Western Military Capability in Northern Europe 2023

Part I: National Capabilities

Björn Ottosson and Krister Pallin (eds)

Albin Aronsson, Maria Engqvist, Alina Engström, Jakob Gustafsson, Carina Gunnarson, Robin Häggblom, Michael Jonsson, Anna Lövström Svedin, Emelie Thorburn

FOI-R--5527--SE

March 2024

FOI

FOI

Western Military Capability in Northern Europe 2023

Part I: National Capabilities

Björn Ottosson and Krister Pallin (eds)

Albin Aronsson, Maria Engqvist, Alina Engström, Jakob Gustafsson, Carina Gunnarson, Robin Häggblom, Michael Jonsson, Anna Lövström Svedin, Emelie Thorburn

Title	Western Military Capability in Northern Europe 2023 Part I: National Capabilities
Report No.	FOI-R--5527--SE
Month	March
Year	2024
Pages	220
ISSN	1650-1942
Customer	Ministry of Defence
Research Area	8. Security Policy
Project No.	A12402
Approved by	Malek Finn Khan
Division	Defence Analysis

Cover: US soldiers from the 3rd Battalion, part of the 6th Marine Regiment participate in the international military exercise Cold Response 22, at Sandstrand, Norway, on March 21, 2022. Cold Response is a Norwegian-led winter exercise in which NATO and partner countries participate. (Photo by Jonathan NACKSTRAND / AFP)

Abstract

This report examines twelve key Western nations, covering security and defence policy, military expenditures, armed forces structure, current operational military capability, and the development of military capability up to 2030.

It encompasses how Russia's full-scale invasion of Ukraine catalysed various ongoing national deterrence and defence efforts, prompting new initiatives, including military assistance to Ukraine and its potential effects on national capability. The selection of the twelve countries—Denmark, Norway, Sweden, Finland, Estonia, Latvia, Lithuania, Poland, Germany, France, United Kingdom, and the United States—is based on their importance to the collective defence of Northern Europe.

This report is part of the broader study, *Western Military Capability in Northern Europe 2023*, contributing to the aim of delivering a comprehensive analysis of the military strategic situation in Northern Europe. This multi-part study unfolds in two phases. The first phase establishes an empirical and analytical foundation. In the second phase, the results and insights will be amalgamated and leveraged, culminating in a so-called net assessment of Western military capability in Northern Europe.

Keywords: Denmark, Norway, Sweden, Finland, Estonia, Latvia, Lithuania, Poland, Germany, France, United Kingdom, United States, security and defence policy, military expenditures, armed forces, military doctrine, military capability, readiness, net assessment.

Sammanfattning

I denna rapport analyseras ttolv västländer med fokus på säkerhets- och försvarspolitik, militära utgifter, väpnade styrkor samt bedömd aktuell operativ förmåga och dess utveckling fram till 2030.

Rapporten visar hur Rysslands fullskaliga invasion av Ukraina 2022 påskyndade pågående nationella satsningar inom avskräckning och försvar samt främjade nya initiativ, inklusive militärt stöd till Ukraina och dess potentiella påverkan på nationell förmåga. Urvalet av de tolv länderna – Danmark, Norge, Sverige, Finland, Estland, Lettland, Litauen, Polen, Tyskland, Frankrike, Storbritannien och USA – är baserat på deras betydelse för det västliga kollektiva försvaret av norra Europa.

Rapporten är del av den större studien *Western Military Capability in Northern Europe 2023* vars övergripande målsättning är att göra en samlad analys av den militärstrategiska situationen i Nordeuropa. Denna flerdelade studie är uppdelad i två faser. I den första fasen etableras en empirisk och analytisk grund för det kommande arbetet. I den andra fasen kommer resultat och insikter att användas för att göra en så kallad *net assessment* av västlig militär förmåga i Nordeuropa.

Nyckelord: Danmark, Norge, Sverige, Finland, Estland, Lettland, Litauen, Polen, Tyskland, Frankrike, Storbritannien, USA, säkerhets- och försvarspolitik, militärutgifter, väpnade styrkor, militär doktrin, militär förmåga, beredskap, förmågebedömning, net assessment.

Preface

The Northern European and Transatlantic Security Programme (NOTS) at the Swedish Defence Research Agency (FOI) follows security and defence policy developments in Western countries and organisations that influence Swedish security. Every three years since 2017, the programme has conducted a comprehensive analysis of the military strategic situation in Northern Europe. Building on the experience from previous efforts, this third iteration represents our most ambitious undertaking yet.

This multi-part study progresses through two distinct phases. The initial phase establishes an empirical and analytical foundation through three separate reports. In the second phase, the results and insights will be amalgamated and utilised for net assessment purposes. Recognising that the efficacy of collective deterrence and defence in Northern Europe is intrinsically tied to the military capabilities of the Northern European states and key NATO members, part one of *Western Military Capability in Northern Europe 2023* is dedicated to examining the national capabilities of twelve countries.

We are deeply grateful to the many individuals who have generously contributed their knowledge and expertise to the fulfilment of the study. We wish to extend our special thanks to Kristian Søby Kristensen, Peter Viggo Jakobsen, Paal Sigurd Hilde, Adam Åkerfeldt, Toms Rostoks, Artis Pabriks, Giedrius Česnakas, Torben Schütz, Ed Arnold, Nick Childs, John Gordon, Colin Smith, David A. Ochmanek, and lastly to Robin Häggblom, our sole external author, for contributing an outsider's perspective on Sweden.

The study relies considerably on FOI expertise, both within and outside of the NOTS programme. Our distinct gratitude is extended to Robert Dalsjö, Jan Henningsson and, lastly, Maria Ädel and Per Olsson for sharing their invaluable expertise in defence economics and contributing the figures on military expenditures.

As always, Per Wikström, a Researcher at FOI, designed maps for us with exceptional professionalism. Richard Langlais reviewed and edited the language of all texts with outstanding diligence and attitude. Karin Blext provided tenacious and infallible support for the layout of the report.

Our heartfelt gratitude extends to each one of you. Without your invaluable support, the successful completion of this study would not have been possible. Needless to say, the responsibility for any remaining mistakes is entirely ours.

Stockholm, February 2023
Eva Hagström Frisell
Deputy Research Director & Programme Manager
Northern European and Transatlantic Security Programme

Table of Contents

List of Figures

List of Maps

List of Tables

Abbrevations

AAR	Air-to-Air Refueling
AAMDC	Army Air & Missile Defense Command (USA)
AAW	Anti-Aircraft Warfare
ABCT	Armored Brigade Combat Team (USA)
ABMS	Advanced Battle Management Systems (USA)
ACE	Agile Combat Employment (USA)
ACV	Amphibious Combat Vehicle
AEF	Air Expeditionary Force (USA)
AEHF	Advanced Extremely High Frequency System (USA)
AEW&C	Airborne Early Warning and Control
AFB	Air Force Base
AFFORGEN	Air Force Force Generation (USA)
AFSOC	Air Force Special Operations Command (USA)
AFV	Armoured Fighting Vehicle
AGM	Air-to-Ground Missile
AMRAAM	Advanced Medium-Range Air-to-Air Missile
AOR	Area of Responsibility
APC	Armoured Personnel Carrier
APC	Army Prepositioning Program (USA)
ARG	Amphibious Ready Groups (USA)
ARGM	Anti-Radiation Guided Missile
ARRC	Allied Rapid Reaction Corps (NATO)
ASC	Air and Space Commander (UK)
ASOC	Air and Space Operations Centre (Germany)
ASW	Anti-Submarine Warfare
ATACMS	Army Tactical Missile System
ATC	Army Training Command (USA)
ATGM	Anti-Tank Guided Missile
AWACS	Airborne Warning and Control Systems
BAAC	Fighter and Aviation Brigade (France)
BAAP	Air Assault and Projection Brigade (France)
BACE	Airspace Control Brigade (France)
BAP	Baltic Air Policing (NATO)
BCT	Brigade Combat Team (USA)
BFSA	Special Air Forces Brigade (France)
C-UAS	Counter Unmanned Aircraft Systems
C2	Command and Control
C3	Command, Control and Communications
C3OS	Centre for Command and Control of Space Operations (France)
CAB	Combat Aviation Brigade (USA)
CAN	Airborne Nuclear Component (France)
CAOC	Combined Air Operation Centre (NATO)
CBO	Congressional Budget Office (USA)
CBRN	Chemical, Biological, Radiological and Nuclear
CDAOA	Air Defence and Air Operations Command (France)
CDE	Space Command (France)
CDS	Chief of the Defence Staff
CEMA	Chief of Staff of the Armed Forces (France)

CEMAE	Chief of Staff of the Air and Space Force (France)
CEMAT	Army Chief of Staff (France)
CEMM	Navy Chief of Staff (France)
CFAS	Strategic Forces Command (France)
CFE	(Treaty on) Conventional Armed Forces in Europe
CFOT	Operations Land Forces Command (France)
CGS	Chief of the General Staff (UK)
CHOD	Chief of Defence
CIR	Cyber and Information Domain Service (Germany)
CMF	Cyber Mission Force (USA)
CMOS	Military Centre for Observation of Satellites (France)
CMT	Combat Mission Teams (USA)
CNMF	Cyber National Mission Force (USA)
CNO	Chief of Naval Operations (USA)
CNO	Oceanic Nuclear Component (France)
COIN	Counterinsurgency
COMCYBER	Cyber Defence Command (France)
CONUS	Continental USA
COS	Special Operations Command (France)
COSMOS	Operational Centre for Military Surveillance of Space Objects (France)
CPCO	Centre for Planning and Execution of Operations (France)
CRR-FR	Rapid Reaction Force HQ (France)
CSDP	Common Security and Defence Policy (EU)
CSG	Carrier Strike Group (USA)
CSOA	Joint Logistics Support Operations and Movement Center (France)
CTAAE	Air and Space Force Territorial Command (France)
CTTS	Surface Transport and Transit Centre (France)
CVR	Combat Vehicle Reconnaissance
DABS	Deployable Air Base System (USA)
DCA	Defence Cooperation Agreement
DCA	Dual Capable Aircraft
DCP	Defence Command Paper (UK)
DDIS	Danish Defence Intelligence Service
DDG	Guided Missile Destroyer
DEAD	Destruction of Enemy Air Defence
DFE	Dynamic Force Employment (USA)
DGSE	Directorate-General for External Security (France)
DIB	Defense Industrial Base
DMSP	Defense Meteorological Satellite Program (USA)
DNO	Defence Nuclear Organisation (UK)
DOD	Department of Defense (USA)
DODIN	Department of Defense Information Network (USA)
DRRS	Defense Readiness Reporting System (USA)
DSCS	Defense Satellite Communications System (USA)
DSP	Defense Support Program (USA)
DSTL	Defence Science and Technology Laboratory (UK)
EABO	Expeditionary Advanced Base Operations (USA)

EAF	Estonian Air Force
eAP	Enhanced Air Policing (NATO)
EATC	European Air Transport Command
ECS	Expeditionary Combat Support (USA)
EDI	European Deterrence Initiative (USA)
eFP	enhanced Forward Presence (recently changed to Forward Land Forces, FLF) (NATO)
EDF	European Defence Fund (EU)
EDF	Estonian Defence Forces
EDI	European Deterrence Initiative (USA)
EEZ	Exclusive Economic Zone
EFP	European Peace Facility (EU)
ELINT	Electronic Intelligence
EPAA	European Phased Adaptive Approach
ESA	European Space Agency
EU	European Union
EUCOM	European Command (US)
EW	Electronic Warfare
FAA	Fleet Air Arm (UK)
FAN	Naval Action Force (France)
FANU	Navy Nuclear Armed Aircraft (France)
FBG	Finnish Border Guard
FCP	Forward Command Post
FD30	Force Design 2030 (USA)
FDF	Finnish Defence Forces
FFTS	Full-Time Trained Strength
FLC	Finnmark Land Command (Norway)
FLF	Forward Land Forces
FMF	Foreign Military Financing (USA)
FOC	Full Operational Capability
FOI	Swedish Defense Research Agency
FORFUSCO	Maritime Force of Navy Fusiliers and Commandos (France)
FORGE	Future Operationally Resilient Ground Evolution (USA)
FOST	Submarine Forces and Strategic Ocean Force (France)
FRONTEX	European Border and Coast Guard Agency
FSA	Special Forces of the Air and Space Forces (France)
FY	Fiscal Year
FYDP	Future Years Defense Program (USA)
GAO	Government Accountability Office (USA)
GBAD	Ground-based Air Defences
GBP	British Pound
GCA	Joint Cyber Defence Group (France)
GCHQ	Government Communications Headquarters (UK)
GDP	Gross Domestic Product
GENDMAR	Maritime Gendarmerie (France)
GFMAP	Global Force Management Allocation Plan (USA)
GIUK	Greenland-Iceland-UK (as in the GIUK Gap)
GMLRS	Guided Multiple Launch Rocket System
GOM	Global Operating Model (USA)
GSSAP	Geosynchronous Awareness Program (USA)
HALE	High-Altitude Long-Endurance
HARM	High-Speed Anti-Radiation Missile
HIMARS	High Mobility Artillery Rocket System
HNS	Host-nation Support (NATO)

