FINNARY DEFENCE



2002

CONTENTS

- 04 Finland and the Finns
- 06 Finland's Security Policy08 Administration of National Defence
- 10 Defending the country
- 16 Maritime Defence
- 18 Air Defence
- 22 System of Training and Education
- 26 Frontier Guard
- **28** International Activities
- 32 Materiel Capacity
- 34 Peacetime Defence Forces
- 36 Wartime Defence Forces
- 38 Territorial Division of Military Defence

FINNISH MILITARY DEFENCE 2002

Published by the Information Division of the Defence Staff First Edition ISBN 951-25-1350-1 Photographs: SA-Int, unless otherwise stated Printed by: Art-Print Oy, Helsinki 2002

To the reader

As an independent country, Finland is responsible for the defence of its own territory. National defence has the unreserved support of the great majority of the people. The Defence Forces are an important part of the Finnish society. This is evident in the system of general conscription, the citizens' strong will to defend their country and in the open and trusting relations between the Defence Forces and the rest of society beginning at the supreme level.

Finland is a militarily non-allied country, which maintains a credible national defence. This requires a capability to control the whole country's territory on land, at sea and in the air as well as the power to repel violations.

The starting-points for the development of Finland's national defence have been determined by population, geography and history. Its governing features are full exploitation of national resources and special circumstances favourable to the defender. An assessment of the potential of the Defence Forces to discharge their duties laid down by law cannot be based exclusively on economic or materialistic grounds. It is through our original solutions that we have created our Defence Forces, the capability of which has often been recognised and on which the future of Finland is based.

FINLAND AND THE FINNS

PART OF A COMMUNITY OF DEMOCRATIC NATIONS

Membership of the European Union has clarified and strengthened Finland's international position. Finland has joined a community of like-minded democratic states. Membership has become part of Finland's international identity.

• The oldest traces of settlement in Finland date from the period immediately after the Ice Age, around 8000 BC, but as late as the 16th century, settlement was concentrated in the southern parts of the country and on the coast of the Gulf of Bothnia. Already in the 13th century, the area of Finland had been annexed by Sweden, but the East too craved for its share of the wilds.

For five hundred years, Finland was fought over; East and West in turn imprinted their stamp on all walks of life. After the Russo–Swedish war of 1808–09, Finland was annexed by Russia to become an autonomous Grand Duchy. The Finns became aware of their identity and began to seek independence. In the turmoil of the Russian Revolution, Finland declared itself an independent state in 1917. The Republic of Finland preserved its independence in World War II, after struggles against the Soviet Union and Germany.

A northern country covered with lakes and forests

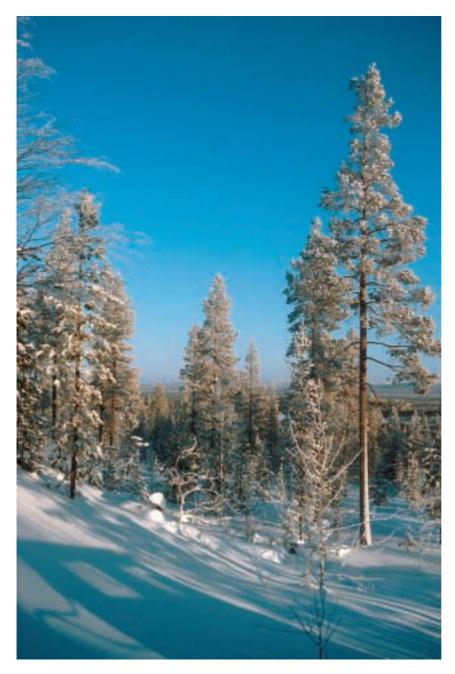
■ Finland competes with Iceland for the honour of being the northern-most country in the world as more than a quarter of its area lies north of the Arctic Circle. On the world map, only Russia, Norway, Canada and Alaska extend further north. Of all the people on this planet who live north of the 60th parallel, which marks the latitude of the southern coast of Finland, one out of three is Finnish.

Finland is one of the largest countries in Europe: its surface area is 338,000 km2 and the distance from north to south is



1,160 km. The common land boundary with Russia is 1,269 km, with Norway 727 km, and with Sweden 586 km. On the south and west, Finland is bounded by sea, and the length of coastline is about 1,100 km. Since there are only 5 million inhabitants in Finland, the density of population is only 15 persons per square kilometre. Because of Finland's length and northern position, the flora is guite different in different parts of the country: on the southern coast there is a botanical zone reminiscent of continental Europe and in northern-most Lapland, there are vast areas of tundra. Finland is the most forested country in Europe and two thirds of its surface area is made up of forests which form the basis of the country's economy. The proportion of bogland is bigger than that in any other country and less than one tenth of the area is cultivated land.

Finland is a land of lakes with inland waters covering 10 per cent of the surface area. Lakes of more than 500 m2 number about 188,000. They form a continuous labyrinth of waters – unique in the world – especially in the southern and central regions of the country. The climate in Finland is considerably milder than its northern position would call for. The temperature is raised by the Baltic Sea,



the inland waterways and above all by the western winds which bring air warmed by the Gulf Stream from the Atlantic Ocean. The mean daily temperature in the winter is 6-10 degrees warmer than at corresponding latitudes elsewhere. The eastern climate brings very cold periods in wintertime and hot seasons in the summer. There is a clear alternation of the four seasons. In northernmost Finland, there is a period of two months in the summer when the sun does not set below the horizon at all and correspondingly a period of two months in the winter when the sun does not rise above the horizon at all.

Homogenous nation with a high level of education

■ Finland's official languages are Finnish, Swedish, and the Lapp language. The overwhelming language is Finnish, which is spoken by about 95 % of the population. Finnish is different from nearly all the other Western languages. Like Estonian and Hungarian, Finnish is one of the Finno-Ugric languages spoken by roughly 23 million people.

There has been freedom of religion since 1923. The Evangelical Lutheran Church and the Orthodox Church of Finland are the national churches. Nearly 90 % of Harsh natural conditions benefit the defender.

the population belong to the Evangelical Lutheran Church.

The level of education is high by international standards. About half of those over 15 have completed an upper secondary education. Around ten per cent of the population are university or college graduates. There is almost complete literacy and Finns are some of the most avid newspaper readers in the world.

The President of the Republic, who is at the same time the Supreme Commander of the Defence Forces, is elected for six years at a time. The 200 Members of Parliament are elected every fourth year.

Electronics and forest industry are the cornerstones of the economy

Finland is a market economy and the major part of the corporate sector is in private hands. However, the proportion of government-controlled mining, metal and wood-processing industries accounts for more than one fifth of Finnish exports. The high standard of living in Finland has been achieved through foreign trade. Imports are essential only for raw materials and energy, with 65 % consisting of raw materials, capital goods and fuel. Consumer goods account for about one quarter of all imports. Finland acquires a good third of its GDP from exports. The largest items in the export trade consist of electronics, wood-processing and metal and engineering products which account for about 80 % of total exports.

Finland's membership of the European Union removed some of the remaining barriers to trade and integration is expected to realign trade flows. Although 70 % of Finnish exports have been traditionally directed to the area of the European Union, membership could well give a further boost to Finnish exports to Western Europe.

The 2002 Government Budget totals about € 35 billion. The largest expenditures were for social security and public health (23 %), and education, science and culture (16 %). Defence expenditure accounted for 4.9 % of the budget and about 1.2 % of GDP.

FINLAND'S SECURITY POLICY

MILITARY NON-ALLIANCE AND AN INDEPENDENT DEFENCE

Finland's central aim is to expand co-operation and maintain a stable situation in northern Europe and the Baltic area. Finland will best promote this aim by remaining outside military alliances and maintaining an independent and credible defence capability.

■ Finland's security policy includes foreign policy and defence policy (national defence) and economic and social measures supporting them. Our security policy is divided into the functional categories of stability policy, conflict management and defence.

The goal of Finnish security policy is to preserve our independence, secure the basic values of our society and guarantee a capacity for political action in the changing international relations.

Basic factors in Finland's security policy are military non-alliance, an independent defence and membership of the European Union. Finland's security position is influenced by Russia and its neighbourhood, the situation in Northern Europe and the Baltic Sea area and the development of the relations between NATO and Russia. Due to the special relationship between Finland and Sweden, and the similarity of their interests, decisions made by Sweden in the field of security policy are also important for the security of Finland.

The unchanging strategic importance of Northern Europe

The security position of Northern Europe is part of a world-wide and European deve lopment, and it is of permanent strategic importance. The airspace, sea and land areas of Europe have retained their strategic significance to Russia and to greatpower relations. The direction of Russian policy in nuclear weapons will especially influence the future of the Kola peninsula. St. Petersburg is a centre of permanent importance for Russia. The Leningrad Military District will remain a significant deployment area of troops and armament.

The military status of the Baltic Sea has remained stable and the level of armament has been lowered. NATO's influence and operational capability in the area have been strengthened. In Russian maritime defence, the strategic importance of the Gulf of Finland has grown after the loss of the bases in the Baltic states. The future of the Russian Kaliningrad area as a base area and its political and economic development will affect the stability in the Baltic Sea region.

After regaining their independence, the Baltic states have started developing their security arrangements. The security policy decisions of the Baltic states is essential for stability in the Baltic Sea area and the entire Northern Europe. The significance of Sweden's and Finland's defence capability as well as the possibility for co-operation between the countries are important factors for the security in the area.

No essential changes have taken place in the military position of the different areas in Finland. The airspace and northernmost Finland will retain their importance due to the strategic significance of the neighbouring areas in great-power politics.

