

NORTHERN EUROPEAN AND TRANSATLANTIC SECURITY (NOTS)

Finland's Military Capability 2020

Michael Jonsson

An increasingly assertive and aggressive Russia has prompted a shift in Finnish security and defence policy. While still militarily non-aligned, Finland has significantly increased its military cooperation with the US, Sweden and other like-minded countries. The Finnish Defence Forces (FDF) have continuously maintained territorial defence as their overarching mission and are following a long-term modernisation plan. But, following Russia's annexation of Crimea, the FDF has prioritised readiness, through the creation of standing high-readiness units and improved readiness within some mobilising units, and stepped up the frequency of its participation in international exercises. Given its history, there is broad political consensus on security and defence policy in Finland. Hence, the significant increases in military expenditures needed to finance the replacement of its fighter jets and main naval vessels have moved ahead as planned, in spite of the economic crisis brought on by the Covid-19 pandemic.¹

SECURITY AND DEFENCE POLICY

Finland's security and defence policy has traditionally been shaped by the legacy of World War II – when the country faced the Soviet Union in two brutal wars – and its geography, sharing a 1300 km-long land border with its eastern neighbour. During the Cold War, this led to a balancing act in security policy, between avoiding provocation of the Soviet Union and staunchly upholding its Nordic identity and will to defend the country. After the fall of the Soviet Union, Finland's balancing changed swiftly towards the West, as Finland acquired 64 F-18 C/D Hornets from the US in 1992 and joined the European Union, in 1995. The FDF have continuously maintained their focus on territorial defence, with the aim of independently defending its entire territory over time. To achieve this, Finland has maintained universal male conscription and, above all, a sizable mobilising army.

During the last few years, Finland has shifted its security policy of military non-alignment, with expanded bi- and multilateral military cooperation.² The FDF cooperates closely with its Swedish counterpart, with the aim of being capable of operating jointly in crisis or war. In

December 2019, the respective chiefs of defence signed a common military strategic concept.³ Bilateral cooperation with the US has expanded, and is intended to develop further.⁴ In 2016, a national study on NATO membership concluded that Finland would receive the most benefit if it joined together with Sweden, but that the risk for a crisis with Russia would be significant.⁵ Instead, Finland has opted for closer cooperation with NATO and the US, including in exercises such as Arrow 18 in Finland, Red Flag 2018, in the US, and Northern Wind 2019, in Sweden. The NATO option, however, remains on the table and public opinion, which favours staying outside the Alliance, would nevertheless probably be amenable if the government were to advocate membership.⁶

Given the steady course the FDF has been kept on since the end of the Cold War, Finnish defence policy clearly favours evolution over revolution. That said, a government Defence White Paper from 2017 described a sharply deteriorating security situation, with lowered thresholds for the use of force, shortened early warning and a blurring of the line between peace and conflict.⁷ Hence, Finland has nominally expanded its wartime

1 Finland, Finnish Ministry of Defence, 'Försvarspropositionen tryggar försvarsförmågan även i framtiden', 17 September 2020.

2 Pesu, Matti, *What non-alignment? Finland's security and defence policy stems from partnerships*, FIIA Briefing Paper 227, (Helsinki: FIIA, November 2017).

3 Sweden, Försvarsmakten, 'Sverige och Finland undertecknar militärstrategiskt koncept', 18 December 2019.

4 Finland, *Statsrådets försvarspolitiska redogörelse*, Statsrådets kansli 6/2017, p. 6; Sweden, Regeringen, *Trilateral statement of intent among the Department of Defence of the United States of America and the Ministry of Defence of the Republic of Finland and the Ministry of Defence of the Kingdom of Sweden*, 8 May 2018.

5 Finland, Ministry of Foreign Affairs, *The effects of Finland's possible NATO membership: An assessment*, Helsinki: Ministry of Foreign Affairs, April 2016.

