northern Norrland, or alternatively a large-scale airborne operation.<sup>296</sup>

The Americans were of the same opinion as the British and Swedish commentators regarding the ability of the Finnish Defence Forces to repel a Soviet invasion. Having been purged of communists, these forces were evidently capable of dealing with internal threats, but their capacity would not suffice against a Soviet attack. If the Soviet Union were to take Finland it would become embroiled in at least some measure of guerrilla warfare, and thus it could not be expected to mount any form of offensive purely against Finland, as the disadvantages would outweigh the advantages.<sup>297</sup>

The Soviet interference in Finland's internal affairs during the Night Frost crisis of 1958 and the Note Crisis three years later inspired a set of new estimates of the Finnish position. The latter event in particular had direct repercussions in the form of Finnish purchases of military equipment from the West, as described in the chapter on arms and equipment above. These crises were estimated in the West to have detracted from Finland's political and military room for manoeuvres after a period with a more relaxed atmosphere in the 1950s during which the country had become a member of both the United Nations and the Nordic Council. Incorporation in the Soviet sphere of influence would naturally have been an undesirable thing for Finland in a military sense, but what concrete value could it have been to the Soviet Union?

In its review of the Finnish armed forces in the immediate wake of the Note Crisis, the British Joint Intelligence Committee estimated that the clearest advantage to the Soviet Union would have been the integration of Finnish air surveillance into the Soviet air defence system. It was deemed unlikely that any land bases would be set up, as the political benefit would be less than the military benefit. The

committee commented most bitterly, however, on the arms deals that had begun in 1960, maintaining that these could enable the Soviet Union to bind the Finnish Defence Forces more closely to its own advisory and spare part systems. In accordance with the logic of the Cold War, the arms deals were regarded as one of the most alarming manifestations of communist subversion. Western intelligence was apparently quite unable to appreciate that the arms could just as well be deployed against their manufacturer, for such an idea was contrary to the Cold War thinking that "he who is not for us is against us".

## 9.2. Reconnaissance and nuclear war in Finnmark–Norwegian plans

The sparsely populated areas of northern Norway gained greatly in importance in the early 1950s, as the Kola Peninsula gradually acquired a more prominent role in the Soviet strategy. Plans for the deployment of ground forces drawn up as early as 1949 had assigned half a brigade to this area in the north, and it became obvious later that it was essential to station adequate troops there even under peacetime conditions. Thus a brigade was eventually assigned to Finnmark and reached operational strength in June 1953. This meant in practice that the force of 5000 men in the region was at the highest level of readiness of any troops in the whole of Norway.<sup>298</sup>

Northern Finland was naturally an area of the greatest significance for the defence of northern Norway, as the best roads leading to the latter region from the Soviet Union passed through Finnish Lapland. Thus Finland and its political and military relations with the Soviet Union were crucial considerations in Norwegian threat scenarios from the very onset of the Cold War.<sup>299</sup>

As the Norwegian threat scenario specifically involved an overland attack by Soviet troops on northern Norway—in that the Russians, true to their doctrine, were assumed to take the offensive in any war situation—Norwegian intelligence was concentrated principally on the Kola Peninsula. Prior to the construction of an extensive electronic surveillance system in northern Norway, this intelligence had mainly been gathered by means of patrols or reconnaissance aircraft, with the Norwegian intelligence service sending out former Finnish long-distance patrol men with the silent approval of the

Finnish authorities to monitor the situation not only on the Kola Peninsula but also at the Alakurtti air base and the Stalin Canal.<sup>300</sup>

As Norway was the only NATO country having a common boundary with the Soviet Union, and as the Kola Peninsula had grown in importance with the build-up of the Soviet northern Fleet there, the area was an especially interesting one from an intelligence point of view. This meant that the United States became interested in closer intelligence collaboration in the early 1950s, a situation that was made official with the signing of the NORUSA agreement in December 1954. This collaboration was not restricted to intelligence on Norwegian soil, however, but also involved the use of intelligence trawlers on the Barents Sea and reconnaissance flights from Norwegian air bases. The best concrete example of the latter was the celebrated U-2 reconnaissance plane shot down near Sverdlovsk on May 1<sup>st</sup> 1960, which had set out from Pakistan and was due to land at the Bodø airfield in Norway.<sup>301</sup>

Finnmark also occupied a ringside seat when it came to electronic intelligence methods, as it was possible from there to acquire information on both the movements of the Soviet northern Fleet and the activities of the ground forces deployed on the Kola Peninsula. This convenient location was exploited to the full for intelligence purposes, as the Norwegians built no less than six receiving stations to monitor different areas of the electromagnetic spectrum on the strip of land between Finland and the Arctic Ocean.<sup>302</sup>

Although the Norwegians made no preparations for conventional warfare in Finnish territory, they did have plans to operate there. Preparations were made in the early 1950s to send intelligence patrols and groups capable of guerrilla warfare into Finnish Lapland, with instructions to blow up bridges on the main roads through Lapland. Similarly, in order to gain information on later deployments of Soviet troops, lookout posts were to be set up for observing Soviet convoys entering Finland.<sup>303</sup>

These plans were retained until the early 1960s at least and the basic idea behind them remained the same. The reconnaissance and sabotage parties would begin gathering intelligence as soon as they had reached their stations, but would do so at full intensity only after receiving separate orders to this effect. The primary aim was to locate the Soviet nuclear weapon launching pads and anti-aircraft batteries, on the assumption that the Soviet Union would use short-range nuclear weapons, or at least prepare to use them, from the begin-

ning of any new war. It was the intention of the Norwegians to enlist Finns to help them in acquiring such information.<sup>304</sup>

The Norwegians planned to use their ground forces located in northern Norway in a defensive capacity. As far as the terrain was concerned, the line of the River Lyngen north of Tromsø was a suitable level for mounting a defence even against a threat from the direction of Finland, as the route through Kilpisjärvi in Finland naturally led to Skibotn, which was north of Lyngen on the Norwegian coast. This idea was also supported by the fact that the Germans had established a major defence line at that point at the end of the Second World War. Thus the NATO Medium-Term Defence Plan in the early 1950s had been based on arresting any Soviet invasion at the level of Lyngen, and the situation remained the same up to the early 1960s.<sup>305</sup>

It is thus clear that the Norwegians had no plans for ground force penetration into Finnish territory other than for the use of guerrilla and reconnaissance patrols against Soviet communications. The reason for this lay partly in the resources available, as NATO had scarcely any resources for strengthening the Norwegian defences in terms of conventional forces during the 1950s and early 1960s, and although high priority was assigned to Norway in the plans for an Allied Command Europe Mobile Force to be created in 1960 to strengthen the NATO flanks, no useful military purpose could have been served by such an incursion. Indeed these reinforcements amounting to a brigade or so would have been largely symbolic relative to the firepower of the Soviet divisions. NATO activity on the northern front began to achieve concrete proportions only around the mid-1960s, when the Express exercises were first held in northern Norway,<sup>306</sup> and the days of the major reinforcements earmarked for the defence of Norway, such as the American II Marine Expeditionary Force, were still far away in the future, in the 1980s.<sup>307</sup>

A more aggressive approach was adopted in the case of the Air Force. The Norwegians had already developed some of their air bases to meet the needs of the American Strategic Air Command in the early 1950s, and a detachment from the 3<sup>rd</sup> US Air Force stationed in Britain, to be known as the 3<sup>rd</sup> Air Force Task Force North, was ordered in 1956 to make preparations for action on Norwegian territory, centred on the Bodø base, in the event of an outbreak of war. These troops were also to be capable of receiving and storing NATO nuclear weapons in a crisis situation, as the Norwegians had refused



to do so in peacetime. The Norwegian Air Force also prepared itself for supporting nuclear strikes, and some of its fighter-bomber pilots underwent training for missions on which nuclear weapons were to be carried. The main tasks of the Air Force detachments stationed in northern Norway were nevertheless to provide air support for nuclear strikes. The reconnaissance squadrons would be used to locate the target of each raid and assess the impact, and the fighter squadrons would engage and saturate the Soviet air defences with conventional weapons. The majority of the targets were in the Soviet Union, but operation within Finland was also considered a possibility if the Soviet troops were to use the country or any part of it as a base.<sup>308</sup>

### 9.3. Swedish plans

Sweden had succeeded in remaining outside the Second World War by adopting a realist policy of adaptation to the prevailing military and political situation, and had then declared itself non-aligned at the end of war, although in practise its economic and political interests lay with the West. Since its only perceived threat was felt to be an ideologically aggressive Soviet Union, its military planning was aimed first and foremost at countering that threat. Thus the new round of operational planning initiated by the Swedish Military Headquarters after the war had two alternative points of departure: II-war with the Soviet Union, and III-war with the United States and Britain,<sup>309</sup> of which the latter was regarded as highly improbable, as first Britain and later the United States had attempted to persuade the Swedes into the closest possible cooperation with the West.<sup>310</sup>

Alternative II comprised three separate scenarios. In scenario II S the main threat was to southern Sweden, so that the majority of the armed forces, four divisions and two armoured brigades, would be concentrated in that area, while under II C it was assumed that the main enemy targets, and therefore the main emphasis in defence, would be in Central Sweden, around Stockholm.<sup>311</sup> The third scenario, II N, envisaged a Russian attack in the north, through Finland, whereupon it would be necessary to station an army corps of four divisions in northern Sweden rather than the two divisions assigned to that area in the first two scenarios. It was estimated that formation of these troops and their assembly and transfer to the north would take about a month.<sup>312</sup>