HQ	Headquarters
IAMD	Integrated Air and Missile Defence (NATO)
AIP	Air-Independent Propulsion
IBCT	Infantry Brigade Combat Team (USA)
ICBM	Intercontinental Ballistic Missile
IFPC	Indirect Fire Protection Capability
IFV	Infantry Fighting Vehicles
IMF	International Monetary Fund
IOC	Initial Operational Capability
IR(21)/IR(23)	Integrated Review (UK)
IRF	Immediate Response Force (USA)
ISR	Intelligence, Surveillance and Reconnaissance
ISTAR	Intelligence, Surveillance, Target Acquisition and Reconnaissance
ITAR	International Traffic in Arms Regulations (USA)
JADC2	Joint All Domain Command and Control (USA)
JASSM	Joint Air-to-Surface Standoff Missile
JDAM	Joint Direct Attack Munition
JEF	Joint Expeditionary Force (UK)
JEMSO	Joint Electromagnetic Spectrum Operations (USA)
JSOW	Joint Standoff Weapon
JMTO	Joint Movement and Transportation Organisation (Denmark)
JRC	Joint Regional Commands (Sweden)
JSEC	Joint Support and Enabling Command (NATO)
JSOC	Joint Special Operation Command (USA)
JTAC	Joint Terminal Attack Control
KSK	Kommando Spezialkräfte (Germany; Army Special Operations Forces)
KSM	Kommando Spezialkräfte Marine (Germany; Navy Special Operations Forces)
LAW	Light Amphibious Warship
LHA	Landing Helicopter Assault (USA)
LHD	Landing Helicopter Dock (USA)
LLP	Large Lot Procurement (USA)
LNAF	Latvian National Armed Forces
LOCE	Littoral Operations in Contested Environment (USA)
LRG	Littoral Response Group (UK)
MAG	Multinational Air Group (NATO)
MAGTF	Marine Air-Ground Task Force (USA)
MAJCOM	Major Commands (USA)
MALE	Medium-Altitude Long-Endurance
MANPADS	Man-Portable Air-Defense System
MARAD	Maritime Administration (USA)
MARFOREUR	Marine Corps Forces Europe (USA)
MARSOC	Marine Corps Forces Special Operations Command (USA)
MAW	Marine Aircraft Wing (USA)
MBT	Main Battle Tank
MCPP–N	Marine Corps Pre-positioning Program Norway (USA)
MDO	Multi-Domain Operations (USA)
MDTF	Multi-Domain Task Force (USA)
MEB	Marine Expeditionary Brigade (USA)
MEF	Marine Expeditionary Force (USA)

MEU	Marine Expeditionary Unit (USA)
MLR	Marine Littoral Regiment (USA)
MLRS	Multiple Launch Rocket System
MND North	Multinational Division North (NATO)
MNC-NE	Multinational Corps Northeast HQ (NATO)
MND	Ministry of National Defence (Poland)
MoD	Ministry of Defence
MOUS	Mobile User Objective System (USA)
MPRA	Maritime Patrol and Reconnaissance Aircraft
MRAP	Mine-Resistant Ambush Protected Vehicle (USA)
MRF	Marine Rotational Force (USA)
MRTT	Multi Role Tanker Transport
MSC	Military Sealift Command (USA)
MYP	Multiyear Procurement
NASAMS	National/Norwegian Advanced Surface to Air Missile System
NAVPLAN	Chief of Naval Operations Navigation Plan (USA)
NATO	North Atlantic Treaty Organization
NBC	Nuclear, Biological and Chemical
NCF	National Cyber Force (UK)
NCO	Non-Commissioned Officer
NDAA	National Defense Authorization Act (USA)
NDS	National Defense Strategy (USA)
NDVF	National Defence Volunteer Force (Lithuania)
NFM	NATO Force Model
NGAD	Next Generation Air Dominace (USA)
NMS	National Military Strategy (USA)
NNSA	National Nuclear Security Administration (USA)
NOK	Norwegian Krone
NORAD	North American Aerospace Defense Command (USA)
NORDEFCO	Nordic Defence Cooperation
NOTS	Northern European and Transatlantic Security Programme (FOI)
NPR	Nuclear Posture Review (USA)
NRF	NATO Response Force
NSA	National Security Agency (USA)
NSM	Naval Strike Missile
NSOC	Norwegian Special Operations Command
NSOFC	Navy Special Operations Forces Command (Germany)
NSR	National Strategic Review (France)
NSS	National Security Strategy
NSWC	Naval Special Warfare Command (USA)
OAR	Operation Atlantic Resolve (USA)
ORBAT	Order of Battle
PDA	Presidential Drawdown Authority (USA)
PGM	Precision-Guided Munition
PJHQ	Permanent Joint Headquarters (UK)
PPA	Politsei- ja Piirivalveamet (Estonia; Police and Border Guard)
QRA	Quick Reaction Alert
RAAM	Remote Anti-Armor Mine
RAF	Royal Air Force (UK)
RDT&T	Research, Development, Test, and Evaluation (USA)
ReARMM	Regionally Aligned Readiness and Modernization Model (USA)

RFA	Royal Fleet Auxiliary (UK)
RM	Royal Marines (UK)
RN	Royal Navy (UK)
RSOMI	Reception, Staging, Onward Movement and Integration
SAM	Surface-to-Air missile
SAS	Special Air Service (UK)
SBIRS	Space Based Infrared System
SBS	Special Boat Service (UK)
SEAD	Suppression of Enemy Air Defence
SF	Special Forces
SFAB	Security Force Assistance Brigade (USA)
SHORAD	Short Range Air Defense
SIS	Secret Intelligence Service (UK)
SLOC	Sea Lines of Communication
SIGINT	Signals Intelligence
SLBM	Submarine-Launched Ballistic Missile
SNMG	Standing NATO Maritime Group
SOCEUR	Special Operations Command Europe (USA)
SOF	Special Operations Forces
SOFCOM	Special Operations Forces Command (Germany)
SOG	Special Operations Group (Sweden)
SSBN	Sub-surface Ballistic Nuclear Submarine
SSM	Surface-to-Surface Missile
SSN	Sub-surface Nuclear Attack Submarine
STSS	Space Tracking and Surveillance System (USA)
TDF	Territorial Defence Forces
THAAD	Terminal High Altitude Area Defense (USA)
TRADOC	Training and Doctrine Command (USA)
TSC	Theater Sustainment Command (USA)
TSOC	Theater Special Operations Commands (USA)
TSP	Theater Security Package (USA)
UAS	Unmanned Aircraft System
UAV	Unmanned Aerial Vehicle
UFO	Ultra High Frequency Follow On (USA)
USAF	United States Air Force
USAFE	United States Air Forces in Europe
USAREUR	United States Army Europe
USASOC	United States Army Special Operations Command
USD	US dollars
USEUCOM	United States European Command
USMC	United States Marine Corps
USNAVEUR	United States Naval Forces Europe
USSF	United States Space Force
USSOCOM	United States Special Operations Command
VDV	Russian Airborne Troops
VJTF	Very High Readiness Joint Task Force (NATO)
VKS	Russian Aerospace Forces
WGS	Wideband Global SATCOM (USA)
WMD	Weapons of Mass Destruction
WS	Wojska Specjalne (Poland; Special Forces)
WTO	World Trade Organization
WOT	Wojska Obrony Terytorialnej (Poland; Territorial Defence Forces)

Military units – categories and sizes

Army

Army Group/Front	2 armies or more/Ground force of a region
Army	2 corps or more, personnel strength 100,000 or more
Army corps	2 divisions or more, personnel strength 20,000–50,000
Division	3–6 brigades, personnel strength 6,000–25,000
Brigade	1–2 regiments/3-6 battalions, personnel strength 3,000–6,000
Regiment	2–5 battalions, personnel strength 1,000–3,000
Battalion	3–6 companies/squadrons, personnel strength 300–1,000
Company/Squadron	2–6 platoons, personnel strength 80–250

Helicopter

Brigade/Regiment	2 battalions or more
Battalion	2–3 squadrons/companies
Squadron/Company	8–16 helicopters

Navy

Fleet	Two task forces or more/Maritime force of a region
Task force	2 flotillas or more, including major warships, for example a carrier or a cruiser
Flotilla	2 squadrons or more
Squadron	2–6 ships

Air Force

Air Force/Air Army	2 groups or more/Air force of a region
Group	2 wings or more
Wing/Regiment	2–4 squadrons
Squadron	12–24 aircraft

NB: The intervals above should been seen as normal variations, taking into account both Russian and Western practice, but other partitions often occur. Furthermore, the denominations vary between countries, and in some cases, the terms above are used for other purposes, including base, training and administrative entities. The terms "group" or "task force" are common for all sorts of formations designed for a particular mission. Larger formations – typically brigades, flotillas, or wings and above – include considerable support assets. Normally, these assets are only partly included organically in the manoeuvre units and their compositions vary considerably.

1. Introduction

Björn Ottosson and Krister Pallin

On February 24, 2022, Russia launched a full-scale invasion of Ukraine, prompting the largest war in Europe since World War II. It can be seen as the culmination of Russia's more than decade-long military build-up and escalating aggressive behaviour. The invasion has rocked the foundations of the European security order, compelling several states and organisations to reassess longstanding assumptions and policies. Notably, Finland and Sweden sought NATO membership, and Germany, characterising the Russian attack as a historical turning point, made a significant departure from its established defence policy.

In the years leading up to the war, European countries and multilateral organisations, in particular NATO and the EU, began a political and military transformation to adapt to Russia's evolving behaviour. A future armed conflict with Russia was again seen as a possibility and nations started to gear up for inter-state warfare. NATO resumed preparations for collective defence, and the EU took a lead in countering hybrid threats as well as increasing its support for military capability development.

The war served as a catalyst for this ongoing process, significantly accelerating the pace of change. Unified in their support for Ukraine, the Northern European countries are significantly bolstering investments in defence, NATO has solidified its position at the centre of the European security order, while the EU has assumed a clearer and more active role for European security in coordination with the Alliance. Additionally, the conflict has highlighted and renewed valuable insights regarding requirements of long high-intensity conflicts, and accordingly exposed gaps and weaknesses, not least the West's limited capacity to surge the production of arms and munitions.

Despite the West's stated intentions, uncertainties persist. The ultimate outcome of the war is not set, the current unity among Western nations may not endure, and the execution of various planned reforms of Western collective defence will require years. Numerous challenges lie ahead to establish effective deterrence and defence against Russia. Careful assessment and study are crucial steps in resolving uncertainties.

The Northern European and Transatlantic Security (NOTS) Programme at the Swedish Research Agency (FOI) monitors security and defence policy developments in Western countries and organisations that impact Swedish security. As part of its assignment from the Swedish Ministry of Defence (MoD), the programme regularly conducts a comprehensive analysis of the military strategic situation in Northern Europe.

In 2017, the NOTS programme initiated its inaugural comprehensive analysis, focusing on assessing Western military capability in Northern Europe, including the general force balance with Russia. That initial study examined the security and defence policies of a number of Western countries, evaluated NATO and EU developments, and assessed the military capabilities of national armed forces. A particular focus was on their ability to mobilise against a potential Russian short-notice attack on the Baltic States, which served as an important illustration.[1]

In 2020, capitalising on a progressively refined and updated understanding of the foundations for collective defence, the programme conducted its second comprehensive analysis, leveraging insights from the first study. The two-part analysis featured a methodologically enhanced approach, incorporating a double-sided war game simulating a major conventional conflict in the Baltics and a more ambitious, so-called net assessment of the force balance between the West and Russia in Northern Europe.[2]

In the same vein, the comprehensive analysis initiated in 2023 builds on previous efforts, enhancing the depth as well as broadening the scope of study, thus fortifying the foundation for assessment. As before, the work leverages other FOI research, particularly in Russian affairs and wargaming. The multipart effort integrates insights from Russia's conflict with Ukraine and considers the ramifications of Finland and Sweden's NATO membership. It encompasses the development of broader Western security and defence policy and of NATO's collective deterrence and defence, as well as the status of the policies, armed forces, and operational capabilities of relevant Western nations.