6 Järvenpää, Pauli. 'Finland and NATO: So close, yet so far', ICDS, 22 April 2019.

7 Finland, *Statsrådets försvarspolitiska redogörelse*, p. 5.

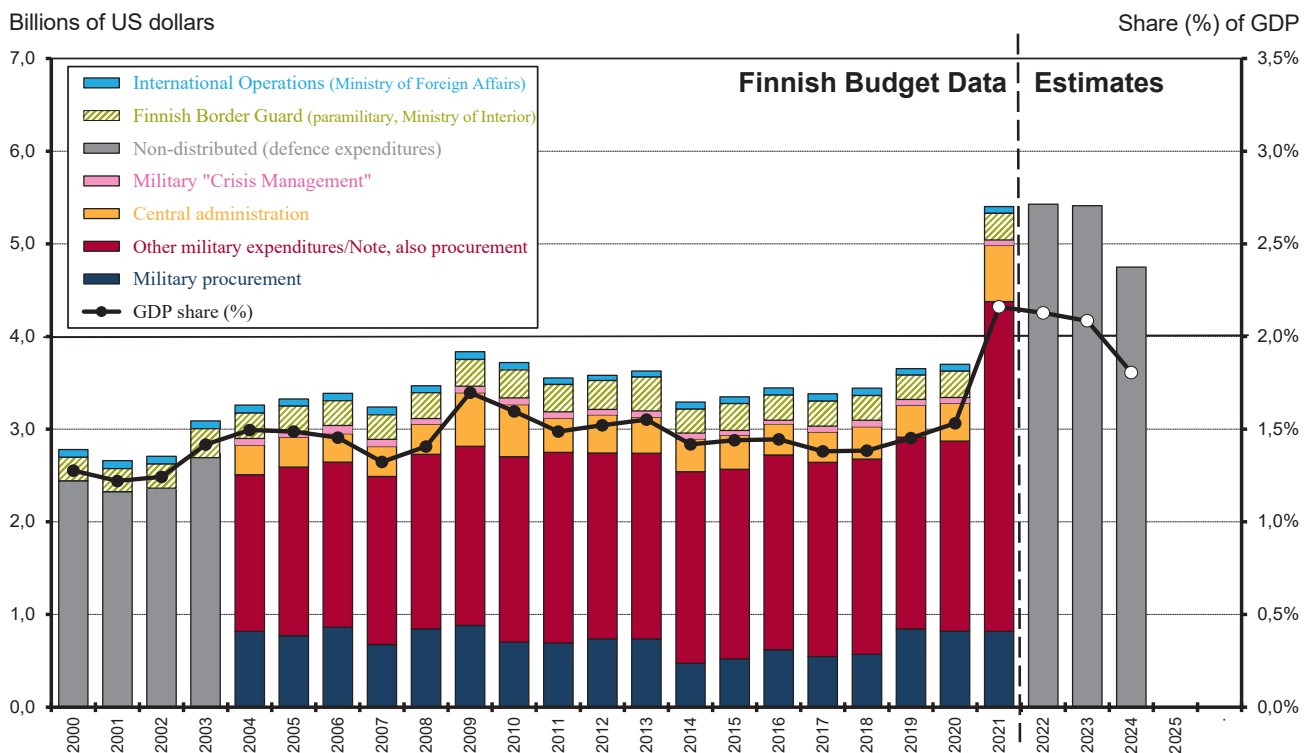


Figure: The military expenditures of Finland 2000–2025: Billions of US dollars/2015 prices (columns) and as share (%) of GDP (curved line)

Source: Bergstrand, Bengt-Göran, *NATO military expenditures*, Working Document (Stockholm: Swedish Defence Research Agency – FOI, October 2020).

NB: Estimates based on "Plan for Public Finances for 2021–2024". The figure presents an estimate of Finland's defence spending in line with the NATO definition used for all other countries in this report. Expenditures for the paramilitary Finnish Border Guard, or FBG (striped green), and for international operations (light blue) have therefore been included.

armed forces. The FDF has also developed high readiness units to bridge the capability gap between the peacetime organisation and the mobilised wartime organisation. The readiness units are trained and equipped for quick response to a range of threats, from hybrid to military contingencies of smaller scale.⁸

In keeping with the 2017 Defence White Paper, the Finnish army has been modernised, for example by acquiring self-propelled howitzers, additional rocket artillery ammunition and main battle tanks (MBTs), while ordering counter-battery radars. Its doctrine has also had to be adapted, based on lessons from the conflict in Ukraine.⁹ Lastly, the main task of the FDF has shifted from training to both readiness and training, with notable

results. While in 2014 readiness was the Achilles heel of the Finnish army, by 2017 it could reportedly put significant forces on a war footing within hours.¹⁰ The readiness system has since been further developed and the high-readiness troops have demonstrated their capabilities in exercises.¹¹ Hence, whilst the FDF has undergone significant reforms – particularly within the army – since 2017, it has kept a steady direction, guided by the plan laid out in the Defence White Paper.

MILITARY EXPENDITURES

During 2012–2015, Finland gradually reformed and downsized its armed forces, motivated by growing costs for materiel and exercises, and a modest decrease in defence

⁸ Jonsson, Michael and Engvall, Johan, *Guardians of the north – The Finnish army improves readiness and mobility to counter hybrid threats*, FOI Memo 6481, (Stockholm: Swedish Defence Research Agency – FOI, September 2018).

⁹ Cranny-Evans, Samuel, 'Defence in depth: Finland continues to modernize to counter Russian threat', *Jane's Defence Weekly*, 15 January 2020; Jonsson, Michael and Gustafsson, Jakob, *Färdplan för tillväxt: erfarenheter för Sverige från den finska försvarsmaktens reformer för ökad beredskap, operativ förmåga och uthållighet*, FOI Memo 7105, (Stockholm: Swedish Defence Research Agency – FOI, August 2020).

¹⁰ Salenius-Pasternak, Charly, *Securing Finland: The Finnish Defence Forces are again focused on readiness*, FIHA Comment 13, 18 May 2017.

¹¹ Jonsson and Engvall, 'Guardians of the north', p. 3–4.

spending.¹² This gradually caused a growing need for modernised equipment, particularly within the army, and more exercises for the reserves.¹³ Since 2015, the Finnish defence budget has increased, also modestly. Starting in 2021, it has instead increased drastically, as the costs of acquiring 4 naval vessels (Squadron 2020, with a budget of EUR 1.3 billion) and 64 new fighter jets (the HX Fighter Program, with a EUR 7–10 billion budget) will begin to be paid. Taken together, they will push the Finnish defence budget above 2 per cent of GDP until at least 2023.¹⁴

According to the plans of the Finnish Ministry of Finance for 2021–2024, the Defence Ministry's budget will increase from EUR 3.2 billion in 2020 to EUR 4.9 billion in 2021 and remain at this level during 2022–2023, hence increasing by over 50 per cent from 2020 to 2021.¹⁵ If Finland was a NATO member, it would meet both NATO's target to spend 2 per cent of GDP on defence and the requirement to spend at least one-fifth of its defence expenditures on equipment. From 2018 to 2020, the acquisition budget increased from EUR 517 million to EUR 790 million, or from 21 per cent to 29 per cent, of the total defence budget.¹⁶ The increase in expenditures from 2020 to 2021 consists mainly of EUR 1.5 billion annually to finance the acquisition of multirole fighter jets, hence tripling the Finnish materiel budget.¹⁷

ARMED FORCES

According to the Military Balance, the FDF have a peacetime active personnel of 21,500, of which 8,600 are full-time employees and 13,000 conscripts.¹⁸ The reserve consists of 216,000 personnel, divided between 170,000 in the army, 20,000 in the navy and 26,000 in the air force.¹⁹ In 2017, the wartime organisation of the

FDF expanded from 230,000 to 280,000 personnel. This was done in part by including in the personnel count the paramilitary Finnish Border Guard, or FBG, which have 14,200 personnel once mobilised, and the FDF mobilisation organisation.²⁰ The Commander of the FDF leads the organisation from the Defence Command in Helsinki.