The European Union and Finland's security

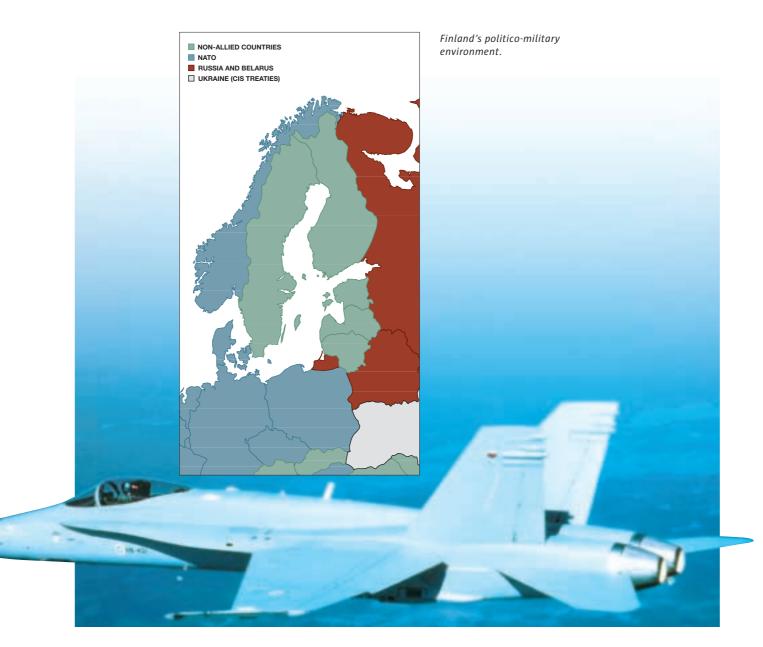
From Finland's point of view, the European Union, Russia and NATO as well as arms control and military crisis management are central factors in the European security development.

As a member of the European Union, Finland has added clarity to and strengthened its international position. Membership has increased our opportunities to influence matters and broadened our responsibility in a policy of stability encompassing all Europe. It has also strengthened Finland's ability to enhance security in Northern Europe and the Baltic Sea region. This will be the area of main emphasis in our activity even in the future.

Finland joined the European Union as a militarily non-allied country and is committed to participating actively and constructively in strengthening the common foreign and security policy in the spirit of the Treaty of Amsterdam and in accordance with the decisions reached at the Helsinki European Council. Finland is also one of the 11 Member States participating in the economic and monetary union. The decisions Finland has taken do not, however, include military security guarantees nor responsibilities connected with a common defence.

Defence Forces – an instrument in security policy

■ Finland has to maintain a credible defence capability to ensure governmental independence and integrity of its territory. A credible defence capability prevents the threat of using military force against Finland. Finland's security policy and a credible defence capability offer to the political government means and instruments to adjust defensive readiness from



territorial surveillance and protection of the territorial integrity to the defence of the country with all resources available.

The following crisis and threat scenarios are taken into consideration In defence planning:

- a regional crisis with repercussions to Finland;
- political, economic and military pressure, which may include threat of or limited use of military force;
- a strategic strike intended to force the state leadership into taking desired decisions by paralysing central institutions and functions of society and the defence system;
- a large-scale attack, with the aim of capturing strategically important areas or using Finnish territory against a third party.

The emphasis in defence planning is on

prevention and repulsion of a strategic strike.

International dimension

In Finnish security policy, international military co-operation is growing in importance. Military non-alliance does not prevent Finland from participating in military crisis management. The development of the international dimension is a prerequisite for Finland's ability to make a credible contribution to the expanding cooperation in the field of security. Participation in demanding international crisismanagement operations will strengthen military interoperability and also support the development of Finland's own defensive readiness and the country's international position.

Finland has traditionally been an active

supporter of both the United Nations and the Organization for Security and Cooperation in Europe. Finland aims at developing its preparedness to participate in crisis-management operations under the UN and OSCE mandates. Finland does not, however, participate in crisis management that requires peace-enforcement or the use of military force against other states or parties to the conflict. In crisismanagement co-operation, Finland sees the development of the European Union's capability as the focal area. NATO's Partnership for Peace programme offers so far the only environment to develop cooperation capabilities and to make national capabilities compatible for both EU-led and NATO-led crisis-management operations. Nordic co-operation will be of great importance for Finland also in the future.

ADMINISTRATION OF NATIONAL DEFENCE

CO-OPERATION BETWEEN ALL ADMINISTRATIVE BRANCHES

The Emergency Powers Act sets obligations for National Defence planning and preparation on different administrative bodies. The Defence Forces are responsible for military defence. The Chief of Defence is directly under the President of the Republic in matters of military command.



The President of the Republic is the Supreme Commander of the Defence Forces.

■ The Emergency Powers Act sets obligations for National Defence planning and preparation on different administrative bodies. The Defence Forces are responsible for military defence. The Chief of Defence is directly under the President of the Republic in matters of military command.

The implementation of the objectives of our security policy imposes demands on the different sectors of our society. National defence consists of military defence, economic and civil defence, social and health care, ensuring the operation of technical systems in society, public order and safety, and defence information. In addition, should the nation's resources be diverted to cope with a major crisis or should preparations need to be made to meet exceptional conditions, all Finnish citizens would participate in national defence in the course of their own activities.

The threat of war directed at Finland or a serious violation of our territorial integrity as well as a deterioration in the international situation which could pose a danger to Finland can all be regarded as exceptional conditions and would require measures to raise the state of defence readiness. The post-war situation is also designated an exceptional condition in the laws. A serious economic crisis, for example, hampering or preventing exports, or a major catastrophe can give rise to exceptional conditions.

The most serious of the crises prescribed by the Emergency Powers Act is naturally launching a large-scale military attack and war against Finland. Under exceptional conditions, the Emergency Powers Act and the Act on the State of Defence, both enacted in 1991, can be be applied to introduce special powers, if the situation cannot be managed with ordinary powers.

The President of the Republic is the Supreme Commander of the Defence Forces

As the body vested with supreme political power, Parliament is of great importance to defence policy by legislating the laws on national defence and ap-proving annual budgets. The President of the Republic is the most important security policy decisionmaker. According to the Constitution, he or she has supreme command of the Defence Forces. The President nominates all officers. The highest nominations are placed by the Council of State on the submission of the Defence Minister. The President of the Republic takes decisions concerning war and peace with the consent of Parliament and also gives the order for general mobilisation on a proposal of the Council of State.

The highest executive authority concerning defence matters is the Council of State. Parliament has empowered the Council of State to resort to regulatory powers and to issue orders in accordance with the emergency conditions. Further authorisations are prescribed by the State of Defence Act. Both powers are brought into effect by decrees which as a general rule must be immediately presented to Parliament for deliberation.

The Government Committee on Foreign and Security Policy prepares important matters in foreign and security policy



Close to 40,000 persons have been trained by the National Defence Training Association on national and regional courses.



About 8000 volunteer women contribute to the Soldiers' Home Association.

and in national defence. All governmental parties are represented in the Committee. Also the President of the Republic takes part in the work of the Committee.

The Security and Defence Committee was set up with the task of assisting the Ministry of Defence and the Government Committee on Foreign and Security Policy in matters of total national defence. It also follows the changes in Finland's security and defence policy position and co-ordinates the functions of different administrative branches to maintain and develop total national defence. Members of the Committee include ministers representing departments of major importance to national defence as well as the highest officials from the Office of the President of the Republic of Finland, the Defence Staff, and the Frontier Guard.

Since the 1970s, the Parliamentary Defence Committees and Commissions, which no longer exist and, since 1977, the Reports by the Council of State submitted to Parliament during an electoral period have brought long-term planning to defence-policy considerations.

Defence Forces are responsible for military defence

In public administration, the Ministry of Defence carries the main responsibility for the military defence of the country. It also co-ordinates the actions of different branches of government in matters of total national defence. Other ministries have national defence duties under their own administrative areas. The Ministry of Defence is responsible for the operational readiness of the Defence Forces by preparing the legislation governing the military defence of the country and the defence budget.

The Chief of Defence is in command of the Defence Forces. The Defence Forces in turn are responsible for the protection of the country's territorial integrity, the defence of the country and general defence preparations. The Defence Staff functions as the supreme headquarters of the Chief of Defence. It is also the supreme administrative authority. The Chief of Defence is directly under the President of the Republic in matters of military command.

Voluntary national defence is of great importance

• The Finns have a strong will to defend their country. According to a recent poll, 79% of the population are ready to defend the country by force if necessary even if the final outcome were uncertain. This is expressed by the high degree of activity among different reservist, veteran, women and other voluntary organisations. Their support is indispensable for Finland's national defence.

Voluntary national defence training, which started in 1991, has rapidly gained great popularity. At the beginning of 1999, voluntary national defence work and training were placed under the newly established National Defence Training Association. The task of this peacetime training organization is to complement the training of conscripts, prepare men and women volunteers for the work of defence force and other organizations which would operate in times of crisis, and to provide information and skills relevant to such exceptional conditions for all voluntary Finnish citizens over the age of 15. In 2001, the National Defence Training Association organised about 900 courses, which were attended by about 24,000 people.

General national defence training is given in national defence courses under the supervision of the Cabinet Committee on Foreign and Security Policy and close to 40,000 have taken part in national and regional courses. There is also on-going training throughout various sectors of the community to prepare for crisis situations.

Important support also comes from the Soldiers' Home Association with service clubs and canteens operating in garrisons and during field exercises. Most of the 8000 women involved in these activities are volunteers.

DEFENDING THE COUNTRY

CENTRAL IMPORTANCE OF THE ARMY IN TERRITORIAL DEFENCE

The fundamental objective of national military defence is to make even contemplating the subjugation of Finland or the exploitation of its territory an unprofitable venture from the start. Territorial defence system is a preventing factor for crises.



At the end of 2001, Finland decided to procure NH90 military helicopters as transport helicopters for the readiness formations of the Army.