The purpose of the army stationed in the north was to repel an enemy attack either at a point on the River Kalix, about 30 km from the Finnish border, or a point further back, on the line Luleå–Boden, about 80 km from the Finnish border. If the army was forced to retreat in the face of an overwhelming force it would have two routes open to it, the road along the coast, or if there was a danger of an enemy landing to cut off this route, the inland road network. The aim then would be to create the best possible conditions for a counter-attack by the reserves under the Commander-in-Chief in Central Sweden.<sup>313</sup>

These defence plans were supplemented in 1958 with a fourth scenario. The starting point for scenario II SN was a double-headed attack by Soviet forces from the north and south simultaneously.<sup>314</sup> This state of affairs corresponded fairly well to the Western theory that the Soviet Union would seek to capture Denmark and northern Norway and would then begin a new phase in its hostilities with a bid to occupy Sweden and Norway. The plan for the defence of Sweden against such an attack entailed the concentration of six brigades in the north of Sweden and 12 in the south.<sup>315</sup>

In a revision of the defence plans that began early in 1962, an operation order from the Commander in Chief (ÖB Opo 1967) would in all threat situations lead to the concentration of six brigades and three armoured battalions on the Finnish border, i.e. the quantity of troops marshalled there would not differ appreciably from that allowed for in the 1958 plans. The interesting thing about the new order from the Finnish point of view was that the areas of responsibility for the Swedish defence regions were extended beyond the country's borders, so that southern Finland was regarded as belonging to the defence region responsible for Stockholm and Central Sweden (Milo Ö) and Central and northern Finland to the region responsible for northern Sweden (Milo ÖN). In practise this was a matter of intelligence and air operations. Early warnings were of crucial importance to the Swedes, as the formation and grouping of troops for service in northern Sweden in particular would need a certain amount of preparation time. One estimate produced at the time of the Note Crisis of 1961 was that the Russians would in the worst case be able to prepare a major attack in Finland with 20 divisions in about a month by taking advantage of the Cooperation Agreement.<sup>316</sup> Apart from electronic methods and the use of a spy network, the Swedes would attempt to acquire information by sending intelligence units to Finland. Jaeger battalions would be respon-

sible for this in the area immediately adjacent to the border, and special parachute troops, suitable for long-range reconnaissance, dropped from civilian or military aircraft partly prior to the outbreak of hostilities,<sup>317</sup> would be used further into Finnish territory, particularly to observe major traffic junctions in order to assess the strength of the Soviet contingents.

Apart from intelligence activities, the Swedish ground forces evidently had no plans for operating against troops present on Finnish soil, but the Swedish Air Force had a more aggressive outlook, largely by virtue of the substantial expansion of its capacity during the 1950s, when it took delivery of more than a thousand first-class fighter aircraft produced by the country's own aircraft industry.<sup>318</sup> Thus two out of the five groups (*eskader*) were assigned duties in Finnish airspace in the early 1950s. The 3<sup>rd</sup> *Eskader* was to operate against airfields and ground troops in southwestern Finland and the 5<sup>th</sup> *Eskader* was to make fighter sweeps across the northwestern part of the country and attacks on air bases and missile bases.<sup>319</sup>

The situation altered very little in the course of the 1950s, although the number of groups was reduced to four. The 3<sup>rd</sup> *Eskader* was still to have operated against targets in southwestern Finland and the Åland Islands and the principal duties of the 4<sup>th</sup> *Eskader* now included attacks on Finnish territory and aerial reconnaissance over an area extending as far as the line Porkkala–Tallinn.<sup>320</sup>

The Swedes, like the Finns, employed war games in an attempt to simulate the use of nuclear weapons, but one significant difference in their thinking relative to the Finns was that they repeatedly assumed that they would have access to NATO nuclear warheads and would be able to use these on targets within Finland.<sup>321</sup> Similarly the plans—or rather visions—of having nuclear weapons of their own apparently impinged on Finland, in that a broad-based feasibility study carried out in the early 1960s in which it was assumed that the country had about 100 twenty kiloton nuclear devices at its disposal came to the conclusion that these could be deployed with the maximum advantage against a Soviet invasion fleet while it was still in port, or else against the invading troops while they were concentrated in a narrow bridgehead area. A corresponding situation was envisaged if an aggressor were to attempt to break through the Swedish defences in the Tornio Valley. Although it was considered unlikely that the attacking force could be destroyed with nuclear weapons, a good deal of effect could be had on its supply lines.<sup>322</sup>

## 10. Conclusions

Where a conflict with the Soviet Union had been the starting point for Finnish defence planning prior to the Second World War, the outcome of that war reshaped the country's military policy entirely, and this had a direct effect on defence planning. The overall guidelines for Finland's post-war defensive position laid down by the Defence Revision Committee, was based on the possibility of the country becoming involved in an East–West conflict in which the Western Allies might extend their military operations into Finnish territory. A war with the Soviet Union was regarded as unlikely on account of the Agreement of Friendship, Cooperation and Mutual Assistance concluded between the two countries in 1948.

Operational planning was suspended in 1945–1948 because General Headquarters wished to avoid differences of interpretation with the Allied Control Commission appointed to supervise the terms of the Armistice Agreement, and it was only once the Paris Peace Treaty had been signed and the commission had left the country that President Paasikivi authorized the Defence Forces to recommence operational planning and preparations for mobilization.

By the time the Revision Committee submitted its report in 1949 the Operations Division at General Headquarters, which had taken charge of operational planning, had gathered together the necessary material on which to base the threat scenario for such a plan. This scenario, which was consistent with the spirit of both the Cooperation Agreement and the committee's report, consisted of three alternatives:

- A. An attack on Finland from northern Norway.
- B. Simultaneous attacks on Finland from northern Norway and the Baltic Sea, an assumption based on the idea of NATO success on its northern front that had opened the way for naval operations in the northern Baltic, with the consequence that these might extend to Finland in the form of landings on the south and south-west coasts.
- C. Given that one point of departure for alternatives A and B had been Sweden's continued neutrality, it was assumed in alternative C that Sweden had joined the Western alliance against the Soviet Union and that as a direct consequence

of this, there was a threat of invasion on the land boundary with Sweden and by sea over the Gulf of Bothnia.

The first operational plan, for the "auxiliary complement" permitted under the Treaty of Paris, was drawn up in 1950 and implied an increase in the strength of the Defence Forces to 41,900 men, the maximum laid down in the treaty. The plan defined the principle tasks of such a force as being:

- to guarantee Finnish neutrality
- to protect selected targets and installations, and
- to carry out limited military operations.

Since the troops defined in this complement were insufficient to defend the whole territory of Finland, a further mobilization would have to be undertaken for this purpose. This was quite possible to accomplish, as the conscription produced a reserve of tens of thousands of men each year. Preparations for mobilization entailed a legality problem, of course, as in the spirit of the Treaty of Paris the Finnish Defence Forces were supposed to be capable only of local military operations. The Finns nevertheless interpreted the situation as being that the provisions of the treaty would automatically cease to be binding should the country become the object of an enemy attack. This view gained support from the UN Charter, which guaranteed every state the right to defend its sovereignty. Since this was a question of interpretation, however, information on such preparations was scarcely ever communicated beyond the confines of the Defence Forces themselves, an application of the extreme confidentiality that was typical of operational preparations at that period in time.

The first defence plan to cover the whole country, drawn up in 1951–1952, allowed for its defences to be organized on a regional basis. Finland was divided into four areas of responsibility, each under a commander who was responsible for all defence preparations in his area. In practise, however, this regional principle was not implemented entirely, as the military provinces and military districts responsible for mobilization were still subordinate to General Headquarters.

Altogether the Defence Forces had four levels of readiness, a basic level and three higher levels to which they could be raised progressively according to the perceived threat:

- peacetime forces
- auxiliary complement (41,900 men)

- fast deployment force (320,000 men)
- wartime complement (500,000 men)

The plan envisaged operations as dependent on a series of consecutive defence zones, the number and density of which varied from one region to another. In the sparsely populated areas of the north there were vast tracts of wilderness between the zones, whereas in the core area in the south, where any loss of territory could have had direct repercussions for the defence of the whole country, the zones were only a few tens of kilometres apart. The plan stressed the commencement of resistance immediately from the national boundary, and also placed emphasis on active guerrilla tactics in the areas between the defence zones.

The retraction of the Soviet troops from the Porkkala Peninsula, the gaining of full membership of the United Nations and admission to the Nordic Council strengthened Finland's political position considerably and enabled very much more emphasis to be laid on neutrality. Thus neutrality became the hallmark of Finnish foreign policy, and this was reflected in the Defence Forces' operational planning, perhaps the most concrete example being the inclusion of separate neutrality surveillance troops in the Defence Force complement in 1956.

The second round of defence planning began after the restoration of the Porkkala area. The plans adopted at the end of 1957 and beginning of 1958 did not differ from the previous ones in any decisive sense, and they had still been drawn up very much in the spirit of the Agreement of Friendship, Cooperation and Mutual Assistance, but the threat scenarios on which they were based had been constantly updated throughout the decade. The concept of extensive NATO ground operations in Finland gradually faded as more realistic estimates of that organization's resources became available, and by the end of the decade it had begun to appear probable that the Soviet Union would be a more active party to any conflict that NATO as far as northern Europe was concerned.