Furthermore, in contrast to the two previous analyses, the present study adopts a more forward-looking approach, encompassing potential developments through to 2030. This choice is governed by the extensive engagement of Russia's armed forces in the war against Ukraine, which at least in the short term should reduce Russia's appetite and ability to confront the West in a large-scale confrontation. Additionally, the series

of transformative reforms catalysed by Russia's actions underscores the importance of directing attention towards the evolving notion of Western Military Capability.

Despite the complexities of swiftly unfolding events, this study anchors its analysis in the security and military situation of 2023. This approach is predicated on the imperative of establishing a robust foundational understanding and baseline to inform discussions about future developments. It also recognises that the possibility of conflicts emerging in the immediate future remains a salient consideration.

1.1 Overall objective and analytical model

The principal objective of the third comprehensive analysis is, once again, to deliver a net assessment of Western military capability in Northern Europe. While the concept of net assessment has been part of defence discourse since the 1970s, its roots trace back to ancient times.[3] Although the methodology has evolved over the years, the fundamental premise endures: net assessment is a multifaceted comparative evaluation encompassing nations, alliances, or other pertinent entities. Central to this approach is the determination of the net balance that arises from such comparisons, pinpointing key attributes of the force balance in terms of relative strengths and weaknesses.

In pursuit of this objective, a pivotal methodological query arises: What constitutes *Western* military capability in Northern Europe? Unlike the term *Russian Federation*, the term *West* is inherently more nebulous. For the scope of this study, the West encompasses nations and organisations poised to play a substantial role in the collective defence of Northern Europe should it face a Russian armed attack. This encompasses the Northern European states, as well as NATO and its key members, given the organisation's longstanding role as the primary framework for orchestrating Euro-Atlantic collective defence. Additionally, the EU, with its growing defence ambitions, is included in the analysis.

Another pivotal methodological question centres on the core of *military capability*: What constitutes it? While precise definitions of military capability are elusive, its essence is straightforward yet profound: it is the ability or attributes requisite for achieving a particular objective.[4] In a military context, such an ability is dependent on a range of both intangible and tangible resources, including the knowledge, ideas, and methods related to the use of the military instrument; trained personnel and maintained equipment; and, not least, the leadership, will and legitimacy required for warfighting. Together, these resources determine an actor's military capability and embody, respectively, three interrelated perspectives, the conceptual, physical, and moral, which are essential in a model for net assessment.[5]

Additionally, the idea of *operational capability* transcends the mere possession of resources; it encompasses particular objectives, accounting for variables such as ambition, enemy, environment, partners, and time. In alignment with the objective of net assessment, this study embraces what becomes a dynamic and comprehensive view of military capability, challenging the merits of purely static force comparisons anchored mainly on pools of military units.

There is no universally accepted benchmark or gold standard for evaluating military capability or conducting net assessments; professionals adopt diverse approaches to this intricate task. Needless to say, it is imperative to tailor any framework or model to the specific object of study, and the nature of the assessment—whether it emphasises strategic, operational, or tactical-level interactions, or is geared towards long-term peacetime competition versus a short war—significantly influences its structure.

Considering that the objective is to assess the military-strategic situation in Northern Europe, past endeavours suggest that a robust model for a comprehensive assessment of real military capability, i.e., force balances, necessitates the integration of a number of tangible and intangible as well as external and internal factors.[6] Ideally, such a model would encapsulate the following factors:

- security and defence policy, including bureaucracy;
- elements of other external framing factors, for example economics, society and demographics;
- armed forces, including quantity, quality and availability;
- military policy and doctrine;
- leadership, morale, legitimacy, and ethics;
- conflict situation.

In conclusion, net assessments of military capability must have an appropriately broad perspective and be done systematically and in steps before any credible and useful verdicts can be delivered.

1.2 Study layout, delimitations and methods

The current comprehensive study of Western Military Capability in Northern Europe unfolds in th phases. The first phase establishes the empirical and analytical foundation essential for the net assessment. It comprises three separate parts that cover countries as well as the factors that tie them together, all of which are likely to have significant roles in the collective defence of Northern Europe:

- The present report, Part I, examines the national capabilities of twelve key Western countries with respect to security and defence policy, military expenditures, armed forces, and current operational military capability and expected developments up to 2030.

- Part II examines the evolving global security landscape, focusing on identifying tensions and dynamics that could impede NATO's ability to accomplish deterrence and defence in Northern Europe in a 5- to 10-year perspective.

- Part III examines how and to what extent NATO's collective effort in terms of strategy and plans, as well as operational activities and force development, supports deterrence and defence in Northern Europe in a 5- to 10-year perspective.

During the subsequent second phase, the results and insights from the first phase will be amalgamated and leveraged for assessment purposes, adding for example situational aspects of military confrontation. This phase will culminate in a net assessment of Western military capability in Northern Europe, encapsulating the conclusions of the entire study. Critically, in the second phase, the effort is privileged to lean on the Russia Programme at FOI for solid knowledge of the opposite side.[7]

While overall adopting a forward-looking perspective, the study's foundation is the current force balance, predominantly emphasising a conventional armed conflict in Northern Europe. Consequently, certain elements from politics, economics, society, and demographics that lie beyond the defence realm are omitted, presupposing their marginal impact on short-time war dynamics. Civilian defence or general societal resilience remain beyond the scope of the analysis.

Aside from the aforementioned exclusions, the factors outlined above form the foundation for our analytical model. Consistent with the principles of net assessment, the endeavours in phase one are guided by the objective of identifying significant attributes of the force balance. The final setup of the net assessment will be decided and elaborated upon in phase two.

1.3 Sources and review process

Similarly to previous comprehensive analyses by the NOTS programme, the work draws upon publicly available sources. It is grounded in official documents and communications from the multilateral organisations and nations under scrutiny. Interviews with officials and experts play an important role in capturing current developments, with visits to various countries and organisations forming an essential component of the research process. This primary data is further enriched by comprehensive secondary literature sourced from academic institutions, think tanks, and reputable news-media outlets.

Given that defence planning and the readiness and capability of national armed forces are predominantly shielded from the public eye, our assessment of Western military capability ultimately stems from our interpretation of accessible sources. While FOI, as a defence agency, may have access to classified information pertinent to the study, such data is not used in the report unless it can also be derived from open sources. The data collection for Part I concluded on 1 November 2023; hence, any subsequent information has only been selectively integrated into the report.

The foundation for the two-phase study was established in late 2022, encompassing consultations with external stakeholders and internal workshops to refine its structure, theoretical framework, and methodology. Following these preparations, the actual research activities kicked off in January 2023. Part I of the study has been reviewed through a series of evaluations, involving both internal and external experts in Sweden as well as international reviewers. Subsequent parts will undergo a similar review process.

1.4 Part I – National Capabilities

The essence of NATO's role, or that of any coalition defending Northern Europe, lies in coordinating the capabilities or effects that the armed forces of its member states can deliver. Accordingly, the effectiveness of collective deterrence and defence hinges on the combat strength of these member states' armed forces. Therefore, any evaluation of collective deterrence and defence as

well as force balances necessitates a thorough examination of the pertinent countries involved.

Part I of the study, titled *Western Military Capability in Northern Europe in 2023: National Capabilities*, examines the capabilities of twelve key Western nations across dimensions of security and defence policy, military expenditures, armed forces structure, and operational military capability. The objective is to furnish a comprehensive overview and assess the military capabilities of these nations, given their significant roles in NATO's core task: deterring and defending against potential Russian military aggression in Northern Europe both presently and in forthcoming scenarios.

Consequently, the study emphasises Northern NATO nations situated in close proximity to Russia, specifically Denmark, Norway, Sweden, Finland, Estonia, Latvia, Lithuania and Poland. Additionally, key NATO powers such as Germany, France, the United Kingdom and the United States have been incorporated, given their pivotal contributions to the collective defence of Northern Europe. However, due to constraints in research capacity, certain NATO members of relevance, notably the Netherlands and Canada, have been omitted.[8]

In our earlier studies from 2017 and 2020, the emphasis was primarily on conventional military capabilities. Those studies, for example, did not delve into irregular, unconventional, information, and space operations. Additionally, nuclear forces, along with their operations, were only briefly mentioned and primarily discussed in connection with wargaming. In the present iteration, however, our objective is to broaden the scope of analysis. As relevant, we aim to incorporate more information about nuclear, logistics, intelligence, information, and space capabilities. Furthermore, as the study takes a more forward-looking approach this time, the assessments of operational capability for each country include their status in 2023 as well as expected major developments up to 2030.

For any assessment, analysis of long-term developments increases the importance of framing and external factors, i.e., political, economic, and social factors. This includes popular support for governments and the level of political agreement regarding security policy and economic development, as well as the strategic culture or traditional and general national outlook on security and defence.

1.5 Structure of the report

The chapters assessing national capabilities share a uniform structure, differing primarily in length and scope due to variations in the size of the armed forces under study. The initial section of each chapter highlights the overall direction of security and defence policy, including the level of political support for ongoing defence efforts. It delves into the country's key priorities regarding threats, tasks, and partnerships, while also providing insights into the primary direction of ongoing military reforms.

The second section outlines the trends in military expenditures from 2005 to 2023, offering projections up to 2028. It provides commentary on the share of military expenditures relative to GDP and the allocation of costs, specifically focusing on the proportion dedicated to equipment investments. Additionally, the section provides insights into spending plans for the next half decade, considering potential impacts resulting from the evolving security landscape.

The third section centres on the armed forces, detailing tasks and the overall force structure, including joint functions such as command and control, special operations forces, and logistics. It provides insights into the main manoeuvre units and combat support services in the army, navy, and air force, addressing ongoing reforms, planned modernisation efforts, readiness levels, and notable shortcomings. Additionally, it comments on general developments in terms of personnel and materiel, with brief paragraphs on the defence industry and support to Ukraine.

The fourth and final section is dedicated to the assessment of military capability and focuses on the manoeuvre units of the land, naval and air forces. The section consists of two parts, with the initial part assessing the general status of the armed forces and the currently available manoeuvre forces. Specifically, the assessment considers the level of readiness, in other words, which forces could be mobilised for major combat operations in Northern Europe, whether nationally or internationally, within a three-month timeframe, including the relevant supporting capabilities. This level of readiness serves as a comprehensive gauge of overall reform and the capability to fight wars in the short term. It also serves as a crucial indicator for identifying areas for improvement and potential development in the coming years. In the second part, the focus turns to the future development of operational capability for the same tasks. Key reform measures are summarised, highlighting anticipated significant changes in the next couple of years based on current plans and the prevailing conditions for reform. Additionally, the text addresses the challenges ahead for each country.

1.6 Assessment of national capabilities

A note is due on the intricacies of assessing the military capability of individual countries. At the national level, we address conceptual factors primarily through

security and defence policy, while military policy and doctrine for collective deterrence and defence will be covered in subsequent reports. The primary physical factor is, of course, the armed forces, encompassing the structure and capability characteristics of the forces. As for other physical factors, economics is a key inclusion in the country analyses. Morale factors are primarily addressed by attempting to identify strategic culture or national views on defence, along with a commentary on political and popular support for existing policies.

The assessment's focus extends beyond the quantities of forces to encompass their qualities and availability for the tasks of deterrence and defence. While much military information regarding capabilities is classified, particularly regarding operational readiness and capacities, a substantial amount is still publicly accessible. Additionally, the quantity, quality, and availability of forces are largely determined by the fundamental conditions for equipping, manning, and training military units. These conditions are generally openly discussed by politicians, military professionals, and other experts.

Each assessment of operational capability synthesises the factors examined in the respective chapter. For quantity, it primarily takes into account major combat forces and, where feasible, command and support capabilities that are crucial for completing combat tasks. For quality, it attempts to consider the modernity and appropriateness of combat forces for high-intensity operations within a NATO Article 5 context, as well as the level of training and their versatility, i.e., their usefulness for both national and expeditionary purposes. For availability, it looks to force categories, forces at declared high-readiness, and other relevant assets, including main equipment and personnel levels, as well as the level of training for the tasks on unit level.