■ A military capability must secure the surveillance and control of the whole nation and protect the country's territorial integrity. It must also enable flexible adjustment of defence readiness as the situation requires and guarantee the defence of the country with all the strength available.

Defence Forces watch, safeguard and defend

■ The tasks of the Finnish Defence Forces are prescribed in the Act on the Defence Forces. The most important tasks include the surveillance of the land and sea areas as well as the airspace, the protection of the country's territorial integrity and the all-out defence of the nation. Other tasks include the maintenance of defence readiness, the provision of military raining and support for voluntary national defence commitments which all create the necessary prerequisites for carrying out the main tasks. In addition, the Defence Forces provide other authorities with administrative aid. Also participation in peace support operations is an important area.

The importance of maritime and air defence is further emphasized in territorial surveillance and the protection of territorial integrity. In repelling a surprise strategic strike, the most important units are the ones provided by the readiness formations of the Services to prevent and repel a strategic strike. The Army plays a decisive role in defending the country and repelling a large-scale attack.

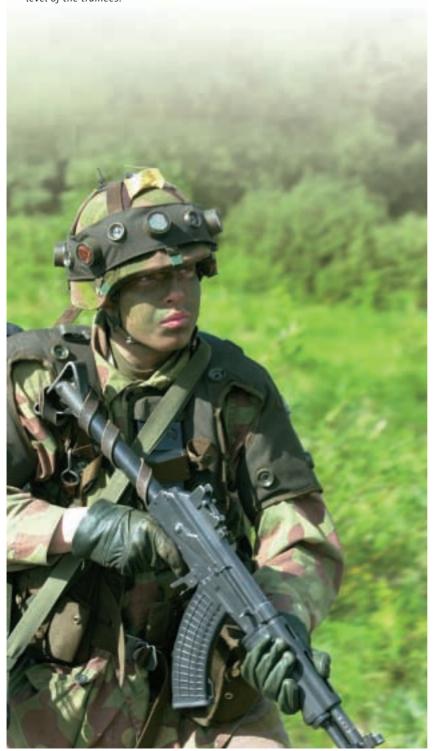
Chief of Defence leads the Defence Forces

■ The Defence Staff constitutes the supreme headquarters of the Chief of Defence. The Defence Staff is under the Chief of Defence in matters of military command and administratively under the Ministry of Defence. The Defence Staff is responsible for national defence planning, the allocation of military resources and the development of a military capability and preparedness.

The Chief of Defence leads the three Commands, the Air Force and the Navy. The Commands are responsible for planning the defence of their own region, preparations and command, and co-ordinating defence preparations between Services and authorities.

The twelve military provinces, which come under the Commands are responsible for conscription affairs, mobilisation of wartime units, organisation and command of local defence and for guiding and supporting voluntary national defence work within their areas. A military province plans and implements voluntary defence. It can be ordered to be in charge of defending its area.

The Air Force and the Navy are independent Services under the command of the Chief of Defence. They are responsible for national air and naval defence. Finland is divided into three air commands, two naval commands and forms one coastal area. The combatants' simulators simulate realistic situations and therefore boost the motivation level of the trainees.



Territorial defence is the guiding principle

• The defence solution constitutes the principle of implementing national military defence. It is called territorial defence and has been developed over the decades on the basis of Finland's historical experience, to be the most suitable for our conditions and resources.

The main principles of Finland's military defence solution include:

- territorial defence covering the whole country
- the training of wartime troops for the reserve based on compulsory military service and equipping them with the appropriate materiel already in peacetime
- during wartime, the general mobilisation and dispersion of troops throughout the country based on peacetime headquarters, units and military establishments.
- bringing the readiness of the Defence Forces up to the wartime requirements
- measures to prevent different degrees of military threat by pre-emptive finetuning of defence preparedness.

Territorial integrity is constantly under surveillance

• The Defence Forces are responsible for the surveillance of national territory, safeguarding territorial integrity and conducting co-operation with territorial surveillance authorities. The country's borders are the responsibility of the Frontier Guard. The Defence Forces and the Frontier Guard can be reinforced, if need be, by the Police, the Customs and the navigation and aviation authorities.

The Commander-in-Chief of the Air Force is responsible for air surveillance and its development. The information supplied by the radar system is complemented by electronic and optical means. Unidentified intruders are identified and intercepted by fighter planes in constant readiness.

The Commander-in-Chief of the Navy is responsible for maritime surveillance and

DEFENDING THE COUNTRY

its development. Maritime surveillance involves the use of radar and other electronic and optical observation equipment, as well as underwater surveillance systems. Ships and aircraft of the Defence Forces and the Frontier Guard are employed in identifying and repelling intrusive targets.

Readiness can be flexibly increased

In the case of an escalating crisis, Finland aims to anticipate threats, to take measures to stabilise the situation and to take defensive measures which increase Finland's possibilities to remain outside armed actions.

The use of force, apart from selfdefence, is decided on by the Ministry of Defence and as far as the Frontier Guard is concerned by the Ministry of the Interior. Violations of territory and other serious incidents are treated through diplomatic channels. The surveillance and repulse of territorial violations are handled by day-to-day operations. This capability can be further increased by strengthening personnel and employing additional technical capacity.

If the situation becomes considerably more strained, the protection of the country's territorial integrity is intensified according to the circumstances. This can be achieved by reinforcing the Defence Forces and Frontier Guard units with reservists called up for service. If the threat grows worse, troops of reservists can be called up as the situation demands.

Defence of the realm

■ In a regional crisis, the aim is to pre-vent or contain the effects of the crisis from spreading to Finland. This would be achieved through increased intelligence, surveillance and command capacity, by using peace-time troops, by mobilizing and using wartime forces as required, and by protecting targets of national importance.

If pressure is exerted on Finland, this will be met by enhancing territorial surveillance, the capacity to repel territorial violations, the operation of intelligence and command and control systems, and the protection of national institutions and key functions. The actions of newly mobilized forces would demonstrate Finland's defence capability, raising the threshold for using military force against Finland. As the pressure grows, the defence capability will be increased on the basis of the threat assessment, up to the level of preventing and repelling a strategic strike, if necessary.

To prevent any strategic strike following the exertion of pressure, it is essential that the deterrent value of the defence is as high as possible in relation to the situation. Defence credibility and the ca-pacity for preventing a surprise military attack are central factors.

The forces required for prevention and repulsion of a strategic strike will be mobilized well in advance, or at the latest when the threatened strike actually occurs. At the same time, the military and other equipment of the other major wartime forces will be decentralized. This is intended to prevent the paralyzation of systems critical to defence and society, to preserve the capacity for raising defence capability and to minimize the losses caused by any military action.

The focus is on protecting the state leadership, the Helsinki region and the critical functions of society as a whole, and in preventing the paralyzation of military defence capacity. In preparing to repel a strategic strike, a partial or total mobilization will be carried out.

The prevention of a large-scale attack will involve raising the readiness of national defence and mobilizing additional wartime forces. All defence resources will be used to repel a large-scale attack, in keeping with the principle of territorial defence.

The Air Force and air defence units with their command echelons of different levels, fighter and surveillance units and troops have the main responsibility for air defence. The objective of Finland's air defence carried out by the Air Force in conjunction with air defence units is to prevent any eventual aggressor from achieving air superiority and to protect our own forces and nationally important targets.

The Navy with its command echelons of different levels and naval units and coastal forces has the main responsibility for maritime defence. The defence system takes advantage of the conditions in Finland: the shallow coastal waters and the vast archipelago. The aggressor is prevented from entering coastal targets within a deep area, starting from the open sea and extending to the mainland. By using sea mines, the aggressor is forced to engage himself in long-term minesweeping. The focal point of defensive fire is formed by the firepower of mobile antiship missile units and artillery units.

A Command is a regional echelon, which is capable of independent action, and subordinate to the Defence Staff. It is responsible for planning, preparing and commanding military national defence in its area and for co-ordinating the operations of the Air Force, the Navy and the other authorities involved. The formations and military provinces provide the most important units for the Commander of a Command. A Command builds up the focus of operations by attachments and by guiding the use of materiel.

The military province is a middlecommand territorial echelon capable of command and control operations. Its main responsibilities include mobilising troops, defending its own territory and cooperation with the regional authorities.

In peacetime, military units have two purposes – training and maintaining readiness. In ad-dition to training, the units are ready to mobilise the most important and best equipped troops in order of priority and generally the best equipped wartime troops. The ordinary duties of the units include guarding and protecting military installations and giving executive assistance to other authorities.

Command structure constantly at the ready

• Our territorial defence system is the result of a long period of development

The readiness brigade mobilised in Karelia Brigade is equipped with modern infantry fighting vehicles.



work. Its efficiency is based on a territorial command structure constantly at the ready, rapid and decentralised mobilisation, as well as the expedient use of troops which are trained for tactical combat operations and the exploitation of the prevailing conditions. General conscription guarantees sufficiently large reserves for the wartime defence forces.

Flexible fine-tuning of readiness

The object of constantly fine-tuning the Defence Forces is to create a military force to prevent the outbreak of hostilities according to the situation and the anticipated threat. The Defence Forces can through their own internal efforts boost preparedness through gathering intelligence, intensified surveillance and the protection of sensitive targets.

During times of an increasingly strained international situation or the threat of war, reservists are called up for military refresher courses or supplementary training. These measures require additional resources for the Defence Forces and in such a case, it may be necessary to invoke additional operational powers as laid down in the Emergency Powers Act. On the proposal of the Council of State, the President of the Republic gives the order for general mobilisation which involves calling up the wartime defence forces. The strength of the wartime defence forces is approximately 490,000 men. During wartime, the powers enacted in the Act on the Defence State can be invoked and troops can be called up for operational or regional duties as the need arises. According to the 2001 White Paper, the total strength of wartime forces will be reduced to about 350,000 men by 2008.