Army

The Finnish army is currently organised into the Army Command and eight brigade-level units, as illustrated in Table 1 below.²¹ The sharp tip of the army's spear is comprised of the manoeuvre troops, which have materiel such as main battle tanks (Leopard 2A6), infantry fighting vehicles (CV90 and BMP-2M) and rocket artillery (M270 MLRS).

The manoeuvre troops represent approximately 20 per cent of the army and include 2 mechanised brigades, 2 armoured regiment battlegroups, 1 special forces battalion and 1 helicopter battalion.²²

Beyond this, the army consists of 60 percent regional troops – primarily light infantry, with some limited mechanised/motorised elements – whose primary mission is regional defence, and 20 percent local troops, who mainly provide defence in depth and secure mobilisation.²³ The army has been the primary recipient of new materiel since 2017 and is home to a majority of the high-readiness units, including company-size units based at the three largest brigade-level units. It claims to have improved its readiness, firepower and mobility, as requested in the parliamentary report of 2014.²⁴ The army's limited procurement budget, however, means that the need for modernised materiel is particularly acute within the regional and local troops, a need that can only gradually and partially be met.

12 Finland, Riksdagens kansli 4/2014, *Försvarets utmaningar på på lång sikt – Slutrapport från den parlamentariska utredningsgruppen*, (Helsingfors: Riksdagens kansli, 2014), p. 16.

13 Finland, *Statsrådets försvarspolitiska redogörelse*, p. 11.

14 Salenius-Pasternak, *Securing Finland*.

15 Finland, Ministry of Finance, *Planen för de offentliga finanserna för 2021–2024*, 16 april 2020; Finland, Finansministeriet, Statens budgetpropositioner, Statsbudgeten 2021, Förvarsministeriets förvaltningsområde, table, 'Förvaltningsområdets anslag 2019-2021'.

16 Finland, Ministry of Defence, 'Defence budget 2020'.

17 Finland, Ministry of Finance *Planen för de offentliga finanserna*, p. 20–21.

18 International Institute of Strategic Studies, *The military balance 2020* (London: Routledge), p. 101–102. According to the FDF website, the peacetime personnel is approximately 12,000 in domestic duties, of which some 4000 are civilians; see Finland, Finnish Defence Forces, 'About us', 23 March 2020.

19 International Institute of Strategic Studies, *The Military Balance 2020*, p. 101.

20 *ibid.*; Jonsson and Engvall 'Guardians of the north', p. 1.

21 Finland, Finnish Defence Forces, 'Army units'.

22 C.f. Jonsson and Engvall, 'Guardians of the north', p. 1; and IISS, *The military balance*, p. 102.

23 C.f. Finland, Finnish Defence Forces, 'Finnish Army in 2020 – Readiness sustained at every moment'.

24 Finland, Finnish Defence Forces, 'Finnish army's spearhead capabilities in 2020'; Cf. Finland, *Försvarets utmaningar*, p. 4, 8.

Navy

The Finnish Navy consists of the Navy command, in Turku, three operational units – the Coastal Fleet, the Coastal Brigade and the Nyland Brigade – and the Naval Academy.²⁵

The surface combatants include Rauma- and Hamina-class fast-attack missile craft, Hämenmaa-class minelayers and Katanpää-class mine-hunter vessels. The Finnish Navy has no submarines.²⁶ Nyland Brigade trains marine infantry in an amphibious role, while the Coastal Brigade has fixed-position artillery and anti-ship missiles.²⁷ The navy is acquiring four multi-role corvettes of Pohjanmaa class, with final delivery by 2028. While the Rauma and Hämeenmaa classes will be decommissioned as the Pohjanmaa class enters service, 4 Hamina vessels will be modernised by 2021, including air defence and anti-submarine warfare (ASW) capabilities.²⁸

Air Force

The Finnish Air Force consists of the Air Force Command and three operational units – the Karelia Air Command, the Lapland Air Command, both on Quick Reaction Alert (QRA), the Satakunta Air Command, and the Air Force Academy. Readiness levels for the Air Force are high, which has been repeatedly demonstrated during incidents of foreign aircraft violating Finnish airspace.²⁹ Its main equipment includes 62 multi-role fighters, F/A-18 C/D Hornet, which have undergone two mid-life updates since they were acquired in the 1990s, and now also carry long-range precision munitions (Joint Air-to-Surface Standoff Missile, JASSM), with a range of 350 km.³⁰ The ground-based air defence, organised under the army, are

armed primarily with a medium-range missile system (NASAMS 2). Acquisition of a system with longer reach is currently underway.³¹ In 2025–2030, a new fighter aircraft will replace the F/A-18 through the HX fighter program, with the final decision expected in 2021.³²

Personnel and materiel

On a yearly basis, 22,000 conscripts and 18,000 reservists are trained in Finland.³³ Readiness, availability and time needed for mobilisation generally pose greater challenges than filling the units *per se*, since reservists man approximately 90 per cent of the wartime army.³⁴ The main acquisitions since 2017 include self-propelled artillery (48 K-9) and 100 Leopard 2A6 MBTs, alongside munitions to its MLRS rocket artillery systems and counter-battery radars. Smaller changes include modernising 110 infantry vehicles (BMP-2M).³⁵ A key question is what will become of the 100 Leopard 2A4 currently “in store”, with indications that they will be kept in service in varying capacities.³⁶