Thus a serious discrepancy began to emerge between the realistic threat scenario and actual operational planning by the late 1950s, and it became necessary to revise the plans in a broader political context. The point of departure for this was still compliance with the provisions of the Agreement of Friendship, Cooperation and Mutual Assistance, however, as the military leadership, with its suspicions of the military and political motives of the Soviet Union, was required

to pay due attention to political realities. It still had to be able to convince the Soviet Union that Finland was prepared to meet its political obligations without Soviet assistance, for any closer military cooperation with that country would have immediately shattered its emerging image of neutrality, with disastrous consequences both politically and economically.

From the late 1950s onwards the defence plans began to take note of the threat posed by the Soviet Union, so that although they were primarily geared towards fulfilling Finland's obligations under the Agreement of Friendship, Cooperation and Mutual Assistance, they also contained elements that were directed against a threat from the east. These took numerous forms. Plans were laid, for instance, for making use of the defence line that had been created on the eastern boundary during the Second World War, and the majority of the reserve troops placed under direct General Headquarters command were formed in the command responsible for the eastern border, so that by the end of the decade the tasks which these troops were to be prepared to discharge included defence of the border. It should be remembered, however, that there were certain areas, such as Helsinki and the Åland Islands, that the Defence Forces were to be prepared to defend in all situations, no matter whether the threat came from the east or from the west.

The role of the Frontier Guard, an institution subordinate to the Ministry of the Interior rather than the Ministry of Defence, within the fast deployment forces intended to protect full wartime mobilization activities was increased significantly in the 1960s by raising the strength of the troops to be formed in that category and making a purposeful effort to develop their military capabilities. The reason for this was the change in the perceived threat, for the points of departure for the evaluation procedure were no longer exclusively questions of political expediency but also extended to military performance. The crucial question was for whom it would be a realistic proposition to attack Finland, and the Operations Division at General Headquarters came to the conclusion that the Soviet Union had the greatest likelihood of doing so. This assessment was based most of all on the level of Soviet rearmament and its capacity for mounting an attack with its existing peacetime forces. It was for this reason that the most prominent threat scenario became that of a surprise attack from the east.

The first significant step towards suppressing any potential sur-

prise attack was to develop Finland's military capability, a process that began to take on new forms. New standing troops were created on the cadre principle, so that they would be available quickly for their first operational assignments, including protection of sites of national importance—in other words the principal targets for a surprise attack. These standing forces were to be ready to go into action at six hours' notice and were to reach their full wartime complement, with reinforcements from the reserves, within 36 hours. In addition, more determined efforts than ever were made to develop the dispersed territorial regional defence system.

The most tangible and durable response to the threat of a surprise attack was the development of a comprehensive local defence system alongside the dispersed mobilization system. This work was still in its early stages when the peacetime defence complement was revised in 1966, but local defence and guerrilla warfare as its central component were to become integral parts of the defence system in future decades.

The new territorial defence system fitted in well with contemporary requirements, both politically and military, and as a system that covered the whole country it provided excellent support for a policy of neutrality that was not obviously directed against anyone in particular but was designed to keep Finland out of any conflict between the world powers.

## Notes

- <sup>1</sup> See Pekka Visuri, *Evolution of the Finnish Military Doctrine* (Helsinki: 1990); Pertti Salminen, *Puolueettomuuden nimeen. Sotilasjohto Kekkosen linjalla ja sen sivussa 1961–1966* (Helsinki, 1995), including an English summary); Pekka Visuri, *Puolustusvoimat kylmässä sodassa. Suomen puolustuspolitiikka vuosina 1945–1961* (Juva: 1994); Thomas Ries, *Cold Will. The Defence of Finland* (London: Brassey's, 1988).
- <sup>2</sup> Interview with Colonel T. Olavi Lehti, 11.3.2005; interview with Major-General Juhani Ruutu, 1.12.2005. Material in the authors' possession.
- <sup>3</sup> Interview with Lt.-General Sakari Annala, 9.2.2006. Material in the authors' possession.
- <sup>4</sup> PvPE:n asiak nro 28/Op.1/OT/11 sal/9.2.1951, Järjestelyosaston järjestelytoimiston järjestämätöntä arkistoa (Unorganized archives of the Mobilization Bureau), SArk (Sota-arkisto, Military Archives).
- <sup>5</sup> Matti Lukkari, *Lauri Sutela. Puolustusvoimain komentaja* (Helsinki: Otava, 2003), 127–129.



- <sup>6</sup> Vilho Tervasmäki, *Puolustushallinto sodan ja rauhan aikana 1939–1978* (Hämeenlinna: Arvi Karisto, 1978), 251–253.
- <sup>7</sup> Jari Leskinen & Pekka Silvast, *Suljettu Aika. Porkkala Neuvostoliiton sotilaallisena tukikohtana vuosina 1944–1956* (Helsinki: WSOY, 2001), 71–75, 108 ja 325.
- <sup>8</sup> Demilitarisoiselimen neuvottelupöytäkirja numero 7 (Minutes of the Demilitarization Board, No 7), 28.9.1945, T 23700, SARk.
- <sup>9</sup> Puolustusneuvoston asiak nro 48/Da/9.10.1959, T 26965/F 11 sal, SARk. See also Erik Wihtol, 'Merivoimat valvontakomission kynsissä' in *Sotahistoriallinen Aikakauskirja 16* (Jyväskylä: Gummerus Kirjapaino Oy, 1997), 139 and Niilo Lappalainen, *Aselevon jälkeen* (Juva: WSOY, 1997), 244–245.
- <sup>10</sup> *Suomen asetuskokoelman sopinnussarja ulkovaltojen kanssa tehdyt sopinukset 20/1947, Treaty of Peace with Finland.*
- <sup>11</sup> Pekka Visuri, *Puolustusvoimat kylmässä sodassa. Suomen puolustuspolitiikka vuosina 1945–1961* (Juva: WSOY, 1994), 50–52.
- <sup>12</sup> Pekka Visuri, 'Valvontakomission vaikutus Suomen sotilaspolitiikkaan' in *Sotahistoriallinen Aikakauskirja 16* (Jyväskylä: Gummerus, 1997), 59. See also Jukka Nevakivi, *Zdanov Suomessa* (Keuruu: Otava, 1994), 85–86.
- <sup>13</sup> Matti Lukkari, *Asekätkentä* (Helsinki: Otava, 1984), 30–32, 63.
- <sup>14</sup> Ohto Manninen, 'Välirauhansopimuksen valvonta' in *Sotahistoriallinen Aikakauskirja 16* (Jyväskylä: Gummerus, 1997), 55–56.
- <sup>15</sup> Mr Scott to Mr Bevin, 5 April 1948, FO 473/002, The National Archives (TNA).
- <sup>16</sup> J.K. Paasikiven päiväkirjat 1944–1956, *Ensimmäinen osa*. ed. Yrjö Blomstedt and Matti Klinge (Juva: WSOY, 1985), 592–593, and notes by General Sihvo, the Commander-in-Chief, 5–9.4.1948, T 21645/3, SARk.
- <sup>17</sup> Thomas Ries, *Cold Will. The Defence of Finland*, 233–234.
- <sup>18</sup> Central Intelligence Agency, National Intelligence Estimate number 11-7-55, 23 June 1955, 'Soviet Gross Capabilities for Attacks on the US and Key Overseas Installations and Forces through 1 July 1958', Digital Security Archives.
- <sup>19</sup> Joint Intelligence Committee, 22 September 1955, 'Weekly Summary of Current Intelligence as of 22 Sept 1955', CAB 158/19, TNA.
- <sup>20</sup> Major-General Pertti Salminen, Dr.Pol.Sc., suggests in his doctoral thesis of 1995 that the Soviet desire to increase cooperation with Finland was of greater importance than internal policy reasons. The diplomatic note was merely the first stage in a series of Soviet approaches to Finland. Dr. Hannu Rautkallio holds a different view, according to which President Kekkonen had agreed with the Soviet Union beforehand on the note as a means of ensuring his re-election in 1962. Cf. Pertti Salminen, *Puolueettomuuden nimeen. Sotilasjohto Kekkonen linjalla ja sen sivussa 1961–1966* (Helsinki: Suomen Mies, 1995), 97–98, and Hannu Rautkallio, *Novosibirskin lavastus* (Jyväskylä: Gummerus, 1992), 136–139.
- <sup>21</sup> Salminen, 129.
- <sup>22</sup> Aimo Pajunen, 'Maanpuolustuksen perusteet ja johto' in *Suomen turvallisuuspolitiikan käsikirja* (Helsinki: Valtion Painatuskeskus, 1982), 96.
- <sup>23</sup> Kari Selén, *Mannerheim ja hänen puolustusneuvostonsa 1931–1939* (Keuruu: Otava, 1980), 20–22