The Frontier Guard plays a vital part in the defence of the realm and its troops

DEFENDING THE COUNTRY

can be integrated with the Defence Forces if necessary.

Army takes prime responsibility

■ Because of the large land area of Finland, the Army plays a crucial role in the defence of the realm and in countering a military incursion. The Army constitutes the majority of the wartime defence strength and bears primary responsibility for the implementation of territorial defence. The major part of the wartime forces is called up by general mobilisation and equipped with materiel which is stockpiled in various parts of the country. The Army are made up of infantry, field artillery, air defence, engineer, logistic, signal and army units.

Readiness brigades are the main striking force of the Army

■ For each of the three Commands, a readiness brigade will be trained and equipped. They are lighter, have better mobility and more fire power than the present wartime jaeger brigades. The strength of a brigade is about 5,000 soldiers. The number of regular personnel will be proportionally higher than in other brigades and reservists will undertake reservist military manoeuvres more often than at present. This will allow the readiness brigades to achieve combat readiness whenever necessary without significant delays. They are equipped either with armoured personnel carriers, infantry fighting vehicles or tracked allterrain vehicles. With modern equipment and being well-trained, readiness brigades are capable of preventing and repelling a strategic strike. In repelling a largescale attack, they are used for operational counter-attacks in focal areas. Transport

helicopters support readiness brigades in combats in which they are involved.

Until the next decade, jaeger and armoured brigades are the most important operational forces. They will be used either for operational counter-attacks or defensive warfare in decisive areas. Good mobility and high firepower are the essential features of jaeger and armoured brigades. Jaeger brigades are equipped either with armoured personnel carriers or tracked all-terrain vehicles. Their materiel includes field artillery pieces, heavy mortars, as well as anti-tank and anti-aircraft missiles. Their equipment includes T-72 main battle tanks and selfpropelled howitzers.

Infantry brigades are used primarily for defensive action in terrain decisive for the country's defence. Their combat effectiveness is based on superior firepower and defensive capability. Infantry brigades are organised like jaeger brigades but with more modest materiel.

The capability of the Army to engage in a combat action for the most part in open terrain against an aggressor with armoured troops will be improved in coming years. In accordance with the Government Report of 2001, development needs and potential of the Army's performance to meet future challenges will be defined on the basis of the research on the Armys' striking power.

Local Forces are a vital part of the territorial defence system

• Local defence comprises territorial defence covering the whole country. They engage in rearguard action and create a depth of defensive preparedness to delay and wear down the enemy. Local Forces are for limited battle and support operations in certain areas or targets. They

are used to wear down and slow enemy action, to control areas and to keep vital targets.

Reserve forces create an offensive focus

■ The national offensive focus is created by concentrating the reserves of the high command (Defence Staff) and Air Force and Navy units for decisive battles in defence of the realm. The reserve forces of the Defence Staff include formations, reconnaissance units, heavy artillery battalions, multiple rocket-launcher batteries, anti-aircraft battalions, missile units as well as signal, engineer and logistic units.

The reserve units are used to reinforce the focus of defence, for operational counter-attacks and to beat the enemy in decisive battles. The main task of the highcommand field artillery is the operational bombardment of the enemy rear echelons. Enemy gun positions, command posts and reserves are the main targets. The main firing effort is provided by concentrated use of multiple rocket-launcher units. The air defence units protect vital installations, reserves, concentration march columns, bases and lines of supply as well as the gun positions of the high command artillery. The signal units are responsible for setting up communications. An automatic communications network provides the structure for command, reconnaissance and artillery connections. The engineers delay the advance of the enemy by mining and destroying roads and bridges. The movements of own troops are improved by breaching minefields and improving roads and bridges. The task of the high command army logistic units is to maintain the ordnance and other materiel of troops and to provide medical assistance for the sick and wounded.



MARITIME DEFENCE

MARITIME DEFENCE IN THE READY ALREADY IN PEACETIME

The Navy is responsible for the continuous surveillance and defence of the sea and coastal areas and the archipelago. Maritime defence has a high degree of readiness and defensive capability even in peacetime. It is the task of our maritime defence to provide surveillance of the sea areas, to repel territorial violations and attacks at sea and to protect shipping lanes vital for our country and sea traffic.



The anti-ship missile units make up an integral part of maritime defence.

• The activity in our sea areas, from territorial surveillance in peacetime to repelling attacks, consists of close cooperation between all the services and their branches. The Frontier Guard units and other authorities operating in coastal waters also play a vital role in maritime defence.

The main responsibility for the defence of the coastal area and the archipelago

rests with the stationary force of the Navy, consisting of defence stations and forts of the coastal forces, minefields laid by naval units and Army forces deployed to the coastal areas. The mobile force in maritime defence is formed by naval units, anti-ship missile units, motorised coast artiller y units and coast jaeger units. Air Force units support our maritime defence. The coast guard units take part in maritime defence and they can be wholly or partly integrated with the Defence Forces when readiness is raised.

High degree of readiness and defensive capability

• Characteristic of the Navy is the high state of readiness already in peacetime and the ability to rapidly bring units and weapon systems up to full strength. Most of the naval vessels are kept operational throughout the year, except the most severe ice-conditions. In addition to training, these vessels are ready for immediate surveillance or identification duties as well as for the use of force. The rest of the vessels are in a lower state of readiness but even they are rapidly ready for use.

The efficient coastal units raise the threshold for pre-empting potential attacks. In addition to training, the coastal forts situated in the most important areas are at the ready to open up warning or defensive fire. In a state of basic readiness, some forts are only manned with guards but they can be very quickly brought up to full firing strength. The coastal units carry out constant radar and visual surveillance as well as underwater monitoring. The fixed surveillance stations of the Defence Forces and the Frontier Guard form the backbone of Finland's coastal surveillance system. Mobile surveillance is carried out by vessels and aircraft of the Navy and the Frontier Guard. A target or other activity at the borders observed by the sea surveillance units will be confirmed or identified and, if need be, appropriate measures to warn or halt the intruder will be taken.

In a crisis situation, the sea surveillance units of the Defence Forces and the coast quard units of the Frontier Guard are brought up to full readiness. Thus the number of surveillance stations is increased many times compared with peacetime. Surveillance is also reinforced by increasing the number of surveillance flights and sea patrols. If necessary, the number of sea-lanes allowed for merchant shipping will be reduced to raise the readiness to repel attacks and to protect shipping. The movement of fishing and pleasure boats will also be restricted and the inspection of merchant ships will be boosted and defensive mines laid according to the situation. The readiness of coastal defence will be raised by reinforcing the command system and bringing the missile, artillery, anti-aircraft and coastal infantry units as well as other coastal troops up to battle strength.

The Navy supports the Army

The Navy supports the Army through reconnaissance, surveillance of sea areas, by laying mines, repelling attacks and violations of territorial integrity and by protecting shipping.

Our ability to repel attacks at sea and

in the archipelago is mainly based on naval mine barrages and the fire power of missile units. The support of Air Force and Army units is required for the protection of these weapon systems and other battle action.

Safeguarding vital shipping lanes

Merchant shipping and the sea lanes are open to enemy action. Sea traffic is essential for Finland's economy and therefore it is necessary to safeguard all the foreign sea traffic inside the limits of territorial waters.

The defence of the Åland Islands, which is of strategic importance for shipping, places exceptional demands on mobility and battle readiness. Sea traffic is protected by directing vessels to sheltered routes, by running in poor visibility and by regulating traffic and harbour activities. If necessary, merchant ships can be grouped into convoys protected by naval and air defence units.

Sea surveillance and reconnaissance as well as mine-countermeasures also serve to protect merchant shipping. Pilotage, the maintenance of sea lanes, as well as preparations for emergency routes and waiting areas are vital for sea traffic in crisis situations.

The air-cushioned craft are highly suitable for use in all seasons.

AIR DEFENCE

PROTECTION OF AIRSPACE, BY FORCE IF NECESSARY

The Air Force is responsible for the continuous surveillance of Finland's airspace. In wartime, the main task of the Air Force is fighter interception. The anti-aircraft troops protect important national and military targets.

Military pilot training, started during conscript period, reaches its climax at the controls of a fighter.

In peacetime, the main purpose of air defence is the surveillance and guarding of our airspace. Violations will be intercepted by force, if necessary, and the Air Force assumes prime responsibility for these actions. In addition, the Air Force participates in both civil and military air traffic control as well as nationwide search and rescue services. The command and control centres of the air commands operate a real-time radar surveillance system twenty-four-hours a day. The centres automatically exchange pictures of the air situations of the areas under their responsibility. The fighter interception and anti-aircraft systems are complementary to each other.

A real-time air simulation picture day and night

The all-round capability for high altitude surveillance is provided by a long-range surveillance radar network. Low-level cover for sectors of greater vulnerability is provided by Finnish-made medium-range surveillance radar. A short-range radar network is used to cover the dead angles between the different sectors.

The radar targets are identified by the joint efforts of both the civil and military authorities. If a flying object cannot be identified by comparing flight plans and routes, the command and control centre responsible issues orders for an armed aircraft on call to take wing.

The armed identifying aircraft determines the nationality and details o the aerial target and escorts foreign aircraft out of Finnish airspace. If necessary, it forces the intruder to land. Both civil and air force bases are regularly used for identification purposes.

To increase the effectiveness of radar surveillance, the off-duty radar can be activated and the surveillance network can be further reinforced by flight safety and anti-aircraft fire control radar. In a state of advanced readiness, the command and control centres and radar stations can be reinforced by trained reserve personnel to provide round-the-clock radar surveillance which can be further complemented by the call-up of ground observation units.