Since 2017, the FDF has not grown dramatically in numbers or units. Instead, it has improved its readiness – through the establishment of high-readiness troops, but also through its improving speed of mobilisation³⁷ – and sharpened its capabilities, primarily within the army. Further capability improvements can be expected, as the army materiel becomes operational, and the modernisation of 4 Hamina-class missile vessels is completed in 2021.³⁸ Increased numbers of exercises – domestic as well as international – have also improved operational capability and particularly interoperability. Since 2017, Finland has participated in some 80–90 international exercises and training activities annually.³⁹ A large international exercise,

25 Finland, Finnish Defence Forces, ‘Brigade-level units’.

26 IISS, *The military balance 2020*, p. 102.

27 Ibid.; Häggblom, Robin, ‘Reach out and touch someone – at 40 km’, *Corporal Frisk*, 11 September 2019.

28 Finland, Försvarsmakten, ‘Marinen tog emot den första robotbåten av Hamina-klass som genomgått livstidsförlängning’, 15 January 2020.

29 Draper, Lucy, ‘Russia violates Finnish airspace for the sixth time in a year’, *Newsweek*, 7 October 2015.

30 Finland, Finnish Defence Forces, *Air force units*; Defense News, ‘Global Vendors Size up Finland’s Multibillion-Dollar Defense Upgrades’, 26 January 2017.

31 Helsinki Times, ‘Iltalehti: Finland quietly preparing to acquire new surface-to-air missiles’, 7 January 2020; Häggblom, Robin, ‘Different approaches to managing the long-range ballistic and cruise missile threat’, in Jonsson, Michael and Dalsjö, Robert (eds.), *Beyond bursting bubbles: Understanding the full spectrum of the Russian A2/AD threat and identifying strategies for counteraction*, FOI-R--4991--SE (Stockholm: Swedish Defence Research Agency – FOI, June 2020).

32 Finland, Ministry of Defence, ‘The HX fighter program’.

33 Finland, Finnish Defence Forces, ‘About us’; IISS, *The military balance 2020*, p. 101.

34 Finland, *Försvarets utmaningar*, p. 4.

35 Army Recognition, ‘Finland to get new guns for BMP-2MD infantry fighting vehicles’, 16 February 2018.

36 IISS, *The military balance 2020*, p. 102; Cranny-Evans, ‘Defence in depth’.

37 Jonsson and Engvall, *Guardians of the north*, p. 3–4.

38 Finland, Försvarsmakten, ‘Marinen tog emot’.

39 Finland, Finnish Defence Forces, ‘Försvarsmaktens plan för internationella övningar under 2017 har godkänts’, Huvudstaben, 25 November 2016.

Table: Personnel and materiel in the Finnish Defence Forces

Personnel/Materiel	Numbers in 2020	Planned reforms towards 2025
Personnel^a		
Regular force	8,500	
Conscripts	13,000 ^b	
Reserves	216,000	Total wartime organisation 280,000, including the FBG and other joint functions. ^c
Materiel		
Tanks	100 (Leopard 2A6)	100 Leopard 2A4 held “in store”
Armoured combat vehicles	212 (102 CV9030FIN, 110 BMP-2M)	110 BMP-2 modernised to -2M standard (weapons, armour, etc) ^d
Heavy artillery pieces	802 (175 self-propelled, including 8 K9 Thunder; 74 self-propelled 2S1 122mm Gvozdika; 41 MRLS 227mm M270, 34 122mm RM-70 18 120mm XA-361 AMOS; and 627 towed 120-155mm). ^e	In total, 48 K9 Thunder have been purchased, with IOC in 2020. A Heavy Armoured Howitzer Battery will be created. ^f
Attack helicopters	-	
Surface combatants	8 (4 Hamina-class fast-attack missile vessels, 4 Rauma-class fast-attack missile vessels).	Rauma replaced by Pohjanmaa 2025–2028, Hamina modernised by 2021. ^g
Submarines	-	
Combat aircraft	62 (F/A-18CD)	Will be replaced during 2025–2030
Transport aircraft	9 (3 C-295M; 6 PC-12NG)	
Air defence batteries	7 (5 Crotale, 2 NASAM 2)	Finland is currently procuring a ground-based long-range air defence system. ^h

NB: **a.** Unless where otherwise specified, this table is based on IISS, *The military balance 2020*, p. 101–103. During 2017, it was decided that the FDF wartime organisation would be expanded to 280,000, including the FBG. **b.** Ibid., p. 101. Annually, approximately 22,000 conscripts are trained – of which a majority are trained for 165 days – divided over two contingents. Officers, NCOs and those with “especially demanding” duties are trained for 347 days. **c.** IISS, *The military balance 2020*, p. 101. 18,000 reservists undergo refresher training annually, total obligation 80 days (150 for NCOs, 200 for officers up to age 50). **d.** Army Recognition, ‘Finland to get new guns’. **e.** This section is based on the so-called FDF Vienna document; Finland, Finnish Defence Forces, “Confidence- and security building measures”; in reporting 802 artillery pieces, this source differs somewhat relative to IISS, which reports 699. Also see Häggblom, Robin, “The best artillery in Europe”, Corporal Frisk, 19 January 2017. **f.** Finland, ‘Self-propelled howitzer K9 Thunder’. **g.** Finland, ‘Marinen tog emot’. **h.** Häggblom, ‘Different approaches to managing’, p. 132–133.

Arctic Lock, was planned for 2021 but was instead transformed into a large national exercise with only Finnish and Swedish participation, due to the Covid-19 pandemic.