- <sup>24</sup> Vilho Tervasmäki, *Puolustushallinto sodan ja rauhan aikana 1939–1978*, 314–315 ja Puolustusvoimain komentajan kirje (a note by the Commander-in-Chief to the President of Finland) 6/Op.1/10 a sal/18.1.1951 Tasavallan Presidentille, T 26965/F 4 sal, SARk.
- <sup>25</sup> Suomen Asetuskokoelma vuodelta 1957, *Asetus Puolustusneuvostosta*, 21.3.1957.
- <sup>26</sup> *Upseerin käsikirja, osa III Joukkoja varten* (Topografikunta, 1953), 10–11. The Frontier Guard, which would have been incorporated into the Defence Forces under mobilization, had altered its composition in 1947 from that based on border Jaeger regiments to a system of four border districts, see Ilmari Kirjavainen, 'Rajavartiolaitos 1944 – 1969' in *Rajavartiolaitos 1919–1969* (Mikkeli: Länsi-Savon Kirjapaino, 1969), 350–355.
- <sup>27</sup> See *Suomen puolustusvoimat ennen ja nyt*. Ed. Keijo Mikola, Vilho Tervasmäki and V. Salokangas (Porvoo: WSOY, 1959), 278, and *Suomen puolustusvoimat ennen ja nyt*. Ed. Keijo Mikola, Vilho Tervasmäki and V. Salokangas (Porvoo: WSOY, 1964), 280.
- <sup>28</sup> Osmo Jussila, Seppo Hentilä & Jukka Nevakivi, *Suomen poliittinen historia 1809–1995* (Juva: WSOY, 1995), 208–209.
- <sup>29</sup> Ulla Riutta, *Sodan arvet* (Jyväskylä: Atena Kustannus Oy, 2002), 11. Cf. Irmeli Hännikäinen, *Suomalainen veteraani. Tutkimus vuosien 1939–1945 sotavammaisten ja muiden sotaveteraanien elinoloista ja niihin vaikuttamisesta yhteiskunnan sääätelytoiminnan avulla* (Helsinki: Helsingin yliopiston monistuspalvelu, 1982), 1–2. Hännikäinen maintains that there were only about 70 000 war invalids.
- <sup>30</sup> The total costs of the war have been estimated at about 95,000 million Finnish marks, most of which naturally arose during the war years themselves, although the costs in the years 1945–1952 are reckoned to have been some 14,000 million marks at the 1938 currency value. See Ilkka Nummela, 'Toisen maailmansodan kustannukset Suomelle' in *Sotataloustietoutta V* (Pieksämäki: Kirjapaino Raamattutalo, 1995), 71–75.
- <sup>31</sup> Note that the total sum is quoted in Finnish marks prior to the monetary reform of 1963. Due to frequent devaluations of the Finnish currency, it is relatively hard to estimate the real value of the defence budgets. In order to provide a point of comparison for international readers, however, the mean exchange rates with the US Dollar are given below:
- |           |   |
|-----------|---|
| 1944–1947 | 1 \$ = 44,94 FIM                                |
| 1948      | 1 \$ = 136 FIM                                  |
| 1949      | 1 \$ = 168 FIM                                  |
| 1950–1956 | 1 \$ = 231 FIM                                  |
| 1957      | 1 \$ = 257 FIM                                  |
| 1958–1962 | 1 \$ = 320–322 FIM                              |
| 1963–1966 | 1 \$ = 3,22 FIM (note the monetary reform 1963) |
- <sup>32</sup> Tervasmäki, 308 ja 384. See also Kyösti Kosonen, 'Puolustusvoimien määrärahat ja niiden kehittyminen' in *Sotataloustietoutta* (Pieksämäki: Raamattutalo, 1987), 27.
- <sup>33</sup> An effort is made here to chose as rough and simple a division as possible, which corresponds to that used by the Operations Division at General Head-

- quarters, see its unnumbered memorandum of 11.11.1960, T 26965/Hh 10 sal, SArk.
- 34 Iivari Leiviskä, *Suomen Maantieto*, (Porvoo: WSOY, 1957), 35.
- 35 Ilkka Halonen, 'Suurvaltojen maavoimien nykyiset hyökkäysdoktriinit ja niiden soveltuvuus oloihimme' in *Tiede ja Ase* (Mikkeli: Länsi-Savon Kirjapaino, 1966), 41–42.
- 36 Reino Arimo, *Suomen linnoittamisen historia* (Keuruu: Otava, 1981), 381–389.
- 37 On Soviet plans regarding the narrowest point in the territory of Finland, see Ohto Manninen, *The Soviet Plans for the North Western Operations in 1939–1944* (Helsinki: Edita, 2004), 14–17.
- 38 Markki Iskanius, *Suomen kuljetusjärjestelmän kehitys toisen maailmansodan aikana – siviili- ja sotilasviranomaiset kuljetusten johtajina* (Helsinki: Edita, 2003), 310–311. Freight transport figures for the Finnish railways varied in the range 14–19 mill. tonnes during the years 1946–1963. See *Suomen virallinen tilasto, Rautatietilasto vuodelta 1963* (Helsinki: 1965), 10–11.
- 39 Numeroimaton esitys puolustusneuvostolle harjoituskonetilanteesta (Unregistered lecture to the Defence Council on the modernization of training aircraft), 16.5.1958, T 24727/Da 1, SArk.
- 40 *Suomen meteorologinen vuosikirja, osa 1, 1959* (Helsinki: 1965) and *Suomen meteorologinen vuosikirja, osa 1 a–1960* (Helsinki: 1962).
- 41 PM:n asiak nro 2810/Op.1/5.d.sal/4.9.1944, T 15707/12, SArk.
- 42 III AKE:n asiak nro 2989/III/3b.sal/5.9.1944, T 15706/9; III AKE:n asiak nro 3037/III/3b.sal/8.9.1944, T 15706/9 ja PM:n asiak nro 2928/Op.1/5.d.sal./10.9.1944. T 15707/12, SArk.
- 43 PM:n asiak nro 3070/Op.1/5.d./sal/22.9.1944, T 17815/vuoden 1944 kirjeistöä, SArk.
- 44 Eero-Eetu Saarinen, *Pioneeriaselajin historia 1918–1968* (Jyväskylä: Gummerus, 1975), 396.
- 45 See PM:n asiak nro 2802/Op.1/5 d/sal./4.9.1944; PM:n asiak nro 2808/Op.1/5. d/sal./4.9.1944, T 15707/12, SArk.
- 46 PM:n asiak nro 3277/Op.1/8.c/sal./3.10.1944, T 15708/4 ja PM:n asiak nro 3888/Op.1/8.b/sal./18.11.1944, T 15708/4, SArk.
- 47 Asekätkentää koskeva muistio. Laatinut eversti Valo Nihtilä. (Memorandum on concealing arms by Colonel Valo Nihtilä) Pariisi 20.8.1953. PK 1969/3. SArk.
- 48 Ibid. and Koskinen 1985, 14–15. See also Kertomus aseiden ja sotamateriaalin hajavarastoinnista eli asekatkennästä ja sen loppuselvittelystä. Laatinut eversti Valo Nihtilä. (Memorandum on concealing arms by Colonel Valo Nihtilä), Helsinki 12.4.1970. PK 1969/4, SArk.
- 49 Asekätkentää koskeva muistio. Laatinut eversti Valo Nihtilä, Pariisi 20.8.1953, PK 1969/3, SArk.
- 50 Ibid.
- 51 PvPE:n asiak nro 170/Järj.2/5/9.1.1945, T 22520/Hh 47, SArk.
- 52 PvPE:n op-os:n asiak 14.7.1945, PK 1366/3a, SArk.
- 53 Puolustusrevision mietintö (Report of the Defence Revision Committee) 1949, 14.
- 54 Puolustusrevision mietintö, 1–7.
- 55 Puolustusrevision mietintö, 23.

- 56 Puolustusrevision mietintö, 14.
- 57 Puolustusrevision mietintö, 15–16.
- 58 Puolustusrevision mietintö, 146.
- 59 Visuri, *Puolustusvoimat kylmässä sodassa. Suomen puolustuspolitiikka vuosina 1945–1961*, 233.
- 60 PvPE:n op-os:n analyysi 4.4.1951, Valtakunnan puolustusvoimain yleiset käytösuunnitelmat (An Analysis by the Operations Division, General Headquarters: Outline plan to defend Finland), T 26965/Hh 10 sal, SARk.
- 61 Ibid.
- 62 This threat model formed the basis of the 1949 directive for the formation of new troops in terms of 27 brigades and 2 armoured brigades.
- 63 PvPE:n op-os:n analyysi 4.4.1951, T 26965/Hh 10, SARk.
- 64 The Murmansk railway line running from the Kola Peninsula to Leningrad and Moscow was of vital important to Soviet participation in the Second World War as a large proportion of the material supplies from the Western Allies were delivered to the ports of Murmansk and Arkhangelsk, from where they were transported by rail to the military depots and to the fronts.
- 65 PvPE:n op-os:n analyysi 4.4.1951, T 26865/Hh 10 sal, Sark.
- 66 Ibid.
- 67 Esittely tasavallan presidentille (Executive order by the President of Finland) 13.3.1948, T 23828/Fa 12, SARk; see also PvPE:n asiak nro 148/Järj.2/sal/13.3.1948, T 26965/F 1 sal, SARk.
- 68 PvPE:n asiak nro n:o 48/Järj.2/sal./8.2.1949, T 26842/F 2 sal; PvPE:n asiak nro 10/Op.1/sal./3.3.1949, T 26842/F 2 sal; PvPE:n asiak nro 99/Järj.2/10a/henk./9.4.1949, T 26842/F 2 sal; PvPE:n järj-os:n asiak n:otta/20.11.1950. Pöytäkirja sotilaspiirin komentajien neuvottelupäiviltä (memorandum on a seminar for the commanders of the military districts) 11.–13.10.1950. Erityisesti liite 1 ja 10. T 20114/F 1 sal, SARk.
- 69 Vesa Tynkkynen, *Hyökkäyksestä puolustukseen. Taktiikan kehittymisen ensimmäiset vuosikymmenet Suomessa* (Joutsa: Nettopaino, 1996), 299.
- 70 PvPE:n Sa.määrävahvuustoimikunta (Committee on Wartime Establishments) 3.7.1948. Muistio n:o 1. pääesikunnan järjestelyosaston järjestelemätöntä arkiastoa, 1950, T 26034–28038, SARk.
- 71 PvPE:n asiak nro 48/Järj.2/sal./8.2.1949, T 26842/Bb 1 sal, SARk.
- 72 PvPE:n asiak nro 48/Järj.2/sal./8.2.1949, T 26842/Bb 1 sal, SARk. Luettelo perustamistehtävistä vuodelta 1949 (lyijykynäversio, päiväämätön) (an undated draft of mobilization book, 1949), T 26842/Bb 2 sal, SARk ja Tapio Partanen, 'Liikekannallepanojärjestelmämme syntyminen ja kehitys itsenäisyytemme aikana sekä suoritut liikekannallepanot, SKK:n diplomityö numero 1212, Helsinki 1975, SARk, 54–55 ja liite 4.1.
- 73 PvPE:n asiak nro 10/Op.1/sal./3.3.1949. T 26842/Bb 1 sal, SARk ja Partanen 1975, liite 4.2.
- 74 Tynkkynen 1996, 300–301.
- 75 The organization of the Finnish Defence Forces into brigades remained relatively unchanged over the period 1944–1964. The revisions made in 1955 and 1963 did not alter the basic structure of a brigade, which consisted of four battalions and a field artillery regiment consisting of two field artillery battalions. The