As an example, to achieve readiness for deployment in warfighting within three months or less, with a reasonable likelihood for operational success, we estimate that the forces need to be nearly fully equipped with respect to both materiel and personnel. Additionally, they must possess a basic level of training for the anticipated tasks upon receiving notice. Given the overall state of numerous Western armed forces, this represents a significant barrier for many units to overcome. To ensure consistency in comparison and preparation for the next study phase, considerable effort has been devoted to conducting all assessments uniformly. Nevertheless, some incongruence is inevitable due to the differing characteristics of the countries examined, including variations in the quality of underlying information.

Compared to earlier versions of *Western Military Capability in Northern Europe*, we aim to refine the assessment of current operational capability and also offer a medium-term projection of around five years, with a practical timeframe ranging between 4 to 7 years, due to uncertainties in timelines and other influencing factors. As suggested above, a comprehensive understanding of current national capability offers the best starting point for assessing the medium term, considering the gradual shifts in numerous physical and conceptual aspects. In the long term, overarching frameworks and external influences, such as political, economic, and social factors, gain prominence, becoming increasingly significant for our present analysis. Additionally, there is a growing focus on national plans for force development and the indispensable role played by the defence industry.

Assessing the future operational capability of military forces is inherently challenging and may sometimes lack significance when examining the properties of specific forces. Nevertheless, with insights into the current state of armed forces, coupled with an understanding of defense policy, available resources, and planned force development, projecting likely changes becomes feasible. Additionally, these assessments do not aim to cover all domains and capabilities, their primary aim is to identify significant developments and persistent issues.

1.7 Data, graphs and tables

For consistency and comparability across both time and countries, it is important that the study relies on economic data from a unified source. This report exclusively utilises data derived from NATO calculations as provided by NATO Headquarters for the period 2005–2023. Consequently, the data presented here may deviate from figures found in national defence budgets.[9] NATO delineates military or defence expenditures as funds disbursed by a national government explicitly for its armed forces' requirements, those of its allies, or the overarching Alliance. In contrast to some national defence budgets, the NATO computation accounts for pensions, salaries of civilian personnel, expenses for peacekeeping missions, and funding dedicated to defence-related research and development. Expenses related to paramilitary forces and expenditures managed by ministries other than the MoD may also be included.[10]

Swedish military expenditures stand as a distinct case in the study. Since Sweden, in 2023, had applied to join NATO but was not yet a member, the figures and estimates are derived from Swedish budget proposals. Consequently, this data cannot be directly compared to the military expenditures of the other nations included in this analysis. However, this approach still allows for rough comparisons and highlights the relevant trends.

An important note regarding military expenditures is the significant role of support for Ukraine. The

current sums involved constitute substantial portions of national defence spending, particularly for some countries. Therefore, member states also typically wish to include these expenditures in NATO's count of defence outlays. According to NATO, national reporting to the Alliance should be limited to actual spending, such as on training Ukrainian soldiers or the acquisition of replacement materiel. Consequently, the figures for providing materiel from inventory or financing external activities and purchases cannot be included in the tally of military expenditures within the Alliance. As a result, the short-term impact on NATO figures should be relatively limited, but it may gain more significance in the coming years.

The datasets employed for this analysis originate from NATO press communiqués dated March 2011, January 2016, and June 2023. To ensure consistency across the dataset, the figures have been recalibrated to 2015 fixed prices. Given Finland's recent accession to the Alliance, the available military expenditure data spans only from 2014 to 2023. Notably, the figures for 2022 and 2023 are projections, not finalised outcomes.[11]

The section detailing military expenditures features a comprehensive graph displaying outturn data for each country from 2005 to 2023, complemented by projections extending to 2028.[12] The graphs depict military expenditures in US dollars (USD) at constant prices and as a percentage of the gross domestic product (GDP). Each year's column further breaks down the allocation among the four primary cost categories defined by NATO. The conversion of national currencies to USD employed the yearly average of the respective year, with data sourced from the Swedish central bank.

The projections for 2024–2028 are author estimates. The approach for these projections involves the use of declarations from government officials regarding military expenditure targets as share of GDP. For consistency in showcasing genuine fluctuations in military spending over time, the data is displayed in 2015 fixed prices. Baseline GDP estimates for 2015 prices are sourced from the World Bank.[13] Meanwhile, real GDP forecasts for 2024–2028 are sourced from the IMF. In instances where countries have made official declarations regarding military expenditure as a share of GDP, these shares have been incorporated into their respective GDP forecasts. This applies specifically to Denmark, Estonia, Latvia, Norway, Poland, and Sweden. In scenarios where no explicit timelines are provided for the NATO two-percent spending guideline, alternative assumptions have been employed.

For the United States, United Kingdom, Finland, and Lithuania, NATO's estimates of their respective shares of GDP for 2023 have been prolonged throughout the subsequent period. The projections for these nations reflect the real GDP growth rates forecasted by the IMF. For Germany, the prediction is anchored on the average fluctuation observed over the past five years. As for France, the estimate draws from the most recent 2024–2030 budget, wherein the parliament endorsed a one-third surge in military expenditure up to 2030. However, it is important to note that this pertains to the national definition of military expenditure. In this context, the 2023 baseline, as articulated by NATO, serves as the starting point, with the subsequent one-third increment applied up to 2030.

The armed forces section features a table offering an overview of personnel and equipment status. This table predominantly focuses on major combat assets, aligning closely with the categories of, for example, the Treaty on Conventional Armed Forces in Europe (CFE Treaty). Specifically, it includes main battle tanks, armoured combat vehicles, heavy artillery, attack helicopters, and combat aircraft. The table also encompasses larger surface combatants, submarines, transport aircraft, and air-defence systems, when applicable.

At the conclusion of each chapter, readers will find a table detailing the national force structure as of 2023, along with notable reforms anticipated towards 2030. An accompanying map provides a visual overview of the basing of major operational staffs and manoeuvre units.

1.8 A note on military units

The national armed forces analysed in this study are approached from an external viewpoint. Consequently, broader, universal descriptions of military units are relied on to translate specific national military terminologies. For instance, within these armed forces, an armoured unit is categorised as such if it predominantly consists of tank assets, i.e., 50 percent or more of the entire unit. Meanwhile, mechanised units are identified by a lesser proportion of tank assets or a significant presence of armoured fighting vehicles.

Units predominantly equipped with wheeled armoured personnel carriers and lighter weaponry and that are devoid of tanks are categorised as motorised. Other manoeuvre units within the army are generally considered variations of infantry, even if they are equipped with light armoured vehicles. This category includes elite forces assigned offensive roles, such as airborne and marine infantry, rangers, and commando units, unless explicitly designated as special forces. In the naval domain, the count of surface combatants encompasses a range from large corvettes to cruisers, as well as aircraft and helicopter carriers and notable amphibious assault vessels.

Regarding unit sizes, the assessments of national capabilities use official designations from the respective country. It is important to note that the content within similar units can vary significantly both within the same armed forces and across different countries. While the text occasionally highlights this variation, it may not always be explicitly addressed due to constraints such as limited information or relevance. For a more detailed overview of current military unit structures, sizes, and variations, refer to the above section on military units. ■

Endnotes

1 Pallin, Krister (ed.), et al., Västlig militär förmåga: En analys av Nordeuropa 2017, FOI-R--4763--SE (Stockholm: Swedish Defence Research Agency – FOI, 2018).

2 Hagström Frisell, Eva and Pallin, Krister (eds.), et al., Western Military Capability in Northern Europe 2020 – Part I: Collective Defence, FOI-R--5012--SE (Stockholm: Swedish Defence Research Agency – FOI, 2021); Hagström Frisell, Eva and Pallin, Krister (eds.), et al., Western Military Capability in Northern Europe 2020 – Part II: National Capabilities, FOI-R--5013--SE (Stockholm: Swedish Defence Research Agency – FOI, 2021).

3 Good examples are speeches by the leader-strategist, Pericles of Athens, and Archidamus of Sparta, prior to the Peloponnesian War, 431–404 BC, and writings by Sun Tzu, in his work, Art of War, 500–430 BC. Later, in another example, from the early 19th century, Carl von Clausewitz showed equal insight in his treatise, On War. See, also, Marshall, Andrew W., 'Introduction: The Origins of Net Assessment', in Mahnken, Thomas G., (ed.), Net assessment and military strategy: Retrospective and prospective essays (Amherst, NY: Cambria Press, 2, p. 4–12; and Roche, James G. and Mahnken, Thomas G., 'What is Net Assessment?', in Mahnken, Net Assessment, p. 12—15.

4 See, e.g., Oxford University, Oxford Advanced Learner's Dictionary (Oxford University Press, 2020).

5 This is based on the idea of fighting power and its components as a framework for analysing and building military capability; see, e.g., NATO, AJP-01 Allied Joint Doctrine (Brussels: NATO Standardization Office, 2022), p. 49ff.

6 For experience and applications of the method, see, e.g., Bracken, Paul, 'Net Assessment: A Practical Guide', Parameters, vol. 36, no. 1, Spring 2006; Cohen, Eliot, 'Toward Better Net Assessment: Rethinking the European Conventional Balance', International Security, vol. 13, no. 1, Summer 1988; and Elefteriu, Gabriel, A Question of Power: Towards Better UK Strategy Through Net Assessment (London: Policy Exchange, 2018).

7 The Russia Programme at FOI has diligently researched and published insights on Russia's post-Cold War military capability, including, since the late 1990s, a triennial comprehensive assessment; see, e.g. Westerlund, Fredrik and Oxenstierna, Susanne (eds.), et al., Russian Military Capability in a Ten-Year Perspective–2019, FOI-R--4758--SE (Stockholm: Swedish Defence Research Agency – FOI, December 2019).

8 Other countries in Northern Europe are excluded due to their relative geographic distance from the eastern flank or the modest size of their armed forces. Additionally, southern NATO members are excluded as their direct involvement in the collective defence of Northern Europe is expected to be limited.

9 NATO only publishes outturn data, not projections for coming years, although the figures for the current year are marked as an estimate, meaning that they may be revised in future press releases. The graphs have been drawn by amalgamating data in several press releases. See NATO, 'Information on defence expenditures', 22 October 2020.

10 NATO, 'Information on defence'.

11 NATO, Public Diplomacy Division, 'Defence Expenditures of NATO Countries (2014–2023)', press release, 7 July 2023 (retrieved 30 October 2023).

12 Since "defence expenditures" may also include civilian defence outlays related to a country's ministry of defence, the term "military expenditures" is used instead.

13 World Bank, 'GDP (constant 2015 US$)', 2023 (retrieved 30 October 2023), *https://data.worldbank.org/indicator/NY.GDP.MKTP.KD*.