As a result of its continuous focus on territorial defence, the mobilised Finnish army is considerably larger than other armies in Scandinavia. Given its conscription model, readiness and early warning are critical elements and have been a major priority since 2017.⁴⁰ Today, there seems to be a shift towards endurance and consolidation, including hiring more trainers, putting the self-propelled artillery

K-9 and other new materiel into operational service, and replacing air defence and coastal artillery.⁴¹

ASSESSMENT OF MILITARY CAPABILITY

The 2017 Defence White Paper claimed that by 2021, ‘a majority of the troops can be equipped and trained at a level that is satisfactory considering their missions’.⁴² While perhaps not entirely fulfilled across the entire spectrum of troops, the Finnish army has made clear improvements. With sizable mechanised units, modern tanks, a strong

⁴⁰ Saloniemi-Pasternak, *Securing Finland*.

⁴¹ Häggblom, ‘Reach out and touch someone’; Häggblom, Robin, ‘Different approaches to managing the long-range ballistic and cruise missile threat’, in Jonsson and Dalsjö, *Beyond Bursting Bubbles*, p. 123–148.

⁴² Author’s translation; Finland, *Statsrådets försvarspolitiska redogörelse*, p. 16.

artillery and improvements in its situational awareness and command and control the Finnish army, once mobilised, is a capable fighting force for the defence of its territory.⁴³ In a large-scale, high-intensity, drawn-out conflict, its considerable size, reserves and stores would be clear assets, even if a dearth of modern equipment within the local and regional army troops remains an issue.⁴⁴

In the Finnish Navy, the coastal artillery and the marine infantry brigade present defensive assets, as do the mine-laying and anti-ship capabilities. However, the demilitarised islands of Åland and dependence on sea lines of communication (SLOCs) present vulnerabilities. In the Gulf of Finland and the southern Baltic Sea the lack of submarines limits the range of options available, even as the ASW capabilities of the Hamina-class are being modernised.⁴⁵ The Gabriel V anti-ship missile will expand range and options⁴⁶ and the eventual introduction of the Pohjanmaa-class will bring improvements to several capabilities.

For the air force, the forward presence of Russian long-range air defence systems, cruise and ballistic missiles represents a threat that must be dealt with.⁴⁷ That said, its dispersed basing concept and long-range precision capabilities make the Finnish Air Force very adept at operating in a highly challenging environment. In the short term, the air defences will be complemented and sufficient stocks of munitions and missiles secured.⁴⁸ In 2025–2030, the replacement of the F/A-18 C/D Hornets looks likely to provide a major leap in capabilities, once fully operational.

At short notice, the Finnish army is likely to primarily have available its high readiness troops, the three readiness battalions, the special forces battalion, the helicopter battalion, the air defence regiment and the full-time employees of the FBG. In addition, some of the light infantry brigades should be able to muster a battalion each. The outcome would be much dependent on the phase of training

the conscripts have reached and, probably, at least on some reinforcements with reservists. The Navy has good readiness, but far from every naval vessel will be immediately available and operative at any given moment. Given short notice, this could comprise two fast-attack missile vessels (Hamina/Rauma), 1 mine-hunter coastal vessel (Katanpää) and 2–3 minelayers (Hämeenmaa/Pansio). Depending on the conscription training cycle, parts of the marine infantry from the Nyland Brigade may also be available. Within the air force, the Karelia and Lapland Air Commands have high readiness, with the F-18. Precise availability of F-18s is difficult to assess, but, given seven days' notice, the air force is estimated to be able to muster around 24–36 fighter aircraft.

Given three months' notice, the number of Finnish army units available is likely to increase significantly. The manoeuvre troops would likely be prioritised, meaning that the remainder of two mechanised brigades and two armoured battle groups will have been added, together with an artillery brigade.⁴⁹ Over time, the regional troops – including 9 light infantry brigades, plus 7 engineering regiments – would also mobilise.

In the navy, the available vessels are likely to increase to 5–6 fast-attack missile vessels (Hamina/Rauma), 2 mine-hunter coastal vessels (Katanpää) and 3–4 minelayers (Hämeenmaa/Pansio), while the rest of the Nyland Brigade will be mobilised. Availability of fighter aircraft will likely increase to 36–48. During the 2020–2025 period, developments in the FDF will be centred on making acquired materiel fully operational, and finalising on-going modernisation and reforms. This includes improving ASW capabilities for the Hamina-class; fielding the K9 in a Heavy Armoured Howitzer Battery; making the acquired counter-battery radars fully operational; fielding the Gabriel V anti-ship missile on naval and vehicle platforms; expanding the high-readiness units; acquiring

43 Cranny-Evans, 'Defence in depth'; Jonsson and Gustafsson, *Färdplan för tillväxt*.

44 Cf. Finland, *Statsrådets försvarspolitiska redogörelse*, p. 12.

45 Finland, *Försvarsmakten*, 'Marinen tog emot'.

46 Naval News, 'Finnish navy lifts veil on its future anti-ship missile: The Gabriel V', 14 December 2019.

47 This is indirectly recognised in the Defence White Paper, insofar that (to translate and paraphrase), "in the event of a crisis the free access to the air and naval space in the Baltic Sea region is contested"; Finland, *Statsrådets försvarspolitiska redogörelse*, 10.