It takes only a few days to bring the air defence system up to full wartime readiness. This is based on the high state of readiness which is maintained even during peacetime.

The alarm and information services of the Civil Defence system can be rapidly started up, if need be, using both the main and auxiliary facilities of the air defence command centres. The most probable military threat against Finland during an international crisis would come from the air and consequently air defence must keep Finnish airspace out of the conflict.

Keeping Finnish airspace inviolable

• A prospective decision by an outsider to use Finnish airspace or to occupy the airports and bases is based on expert



AIR DEFENCE

assessments on the performance of our defence and on our will to defend our country. If Finland's capability to protect its territorial integrity is credible, then the risk of getting involved in a crisis or war is low. For this reason, the performance of our air defence, the quality, number and use of our aircraft and anti-aircraft defence as well as the level of training for personnel are constantly observed by foreign powers even during peacetime.

There can also be attempts to use electronic warfare measures to jam the surveillance of our airspace. Consequently, attempts at jamming must be identified and evaded to convince any opponent that the calculated effect cannot be achieved by these measures. In order to achieve the best possible preemptive defence, the whole air defence system has to be at full readiness immediately as the first signs of a crisis become apparent.

Potential air attacks against Finland can be best countered by interceptors and anti-aircraft weapons. The effect of any possible attack can be minimised by the use of air-raid warnings, fortifications, camouflaging and diversion.

Fighter interception is the main task of the Air Force

• The purpose of the attacker is to thwart the mobilisation and concentration of the troops as well as to suppress the Finnish air defence and C³ system. The enemy tries to separate the defending troops and reserves and to hamper logistic transports by destroying traffic routes.

The primary targets of fighter interception are the enemy bombers and assault aircraft which are the most dangerous targets from the point of view of the Army and Navy battle. In addition, the interceptors participate in the protection of the most important national targets such as the capital.

If there is no fighter interception, the aggressor may concentrate the aircraft and C³ system of his whole Air Force on the support of his Army and on paralysing our defence. Aircraft are also used for air reconnaissance, parachuting, special

Finland has procured state-of-the-art anti-aircraft missile systems.



operations and various support missions. There are more and more helicopters in the combat area. As a rule, the attacker is capable of operating day and night, in all weather and light conditions.

Today, it is not possible to increase the number of interceptors and pilots after the start of war operations. For this reason, the wartime capacity has to be maintained already in peacetime. Only in this way can the required war-preventive effect of the air defence be attained.

The base facilities support the use of fire by fighter interceptors of the Air Commands – the readiness formations of the Air Force. The structure of the bases, their material and trained units provide basing arrangements for the fighter aircraft in different conditions and threat scenarios. All elements have to be in right balance to achieve the desired overall performance capability. The central construction of the bases, which play an essential role for the fighters' performance should be completed and available for the base units before any action is started.

Anti-aircraft artillery is part of air defence

Anti-aircraft defence protects targets important to the whole nation, targets of all the services that are important for the defence of the country and the mobilisation of units and their battle. Antiaircraft defence is also engaged in causing losses to the aggressor. The major part of our anti-aircraft defence is organised into Army, Navy and Air Force units. For instance jaeger and armoured brigades have anti-aircraft artillery battalions with both missiles and guns. This defence system has at its disposal modern ordnance such as the 96 BUK-M1 medium-range surface-to-air missile, capable of intercepting lowand medium-level flying targets night and day, both in darkness and in poor weather conditions. Another example of the equipment is the SAM 90 missile system (Crotale NG).

Anti-aircraft defence fire is commanded by echelons equipped with radars and integrated into the firing command and control system.



SYSTEM OF TRAINING AND EDUCATION

HIGH-LEVEL TRAINING

The aim of training is to create combat-efficient troops and highly motivated and professional personnel.



Finland trains annually about 30,000 conscripts.

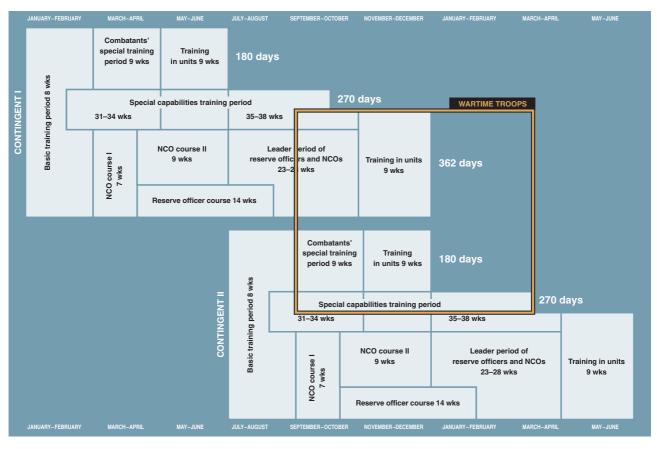
• The statutory task of the Defence Forces is to provide military training. The task includes the obligation to promote the will to defend the country and to work for improving the physical condition of citizens. Miltiary training is the most visible peacetime task of the Defence Forces. The aim is to create combatefficient wartime troops.

Training provides the basis for all tasks and thus supports readiness. Efficient training strengthens the credibility of national defence and serves to prevent the outbreak of war. Military training is particularly demanding because of the difficulty and danger of military operations and combat conditions. Conscripts have to learn to operate effectively both as individuals as well as members of a team. Another important element is to minimise losses under all circumstances.

Training of conscripts forms the basis

 Military service is divided into conscription training and refresher courses for reservists. Annually about 30,000 conscripts do their compulsory military service. About 35,000 reservists are trained at refresher training courses each year. By law, the liability for military service starts at the beginning of the year when a young man turns 18 and continues until his 60th birthday.

Conscription training forms the basis for wartime troops. Usually, men carry out service at the age of 19–20, two years after their call-up. Approximately 82 % of the age class perform their military service. Conscripts enter service twice a



Periods of service of conscript training.

year, in January and in July. The leaders and those to be trained for more demanding special tasks serve 362 days. The ranks to be trained for tasks that require special skills and occupational knowledge serve 270 days. The training for other tasks in the ranks takes 180 days.

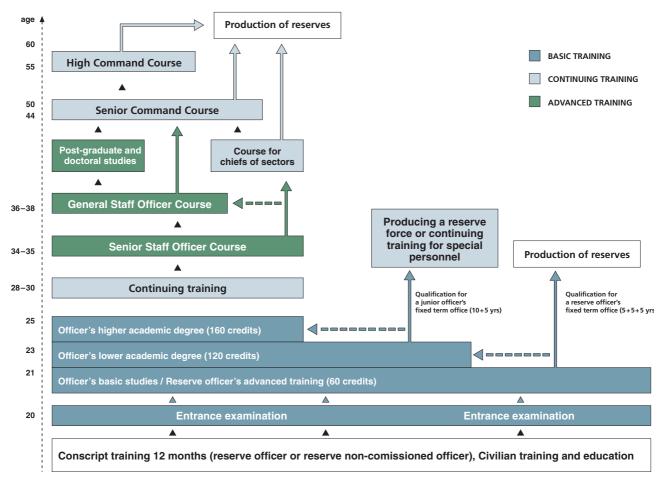
Since the beginning of 1995, women have been able to volunteer for military service. The only requirements are that they are Finnish citizens, aged 17–29, with a clean bill of health and personal qualities suited for military training. They carry out their training together with the men according to the same principles and they are trained for the same duties as the normal conscripts. Annually about 500 women do voluntary military service.

Service trains and orientates conscripts for tasks in military defence, and thereby the prerequisites are created to produce the entities of units needed in case of war. This requires that every man is trained for the wartime tasks according to his skills and suitability. During the last months of service, the conscripts receive training in the units' wartime organisation. When the conscript training period is over, the trained troops are transferred to the wartime reserve of the Defence Forces. Training then continues in refresher exercises.

Refresher training for reservists is provided on task-based refresher courses for troops and staff. Training for special tasks is generally carried out in the form of courses for reserve officers and special troops. The primary purpose of refresher training is to mould the reservists into efficient combat units according to the tasks for which they may be called up. The aim is to provide training for the most important wartime troops at five year intervals, and for the readiness brigades at more frequent intervals. According to law, officers can be recalled for refresher training for a total period of 100 days, non-commissioned officers for 75 days and the ranks for a total period of 40 days. The women who have done their military service work under the same provisions in the Conscription Act as the men. They are assigned to wartime tasks in line with their training, and recalled to refresher training according to the same principles as men.

The Defence Forces for the main part carry out the training of career soldiers. The system is dovetailed with the Finnish general system of education and universityand institute-level education is arranged for military personnel. Studies can be continued up to the level of licentiate in the Defence Forces' own education institutions. Postgraduate students can

SYSTEM OF TRAINING AND EDUCATION



The officer's academic training programme; the officer's higher academic degree and lower academic degree at the National Defence College.

go on to take a doctorate.

The development of the Defence Forces' whole training system is continued according to the principles of Personnel Strategy, which will be completed in 2002 and will cover the years 2002–2012.

High-level officer training

• Officer training is divided into the first degree and the postgraduate degree as well as continuing education which is based on the degrees obtained and service experience. Officers are trained at the National Defence College. Higher education is also at advanced education divisions of service and branch schools, subordinate to the National Defence College.

Officer training usually lasts from 6 to 7 years. The officer's academic training programme includes the officer's higher academic degree and lower academic degree. The higher academic degree, which is equivalent to 160 credit units, lasts for four years. The lower academic degree is equivalent to 120 credit units and lasts about three years. Postgraduate studies consist of a general staff officer course and a doctoral degree in military science. The general staff officer's degree is equivalent to 90 credit units. The studies comprise a one-year senior staff officer course and a one-year general staff officer course. Studies in the doctoral programme last 2 to 5 years. Continuing education is given on courses lasting 2 to 10 weeks. These include courses for peacetime company commanders, wartime battalion commanders, service branch commanders, branch chiefs, senior officers and the high command.