2. Denmark

Anna Lövström Svedin

The Kingdom of Denmark is a small NATO ally, with a large area of responsibility covering not only Denmark proper and adjoining seas but also Greenland in the Arctic and the Faroe Islands in the North Atlantic. Greenland and the Faroe Islands have extensive self-government, while the Danish government directs the security and defence policy in these regions in cooperation with local authorities. NATO is the cornerstone of Danish security and defence policy, together with close bilateral relations with the United States. Danish defence policy is undergoing a reorientation from a focus on crisis management and out-area operations during much of the post-Cold War period towards deterrence and defence. The 2024–2033 Danish defence agreement aims to support this change and restore the foundation of the Danish Armed Forces. The 2030 financial plan and Danish support to Ukraine are planned to raise defence expenditures to NATO's target of 2 percent of GDP, from 2023 onwards.[1]

2.1 Security and defence policy

In 2023, Danish security and defence policy was characterised by cross-party agreement and cohesion. Russia's invasion of Ukraine in February 2022 has resulted in a historical shift in Danish security policy. The ongoing war and Russia's political, military, and territorial ambitions are considered a threat to Danish and European security for many years to come.[2] Denmark is reorienting its armed forces from contributions to out-of-area operations towards the territorial defence of its own neighbourhood. It aims to rebuild its military capability and assume a larger share of responsibility within both NATO and the EU.[3] Shortly after the Russian invasion, the Danish parliament committed to meeting NATO's 2 percent target by 2033, and a referendum cancelled the Danish opt-out from the EU's common security and defence policy, allowing Denmark to participate fully.[4]

Denmark has been a staunch supporter of Ukraine's defence efforts. Danish public approval for providing economic, humanitarian, and military support for Ukraine is among the highest in Europe.[5] Denmark has sent defence materiel, trained Ukrainian soldiers, and coordinated multilateral donations to Ukraine. In 2022, the Danish Armed Forces deployed additional troops to NATO's enhanced Forward Presence (eFP) in the Baltic states as well as to NATO's air-policing missions and maritime presence in the Baltic Sea. Finland and Sweden's applications to join NATO have increased Denmark's interest in Nordic defence cooperation. Denmark wishes to maintain the Arctic region as an area of low tension, notwithstanding Russia's military build-up and the increasing great-power competition in the area. The Danish Armed Forces is enhancing its capabilities for surveillance and upholding Denmark's sovereignty in the Arctic region.[6]

Denmark has an instrumental rather than existential approach to defence. Although perceived as a free rider and reluctant ally during the Cold War, Denmark has actively promoted its participation in overseas operations in the post-Cold War period. Sending troops to international operations in harsh conditions was a way to improve its standing in NATO and develop close bilateral relationships with its key allies, particularly the United States.[7] As NATO's focus shifts back to deterrence and defence in Europe, Denmark is striving to maintain its position as a self-described "core ally" by providing deployable forces to the Baltic states and positioning itself as a hub for US reinforcements transiting to the eastern flank.[8] In 2023, Denmark and the US signed a Defence Cooperation Agreement to increase bilateral military cooperation by facilitating the access of American soldiers and weapons to three air bases in Denmark.[9] The relationship to the US is also anchored in the bilateral Greenland defence agreement, which, among other things, allows the US to maintain a space base in Pituffik (previously Thule).[10] As a major shipping nation, Denmark has an interest in maintaining freedom of navigation and participates in naval deployments together with allies, such as Operation Prosperity Guardian.[11]

In June 2023, a national defence agreement was adopted for the 2024–2033 period. While past defence agreements have spanned a five-year period and included all proposals at the time of signing, the 2024 framework agreement spans ten years and will be implemented through separate political decisions throughout the period. This change intends to facilitate long-term planning of defence expenditures while maintaining flexibility to make decisions on specific capabilities as needs arise. The 2024–2033 defence agreement allocated

USD 20.8 billion in addition to the ordinary defence budget over the coming decade.[12] In November 2023, Denmark's 2030 financial plan was presented, additionally increasing the budget for its Ukraine fund and the defence agreement. By counting support to Ukraine as a defence expenditure, Denmark plans to meet NATO's 2 percent target from 2023 onwards.[13]

The 2024–2033 defence agreement identifies three strategic priorities for the Danish Armed Forces in the coming decade: to demonstrate clearly the will and capability to contribute to collective security; to align defence investments in support of broader society; and to rebuild the foundation of the armed forces. The first priority entails increasing Danish contributions to NATO and the EU and support for Ukraine. While Denmark's focus is shifting to its own territory, including the Arctic but also in its neighbouring Baltic region, the country still intends to partake in overseas operations through NATO, the UN, and the EU. Its plans for increased recruitment, expanded and lengthened conscription, and investments in building up a fully deployable brigade aim to meet these commitments. Denmark also intends to remain one of the top contributors of military support to Ukraine per capita. Its second strategic priority is to support broader societal security to handle threats from cyberattacks, espionage, terrorism, and climate-related catastrophes. Therefore, it will invest in strengthening its cybersecurity, critical infrastructure, intelligence, the Home Guard, and defence industry. The third strategic priority, rebuilding the foundation of the armed forces, stems from significant gaps due to previous underfunding and overuse. Investments will be made to support the existing organisation, as well as in new materiel and personnel to match the deteriorating security environment.[14]

During the coming decade, Denmark will have to further develop its defence policies and capabilities with a view to its own kingdom, including in the Arctic, the North Atlantic, and the Baltic regions. The critical assessments of Danish defence contained in NATO's latest capability reviews suggest that significantly improved political and military efforts are needed to restore Denmark's status as a valuable NATO ally.[15] The significantly sped-up timeline for increasing defence expenditure may be an effort to demonstrate its commitment to the alliance.

2.2 Military expenditures

It was estimated that, in 2023, Denmark will spend USD 6.8 billion on its armed forces at current prices.[16] In terms of constant prices, The country has increased its military spending by nearly 60 percent since 2005. Denmark was set to allocate 1.6 percent of its GDP to military spending in 2023, up from 1.3 percent in 2005. In 2023, according to data from NATO, 35.5 percent of Denmark's military spending was allocated to personnel, 20.8 percent to equipment, 2.9 percent to infrastructure, and 40.8 percent to other types of expenditure.

Denmark has historically been reluctant to meet NATO's target of spending 2 percent of GDP on defence.

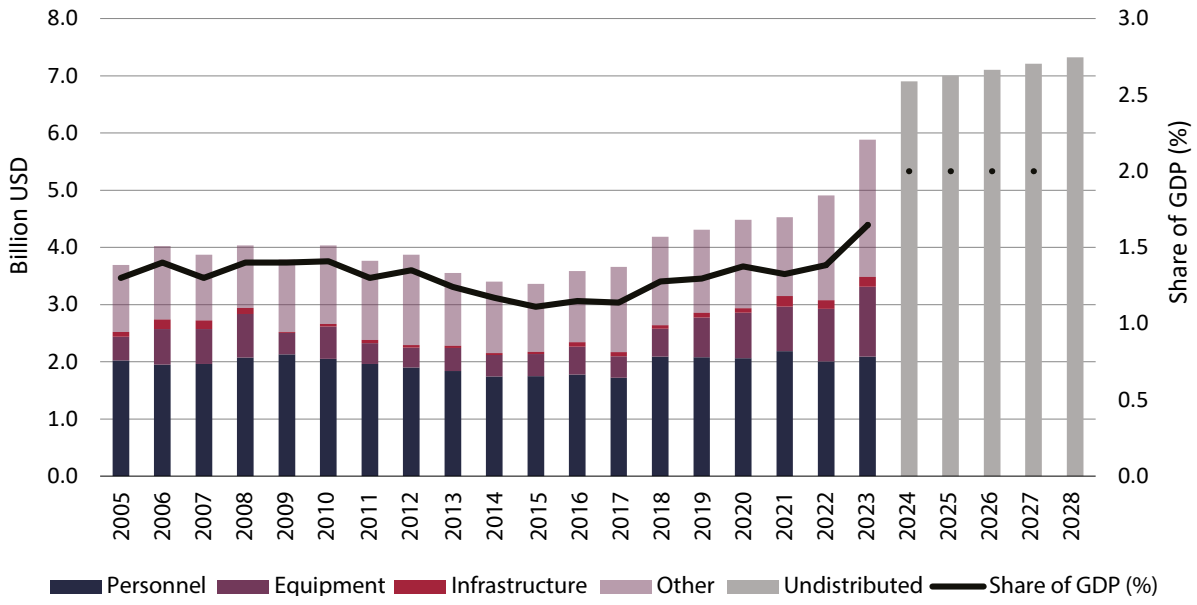


Figure 2.1 Military expenditures of Denmark 2005-2028 in 2015 constant prices.

Sources/Remarks: NATO (2010, 2016, 2023). Although Denmark considers itself to be reaching 2 percent of GDP from 2023 onwards due to its military support for Ukraine, Figure 2.1 is based on NATO figures that calculate defence expenditure differently.

However, due to Russia's invasion of Ukraine, Denmark has committed to this goal and adjusted its plans multiple times in order to reach it significantly earlier than expected. In March 2022, a national compromise was reached in parliament to increase defence expenditure to 2 percent and invest 20 percent of that in new materiel by 2033.[17] The 2024–2033 defence agreement, from June 2023, adjusted this goal to be reached by the latest in 2030.[18]

Additionally, due to the substantial military support Denmark plans for Ukraine in 2023 and 2024, when counted as defence expenditures the country will in those years already have reached the 2 percent target.[19] In November 2023, Denmark's 2030 financial plan was presented; it intends to increase donations to Ukraine in 2025–2027 and the defence budget in 2028–2029, entailing that Denmark aims to continuously spend 2 percent of GDP on defence from 2023 forward.[20] In sum, the Danish goal of sustainably meeting the 2 percent target was shifted ten years earlier – from 2033 in March 2022 to 2023 in November 2023.

The Danish government considers support to Ukraine as included in the 2 percent target. Nevertheless, some allies have criticised Denmark for counting this support as military expenditure. The Estonian and Finnish defence ministers have stated that the 2 percent target is intended for national defence, while NATO's Secretary General has stated that some, but not all, support to Ukraine may be counted.[21] Therefore, although Denmark considers that it has been spending 2 percent since 2023, when excluding its support to Ukraine, Denmark meets this target first in 2029 (see Figure 2.1).[22]

2.3 Armed Forces

The national task of the Danish Armed Forces is to maintain the sovereignty of Denmark, Greenland, and the Faroe Islands, and to contribute to Danish society's readiness in case of national disasters and crises. Additionally, the armed forces has a longstanding tradition of committing to international military cooperation and participating in international operations in global hotspots.[23]

The Danish Armed Forces employs approximately 15,000 military personnel and 5,000 civilians. Approximately 4,500 conscripts undertake military service annually, and there are 3,000 employed reservists. The Home Guard consists of 13,000 active volunteers who conduct tasks such as guarding military installations for the armed forces and civilian authorities, with another 30,000 volunteers in reserve.[24] Denmark's Defence Command, with its central location in Copenhagen, is led by the Chief of Defence (CHOD). CHOD is supported by the Defence Staff, which includes a Joint Operations Staff. The other elements of the Defence Command, also subordinated to CHOD, but located at Karup Air Base, are the Army Command, the Navy Command, and the Air Command; the Special Operations Command, headquartered at Aalborg Air Base; and the Joint Arctic Command, in Nuuk, Greenland.[25]

Army

The Royal Danish Army is led by the Army Commander, with support from the Army Command Staff located at Karup Air Base, in the middle of Jutland. The forces consist of 8,000 soldiers organised into two brigades and combat-support units.[26]

The 1st Brigade is headquartered in Holstebro, on the west coast of Denmark.[27] It is a mechanised brigade composed of eight battalions: one intelligence, surveillance, and reconnaissance (ISR) battalion; three mechanised infantry; one self-propelled artillery; one combat engineer; one signals; and one logistics battalion.[28] The 1st Brigade was intended to be a medium infantry brigade fully deployable by NATO at 180 days' notice from 2024.[29] This goal was planned as a stepping stone towards developing a heavy-infantry brigade by 2032, as requested by NATO. However, the Defence Command has acknowledged that the brigade will not be ready by 2024.[30]

The 2nd Brigade is headquartered in Slagelse and has been active since 2005.[31] It is a mechanised brigade composed of three battalions: one reconnaissance, one tank, and one light-infantry battalion.[32] The chief purpose of the 2nd Brigade is to train units for both national and international missions, such as NATO Mission Iraq and the Kosovo Force.[33]

The Danish Army faces materiel and personnel challenges. Crucially, it lacks sufficient artillery systems and air defence, although both of these capabilities are in the process of being acquired. After donating all of its CAESAR artillery systems to Ukraine, the army has ordered new self-propelled heavy howitzers (ATMOS) and multiple-launch rocket systems (PULS), of which the first were delivered in 2023.[34] In 2023, Denmark also decided to invest in short-range air-defence systems (Skyranger 30) for the army.[35]

A further significant challenge for the army is the lack of personnel, the result of low salaries, the poor state of barracks, and the stress of frequent unit rotations to fill gaps caused by the insufficient number of soldiers.[36] The 1st Brigade will not be ready by 2024, as previously planned; among other things, this is due to a shortage of up-to-date infantry fighting vehicles (IFV), a lack of air defence, and 25 percent vacancies in the required force of 4,000 troops.[37]

Navy

The Royal Danish Navy is led by the Navy Commander, with support from the Navy Command Staff positioned at Karup Air Base.[38] The navy consists of over 2,000 service members organised into three squadrons located at two naval bases.[39]

The 1st Squadron, located at the naval base in Frederikshavn, conducts national operations and enforces Danish sovereignty around Greenland and the Faroe Islands.[40] The squadron consists of four multirole frigates (Thetis class) and three Arctic patrol ships (Knud Rasmussen class), which possess some icebreaking capability.[41]

The 2nd Squadron is based at Korsør. It conducts international activities, ranging from humanitarian to combat operations. It has highly trained crews and five frigates at its disposal.[42] Three of these are anti-aircraft warfare (AAW) frigates (Iver Huitfeldt class) and two are anti-submarine warfare (ASW) frigates (Absalon class).[43] The squadron often deploys a mine-clearing unit to Standing NATO Mine Countermeasures Group 1.[44]