48 Finland, *Försvarets utmaningar på lång sikt*, p. 22–23; Häggblom, 'Different approaches to managing'.

49 While the IISS lists mechanised units as brigades, there are indications that the Finnish Army plans to fight in regiment-level battlegroups, "allowing them to solve missions independently or as part of larger task forces"; see Häggblom, Robin, 'Finland has a plan for Russia's little green men', *Foreign Policy*, 15 August 2020; also c.f. Cranny-Evans, 'Defence in depth'; Jonsson and Gustafsson, *Färdplan för tillväxt*.

new mid-range ground-based air defences; and probably fielding the Leopard 2A4 tanks in new unit configurations. In 2025–2030, developments will instead mean qualitatively new capabilities, rather than a gradual change in extent or numbers. 2 Hämeenmaa-class minelayers and 4 Rauma-class fast-attack missile vessels will be replaced by 4 Pohjanmaa corvettes. The Pohjanmaa will have medium-range air defences, anti-ship missiles (Gabriel V), soft-kill self-defence, mine-laying and ASW capabilities.⁵⁰ Alongside this, the 64 F/A-18 C/D Hornets will be replaced by the winner of the HX Fighter Program procurement. The requirement is for a multirole aircraft, with both air-to-air and air-to-ground weapons, but also suppression of

enemy air defences (SEAD) and intelligence, surveillance, target acquisition and reconnaissance (ISTAR) capabilities. Preliminarily, electronic warfare (EW) and/or ISTAR can be expected to improve significantly, given existing tenders.⁵¹ Phasing in the Pohjanmaaclass (2025–2028) and the winning contender of the HX Fighter Program means that both the Finnish Air Force and Navy will replace their main platforms during the latter part of the 2020s. While there is a plan for the transition, it will nonetheless be a major undertaking, complex and with numerous potential pitfalls. Hence, even in a fair-weather scenario, the FDF will face an exceptional situation during the transition period. ■

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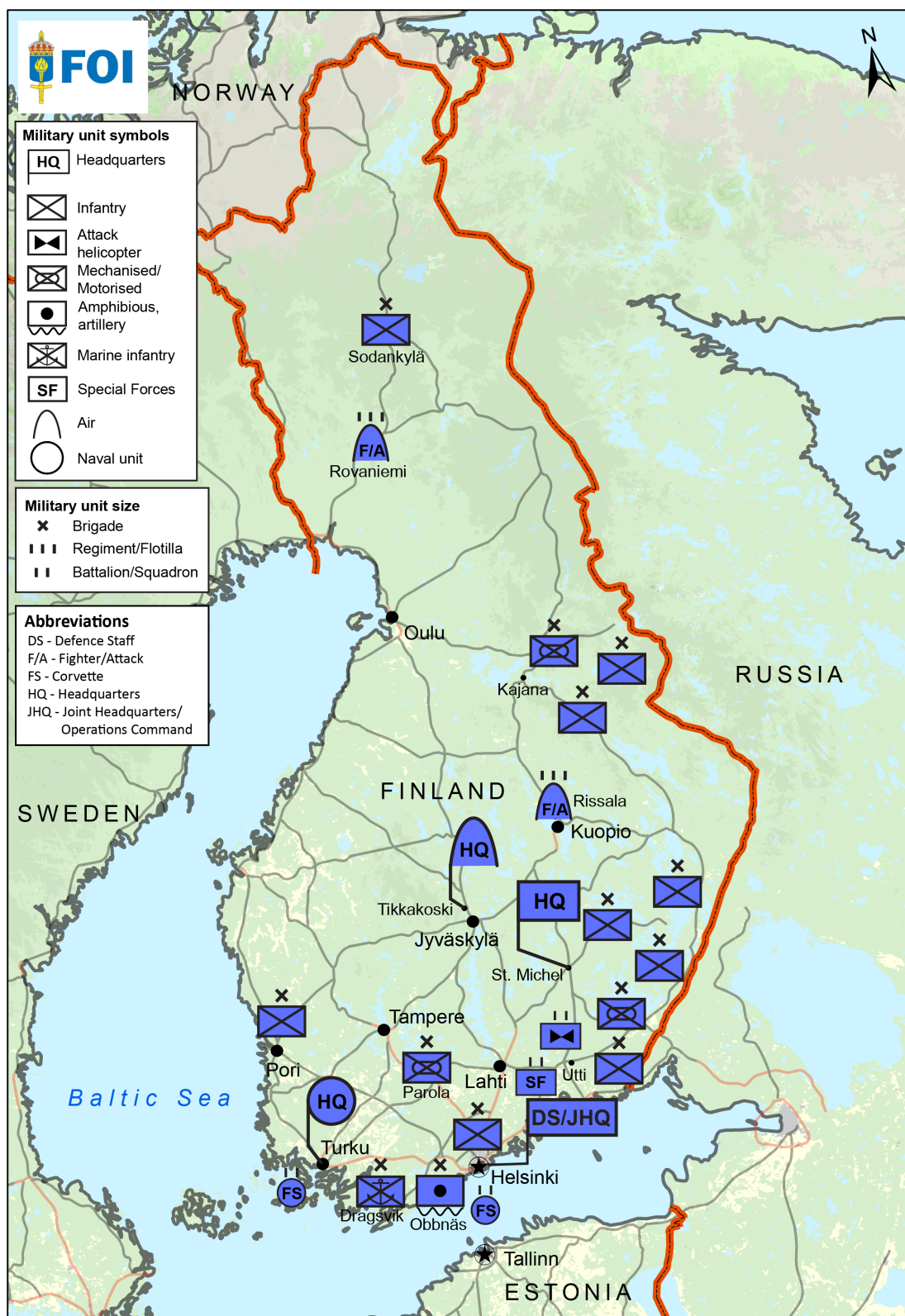
⁵⁰ Ibid.

⁵¹ Hoyle, Craig, 'Finland's HX contest heats up, as evaluations advance', *Flight Global*, 5 February 2020.