reform of the infantry in 1963 was of significance in that with the increased fire-power of modern small arms the machine-gun company in a battalion could be replaced with a fourth infantry company, which extended the tactical options open to the battalion commander. One typical feature of the development of the brigade structure with time was an increase in the numbers of anti-tank weapons, motor vehicles and bicycles. See Teuvo Makelä 'Kenttäohjesäännön edellyttämän taktiikin prikaatin organisaatiolle asetamat vaatimukset' *Tiede ja Ase* (Mikkeli: Länsi-Savon kirjapaino, 1964), 59–61.

- 76 Tynkkynen 1996, 301 and H Ali-Huokuna, "Maavoimiemme kokoonpanon kehittyminen toisesta maailmansodasta vuoteen 1957 saakka". SKK:n diplomityö No: 1563. Helsinki, 1985, 39–40, SArk.
- 77 PvPE:n asiak nro 1/Op.1/11 sal/4.1.1950, T 26862/D 1 OT-sal, SArk.
- 78 PvPE:n asiak nro 1/Op.1/11 sal/4.1.1950, T 26862/D 1 OT-sal, SArk; PvPE:n järj-os:n salainen muistio: Puolustusvoimain uuden T-kokoonpanon suunnittelun pääperiaatteet (A memorandum by the Mobilization Division: Principals of Auxilliary Complement), 8.7.1952. T 23957/23, SArk.
- 79 PvPE:n asiak nro 1/Op.1/11 sal/4.1.1950, T 26862/D 1 OT-sal, SArk.
- 80 PvPE:n asiak nro 32/Op.3/11 sal./4.11.1950, T 26862/D 1 OT-sal, SArk:
- 81 PvPE:n asiank nro 35/Op.2/11.sal./4.1.1950, T 26862/D 1 OT-sal, SArk;
- 82 PvPE:n asiak nro 25/Op.1/OT/11 sal/19.6.1950, T 26862/ D1 OT-sal, SArk.
- 83 PvPE:n asiak nro 1/Op.1/11 sal/4.1.1950, T 26862/D 1 OT-sal, SArk.
- 84 PvPE:n asiak nro 93/Op.1/OT/11 sal./7.11.1950, T 26862/ D 1 OT-sal, SArk.
- 85 See, e.g. PvPE:n järj-os:n asiak nro 18.4.1950. Muistio huomattavimmista eroavaisuuksista puolustusrevisiokomitean ja puolustusvoimain komentajan uudelleenjärjestelyehdotuksissa (A memorandum by the Mobilization Division on the re-organization of the Defence Forces) , PK 1664/21, SArk.
- 86 PvPE:n asiak nro 1/Järj.1/OT 10 b sal/22.6.1950, T 22230/1, SArk.
- 87 Partanen, liite 4.4.
- 88 PEjärj-os:n muistio (laatinut ev R Reunanen)(A memorandum by the Mobilization Division) 2.11.1953, T 22104/Hh 5, SArk.
- 89 On the role of the Civil Guard in the mobilization system before the Second World War, see Kari Selén, *Sarkatakkien maa. Suojeluskuntajärjestö ja yhteiskunta 1918–1944* (Helsinki: Bookwell, 2001), 408–413.
- 90 Tynkkynen 1996, 296.
- 91 PEjärj-os:n karttapiirros (a draft map by the Mobilization Division) 15.3.1952.
- 92 PvPE:n asiak nro 137/Op.1/OT/11a/sal./6.11.1952, T 26862/F 3 OT-sal, SArk.
- 93 Ibid and Tynkkynen, 294.
- 94 PvPE:n asiak nro 152/Op.1/OT/11 b sal/17.9.1951. T 26862/D 1 OT-sal; PvPE:n asiak nro 80/Op.1/11 b/OT/sal./13.6.1952, T 26862/F 3–F 4 OT-sal, SArk.
- 95 Tynkkynen, 292–293.
- 96 PvPE:n asiak./Op-os./3.1950. Yleissuunnitelma puolustusvalmisteluja varten (An outline plan: defensive measures). T 21622/4, SArk; PvPE:n asiak nro 46/Op.1/12 a/sal./21.4.1952, T 20239/ F 2, SArk.
- 97 PvPE:n asiak nro 152/Op.1/OT/11 b sal/17.9.1951, T 26862/D 1 OT-sal; PvPE:n n:o 80/Op.1/11 b/OT/sal./13.6.1952, T 26862/F 3–F 4 OT-sal, SArk.
- 98 PvPE:n asiak nro 85/Op.1/OT/11 b sal/14.6.1952, T 20003/F 1 OT-sal, SArk.
- 99 Ibid.

- 100 PvPE:n asiak nro 111/Op.1/11 b/OT-sal/13.9.1952, T 26862/D 1 OT-sal, SArk
- 101 Ibid.
- 102 PvPE:n asiak nro 152/Op.1/OT/11 b sal/17.9.1951, T 26862/D 1 OT-sal, SArk; PvPE:n asiak nro 80/Op.1/11 b/OT/sal./13.6.1952, T 26862/F 3–4 OT-sal, SArk; PohmSIE:n asiak nro 199/IV/OT 11 sal./30.9.1952, T 25007/F 3 OT-sal, SArk.
- 103 PvPE:n asiak nro 152/Op.1/OT/11 b sal/17.9.1951, T 26862/D 1 OT-sal; PvPE:n asiak nro 80/Op.1/11 b/OT/sal./13.6.1952, T 26862/F 3–F 4 OT-sal; 2.DE:n asiak nro 123/Järj./OT 11 sal/12.9.1952. T 20003/F 1 OT-sal; 2.DE:n asiak nro 124/Järj./OT 11 sal/15.9.1952. T 20003/F 1 OT-sal, SArk.
- 104 2.DE:n asiak nro 163/Järj/OT/11 sal/2.6.1953, T 22003/F 1 OT-sal, SArk.
- 105 Ibid.
- 106 Ibid.
- 107 Ibid.
- 108 PvPE:n asiak nro 152/Op.1/OT/11 b sal/17.9.1951, T 26862/D 1 OT-sal; PvPE:n asiak nro 80/Op.1/11 b/OT/sal./13.6.1952, T 26862/F 3–F 4 OT-sal ja 3.DE:n asiak nro 128/III/OT/11 sal./30.9.1952, SArk.
- 109 PvPE:n asiak nro 80/Op.1/11 b/OT/sal./13.6.1952, T 26862/F 3–F 4 OT-sal; IlmavE:n asiak nro 67/Ye.2/OT/11 sal./8.8.1952 ja IlmavE:n n:o 84/Ye.2/OT/11 sal./14.10.1952, T 23962/2, SArk. The last-mentioned document is also in the archives of the General Headquarters Operations Division, see T 26862/E 3 OT-sal, SArk.
- 110 PvPE:n asiak nro 46/Op.1/OT/10 c 1/sal./5.3.1951, T 26843/F 2 OT-sal; PvPE:n asiak nro 80/Op.1/11 b/OT/sal./13.6.1952. Liitteet 8a–d, T 26862/F 3–F 4 OT-sal, SArk
- 111 Jouko Koskimies, 'Ilmavoimat sotien jälkeen 1945–1977' in *Ilmavoimat 1918–1978* (Ed. Matti Kausto & others) (Joensuu: Pohjois-Karjalan Kirjapaino, 1978), 123–125.
- 112 PvPE:n asiak nro 152/Op.1/OT/11 b sal/17.9.1951, T 26862/D1 OT-sal ja PvPE:n asiak nro 80/Op.1/11 b/OT/sal./13.6.1952, T 26862/F 3–F 4 OT-sal, SArk.
- 113 Laivaston Esikunnan asiak nro 223/Op./OT/10 d/sal/8.12.1951, T 26862/E 2 OT-sal, SArk.
- 114 Ibid.
- 115 Ibid.
- 116 Laivaston Esikunnan asiak nro 223/Op./OT/10 d/sal/8.12.1951, T 26862/E 2 OT-sal ja Laivaston Esikunnan asiak nro 125/Op/OT/11 b sal/20.6.1952, T 27105/F 3 OT-sal, SArk.
- 117 For a general description of Peter the Great marine fortifications, see Jarl Kronlund (ed.), *Suomen Puolustuslaitos 1918–1939: Puolustusvoimien rauhanajan historia* (Porvoo: WSOY, 1988), 73–75.
- 118 PE:n asiak nro 3/Optsto/OT/11 g sal/22.2.1954; ja PE:n asiak nro 2/Meriptsto/OT/11 b sal/13.1.1954, T 26862/D 1 OT-sal, SArk.
- 119 PE:n asiak nro 182/Lkptsto/OT 10 e 1/7.5.1953, T 26843/F 4 OT-sal, SArk.
- 120 PE:n asiak nro 176/Lkptsto/OT 10 e 1 sal/8.5.1953, T 26843/F 4 OT-sal, SArk. The document is an exercise mobilization list for the Headquarters of the Southwestern Military Province. See also, PE:n asiak nro 189/Lkptsto/OT 10 e 1 sal/19.5.1953, T 26843/F 4 OT-sal, SArk.
- 121 2.DE:n asiak nro 467/Järj/OT/11 sal/29.10.1953, T 20003/F 1 OT-sal, SArk.