The 3rd Squadron is also based at Frederikshavn. It carries out both military and civilian tasks in Danish waters, such as enforcing sovereignty, maritime surveillance, and training.[45] In 2023, it contributed two patrol boats to the EU's FRONTEX for patrolling European borders.[46] The squadron is limited in its military power, since it is composed of environmental protection, patrol, and training vessels.[47]

The Danish Navy is experiencing both materiel and personnel challenges. The materiel challenges include a shortage of missiles for sufficient maritime-area air defence, mine countermeasures, and sensors and torpedoes for ASW. It seems most important to address the shortage of ASW and AAW capabilities, which NATO has identified as Denmark's top priorities.[48] This is being rectified from 2023 to 2026 by upgrading the sonar systems of the ASW frigates and equipping the maritime helicopters with ASW capabilities, as well as acquiring additional torpedoes.[49] AAW capability will also be improved from 2025 by equipping the AAW frigates with surface-to-air SM-2 missiles.[50] The 2018–2023 defence agreement intended that preparatory work to acquire longer-range SM-6 missiles would have been begun by now, but these do not appear to have been acquired yet.[51] Another challenge is the navy's personnel shortage. The numbers of vacancies on many of the ships are forcing seamen to rotate to fill empty spots in other crews, risking overworking personnel.[52]

Air Force

The Royal Danish Air Force, consisting of approximately 3,000 personnel, is led by the Air Commander, who is supported by the Air Command Staff and located at Karup Air Base. It has three air bases and is structured into six air wings, of which three are tactical.[53]

Fighter Wing Skrydstrup, located at Skrydstrup Air Base, is equipped with the equivalent of two squadrons of F-16 Fighting Falcons. There are 44 F-16s, of which 30 are operational. The air force plans to replace them with 27 F-35A Lightning IIs from 2023 to 2027.[54] The first four were delivered in 2023, and the delivery batch expected in early 2024 was delayed to late 2024.[55] An important development for the future is the 2023 Nordic declaration of intent to collaborate on a joint air force, involving around 250 combat aircraft, which may allow for burden-sharing between the countries.[56]

Helicopter Wing Karup, situated at Karup Air Base, is composed of three helicopter squadrons and runs the air force's flight school.[57] One squadron conducts tactical troop transport as well as search and rescue using EH101 Merlin helicopters. Another squadron is the navy's helicopter unit, which also works closely with the Joint Arctic Command, and is organised under the air force. It enforces sovereignty, conducts search and rescue, and uses the MH-60R Seahawk to transport provisions to the special forces on Greenland. The third squadron utilises AS-550 Fennec helicopters for search operations in collaboration with the police, anti-terror tasks with the special forces, and ISR missions.[58]

Air Transport Wing Aalborg, located at Aalborg Air Base, is responsible for the armed forces' air surveillance and transport operations. The wing consists of one squadron that uses four C-130J Hercules planes to transport personnel and materiel and four CL-604 Challengers for surveillance and the transport of personnel and government members. In the coming years, the wing will strive to improve the C-130J's tactical air transport, drop capability, and night-time operations, and to extend the CL-604's tasks in the North Atlantic area.[59]

The Air Control Wing monitors, controls, and deploys aircraft to deny violations of Danish airspace.[60] The Operations Support Wing is responsible for training, as well as mission, base, and tactical support. The Joint Movement and Transportation Organisation (JMTO) is responsible for the logistics of the entire armed forces.[61]

Of the three branches, the air force is the most modern, yet faces several challenges.[62] Replacing the F-16s with F-35s will create a capability gap until the latter are fully operational in 2027, as the air force will have fewer combat aircraft available during the transition years.[63] The delayed delivery of the F-35s, which was expected in early 2024 but is now scheduled for later in the year, may further complicate this transition. Denmark has committed to donating 19 of its 44 F-16s to Ukraine, which also seems likely to have an impact on the availability of combat aircraft.[64]

Furthermore, there will be a shortage of ASW capabilities until 2026, when the upgrade of the MH-60R Seahawk helicopters is completed.[65] The air force also suffers from personnel shortages, leading to understaffed aircrews overburdened with many shifts. More personnel for support services, such as aircraft maintenance staff, surveillance staff, and air base guards, are also required.[66]

Joint Assets

In addition to the army, navy, and air force, the Defence Command has two joint assets: the Special Operations Command and the Joint Arctic Command, consisting of some 2,000 personnel.[67] The Special Operations Command, with headquarters at Aalborg Air Base, has three units: the Army Special Forces, the Navy Special Forces, and the Sirius Dog Patrol, the latter operating in the most isolated parts of Greenland.[68] The Joint Arctic Command, staffed by personnel from the other services and headquartered in Nuuk, is responsible for upholding sovereignty over Greenland and the Faroe Islands.[69] While aiming to maintain the Arctic and North Atlantic as low-tension regions, improved surveillance and sovereignty enforcement in cooperation with NATO are a priority for the coming years.[70]

The JMTO, organised under the air force and based in Karup, manages the armed forces' logistics. It is responsible for deploying, resupplying, and transporting units heading for deployment or military exercises, both in Denmark and abroad.[71] The role of Host Nation Support (HNS) – providing logistical support to transport allied personnel and materiel through Denmark – is expected to increase in size and frequency in the coming years due to the deteriorated security environment. The armed forces, together with the Home Guard, is responsible for HNS, but this will also require considerable civil-military coordination, as well as civilian support.[72]

The Danish Defence Intelligence Service (DDIS), a government agency under the Ministry of Defence, is responsible for intelligence, cyber security and operations, and military security.[73] The army has an intelligence, surveillance and reconnaissance (ISR) battalion, as well as a military intelligence battalion.[74] The latter battalion also conducts psychological operations (PsyOps), which have been particularly important in international missions.[75]

The 2019/2020 NATO Defence Planning Capability Review identified that Denmark should prioritise the development of its joint ISR capabilities, and criticised the country's lack of plans to acquire two requested SIGINT aircraft.[76] Since then, to meet this requested capability, Denmark has commenced the acquisition of long-range drones with SIGINT capabilities and the ability to function in the Arctic climate.[77]

Denmark has prioritised cybersecurity, as demonstrated by its expansion of the Centre for Cyber Security under the DDIS, the introduction of cyber conscription, and the maintenance of it as a focus in the 2024–2033 defence agreement. Denmark has capabilities for offensive and defensive cyber operations. It cooperates with NATO on military cyber defence, and with the EU on cybersecurity and sanctions.[78]

Personnel

One of the greatest challenges for the Danish Armed Forces is the lack of personnel. There are shortfalls in all the branches of the armed forces. Arguably, even more personnel are required now as compared to past years, due to the deteriorating security situation in Europe, and to meet increased requirements on soldier quantities such as those in NATO's new Force Model.[79]

In 2023, the army was 1,000 soldiers short of a fully manned 1st Brigade of 4,000 soldiers. The navy and air force require additional personnel to fully operate their crews and avoid overburdening staff. The number of conscripts has increased slightly in recent years, to around 4,500 annually.[80] Conscription is typically four months but may be up to twelve. It is mandatory for men and voluntary for women.[81] In 2022, 27 percent of the conscripts were women.[82]

The question of recruitment and retention of personnel is prioritised, as demonstrated by its inclusion in the first political decision to implement the defence agreement, in January 2024. Four initiatives regarding personnel have been decided upon: the possibility to employ military apprentices, the ability to place staff at critical positions throughout the country, compensation for geographic flexibility, and improved recruitment to the Home Guard.[83] Surprisingly, the political decision does not include the topic of conscription, although the 2024–2033 defence agreement promised a concrete model for expanding conscription. The relatively general changes regarding conscription described in the defence agreement are an increased number of conscripts, a longer military service, and more equality between male and female conscription.

These changes are expected to increase the recruitment pool for the armed forces and the number of reservists.[84] Recruitment in related defence agencies, such as the Defence Acquisition and Logistics Organisation, is also expected to increase.[85]

Materiel

Overall, the Danish Armed Forces have relatively modern materiel, including some high-quality platforms, across all services. However, the availability of important

materiel is limited due to the relatively low quantities and lack of maintenance. This, in turn, leads to less redundancy and higher usage of the available equipment, resulting in it wearing down more quickly. Recent years have seen limited investment in materiel, aside from the expensive acquisition of the F-35s, which has prompted a need to address the requirements of other areas of materiel during the 2024–2033 period.

The army has identified the need to invest in updating IFVs, acquiring more wheeled vehicles, and replacing armoured tow vehicles and engineer vehicles.[86] Denmark has received the first delivery of a total of 19

Table 2.1 Personnel and materiel in the Danish Armed Forces

Personnel/Materiel	Numbers in 2023	Major reforms towards 2030
Personnel		
Regular force	15,000 (army 8,000, navy 2,000, air force 3,000, joint assets 2,000).(a)	To increase recruitment in all services is a goal.(b)
Conscripts	4,500(c)	A likely increase in number of conscripts, longer duration of conscription, and, potentially, gender-neutral conscription.(d)
Reserves	3,000(e)	An increase is expected due to increased conscription and recruitment.(f)
Home Guard	43,000 (of which 13,000 are in an active structure and 30,000 in a reserve structure).(g)	Acquisition of better materiel and equipment.(h) Aiming to increase recruitment.(i)
Materiel		
Main battle tanks	44 Leopard 2A7s(j)	
Armoured combat vehicles	44 CV9035s(k)	Updating the CV9035s.(l)
Heavy artillery pieces	15 Cardom 10s, 1 self-propelled heavy howitzer (ATMOS), 2 rocket launcher systems (PULS)(m)	An additional 18 ATMOS howitzers and 6 PULS systems delivered by 2024.(n)
Larger surface combatants	3 anti-aircraft warfare frigates (Iver Huitfeldt class), 2 anti-submarine warfare frigates (Absalon class), 4 multirole frigates (Thetis class).(o)	Equipping of AAW frigates with SM-2 missiles from 2025 onwards.(p) Equipping of ASW frigates with sonar systems to detect submarines by 2026.(q) Acquisition of additional torpedoes for ASW is planned.(r)
Combat aircraft	44 F-16s (30 operational), 4 F-35As.(s)	Donation of 19 F-16s to Ukraine in 2024–2025.(t) Replacing F-16s with 27 F-35As, of which the first 4 arrived in 2023. Planned to be fully operational by 2027. Six F-35s will remain in the US for training purposes.(u)
Transport aircraft	4 C-130Js, 4 CL-604s(v)	Updating the C-130Js.(w)
Air-defence batteries	-	Acquisition of short-range air-defence systems (Skyranger 30) to mount on the Piranha 5 APCs.(x)

Sources/Remarks: (a) IISS, 'Chapter Four: Europe', p. 84. **(b)** Forsvarsministeriet, Vilje och, vers. June 2023, p. 4–9. **(c)** Forsvarsministeriet Personalestyrelsen, Værnepligtige i Forsvaret. **(d)** Forsvarsministeriet, Vilje och evne, vers. June 2023, p. 4–9. **(e)** Forsvaret, 'Reservestyrken'. **(f)** Forsvarsministeriet, Vilje och evne, vers. June 2023, p. 4–9. **(g)** Hjemmeværnet, 'Få en fritid i uniform?'.**(h)** Forsvarsministeriet, Vilje och evne, vers. June 2023, p. 4–9. **(i)** Forsvarsministeriet, Oplæg. **(j)** Forsvaret, 'Kampvogn – Leopard 2A7', 24 August 2020 (retrieved: 14 November 2023), https://www.forsvaret.dk/da/materiel2/kampvogn/. **(k)** Forsvaret, 'Infanterikampkøretøj CV9035', 24 August 2020 (retrieved 14 November 2023), https://www.forsvaret.dk/da/materiel2/infanterikampkoretoj-cv9035/. **(l)** Forsvarsministeriet, Genopretning, p. 9. **(m)** Forsvaret, 'Tung mortér – Cardom 10', 28 August 2020 (retrieved 14 November 2023), https://www.forsvaret.dk/da/materiel2/tung-morter---cardom-10/; Fiorenza, Nicholas, 'Denmark receives first ATMOS SPHs and PULS MRLs' Janes, 4 August 2023 (accessed 17 November 2023), https://www.janes.com/defence-news/news-detail/denmark-receives-first-atmos-sphs-and-puls-mrls. **(n)** Bisht, 'Denmark Receives Replacements'. **(o)** Forsvaret, 'Fregatten IVER HUITFELDT'; Forsvaret, 'ASW-fregatter'; Danish Defence, 'Structure of the Navy'. **(p)** Forsvaret, Fregatten NIELS JUEL; Lye, 'Denmark aims to field SM-2'. **(q)** Forsvaret, 'ASW-fregatter'. **(r)** Forsvarsministeriet, Oplæg. **(s)** Forsvaret, 'Om Fighter Wing Skrydstrup'; IISS, 'Chapter Four: Europe', p. 85; Johnson, 'Denmark Takes Delivery of Four F-35s'. **(t)** Reuters, 'How many F-16 jets?'; Forsvarsministeriet, 'Ukraine kan forvente at modtage de første danske F-16-kampfly til sommer', 22 February 2024, (retrieved 4 March 2024), https://www.fmn.dk/da/nyheder/2024/ukraine-kan-forvente-at-modtage-de-forste-danske-f-16-kampfly-til-sommer/. **(u)** Forsvaret, 'F-35 – Danmarks nye kampfly'; Forsvaret, 'Hvorfor F-35?'. **(v)** Forsvaret, 'C-130J Hercules', 11 August 2020 (retrieved 14 November 2023), https://www.forsvaret.dk/da/materiel2/c-130j-hercules/; Forsvaret, 'CL-604 Challenger', 11 August 2020 (retrieved 14 November 2023), https://www.forsvaret.dk/da/materiel2/cl-604-challenger/. **(w)** Forsvarsministeriet, Genopretning, p. 9. **(x)** Forsvarsministeriet Materiel- og Indkøbsstyrelsen, 'Forsvaret har valgt maskinkanon'.