Special officers joining the Defence Forces have already obtained a collegeor university-level education in their own field and work experience before they join. Training given to these special officers as well as chaplains is in the nature of orientation and continuing education training. Some of the special officers are given training on courses organised by the Continuing Training Division of the National Defence College, on courses for senior officers and the high command as well as on national defence courses. During their training period, special officers undergo continuing training for an average of two years.

Training of warrant officers will end in 2003

The degree for warrant officers consists of basic training for two and a half years. The course comprises six months of guided practical training in different units.

As the reform of officer training was introduced in 2001, the basic training for warrant officers was discontinued. Continuing and complementary training for warrant officers is mainly given at the military service and branch schools of various kinds. The whole training period for warrant officers takes on average 3–4 years.

Training for enlisted personnel (both men and women) begins with the basic course. It lasts about two months on branch- and task-based courses and includes practical training experience. Those destined for superior ranks undergo special complementary courses with the emphasis on training for supervisory duties.

Civilian personnel already trained

About half of the personnel in the Defence Forces are civilians and over half are women. They are taken on when they have already received basic vocational or professional education and have work experience. The Defence Forces arrange special workplace orientation courses for them and also regular and branch-led continuing education. The main aims of this training include bringing them up to the state of readiness required by their duties, maintaining and developing their own professional skills and training them for new and alternative tasks. Civilian employees with an academic degree can study at the Continuing Training Division of the National Defence College, on courses for branch chiefs, senior command, the high command and national defence courses.

Continuing learning and developing expertise in the personnel

Competence of the entire personnel in the Defence Forces is developed according to the principles of a learning organisation and continuing learning. Well-planned mobility to new tasks and career planning are used to develop professional skills of the personnel. Studies form a part of all tasks and are charac-terised by a self-steering capability, learning to learn, analytic thinking and an open learning and working environment, which is independent of time and place. The personnel maintains and develops its working capacity and fitness for field with regular exercise and performing annual fitness tests.

Students use modern learning methods at the National Defence College.



FRONTIER GUARD

ALL FRONTIERS ARE GUARDED

The main task of the Frontier Guard is to protect and monitor all national borders, to control arrivals at and departures from the country, and maritime rescue tasks. The Frontier Guard takes also part in the defence of the country.



The Frontier Guard is responsible for the control of people arriving in and departing from the country.

After Finland had gained independence, the Council of State made a decision according to which the responsibility for guarding Finland's borders was ordered to frontier guard troops, which were militarily organised and subordinate to the Ministry of the Interior.

The Frontier Guard developed its present organisation after the Second World War when the Coast Guard was merged with it. It also assumed responsibility for guarding the western and northern borders. In recent years, the tasks and organisation of the Frontier Guard have been revised to meet the changes that have taken place in Finland's environment.

Frontier Guard is an authority responsible for security

• The Frontier Guard is responsible for guarding the national borders and for

controlling arrivals and departures. The aim is to control the situation at the borders and to retain stable conditions.

The Frontier Guard runs the Sea Rescue Service and takes part in search and rescue operations and transportation of patients. Together with the police, the Frontier Guard is responsible for maintaining public order and safety in the border and sea areas. It also assists the Customs in carrying out customs and passport control.

Frontier Guard is under the Ministry of the Interior

• The Frontier Guard is led by the Chief of the Frontier Guard. He is aided by the Frontier Guard Headquarters which also functions as the Frontier Department of the Ministry of the Interior. Four Frontier Guard Districts, three Coast Guard Districts and the Air Patrol Squadron are responsible for the Frontier Guard duties in their respective areas. The personnel receive their training at the Frontier Guard School and the Coast Guard School.

International co-operation is important

The Frontier Guard has well-functioning

P IN ALL

VICTOR

contacts with the authorities in all neighbouring countries and with the authorities responsible for border control in the European Union. According to the Border Control Agreement in force between the Finnish and Russian border, border matters are handled by the Frontier Guard.

In addition to expert assistance, training and material support are provided to frontier guards in Latvia and Lithuania. With Estonia's frontier guard and Sweden's coast guard district, co-operation in control duties is carried out in the Gulf of Finland, the northern part of the Baltic Sea and the Gulf of Bothnia.

Co-operation continues between the frontier guard authorities in Finland, Estonia and Russia as well as between those of Finland, Norway and Russia. Finland has also participated in crossborder co-operation with the Baltic Sea states and in the duties of the work groups of the European Union and of the Schengen Treaty dealing with border control.

Long tradition in defending the nation

• Ever since its establishment, national defence has been included in the tasks of the Frontier Guard. Border control means also controlling Finland's territorial integrity. Conscripts are trained to handle crisis-time tasks in the Frontier Guard but they do not participate in peacetime border control activities.

27

28

Co-operation between civilians and the military is an important element in a crisis-management operation.

INTERNATIONAL ACTIVITIES

FROM PEACE-KEEPING TO CRISIS MANAGEMENT

Change in the security environment and Finland's participation in the development of international crisis management, as in NATO's Partnership for Peace programme, are factors increasing and expanding international co-operation in the Defence Forces. Preparedness to participate in military crisis-management operations will be developed as part of Finland's own defensive capability, which is underlined by the fact that, at the beginning of 2001, the preparation and implementation of peacekeeping and peace support operations became the statutory task of the Defence Forces and were transferred from the Ministry of Defence to the Defence Forces.

■ The UN's peace-keeping operations have in fact been the most conspicuous part of the interational activity of the Finnish defence administration and the Finnish Defence Forces. So far, the system created to implement peace-keeping has served well the requirements set.

Finland participated in peace-keeping operations for the first time in 1956, one year after joining the UN. Since then, over 40,000 Finns have taken part in various operations. Finns have served mostly in peace-keeping force operations in Sinai in 1956-57 and 1973-79, in Cyprus in 1964–77, in the Golan Heights in 1979–93, in Lebanon 1982-2001, in Namibia in 1989–90 and in the former Yugoslavia since 1992. About 800 Finnish officers have participated in military observer and combined missions in Kashmir, Iran, Iraq, Kuwait, Afghanistan, the Balkans, Somalia, Eritrea and Ethiopia. Annually 1,000–1,700 Finns serve in UN operations; by law the limit is set at 2,000. Presently there are Finnish peace-keepers in ten missions in operation.

Finnish officers have served in high international positions which is a characteristic feature of Finland's peace-keeping activities. They have acted as chief coordinator of the entire UN Force in the Middle East, as commanders of the military observer groups in the Middle East, Afghanistan and Pakistan, as force commanders in Sinai, Cyprus, the Golan Heights and Lebanon, as well as liaison officer to the UN Secretary General.

Improving international interoperability

In the Partnership for Peace programme (PfP) signed with NATO, Finland has put its peace-keeping know-how at the disposal of other countries and taken part in the exercises and seminars held. In 2001, about 800 Finns took part in various international training events.

The co-operation within PfP has improved the interoperability of the Finnish forces and especially that of the leaders in peace-keeping operations and in search and rescue service. The know-how and experience gained by the Finns during the more than 40 years in peace-keeping operations have been taken advantage of in PfP exercises and training.

The operations in Bosnia and Kosovo have shown the importance of the PfP in the training and planning of cooperational capability. Within the PfP programme Finland also participates in the planning and review process (PARP), which facilitates evaluation and development of interoperability in crisis management both technically and operationally.

The readiness to participate in military crisis-management operations is developed as part of Finland's defensive capability. In 1996 the Defence Forces started a new type of training for conscripts. The aim of this rapid-deployment-force training and subsequent international crisis-management missions serve the development and operational readiness of the troops, which are meant for national defence.

Finnish crisis-management troops form a national pool of forces, which provides troops for the UN, the EU, NATO's Partnership for Peace goals and the Nordic Pool of Forces Register (NPFR). This pool consists of two infantry battalions, an engineer battalion, a CIMIC unit (a civilianmilitary co-operation unit), a transport company and a minelayer. In addition, military observers and staff officers are assigned to missions. Until the year 2006, the Air Force will only participate in exercises. The decision to send troops to a mission is taken on a case-by-case basis.

Confidence-building measures

• As a country pursuing a policy of military non-alliance, Finland considers



Crisis management means visible presence among local people.

INTERNATIONAL ACTIVITIES

that the Confidence- and Security-Building Measures (CSBMs) of the OSCE are of particularly great importance in arms control. It is important for Finland that regional special conditions and special features of the armed forces are considered in European arms control according to the principles of the OSCE. In the Defence Forces, the most prominent part of the CSBMs are evaluations and inspections, which are carried out in accordance with the Vienna Document 1999 (VD 99). In addition to these, Finland participates in measures increasing openness as stated in VD 99, such as visits to military bases, observation of exercises and demonstration of new types of equipment.

Finland has been an observer in the preparation of the Open Skies treaty on inspection flights, closely connected with the activity of the OSCE. According to the treaty, observation flights can be conducted over the territory of another state. The Defence Forces have made preparations to participate in the activity required by the treaty if it enters into force by training personnel to conduct and receive an observation flight. The Defence Forces will also meet the obligations of the Chemical Weapons Convention and the Ottawa Convention when military installations are involved and, when necessary, will participate in arms control negotiations. Finland aims to join the Ottawa Convention and eliminate landmines within a decade without, however, making compromises over credible defence.

Nordic co-operation is essential

Permanent Nordic co-operation in peace-keeping strengthens Finland's opportunities to participate in peace-keeping and crisis-management operations. Farreaching co-operation is a characteristic feature of Nordic peace-keeping activities. Presently the training of personnel for special tasks is shared out among the Nordic countries.