- <sup>122</sup> Tervasmäki, 258, 275–278.
- <sup>123</sup> PE:n asiak nro 155/Optsto/OT 11 b sal/14.7.1953, T 26862/F 3–4 OT-sal, SArk.
- <sup>124</sup> 1.DE:n asiak nro 276/Järjsto/OT 11 b sal/22.10.1953, T 25167/F 4 OT-sal ja 2.DE:n asiak nro 413/Järj/OT 11 sal/16.10.1953, T 20003/F 1 OT-sal, SArk.
- <sup>125</sup> PE:n asiak nro 44/Optsto/OT/11 sal/23.3.1956; PE:n asiak nro 45/Optsto/OT/11 sal/23.3.1956;  
PE:n asiak nro 143/Optsto/OT/11 sal/22.9.1956, T 26862/D 2 OT-sal, SArk.
- <sup>126</sup> PE:n asiak nro 73/Optsto/OT/11a/14.1.1958, T 26862/D 4 OT-sal, SArk.
- <sup>127</sup> PE:n asiak nro 10/Optsto/OT/11 b sal/11.2.1956, T 26862/D 2 OT-sal, SArk.
- <sup>128</sup> PE:n asiak nro 188/Optsto/OT/11 b sal/12.12.1956, T 26862/D 2 OT-sal, SArk.
- <sup>129</sup> PE:n asiak nro 100/Optsto/OT/11 b sal/15.6.1957, T 26862/D 3 OT-sal, SArk.
- <sup>130</sup> PE:n asiak nro 50/Optsto/OT/11b sal/27.2.1958, T 26862/D 4 OT-sal, SArk.
- <sup>131</sup> PE:n asiak nro 180/Optsto/OT/11 b sal/17.12.1957, T 26862/D 3 OT-sal ja  
PE:n asiak nro 50/Optsto/OT/11b sal/27.2.1958, T 26862/D 4 OT-sal, SArk.
- <sup>132</sup> The Chief of Staff, Lt.-General T.V.Viljanen, had put forward a corresponding opinion in 1954, maintaining that the Norwegians would attempt to hold the level of Narvik at all costs. If the Soviet Union was short of forces it would attempt only to extend the defences of Murmansk, but if it had adequate forces it might venture to isolate the Norwegian troops in Finnmark by attacking the Skibotn area through Finland. Viljanen did not believe that the Soviet Union would attack Sweden. See T. V. Viljasen tilannekatsaus, huhtikuu 1954 (A review by Lieutenant General Viljanen, the Chief of General Staff, April 1954), T 21622/3, SArk.
- <sup>133</sup> PE:n asiak nro 180/Optsto/OT/11 b sal/17.12.1957, T 26862/D 3 OT-sal, SArk.
- <sup>134</sup> Ibid.
- <sup>135</sup> *Kenttäohjesääntö yleinen osa* (KO yl) 1958, 65.
- <sup>136</sup> PEop-os:n salainen arvio 11.11.1960, T 26965/Hh 10 sal, SArk
- <sup>137</sup> Ibid.
- <sup>138</sup> Ylimmän päällystön opetustilaisuus v 1966. Ohjelman hahmottelu. (A draft programme for a course of commanding officers, 1966) T 26965/Dk 4 sal, SArk.
- <sup>139</sup> PE:n järj-os:n salainen muistio (A secret memorandum by the Mobilization Division) 18.5.1955, T 21622/3, SArk. 3.DE:n asiak nro 118/Järjsto/OT/10 b sal/13.6.1956, 3.DE:n järjestelytoimiston arkistoa ilman tulonumeroa (OT-salainen ja salainen) F 11/1956, SArk.
- <sup>140</sup> This refers to material that would not be in the possession of the Defence Forces under peacetime conditions but would be procured from local suppliers to equip the new troops to be mobilized in the event of an alert.
- <sup>141</sup> PE:n järj-os:n salainen muistio (A secret memorandum by the Mobilization Division) 18.5.1955, T 21622/3, SArk.
- <sup>142</sup> Partanen 1975, 55.
- <sup>143</sup> Partanen 1975, 68–69.
- <sup>144</sup> Partanen 1975, 70.
- <sup>145</sup> PE:n asiak nro 10/Optsto/OT/11 b sal/11.2.1956, T 26862/D 2 OT-sal, SArk.
- <sup>146</sup> PE:n asiak nro 50/Optsto/OT/11 b sal/27.2.1958, T 26862/D 4 OT-sal, SArk.
- <sup>147</sup> PE:n asiak nro 188/Optsto/OT/11 b sal/12.12.1956, T 26862/D 2 OT-sal, SArk.
- <sup>148</sup> PE:n asiak nro 348/Lkptso/OT 10 e 2 sal/28.11.1956, T 26843/F 7 OT-sal, SArk; Partanen 1975, 61.

- 149 PE:n asiak nro 188/Optsto/OT/11 b sal/12.12.1956, T 26862/D 2 OT-sal, SArk.
- 150 2. DE:n asiak nro 28/Optsto/OT/11b sal/15.6.1958 ja 2. DE:n asiak nro 28/Optsto/OT/11b sal/15.6.1958, T 26862/E 9 OT-sal, SArk.
- 151 PE:n asiak nro 188/Optsto/OT/11 b sal/12.12.1956. T 26862/D 2 OT-sal ja PsPrE:n järjestelytoimiston suunnitelma, 26.1.1957, T 20523/ F 26 OT-sal, SArk.
- 152 PsPrE:n järjestelytoimiston suunnitelma (A plan by the headquarters of Armoured Brigade) 13.3.1957, T 26862/E 8 OT-sal, SArk.
- 153 Puolustusneuvoston asiak nro 29/Da/15.5.1959, T 24727/Da 1, SArk.
- 154 PE:n asiak nro 188/Optsto/OT/11 b sal/12.12.1956, T 26862/D 2 OT-sal, SArk.
- 155 Ibid. ja SatLstoE:n asiak nro 18/Op-ja järtsto/OT 11 sal/9.2.1957, T 21927/ F 5 OT-sal, SArk.
- 156 PE:n asiak nro 188/Optsto/OT/11 b sal/12.12.1956, T 26862/D 2 OT-sal, SArk.
- 157 MerivE:n asiak nroi 9/Järtsto/OT/10 e sal/24.1.1957, T 27103/ F 9 OT-sal ja MerivE:n asiak nro154/järtsto/OT 10 b 4 sal/11.12.1956, T 27103/ F 8 OT-sal, SArk.
- 158 1.DE:n asiak nro 65/Järtsto/OT 10 e sal/28.1.1957, T 25167/F 8 OT-sal; 3.DE:n asiak nro 52/Järtsto/OT/10 b sal/15.2.1957. Järjestelemätöntä 3.DE:n järtston sal/OT-sal arkistoa F 12/1957, SArk.
- 159 PE:n asiak nro 50/Optsto/OT/11b sal/27.2.1958. T 26862/D 4 OT-sal; PE:n asiak nro 180/Optsto/OT/11 b sal/17.12.1957, T 26862/D 3 OT-sal; PE:n asiak nro 73/Optsto/OT/11a/14.1.1958, T 26862/D 4 OT-sal ja PE:n numeroimaton asiakirja(unregistered document)/Optsto/21.4.1958, T 26862/D 4 OT-sal, SArk.
- 160 *Kenttöohjesääntö yleinen osa* (KO yl) 1958, 39–41.
- 161 PE:n asiak nro 50/Optsto/OT/11b sal/27.2.1958, T 26862/D 4 OT-sal ja PE:n asiak nro 180/Optsto/OT/11 b sal/17.12.1957, T 26862/D 3 OT-sal, SArk.
- 162 PE:n asiak nro 73/Optsto/OT/11a/14.1.1958, T 26862/D 4 OT-sal ja PE:n asiak nro 183/Lkp-tsto/OT da sal/27.4.1957, T 24727/Da 1 sal, SArk.
- 163 PE:n asiak nro 180/Optsto/OT/11 b sal/17.12.1957, T 26862/D 3 OT sal, SArk.
- 164 Ibid.
- 165 Ibid.
- 166 Ibid.
- 167 PE:n asiak nro 181/Optsto/OT/11 b sal/17.12.1957, T 26862/D 3 OT-sal, SArk.
- 168 PE:n asiak nro 181/Optsto/OT/11 b sal/17.12.1957, T 26862/D 3 OT-sal ja 1. DE:n asiak nro 270/Järtsto/OT 11 B sal/30.9.1959, T 24902/F 3 OT-sal, SArk. There is some confusion in the numbering of the units, as the maintenance plan for 1959 mentions that the 2nd and 3rd Brigades were to be stationed in Lapland and the Jaeger Brigade was to be held in reserve in the Tornio Valley, whereas the OpO-57 dated 1960 orders the 2nd Brigade to remain in reserve and dispatches the Jaeger Brigade to the Muonio area. The details in the administrative plan probably represent the original deployment, which was then altered in 1960. One problem with OpO-57 is that parts of it were revised on numerous occasions up to 1966.
- 169 PE:n asiak nro 183/Optsto/OT/11 b sal/17.12.1957, T 26268/F 3 OT-sal, SArk.
- 170 3.DE:n asiak nro 3/Optsto/OT/11 a sal/29.1.1959, F 7 OT-sal, SArk. This document contains separate orders for all the command levels under the Inland Army. The order of battle of this army and the tasks assigned to it were slightly different in OpO-57, as the latter was updated towards the end of 1960.