Table: Force structure of the Finnish Defence Forces

Organisation 2020 ^a		Planned reforms towards 2025	Assessment of forces available at short notice
Joint	FDF Command The Defence Forces Logistics Command.		
Army	2 mechanised brigades 2 armoured regiment battlegroups 9 light infantry brigades ^b 1 special forces battalion 1 helicopter battalion 7 engineering regiments 1 artillery brigade 3 signals battalions 1 air defence regiment ^c Some logistics units	Same as IISS 2017, differs from other sources. ^d Heavy armoured howitzer battery will be established. ^e	7 companies high-readiness troops ^f 2-4 mechanised battalions 3-4 infantry battalions At least half special forces battalion 1 helicopter battalion 1 air defence regiment
Navy	1 naval brigade ^g 3 support elements 1 coastal brigade 1 marine infantry brigade Staff- and logistics-resources		Approximately half of the total number of ships Up to 1 marine infantry battalion
Air Force	2 fighter/ground attack squadrons (F/A-18C/D) Staff and base units ^h		Approximately half of the total number of aircraft

NB: **a.** Unless where otherwise specified, this table is based on IISS, *The military balance 2020*, p. 101–103. **b.** IISS lists 3 “jaeger” brigades, and 6 “light infantry” brigades. As the term “jaeger” is used differently in Finland than in most comparable countries, these categories are listed jointly here as 9 light infantry brigades. **c.** IISS, *The military balance 2020*, p. 102. **d.** C.f. Jonsson and Engvall, *Guardians of the north*, p. 1, which reported one mechanised brigade, one motorised brigade, two mechanised battle groups and two motorised battle groups. **e.** Finland, Finnish Defence Forces, ‘Self-propelled howitzer K9 Thunder – from research to procurement programme’. **f.** As reported in Finland, Finnish Defence Forces, ‘Confidence- and security building measures. Annual exchange of military information, Finland. Valid as of 01/01/2020’, 1 January 2020, p. 12. **g.** IISS, *The military balance 2020*, p. 102. Consists of 8 fast-attack missile vessels (4 Hamina, 4 Rauma); 10 mine countermeasures vessels (including 3 Katanpää), and 5 minelayers (2 Hämeenmaa, 3 Pansio), and an assortment of smaller and support vessels. **h.** As reported in Finland, ‘Confidence- and security building measures’, p. 8.



Map: Overview of Finnish armed forces and their basing

NB: Design by Per Wikström. Based on an assessment of possible deployment of units, as the Finnish Defence Forces order of battle is not publicly available. The map covers only operational headquarters and manoeuvre forces.

References

- Army Recognition. 'Finland to get new guns for BMP-2MD infantry fighting vehicles', 16 February 2018.
- Cranny-Evans, Samuel. 'Defence in depth: Finland continues to modernize to counter Russian threat'. *Jane's Defence Weekly*, 15 January 2020.
- Defense News. 'Global vendors size up Finland's multibillion-dollar defense upgrades', 26 January 2017.
- Draper, Lucy. 'Russia violates Finnish airspace for the sixth time in a year'. *Newsweek*, 7 October 2015.
- Finland. Finansministeriet. *Statens budgetpropositioner. Statsbudgeten 2020*. Förvarsministeriets förvaltningsområde. Table, 'Förvaltningsområdets anslag 2018–2020'.
- Finland. Finnish Defence Forces. 'About us'. <https://puolustusvoimat.fi/en/about-us>. Accessed 23 March 2020.
- Finland. Finnish Defence Forces. 'Army Units'. <https://maavoimat.fi/en/army-units>. Accessed 10 March 2020.
- Finland. Finnish Defence Forces. 'Brigade-level units'. <https://merivoimat.fi/en/navy-units>. Accessed 23 March 2020.
- Finland. Finnish Defence Forces. 'Finnish army in 2020 – Readiness sustained at every moment'. <https://maavoimat.fi/en/finnish-army-in-2020>. Accessed 23 March 2020.
- Finland. Finnish Defence Forces. 'Finnish army's spearhead capabilities in 2020'. <https://maavoimat.fi/en/finnish-army-s-spearhead-capabilities-in-2020>. Accessed 23 March 2020.
- Finland. Finnish Defence Forces. 'Self-propelled howitzer K9 Thunder – from research to procurement programme'. <https://maavoimat.fi/en/self-propelled-howitzer-k9-thunder>. Accessed 23 March 2020.
- Finland. Finnish Defence Forces. 'Confidence- and security building measures. Annual exchange of military information, Finland. Valid as of 01/01/2020', 1 January 2020. https://puolustusvoimat.fi/documents/1948673/2015391/FI_AEMI_2020.pdf/a5b066cf-cd1f-7fec-5213-35fc67b70ae8/FI_AEMI_2020.pdf. Accessed 21 September 2020.
- Finland. Finnish Defence Forces 'Försvarmaktens plan för internationella övningar under 2017 har godkänts'. Huvudstaben. 25 November 2016.
- Finland. *Försvarets utmaningar på lång sikt. Slutrapport från den parlamentariska utredningsgruppen*. Riksdagens Kanslis Publikation 2014:4. Helsingfors: Riksdagens kansli, 2014.
- Finland. Försvarmakten. 'Förberedelserna för huvudkrigsövningen Arctic Lock 21 har börjat', 2 December 2019. https://puolustusvoimat.fi/sv/artikeln/-/asset_publisher/arctic-lock-21-paasota-harjoituksen-valmistelut-kaynnistyneet. Accessed 8 March 2020.
- Finland. Försvarmakten. 'Marinen tog emot den första robotbåten av Hamina-klass som genomgått livstidsförlängning', 15 January 2020. https://merivoimat.fi/sv/artikeln/-/asset_publisher/merivoimat-vastaanotti-ensimmaisen-elinkaaripaivitetytyn-hamina-luokan-ohjusveneen. Accessed 24 March 2020.
- Finland. Ministry of Defence. 'Defence budget 2020'. https://www.defmin.fi/files/4810/Defence_Budget_2020_.pdf. Accessed 15 September 2020.
- Finland. Ministry of Defence. 'The HX fighter program'. https://www.defmin.fi/en/administrative_branch/strategic_capability_projects/hx_fighter_program. Accessed 25 March 2020.
- Finland. Ministry of Defence. 'The Squadron 2020 project replaces the Navy vessels to be decommissioned'. https://www.defmin.fi/en/frontpage/administrative_branch/strategic_capability_projects/squadron_2020/squadron_2020#d55e32ae. Accessed 10 October 2019.
- Finland. Ministry of Defence. 'Försvarspropositionen tryggar försvarsförmågan även i framtiden'. 17 September 2020. https://www.defmin.fi/sv/aktuellt/pressmeddelanden/budgetpropositionen_for_2021_tryggar_forsvarsformagan_aven_i_framtiden.10638.news#d4be7f83. Accessed 21 September 2020.
- Finland. Ministry of Finance. *Planen för de offentliga finanserna för 2020–2023*, 16 April 2019. <https://vm.fi/documents/10623/21917559/Planen+%C3%B6r+de+offentliga+finanserna+%C3%B6r+2021-2024/29586bd2-ef36-f1e2-fd6c-302fcafd2c4e/>
- Finland. Ministry of Foreign Affairs. *The effects of Finland's possible NATO membership: An assessment*. Helsinki: Ministry of Foreign Affairs, April 2016.
- Finland, Riksdagens kansli 4/2014, *Försvarets utmaningar på lång sikt – Slutrapport från den parlamentariska utredningsgruppen*, (Helsingfors: Riksdagens kansli, 2014), p. 16.
- Finland. *Statsrådets försvarspolitiska redogörelse*. Statsrådets kansli 6/2017. Helsingfors: Statsrådets kansli, 16 February 2017.
- Helsinki Times. 'Iltalehti: Finland quietly preparing to acquire new surface-to-air missiles', 7 January 2020. <https://www.helsinkitimes.fi/finland/finland-news/domestic/17185-iltalehti-finland-quietly-preparing-to-acquire-new-surface-to-air-missiles.html>. Accessed 24 March 2020.
- Hoyle, Craig. 'Finland's HX contest heats up, as evaluations advance'. *Flight Global*, 5 February 2020. <https://www.flightglobal.com/defence/finlands-hx-contest-heats-up-as-evaluations-advance/136556.article> Accessed 17 August 2020.
- Häggblom, Robin. "The best artillery in Europe". *Corporal Frisk*. 19 January 2017. <https://corporalfrisk.com/2017/01/19/the-best-artillery-in-europe/>. Accessed 18 November 2019.
- Häggblom, Robin. 'Reach out and touch someone – at 40 km'. *Corporal Frisk*. 11 September 2019. <https://corporalfrisk.com/2019/09/11/reach-out-and-touch-someone-at-40-km/>. Accessed 24 March 2020.
- Häggblom, Robin. 'Different approaches to managing the long-range ballistic and cruise missile threat', in Jonsson, Michael and Dalsjö, Robert (eds.). *Beyond bursting bubbles: Understanding the full spectrum of the Russian A2/AD threat and identifying strategies for counteraction*. Report FOI-R--4991--SE, Stockholm: Swedish Defence Research Agency (FOI), June 2020.
- Häggblom, Robin. 'Finland has a plan for Russia's little green men'. *Foreign Policy*. 15 August 2020.