The development process of Nordic cooperation, NORDCAPS (Nordic Coordinated Arrangement for Military Peace Support), was started in 1996. The target of NORDCAPS is to improve co-operation in Nordic peacekeeping in the present, more demanding situation. On 1 October 2000, a planning element was established in Stockholm to plan common peace-keeping arrangements. The experience of co-operation in military crisis management between the Nordic countries in UN peace-keeping missions and in the Balkans have been very positive indeed. Common experiences and established operations models form a good ground for further development.





MATERIEL CAPACITY

WARTIME CAPACITY AND PERFORMANCE WITH LIMITED RESOURCES

Materiel capacity plays a central role in the capacity and performance of the Defence Forces. Wartime troops are constituted by the mobilisation of trained personnel and their materiel.

■ The defence of the realm in wartime is estimated to require upwards of 350,000 men and consequently the materiel requirements are considerable, although during peacetime, everyday training can be carried out with a much smaller amount of materiel. The procurement of materiel for wartime preparedness is a prolonged and continuous multiphase process in order to bring the troops up to full battle readiness. It is a constant race between the on-going development of weapons technology and limited financial resources.

The introduction and exploitation of new systems require the creation of a new organization, the constant updating of new methods, logistics and the retraining of personnel. For example, the introduction of new interceptors takes about ten years.

Military defence expenditure in the recent decade has accounted for 1.7 per cent of GDP annually. In 2001, the share was only 1.2 %. This figure is one of the smallest in Europe compared to the defence budgets of other countries. The Defence Forces have allocated appropriations to the most essential sectors - training and especially materiel purchases which alone have accounted for 32–45 % of the total defence expenditure (in 2000, 39.8 %).

Focus shifts from air defence to readiness brigades and helicopters

 Modernization of the Air Force's interceptors, begun in the early 1990s, has



PHOTO: PATRIA'S ARCHIVES

meant a delay in the further development of the army. The fighting readiness of the land forces has been improved, but the more important troops still require the latest leading-edge materiel.

The readiness brigades, the armoured brigades and jaeger brigades are the first to be formed in wartime and they have been equipped to be a highly mobile and powerful force. Their materiel readiness is central to the fighting strength of the land forces. Today the armoured brigades have the highest state of readiness and are the best equipped.

Procurement authorisation will be used

to equip the readiness brigades, which is scheduled to take place until the year 2008. For example, new CV-90/30 fighting vehicles and AMOS mortar systems will be procured. It has been planned to use the authorisation to procure combat-efficient main battle tanks, which would maintain the meeting engagement capability of the Army in the 2010's. The main aim is to improve the command and control capability, fire power, mobility, combat strength and logistic systems of the formations. The anti-tank, field artillery, anti-aircraft and engineer units belonging to the military high command and in-



Patria and the Finnish Air Force have co-operated to create a software management system for the F-18C/D Hornet. PHOTO: PATRIA'S ARCHIVES

tended as support for the brigades and creation of a focal point have been modernised but there is still a shortage of materiel. The purchase of transport helicopters, to be carried out as a separate project, accounts for about one third of the new procurement authorisation.

In the future, more attention will be paid to equip troops that are intended for preventing and repelling a strategic strike. The procurement authorisation, which started in 2002, will focus on improving the command and control system and the air defence system in Helsinki region, and the capability of urban jaegers to repel a strategic strike. As to the procurement authorisation to be started in 2004, the aim is to replace basic systems which are important for the territorial defence system.

A large share of the defence appropriations has been and will continue to be devoted to air defence. This is a result of the increased importance of air defence in modern warfare and the need to protect territorial integrity in peacetime.

In addition to interceptors, the Air Force needs transport helicopters, light aircraft, radar and other control centres complete with their communications systems. The further development of the air defence network (guns, missiles, radar and control centres) forms an essential part of overall air defence.

Modernisation on naval ships and coastal troops

■ In the early 1990s, fast attack missile craft, minelayers, minesweepers and weapon systems were procured for naval units. Since the late 1990's, the aim has been to continue procurement of mines and underwater surveillance systems. The naval vessels were ordered from Finnish shipyards, which has been very important for the order books of the shipyards and the employment situation. Ongoing projects include the series procurement for Squadron 2000 (two Hamina class vessels and four T-2000 hovercraft).

In coastal defence, mobile weapons systems in particular have been developed. Motorised coast artillery battalions and anti-ship missile batteries enable fire and the point of main effort to be shifted to the most threatened areas. The performance of the command and control system is being improved as new coastal radars and maritime surveillance multisensors are procured.

Domestic procurement is important

Part of the deficiency in materiel can be made up in crisis situations by requisitioning or hiring, for example, vehicles or ships, from the civilian sector. Part of the materiel, such as tools, means of transportation and quartermaster stores can be obtained from commercial and industrial stocks but these have been considerably reduced due to more efficient storage and transport services. Because of the limited stocks of the civilian sector and the likelihood of procurement difficulties in times of crisis, it follows that the materiel already held in store by the Defence Forces plays an essential role in our military preparedness.

Domestic industry – an important supplier

The domestic defence equipment industry is also part of our material readiness. From the viewpoint of defensive capability and production during times of crisis, efforts are made to maintain order books at the minimum level required for continued production. Maintaining a sufficient level of orders will be difficult as total resources are cut back. Important domestic products include small arms, artillery guns, mortars, vessels, vehicles, river-crossing equipment, communications equipment, measuring equipment, reconnaissance equipment, servicing and repair equipment, ammunition for small arms and heavy arms, mines and most of the individual combatant's battle gear.

PEACETIME DEFENCE FORCES

Personnel

- Total strength of the Defence Forces is 16,485:
- officers 2,277,

of whom three are women

- warrant officers 3,968, of whom six are women
- special officers 817, two women included
- enlisted personnel 1,367, of whom 297 are women
- civilian personnel **8,056**,

of whom **4,111** are women.

In addition to these, there were **357** contractual soldiers.

At the end of 2001, the state's employment funds were used to hire **162** persons. The Defence Forces yearly train about **30,000** conscripts. Refresher courses aim at training about **35,000** reservists every year.

Defence budget

■ In 2001, the defence budget was about € 1.6 billion of which an average of 38 % goes to materiel procurement. Defence expenditure accounts for about 1.2 % of GDP and about 4.5 % of the annual state budget.

General conscription

The term of service for conscripts is 180, 270 or 362 days. Reservists can be called up for refresher training courses or a total of 100 days (officers), 75 days (non-commissioned officers) and 40 days (the ranks).



ARMY

Personnel

27,300 of whom 21,600 are conscripts

Peacetime training forces

3 readiness brigades (with various branches of Services)

- 3 infantry brigades
- 1 armoured brigade
- 1 artillery brigade
- 3 independent jæger regiments
- 2 air defence regiments
- signals regiment
- 1 engineer regiment 1 Reserve Officer School

Equipment

Main battle tanks T-72 M 1 T55M Armoured fighting vehicles RMP-1 BMP-2 CV-90 FIN Armoured personnel carriers BTR-50 BTR-60 MT-I BV Sisu-XA 180, 185, 202 and 205 Helicopters 20 NH-90 (as of 2004) 7 Mi-8:a 4 Hughes 500D Field artillery 122 mm, 130 mm, 152 mm and 155 mm towed field artillery 122 mm multiple rocket launchers 122 mm armoured howitzers and 152 mm self-propelled guns Mortars 81 mm and 120 mm Anti-tank weapons and missiles anti-tank missiles 2000 anti-tank missiles 83M anti-tank missiles 82 APILAS disposable recoilless rifles 95 mm heavy recoilless guns Anti-aircraft missiles Air defence system 2005 SAM 86 (Igla-1), SAM 86M (Igla), SAM 90 (Crotale NG) and SAM 96 (BUK-M1) Anti-aircraft guns 23 mm, 35 mm and 57 mm as well as SU-57 and Marksman SPAAG Anti-aircraft rifle 12.7 mm NSV Digital field communication systems YVI 1 and YVI 2 Mines light claymore mine 88 heavy claymore mine 84 light off-road anti-tank mine 87 anti-tank mine 65 77 bottom penetration mine 87 94 Mine-clearing equipment mine detector 90 bangalore torpedo 95 mine-clearing vehicle 92 Water-crossing equipment TMM bridge vehicle BLG 60 bridge tank ferry 84 pontoon bridge 73S

NAVY

Personnel

7,400 of whom 5,000 are conscripts (2,500/contingent)

Forces

- 2 naval commands
- 1 coastal command 1 coastal brigade
- Naval Academy 1 research centre
- 1 naval depot

Equipment

- 1 Turunmaa class corvette
- 4 Helsinki class missile FAC
- 4 Rauma class missile FAC
- 1 Hamina class missile FAC (another one will be received in 4/2003)
- 1 Pohjanmaa class minelayer
- 2 Hämeenmaa class minelayers
- 3 Pansio-class minelayers
- 4 Tuima class minelavers
- 6 Kuha class minesweepers
- 7 Kiiski class minesweepers
- 3 Kampela class transport craft 3 Kala class transport craft
- 4 Valas class transport craft
- 4 Syöksy class command boats
- 3 Träskö class command boats
- 1 Askeri class command boat
- 3 Jurmo class fast landing craft (36 craft by the end of 2005)
- 23 G group boats (will be received in 2001 to 2004)
- 1 T2000 hovercraft (a prototype to be received during 2002)
- 100 mm and 130 mm turret and coastal guns
- RBS-15 anti-ship missiles

AIR FORCE

Personnel

4,300 of whom 1,500 are conscripts

Forces

- 3 air commands
- 1 air support squadron
- 3 schools
- 2 materiel commands Finnish Intelligence Research Institute