- 171 PE:n asiak nro 50/Optsto/OT/11b sal/27.2.1958, T 26862/D 4 OT-sal, SArk.
- 172 PE:n asiak nro 50/Optsto/OT/11b sal/27.2.1958, T 26862/D 4 OT-sal ja PE:n asiak nro 180/Optsto/OT/11 b sal/17.12.1957, T 28662/D 3 OT sal, SArk.
- 173 PE:n n:o 50/Optsto/OT/11b sal/27.2.1958, T 26862/D 4 OT-sal ja PE:n asiak nro 181/Optsto/OT/11 b sal/17.12.1957, T 26862/D 3 OT-sal, SArk.
- 174 *Kenttäohjesääntö, yleinen osa (1958)*, 111. Ks. myös PE:n asiak nro 223/Iptsto/ 10 sal/12.11.1955, T 25828/F 4 sal, SArk.
- 175 On the surveillance capacity of the Finnish air defences at the end of the Second World War, see Ahti Lappi, *Ilmatorjunta Ilmasodassa 1794–1945* (Vaasa: Ykkös-Offset, 2000), 446.
- 176 PE:n asiak nro 60/Optsto/OT/11 e sal/15.3.1954, T 26862/D 1 OT-sal.
- 177 PE:n asiak nro 30/Iptsto/OT/13 sal/10.4.1956, T 26862/E 7 OT-sal, ja IlmavE:n asiak nro 9/Ivtsto/OT 13 a sal/14.11.1956, T 26862/E 7 OT-sal ja PE:n asiak nro 223/Iptsto/10 sal/12.11.1955, T 25828/F 4 sal, SArk.
- 178 PE:n asiak nro 275/Iptsto/12 sal/12.11.1958, T 25828/F 7 sal, SArk.
- 179 IlmavE:n asiak nro 122/Optsto/11 sal/8.11.1961, T 26965/F 24 sal, SArk.
- 180 IlmavE:n asiak nro 60/Op- ja lnttsto/2 sal/11.6.1960, T 24727/Da 1, SArk.
- 181 PLM:n asiak nro 39/sot/69 sal/26.5.1961, T 26965/F 26 sal, SArk.
- 182 Puolustusneuvoston asiak nro 48/Da sal/13.9.1961, T 24727/ Da 2, SArk.
- 183 Lentokonetuimikunnan kokouspöytäkirja (Minutes of the Aircraft Committee), 11.1.1957, T 26965/F 14 sal, SArk.
- 184 PE:n asiak nro 126/Optsto/ 12 sal/14.2.1957, T 26965/F 14 sal, SArk.
- 185 PE:n asiak nro 127/Optsto/12 sal/18.2.1957, T 26965/ F 14 sal, SArk.
- 186 IlmavE:n asiak nro 237Optsto/OT/13.2.1961, T 26965/F 24 sal, SArk.
- 187 IlmavE:n asiak nro 122/Optsto/11 sal/8.11.1961, T 26965/F 24 sal, SArk.
- 188 PE:n asiak nro 50/Optsto/OT/11 b sal/27.9.1957, T 26862/D 4 OT-sal ja PE:n asiak nro 178/Optsto/OT/10 e sal/19.12.1957, T 26862/D 3 OT-sal, SArk.
- 189 PE:n asiak nro 50/Optsto/OT/11 b sal/27.9.1958, T 26862/D 4 OT-sal, SArk.
- 190 PE:n asiak nro 50/Optsto/OT/11 b sal/27.9.1958, T 26862/D 4 OT-sal, SArk.
- 191 MerivE:n asiak nro 117/Optsto/OT/11 a sal/4.11.1960, T 26862/E 13 OT-sal, SArk.
- 192 Ibid.
- 193 MerivE:n asiak nro 68/Optsto/OT 11 a sal/8.5.1958, T 27103/F 11 OT-sal, SArk.
- 194 PE:n asiak nro 92/Optsto/OT 12 f sal/30.5.1956, T 26882/D 3 OT-sal, SArk.
- 195 Puolustusneuvoston kokouspöytäkirja 10/59/9.10.1959, T 24727/Cc 1 sal, SArk.
- 196 PE:n asiak nro 300/Lkptsto/1o e sal/28.3.1963, T 26842/Bb 11 sal, SArk.
- 197 2.DE:n asiak nro 161/Optsto/12 sal/4.9.1963 ja 3.DE:n asiak nro 237/Optsto/11 a sal/31.8.1963, T 26965/F 31 sal, SArk.
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- 213 PE:n asiak nro 73/Optsto/OT/11a/14.1.1958, T 26862/D 4 OT-sal, SArk.
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- 216 Interview with Major-General Juhani Ruutu. For more details on the plans for Åland, see Petteri Jouko, 'Suunnitelmat Ahvenanmaan puolustamiseksi kylmän sodan ensimmäisinä vuosikymmeninä' in *Tiede ja Ase* No. 63 (Jyväskylä, 2006), 22–54.
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- 233 PvPE:n asiak nro 13/Op.1/OT/11 a sal/13.2.1952, T 26862/D 1 OT-sal, SArk.
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- 235 PvPE:n asiak nro 137/Op.1/OT/11a/sal/6.11.1952, T 26862/F 3 OT-sal, SArk. The matter was brought before President Paasikivi on 6.11.1952, and he passed the material given him by General Headquarters on to the Prime Minister, Urho Kekkonen, in mid-February of the following year, see *J.K. Paasikiven päiväkirjat 1944–1956*, Toinen osa. Ed. Yrjö Blomstedt & Matti Klinge (Juva: WSOY, 1986), 313 and 331.
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- 253 The commercial credit system meant that the Finns received an advantageous loan from the Soviet government at an annual interest of 2.5% with which they committed themselves to buying various products from the Soviet Union over the following five years. The time allowed for repayment of the loan was 12 years. See, Asetus 18/1960: Asetus SNTL:n kanssa tehdyn luottosopimuksen voimaansaattamisesta, Suomen asetuskokoelman sopimussarja: Ulkovaltojen kanssa tehdyt sopimukset.
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- 255 PLM:n asiak nro 36/Kesk/60 sal/25.5.1960, T 27508/Hh 3 sal, SARk.
- 256 PE:n asiak nro 167/Optsto/20 sal/25.3.1960, T 26965/F 23 sal, SARk.
- 257 PE:n asiak nro 42/ Da/27.10.1960, T 24727/Da 1, ja PE:n laatima numeroimaton muistio 30.11.1962, T 24727/Da 2, SARk. Four of the helicopters were of the MI-1 type and three MI-4. See Atso Haapanen, *Helikopterit Suomessa* (Hämeenlinna: Karisto Oy, 2003), 12–15. On negotiations held at the Soviet Embassy in Helsinki at the beginning of 1960, see the memorandum from Col. P Ilmola 26.1.1960, T 26965/Hh 4, SARk.
- 258 Jäljennös 20.7.1960 päivätystä kirjeestä, jossa ilmavoimien komentaja suosittelee koneiden hankintaa (A copy of a letter by the Commander of the Air Force in which he recommends procurement of MIG-19 interceptors), T 26965/ Hh 4 sal. See also. PE:n asiak nro 362/Optsto/17 sal/15.8.1960, T 26965/F 23 sal, SARk.
- 259 Puolustusneuvoston asiakirja nro 3/Da sal/10.1.1962, T 24727/Da 2, SARk. Ks. myös puolustusvoimain kauppavaliokunnan P.M., 25.4.1962, 12 N, Ulkoministeriön Arkisto.
- 260 Ibid.
- 261 The aircraft arrived in Finland between April and November 1963, after the Finnish delegation had received about four months of training in the Soviet Union. Jyrki Laukkanen, *MIG-21 in Finnish Air Force* (Hämeenlinna: Karisto, 2004), 40–47.
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- 263 PE:n asiak nro 648/Optsto/1 sal/18.12.1957, T 26965/F 14 sal, SARk.
- 264 Joint Intelligence Committee (62) 32, 2 April 1962, CAB 158/46, TNA. The American military experts came to a similar conclusion regarding this length of time, see Extract from State Department Note to H.M. Ambassador, 10 March 1962, DEFE 7/1306, TNA.
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- 266 PLM:n asiak nro 39/sot/61 sal/26.5.1961, T 26965/F 26 sal, SARk. On the costs of a long-range radar system, see PE:n asiak nro 208/Ilmaptsto/10 sal/6.4.1961, T 26965/F 24 sal, SARk.
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- 270 See e.g., *Ahti Lappi, Ilmatorjunta kylmässä sodassa* (Jyväskylä: Gummerus, 2003), 466–467.
- 271 PE:n asiak nro 291/Optsto/1 sal/7.5.1962, T 27427/Db 1 sal, ja Puolustusneuvoston asiak nro 60 Da sal/16.11.1962, T 27427/Da 2, SARk.
- 272 Ibid. The report submitted by the Defence Forces' Short-range Air Defence Board in March 1963 claimed that the question could be resolved by purchasing a total of 2,000 anti-aircraft guns, at an estimated cost of 12,500–15,500 million Finnish marks. See PE:n asiak nro 33/Ye-pääll/12 sal/25.3.1963, T 26965/F 30 sal, SARk.
- 273 PE:n asiak nro 249/Meriptsto/12 sal/5.4.1962, T 26965/F 28 sal, SARk. The Navy set as its target a composition comprising 6 patrol ships (gunboats), 24 fast patrol boats, 2 minelayers, 8 patrol boats, 14 minesweepers and 24 transport vessels, see PE:n asiak nro 280/Meriptsto/12 sal/25.4.1962, T 26965/F 28 sal, SARk.
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- 275 PE:n asiak nro 291/Optsto/1 sal/7.5.1962, T 24727/Db 1 sal; Puolustusneuvoston asiak nro 63 Da sal/29.11.1962, T 24727/Da 2 sal, SARk. On the aims of the revision of small arms, see also PE:n asiak nro 241/Optsto/17 sal/30.3.1962, T 26965/F 29 sal, SARk.
- 276 Ibid.
- 277 PE:n asiak nro 168/Optsto/OT/10 c 2 sal/7.1.1960, T 26862/D 4 OT-sal, ja PE:n asiak nro 54/Järjsto/OT 10 b 2 sal/26.3.1960, T 20523/F 29 OT-sal, SARk.
- 278 For the General Headquarters authorization for the project, see PE:n asiak nro 623/Optsto/8 sal/8.12.1958, T 26965/F 17 sal, SARk. The Defence Forces had initiated a project for combining a lightly armoured tracked chassis with a powerful anti-aircraft gun and had contacted the British company Vickers in this connection. The project seems to have fallen through partly because Britain was not prepared to sell 105 mm guns of the type that would be suitable for this mount. See Extract from A.W.P. (60) 16th Meeting, 20 Nov 1960, DEFE 7/1281, TNA.
- 279 See the troop formation list for 1970, T 26842/Bb 17, SARk. Finland bought more tanks from the Soviet Union in the 1960s, including a batch of T-55 main battle tanks and BTR-50 and BTR-60 armoured personnel carriers.
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- 285 Pääesikunnan sotatalousosaston numeroimaton katsaus perushankintojen edistymisestä (Un registered brief on the status of procurement programmes by the War Economy Division), 20.1.1965, T 25370/HI1 sal, Sota-SARk. On aircraft, see also Timo Heinonen, *Thulinista Hornettiin: 75 vuotta Suomen ilmavoimien lentokoneita* (Jyväskylä: Gummerus, 1992), 223–227. For the arguments put forward by the Commander-in-Chief of the Defence Forces in favour of the Safir and Fouga Magister aircraft purchases, see PE:n asiak nro 239/Optsto/17 sal/25.4.1958, T 26965/F 19 sal, SARk.
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- 300 Ibid. 97–101.
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- <sup>320</sup> Ibid.
- <sup>321</sup> Henrik Sjövall, 'Det tänkta atomkriget–Atomvapnet i svenska krigspel 1950–1969' in Kent Zetterberg (ed.) *Totalförsvaret och atomvapnet. Tre studier kring uppbyggnaden av det svenska totalförsvaret och kärnvapendimensionen 1950–1970* (Stockholm: Elanders Gotab, 2001), 122–126; 135–138.
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PD00625, NSC 6024