-
- International Institute of Strategic Studies. *The military balance 2020*. London: Routledge, 2020.
- Jonsson, Michael and Dalsjö, Robert (eds.). *Beyond bursting bubbles: Understanding the full spectrum of the Russian A2/AD threat and identifying strategies for counteraction*. FOI-R--4991--SE, Stockholm: Swedish Defence Research Agency (FOI), June 2020.
- Jonsson, Michael and Engvall, Johan. *Guardians of the north – The Finnish army improves readiness and mobility to counter hybrid threats*. FOI Memo 6481, Stockholm: Swedish Defence Research Agency (FOI), September 2018.
- Jonsson, Michael and Gustafsson, Jakob. *Färdplan för tillväxt: erfarenheter för Sverige från den finska försvarsmaktens reformer för ökad beredskap, operativ förmåga och uthållighet*. FOI Memo 7105, Stockholm: Swedish Defence Research Agency (FOI), August 2020.
- Järvenpää, Pauli. 'Finland and NATO: So close, yet so far'. ICDS, 22 April 2019. <https://icds.ee/finland-and-nato-so-close-yet-so-far/>. Accessed 18 March 2020.
- Naval News. 'Finnish navy lifts veil on its future anti-ship missile: The Gabriel V', 14 December 2019. <https://www.navalnews.com/naval-news/2019/12/finnish-navy-lifts-veil-on-its-future-anti-ship-missile-the-gabriel-v/>. Accessed 17 August 2020.
- Pesu, Matti. *What non-alignment? Finland's security and defence policy stems from partnerships*. FIIA Briefing Paper 227, Helsinki: FIIA, November 2017.
- Salonius-Pasternak, Charly. *Securing Finland: The Finnish Defence Forces are again focused on readiness*. FIIA Comment. Nr. 13, 2017.
- Sweden. Försvarsmakten. 'Sverige och Finland undertecknar militärstrategiskt koncept', 18 December 2019. <https://www.forsvarsmakten.se/sv/aktuellt/2019/12/sverige-och-finland-undertecknar-militar-strategiskt-koncept/>. Accessed 23 March 2020.
- Sweden. Regeringen. *Trilateral statement of intent among the Department of Defence of the United States of America and the Ministry of Defence of the Republic of Finland and the Ministry of Defence of the Kingdom of Sweden*, 8 May 2018. <https://www.regeringskansliet.se/49a82a/globalassets/regeringen/dokument/forsvarsdepartementet/soi/trilateral-statement-of-intent-20180508.pdf>. Accessed 18 March 2020.