Equipment

- Interceptors 63 F-18C/D Hornet
- Jet trainers
- 52 Hawk Mk 51/51A
- Elementary trainers
- 28 Valmet Vinka
- Transport aircraft
- 2 Fokker F.27 Mk 100 Friendship 1 Fokker F.27 Mk 400M Troopship
- 3 Learjet 35A/S

Liaison

- 6 Piper Chieftain
- 8 Piper Arrow 9 L-90 TP Rediao

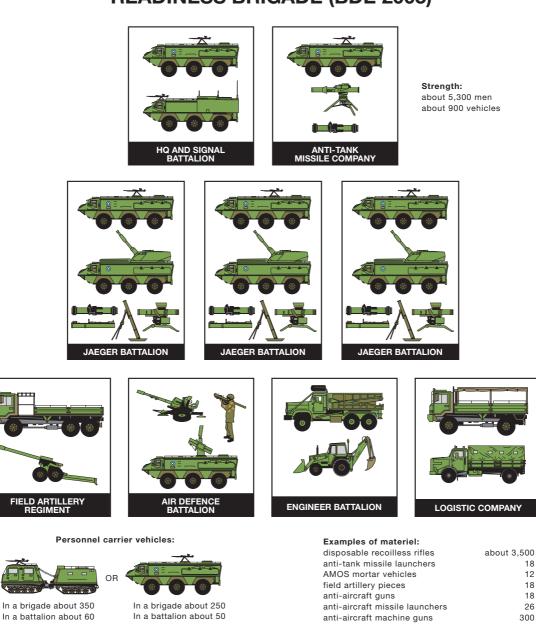
OTHER STAFFS AND UNITS

Defence Staff 3 Command headquarters 12 military province headquarters National Defence College Army Academy Defence Forces Materiel Command Defence Forces Education Development Centre Finnish Defence Forces International Centre Defence Forces Communications and Information Systems Centre Topographic Service Defence Forces Research Institute of Technology Central Military Hospital Military Pharmacv Medical Depot 35 Quartermaster Depot

WARTIME DEFENCE FORCES

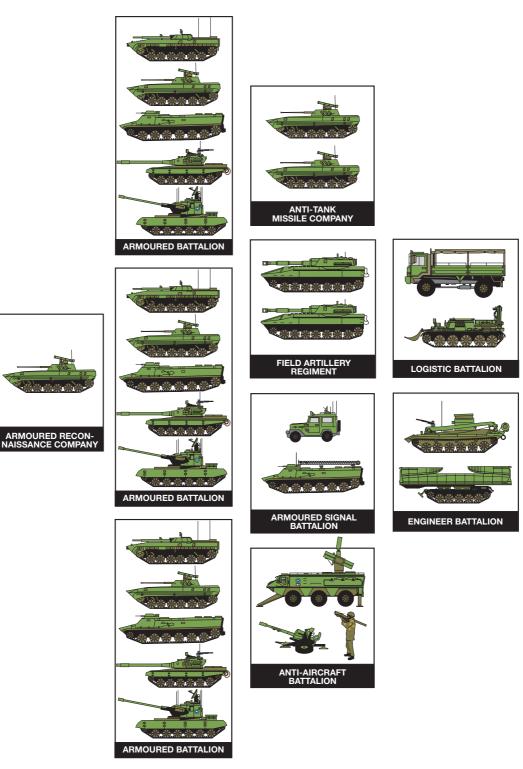
• The current wartime strength of the Finnish Defence Forces is about 490,000 troops. The strength of the Army is about 420,000 men, the Air Force about 35,000, the Navy about 40,000 and the Frontier Guard about 23,000. The best equipped troops will be organised into readiness, jaeger and armoured brigades representing the most efficient units in the Army. In addition to these units, infantry brigades will be formed to be used primarily for local defence operations. The composition of the wartime Defence Forces is supplemented by local troops and High Command units. The Navy consists of two naval commands and one coastal command and the Air Force of three air commands in wartime.

According to the Report submitted by the Council of State to Parliament in June 2001, by the end of 2008 the overall strength of wartime troops will be reduced to about 350,000 troops.



READINESS BRIGADE (BDE 2005)

ARMOURED BRIGADE Wartime organisation



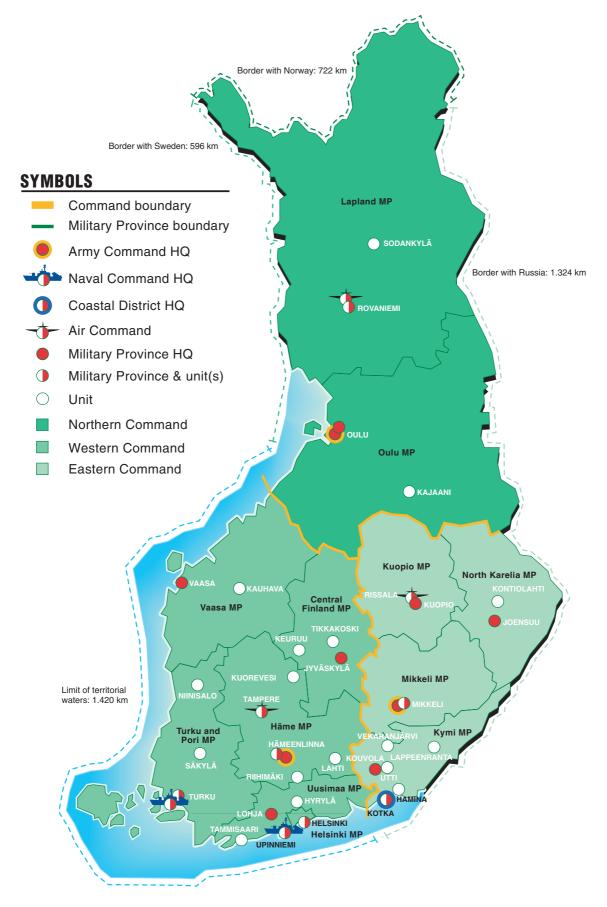
Strength: about 5,700 men

Examples of materiel: main battle tanks assault tanks and about 100 armoured fighting vehicles armoured personnel carriers command tanks anti-aircraft tanks about about engineer tanks abou observation tanks abou self propelled howitzers heavy mortars

about 65

100	
100	
t 25	
6-9	
ut 20	
ut 15	
36	
27	

TERRITORIAL DIVISION OF MILITARY DEFENCE



WESTERN COMMAND

Helsinki Helsinki Military Province Headquarters Guard Jaeger Regiment Hyrylä Helsinki Air Defence Regiment Hämeenlinna-Parolannummi Western Command Headquarters Häme Military Province Headquarters Armoured Brigade Jyväskylä Central Finland Military Province Headquarters Keuruu Central Finland Regiment Lahti Häme Regiment Lohja Uusimaa Military Province Headquarters Niinisalo Artillery Brigade Riihimäki Signal Regiment Säkylä Pori Brigade Turku Turku and Pori Military Province Headquarters South-West Finland Air Defence Regiment Vaasa Vaasa Military Province Headquarters

EASTERN COMMAND

Hamina Reserve Officer School Joensuu North Karelia Military Province Headquarters Kontiolahti North Karelia Brigade Kouvola-Utti Kymi Military Province Headquarters Utti Jaeger Regiment Kuopio Kuopio Military Province Headquarters Mikkeli Eastern Command Headquarters Mikkeli Military Province Headquarters Savo Brigade Valkeala Karelia Brigade NORTHERN COMMAND

Kajaani Kainuu Brigade Oulu Northern Command Headquarters Oulu Military Province Headquarters Rovaniemi Lapland Military Province Headquarters Lapland Air Defence Regiment Sodankylä Jaeger Brigade

NAVY

Tammisaari Uusimaa (Nyland) Brigade Helsinki Naval Headquarters Naval Academy Naval Research Centre Kirkkonummi Gulf of Finland Naval Command Kotka Kotka Coastal Command Turku Archipelago Sea Naval Command Naval Depot

AIR FORCE

Kauhava Air Force Academy Kuorevesi Aircraft and Weapon Systems School Air Force Depot -Test Flight Centre Rissala Karelia Air Command Rovaniemi Lapland Air Command Tampere-Pirkkala Satakunta Air Command Air Force Air Materiel Command Tikkakoski Air Force Headquarters C3 Systems School Support Squadron C3I Materiel Command

MILITARY ESTABLISHMENTS SUBORDINATE TO THE DEFENCE STAFF

Espoo Defence Forces Communications and Information Systems Centre Topographic Service Helsinki National Defence College Central Military Hospital Military Pharmacy Hämeenlinna Quartermaster Depot Ilmajoki Medical Depot Lappeenranta Army Academy Niinisalo Finnish Defence Forces International Centre Tampere Defence Forces Materiel Command Headquarters (depots and centres all over the country) Tuusula Defence Forces Education Development Centre Ylöiärvi

Defence Forces Research Centre

ADDITIONAL INFORMATION:

Information Division of the Defence Staff: Street address Fabianinkatu 2 | Mail P.O. Box 919, 00131 Helsinki, FINLAND Telephone +358 9 181 22424 | Fax +358 9 181 22439 | e-mail puolustusvoimat@mil.fi | Home pages www.mil.fi Information officials +358 9 181 22424 / 22412 | Publications and exhibitions +358 9 181 22420 / 22419 Military music +358 9 181 22422 | 'Ruotuväki', Defence Forces Bulletin Published twice a month: Subscriptions P.O. Box 25, 00131 Helsinki, FINLAND | Telephone +358 9 181 22432 | Fax +358 9 181 22440 e-mail ruotuvaki@mil.fi | www-edition www.mil.fi/ruotuvaki