self-propelled heavy howitzers (ATMOS) and 8 rocket-launcher systems (PULS) to replace the 19 CAESAR 8x8 artillery systems it donated to Ukraine. Full operational capability for these systems is expected in 2025, although the Israel-Hamas conflict that began in 2023 raises the question of whether their delivery from an Israeli company can proceed as planned.[87] The army has not had air-defence capabilities since 2009, but the 2023 decision to invest in short-range air-defence systems, mounted on the Piranha 5 armoured personnel carriers (APC), is the start of rebuilding this capability.[88]

The navy plans to equip its three AAW frigates with surface-to-air SM-2 missiles from 2025 onwards.[89] In October 2020, the navy reclassified the two support ships as ASW frigates, although their ASW capabilities are not expected until 2026.[90] The navy also plans to upgrade the ASW frigates' sonar systems and equip the MH-60R Seahawk helicopters with anti-submarine torpedoes and sonar during 2023–2026.[91] Ships need to have their radio and information equipment replaced.[92] The navy is acquiring new patrol vessels produced by the Danish defence industry, with a ship design expected in 2025 and construction beginning in 2026–2027.[93] By the early 2030s, the multirole frigates (Thetis class) may be replaced by ships with increased Arctic capability.[94]

The air force is replacing its F-16s with 27 F-35As; six of these are remaining in the US for training purposes, while the remaining 21 are planned to be fully operational by 2027.[95] The transition period, lasting until the F-35s are fully in place, will likely decrease operational capability, which will also be impacted by the donation of F-16s to Ukraine.[96] Even when the F-35s are fully implemented, a lower number of combat aircraft will be available compared to the F-16s, which may affect the number of tasks the F-35s can undertake. The MH-60R Seahawk helicopters will also be equipped with ASW capabilities during 2023–2026.[97] Other areas of priority regarding materiel in 2024 to 2033 include replacing radars and updating the C-130J Hercules transport planes.[98]

The joint related investments identified for 2024–2033 involve rebuilding the foundation of the armed forces by updating infrastructure, IT systems, ammunition, fuel, and uniforms.[99]

Denmark's defence industry is small, accounting for 0.5 percent of the European defence industry. It is a leading country in ship and shipyard design, and sensor and radar technologies. Although the Danish defence industry is comprised of approximately 200 businesses, only a handful can deliver complete military systems. Approximately 42 percent of the industry is focused on the air domain, 30 percent on the maritime domain, 26 percent on the land domain, and 2 percent on the space domain. About 80 percent of annual revenue comes from exports, mostly to North America and the EU. The defence industry is also used to cultivate relationships with close allies, as demonstrated by Denmark's production of parts for the US-led F-35 programme, and the government's approval of the European Defence Fund as a way to integrate Danish companies into European defence markets and supply chains.[100] Arctic defence needs are identified as an area that cannot be satisfied by developments on the international market, but must be met by domestic production. The areas of the defence industry that are prioritised include maritime technology, space technology, drones, command and control and information systems, AI and cybersecurity, electrical and technological systems, materials, and maintenance of military systems. A specific focus on Arctic conditions is prevalent within most of these areas.[101]

Military support for Ukraine

Denmark is one of the top contributors of military support to Ukraine per capita and appears determined to remain so in the coming years. From 2022 to 2028, Denmark plans to provide USD 8.8 billion to Ukraine in military support in the form of equipment, weapons, financing, and training. Denmark includes this as part of its defence expenditure, indicating that it meets the 2 percent of GDP target from 2023 onwards.[102]

Often in cooperation with other countries, Denmark has contributed F-16s, Leopard tanks, APCs, artillery systems, air defence systems, land-based coastal defence, anti-tank weapons, and, among other minor materiel, infantry weapons.[103]

The donation of all CAESAR artillery systems delays the development of the 1st Brigade, albeit with replacements planned in 2023–2024.[104] As noted above, the donation of 19 F-16s during 2024–2025, along with the delayed delivery of the second batch of F-35s until late 2024, may exacerbate the temporary gap in the air force's capability, although some degree of this gap would likely occur during the transition to any new aircraft system.[105] The other mentioned materiel is not donated from the country's own stocks but is instead financed by Denmark, thus not directly affecting Danish capability.[106]

2.4 Assessment of military capability

Current operational capability[107]

Denmark has developed its military towards out-of-area operations during the past decades, resulting in armed forces that are too light and small for the present task of deterrence and defence of NATO territory. Having chosen to commit to NATO missions rather

than to force development, the consequences of past underfunding are now illuminating the need to update materiel and rectify the personnel shortages prevalent throughout the armed forces.[108] Although intentions to remedy these challenges are included in the 2024–2033 defence agreement, the consequences of those investments will not come to fruition for some years. Currently, the 1st Brigade is delayed, until the earliest 2025, in developing a fully deployable mechanised brigade. The ongoing transition from F-16s to F-35s, in combination with Denmark's donation of half the fleet of F-16s to Ukraine and the late delivery of the F-35s, decreases the air force's operational capability. A shortage of personnel in all three services decreases the availability of the forces, as there is not enough staff to man different units simultaneously.

In a scenario of three months' notice of major combat operations, the Danish Army would likely be able to mobilise 1–2 battalions. In 2022, it was able to deploy one mechanised infantry battalion with combat support consisting of 700–1,200 soldiers from the 1st Brigade at high readiness. Its capability to move forces and deploy to the eastern flank would likely be high due to experience gained in regular rotations to Latvia, but contingent on support from allies. The army may be able to mobilise one additional battalion at lower readiness, albeit with some challenges in providing sufficient materiel. The main limiting factors in sustaining a full and larger capability are shortages in personnel and certain materiel, in particular artillery, IFVs and air defence systems. In terms of sustainability, Denmark is likely able to maintain one combat battalion overseas over an extended period of time, exemplified by its deployments to Latvia, at least for deterrence in peace or crisis.[109]

The Danish Navy is likely able to mobilise 1–3 frigates. One AAW (Iver Huitfeldt class) frigate is deployed to NATO's Very High Readiness Joint Task Force (VJTF) and should be available within days. An additional 1–2 frigates should be available in 3 months. The main limits to naval capability are a shortage of personnel, leading to overstretched crews. Earlier contributions to NATO operations have involved one frigate at a time, indicating that this is the level of deployment that is sustainable over time.[110]

The Danish Air Force should be able to mobilise 1/2 to 1 squadron of combat aircraft in a three-month scenario, considering the 30 operational F-16s and its donations to Ukraine. Since 2004, the air force has consistently participated in NATO air policing in the Baltics, to which it provides four F-16s at a time. Of these four, two are operational and two are in reserve.[111] As for the other services, a main limit to air force capability is personnel shortage, but also as has been mentioned the transition from F-16s to F-35s. Despite the first delivery of F-35s in autumn 2023, the air force will require several years before all the new fighters can be utilised at full operational capability.

In summary, in a scenario with three months' notice, the Danish Armed Forces is likely to be able to mobilise at most around half of its armed forces at full or close to full operational capability. With the transfer to NATO of authority over a majority of the forces, command and control will be provided by the Alliance. For expeditionary operations with ground units on the eastern flank or elsewhere, support with movement and protection of the same will be necessary. In addition, as with other allies, there is considerable doubt about the ability to sustain high-intensity operations, if nothing else, due to a likely lack of important supplies. The current limiting factors for the operational capability, for example, shortage of trained personnel and some major equipment, seem very difficult to rectify in a few months' time.

Future operational capability

The 2024–2033 defence agreement increases military expenditure and aims to remedy the armed forces' problems with materiel and personnel. However, since it is a framework agreement that requires subsequent political decisions for implementation, it will take time before these are agreed upon and the changes are implemented.

The development of the 1st Brigade is one of the main priorities that will improve future operational capability. The goal of reaching a fully deployable medium infantry brigade by 2024 is now delayed by at least one year.[112] To become a heavy infantry brigade by 2032, the 1st Brigade for example needs to acquire IFVs with higher firepower and battle-decisive munitions, as requested by NATO.[113] If the defence agreement leads to upgraded materiel and increased personnel, it is possible that the heavy brigade will be ready by 2032.

The navy will be increasing its combat power within the coming years. It will equip its three AAW frigates with surface-to-air SM-2 missiles and its two ASW frigates with new submarine-detecting sonar.[114] During 2024, Denmark will deploy frigates as flagships in the Standing NATO Maritime Group 1 (SNMG 1), which is a high readiness force.[115] New patrol vessels are being acquired, with construction beginning in 2026–2027.[116] The navy's operational capability will thus increase in the coming years. By the early 2030s, the multirole frigates may be replaced with ships with greater Arctic capability, which would increase Denmark's ability to conduct operations in NATO's High North region.[117]

The air force has begun replacing its F-16s with F-35s. During the overlapping years, the deployable capability of the air force will likely be lower due to

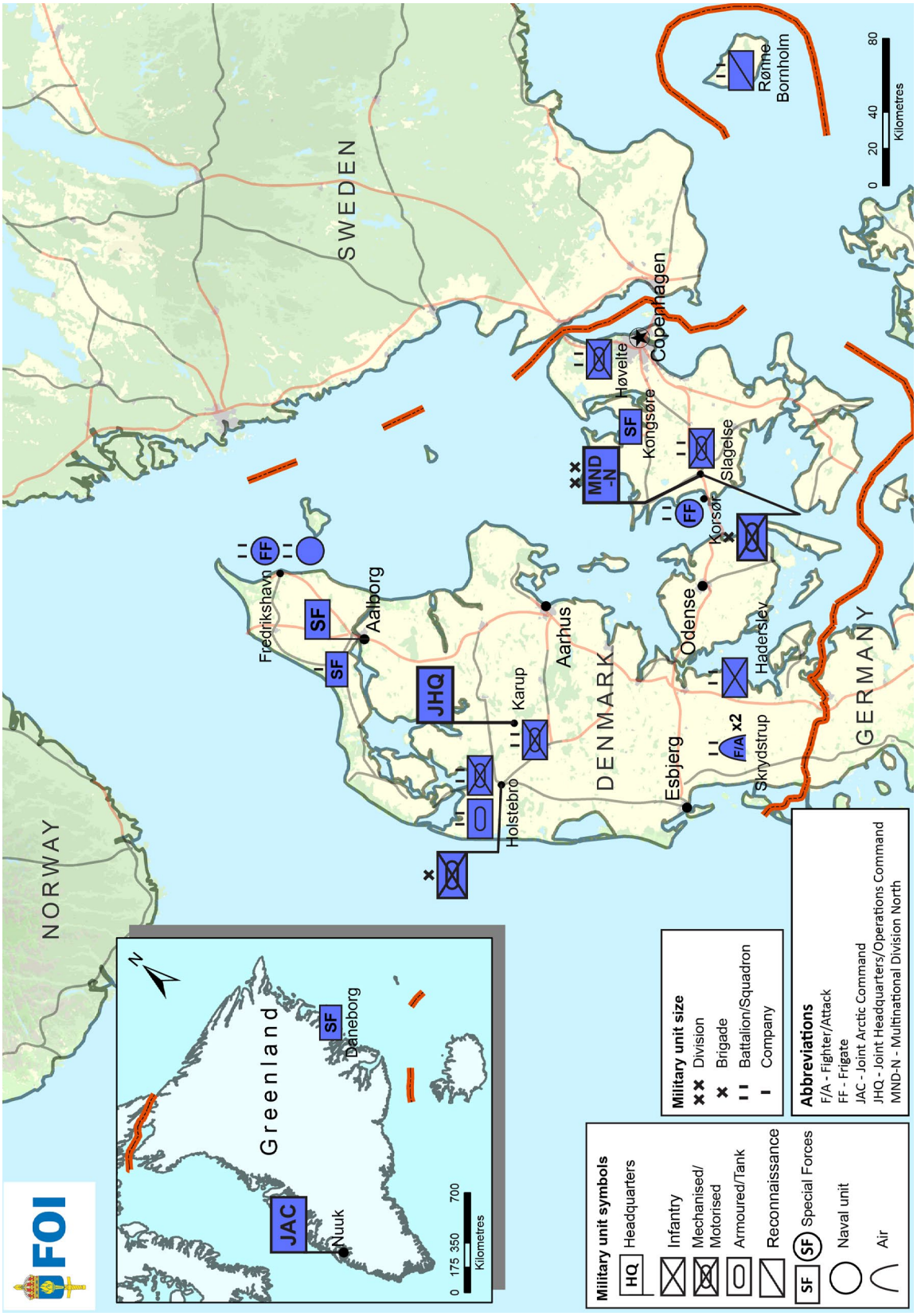
this shift.[118] The F-35s are planned to reach full operational capability in 2027, by which time the F-16s will have been retired.[119] Denmark expects its F-35s to be grounded 30 percent of the time, which entails that a maximum of 15 F-35s may be operational at any given time.[120] Compared to the 30 F-16s that have been operational in recent years, this raises questions regarding the number of tasks the F-35s will be able to undertake.