##### Soviet Estimates

SE00153, NIE 28-5-54

SE00178, NIE 11-7-55

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PUOLUSTUSNEUVOSTO (Defence Council)

T 24727

Da 1 sal, Da 2 sal, Db 1 sal, Cc 1 sal



PUOLUSTUSMINISTERIÖ (Ministry of Defence)

T 23828

Fa 12 sal, F 19 sal

T 27508

Hh 3 sal

PÄÄESIKUNTA (General Headquarters)

Huolto-osasto (Logistics Division)

T 24902

F 1 OT-sal

F 3 OT-sal

Jalkaväkitoimisto (Infantry Office)

T 22230

1

T20239

F 2 sal

T 17815

vuosi 1944

Järjestelyosasto (Mobilization Division)

Liikekannallepanotoimisto (Mobilization Office)

T 22520

Hh 47

T 26942

Bb 1 sal, Bb 2 sal, Bb 11 sal, Bb 17 sal,

F 2 sal,

T 26843

F 2 OT-sal, F 4 OT-sal, F 7 OT-sal, F 13 OT-sal,

Ilmapuolustusosasto (Air Defence Division)

T 25828  
- F 4 sal, F 7 sal

Järjestelytoimisto (Staff Duties Office)

T 26838  
F 22 sal

T 22104  
Hh 5

Maavoimatoimisto (Ground Forces Office)

T 15706  
9

T 15707  
12

T 15708  
4

Meripuolustusosasto (Maritime Defence Division)

T 23107  
F 6 sal

Operatiivinen osasto (Operations Division)

T 26862  
D 1 OT-sal, D 2 OT-sal, D 3 OT-sal, D 4 OT-sal

F 3 OT-sal, F 4 OT-sal

E 2 OT-sal, E 3 OT-sal, E 7 OT-sal, E 8 OT-sal, E 9 OT-sal, E 13 OT-sal

T 26965

Dk 1 sal, Dk 2 sal, Dk 3 sal, Dk 4 sal

E 3 sal

F 1 sal, F 4 sal, F 11 sal, F 13 sal, F 14 sal, F 17 sal, F 19 sal, F 23 sal, F 24 sal, F 26 sal, F 28 sal, F 29 sal, F 30 sal, F 31 sal, F 33 sal, F 38 sal

Hh 4 sal, Hh 9 sal, Hh 10 sal

Sotataloustoimisto (War Economics Office)

T 25370

Hl 1 sal

Hl 2 sal

Sotavarustetoimisto (Ordnance Office)

T 23123

1. DIVISIOONAN ESIKUNTA (Headquarters of 1 Division)

Järjestelytoimisto (Mobilization Office)

T 25167

F 3 OT-sal, F 4 OT-sal, F 8 OT-sal

2. DIVISIOONAN ESIKUNTA (Headquarters of 2 Division)

Järjestelytoimisto (Mobilization Office)

T 22003

F 1 OT-sal

3. DIVISIOONAN ESIKUNTA (Headquarters of 3 Division)

Operatiivinen toimisto (järjestämätöntä arkistoa)

F 7 OT-sal, F 8 OT-sal

Järjestelytoimisto (järjestämätöntä arkistoa)

F 7 sal, F 11 sal, F 12 sal

PANSSARIPRIKAATIN ESIKUNTA (Headquarters of Armoured Division)

Järjestelytoimisto (Mobilization Office)

T 20523

F 26 OT-sal, F 29 OT-sal

MERIVOIMIEN ESIKUNTA (Headquarters of Navy)

T 27103

F 8 OT-sal, F 9 OT-sal, F 11 OT-sal

ILMAVOIMIEN ESIKUNTA (Headquarters of Air Force)

Ilmavalvontaosasto (Air Surveillance Bureau)

T 23962

Järjestely- ja koulutusosasto (Mobilization Office)

T 23957  
23 OT-sal

AHVENANMAAN DEMILITARISOIMISELIN (Office for demilitarization of the Ålands Islands)

T 23700  
Cc 1

HELSINGIN SOTILASLÄÄNIN ESIKUNTA (Headquarters of Helsinki Military District)

T 20184  
F 3 sal

KOKKOLAN SOTILASPIIRIN ESIKUNTA (Headquarters of Kokkola Military District)

T 20114  
F 1 sal

POHJANMAAN SOTILASLÄÄNIN ESIKUNTA (Headquarters of Pohjanmaa Military Province)

T 25007  
F 3 OT-sal

PUOLUSTUSVOIMAIN KOMENTAJA (The Commander-in-Chief of the Defence Forces)

T 21645  
3

SATAKUNNAN LENNOSTO, ESIKUNTA (Headquarters of Satakunta Air Wing)

T 21927  
F 5 OT-sal

TURUN LAIVASTOASEMA (Turku Naval Station)

T 27105  
F 3 OT-sal

Kenraali O Huhtalan arkisto (Papers of General Huhtala)

PK 1366  
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Eversti Valo Nihtilän arkisto (Papers of Colonel V Nihtilä)

PK 1969  
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