Overall, the most important developments in the coming years will be the introduction of F-35s and making the 1st Brigade deployable and heavier. Denmark plans to contribute a combat battalion, frigates, and fighter jets to the readiness categories of NATO Force Model from 2024, increasing its readiness within NATO contributions.[121] Challenges, especially personnel shortages, remain in reaching some of these goals, but the 2024–2033 defence agreement does aim to remedy these problems. One risk with the framework agreement is that political decisions to invest in materiel and personnel may not be reached early enough in the period, which could lead to delays in building up Denmark's military capability. However, if the agreement is successful in securing necessary investments in time, the Danish Armed Forces will increase its operational capability to defend its own and NATO territory in the coming years. ■

Table 2.2 Force structure of the Danish Armed Forces

Force	Organisation in 2023	Major reforms towards 2030
Joint	Defence Command Joint Arctic Command Special Operations Command (Danish Army Special Forces, Danish Navy Special Forces, Sirius Dog Sled Patrol)[a]	Expanding the Sirius Dog Sled Patrol.[b]
Army	Army Command 1st Brigade (3 mechanised infantry battalions, 1 ISR battalion, 1 artillery battalion, 1 combat engineer battalion, 1 logistics battalion, 1 signals battalion)[c] 2nd Brigade (1 reconnaissance battalion, 1 tank battalion, 1 light infantry battalion)[d] Combat support (1 CBRN/construction battalion, 1 explosive ordnance battalion, 1 military intelligence battalion, 1 military police battalion, 2 signals battalions)[e]	The goal of making the 1st Brigade a fully deployable medium infantry brigade with 4,000 troops by 2024 has been postponed to at least 2025.[f] There is an aim to develop the 1st Brigade into a heavy infantry brigade by 2032, as requested by NATO.[g] Acquiring short-range air-defence systems (Skyranger 30).[h]
Navy	Navy Command 1st Squadron 2nd Squadron 3rd Squadron[i]	Increased AAW, from 2025, and ASW capabilities, 2023–2026, in 2nd Squadron.[j] Acquiring new patrol vessels, construction planned to begin in 2026.[k]
Air Force	Air Force Command 2 Fighter Squadrons 3 Helicopter Squadrons 1 Air Transport Squadron 1 Air Control Wing 1 Operations Support Wing Joint Movement and Transportation Organisation[l]	F-16s are being replaced by F-35As. To be fully operational by 2027.[m]

Sources/Remarks: (a) Danish Defence, 'Organisation of the Danish Armed Forces'. **(b)** Lomholt, Anders, 'Lækket notat viser Forsvarets lange ønskeseddel til politikerne', 3 February 2023 (retrieved 8 December 2023), https://nyheder.tv2.dk/samfund/2023-02-03-laekket-notat-viser-forsvarets-lange-oenskeseddel-til-politikerne. **(c)** IISS, 'Chapter Four: Europe', p. 84; Forsvaret, '1. Brigades enheder', 13 December 2022 (retrieved 19 October 2023), https://www.forsvaret.dk/da/organisation/haeren/1brigade/1bde_enheder/. **(d)** IISS, 'Chapter Four: Europe', p. 84; Forsvaret, 2. Brigades enheder, 15 July 2022 (retrieved 19 October 2023), https://www.forsvaret.dk/da/organisation/haeren/2brigade/2-bde-enheder/. **(e)** IISS, 'Chapter Four: Europe', p. 84. **(f)** Nyboe McGhie, 'Danmark må opgive at levere'. **(g)** North Atlantic Council, NATO Defence Planning, p. 2–3. **(h)** Forsvarsministeriet Materiel- og Indkøbsstyrelsen, 'Forsvaret har valgt maskinkanon til Hærens nye luftværn', 16 May 2023 (retrieved 19 October 2023), https://www.fmi.dk/da/nyheder/2023/forsvaret-har-valgt-maskinkanon-til-harens-nye-luftvarn/. **(i)** Forsvaret, 'Søværnet'. **(j)** Forsvaret, 'ASW-fregatter'; Lye, 'Denmark aims to field SM-2'. **(k)** Park Lynge, Lonni, 'Søværnets nye patruljefartøj er prøveklud for design og skibsbyggeri igen i Danmark', ING, 17 July 2023 (retrieved 31 October 2023), https://ing.dk/artikel/soevaernets-nye-patruljefartoej-er-proeveklud-design-og-skibsbyggeri-igen-i-danmark?check_logged_in=1;Forsvarsministeriets Materiel- og Indkøbsstyrelse, 'FMI og Konsortiet Danske Patruljeskibe K/S underskriver kontrakt om design af nye patruljeskibe til Søværnet', 23 June 2023 (retrieved 31 October 2023), https://www.fmi.dk/da/nyheder/2023/fmi-og-konsortiet-danske-patruljeskibe-ks-underskriver-kontrakt-om-design-af-nye-patruljeskibe-til-sovarnet/. **(l)** Forsvaret, 'Flyvevåbnet'; IISS, 'Chapter Four: Europe', p. 84–85. **(m)** Forsvaret, 'F-35 – Danmarks nye kampfly'.



Map 2.1 Overview of the Danish Armed Forces and its basing
Remarks: The map covers major operational headquarters and manoeuvre forces.
Source: Design by Per Wikström

Endnotes

1 Forsvarsministeriet, Vilje og evne til at tage ansvar: Dansk forsvar og sikkerhed 2024–2033, version of 28 June 2023; Regeringen, DK2030: Danmark rustet til fremtiden, 2023, p. 71; Ministry of Foreign Affairs of Denmark, 'Danish Support for Ukraine', 26 June 2023 (retrieved: 14 November 2023), *https://um.dk/en/foreign-policy/danish-support-for-ukraine*.

2 Regeringen, Udenrigs- och sikkerhedspolitisk strategi, 2023, p. 11.

3 Forsvarsministeriet, Vilje og evne, version of June 2023, p. 5.

4 Regeringen, Venstre, SF, Radikale Venstre, and Konservative, Nationalt kompromis om dansk sikkerhedspolitik, 2022; Henley, Jon, 'Denmark votes overwhelmingly to join EU's common defence policy', The Guardian, 1 June 2022 (retrieved 27 October 2023), *https://www.theguardian.com/world/2022/jun/01/denmark-votes-on-joining-eus-common-defence-policy*.

5 European Commission, The EU's response to the war in Ukraine, 2023, p. 13–23, *https://op.europa.eu/en/publication-detail/-/publication/b53aafb8-e24b-11ed-a05c-01aa75ed71a1/language-en*.

6 Regeringen, Udenrigs- och sikkerhedspolitisk strategi, p. 11–12; Gosselin-Malo, Elisabeth, 'Denmark seeks small drones able to operate in cold temperatures', Defense News, 13 March 2023, (retrieved 31 October 2023), *https://www.defensenews.com/unmanned/2023/03/13/denmark-seeks-small-drones-able-to-operate-in-cold-temperatures/*.

7 Jakobsen, Peter Viggo and Rynning, Steen, 'Denmark: Happy to fight, will travel', International Affairs, vol. 95, no. 4, 2019: p. 879–880.

8 Edström, Zigne and Thorburn, Emelie, Nordiskt operativt försvarssamarbete – före och efter ett svenskt och finskt Nato-medlemskap, FOI Memo 8117 (Stockholm: Swedish Defence Research Agency – FOI, 2023), p. 3.

9 Forsvarsministeriet, 'Ny aftale styrker forsvarssamarbejdet mellem Danmark og USA', 19 December 2023, (retrieved 15 February 2024), *https://www.fmn.dk/da/nyheder/2023/ny-aftale-styrker-forsvarssamarbejdet-mellem-danmark-og-usa/*; Lindqvist, Andreas, 'Kontroversiel aftale om amerikanske tropper på dansk jord snart klar – særligt en detalje vækker opsigt', Berlingske, 4 December 2023 (retrieved 8 December 2023), *https://www.berlingske.dk/samfund/kontroversiel-aftale-om-amerikanske-tropper-paa-dansk-jord-snart-klar*.

10 Gustafsson, Jakob (ed.), Dalsjö, Robert, Hagström Frisell, Eva and Matheijs, Anna, Transatlantiska tvivel: Söker våra grannländer efter en Plan B? FOI Report, FOI-R--5188--SE (Stockholm: Swedish Defence Research Agency – FOI, 2021), p. 34–35.

11 Regeringen, Udenrigs- och sikkerhedspolitisk strategi, p. 18; Forsvarsministeriet, 'Dansk fregat ankommer i dag til Det Røde Hav og vil indgå i international maritim koalition', 8 February 2024, (retrieved 15 February 2024), *https://www.fmn.dk/da/nyheder/2024/dansk-fregat-ankommer-i-dag-til-det-rode-hav-og-indgar-i-international-maritim-koalition/*.

12 Forsvarsministeriet, Vilje og evne, vers. June 2023.

13 Regeringen, DK2030, p. 71; Forsvarsministeriet, 'Regeringen vil give forsvarsforliget og Ukrainefonden et markant løft', 7 November 2023 (retrieved 17 November 2023), *https://www.fmn.dk/da/nyheder/2023/regeringen-vil-give-forsvarsforliget-og-ukrainefonden-et-markant-loft/*.

14 Forsvarsministeriet, Vilje og evne, vers. June 2023.

15 North Atlantic Council, NATO Defence Planning Capability Review 2019/2020: Denmark, Overview, Document C-M(2020)0026 (DK-OVERVIEW); Forsvarsministeriet, 'Forsvarsordførerne orienteret om kritisk NATO-rapport'. 25 January 2023 (retrieved 14 November 2023), *https://www.fmn.dk/da/nyheder/2023/forsvarsordforerne-orienteret-om-kritisk-nato-rapport/*.

16 NATO, Defence Expenditures of NATO Countries (2014–2023), 7 July 2023 (retrieveded 30 October 2023), *https://www.nato.int/cps/en/natohq/news_216897.htm?selectedLocale=en*.

17 Regeringen, Venstre, SF, Radikale Venstre, and Konservative, Nationalt kompromis; Alozious, Juuko, 'NATO's Two Percent Guideline: A Demand for Military Expenditure Perspective', Defence and Peace Economics, vol. 33, no. 4, 2022: p. 475–488.

18 Forsvarsministeriet, Vilje och evne, vers. June 2023, p. 3.

19 Ministry of Foreign Affairs, 'Danish Support for Ukraine'; Forsvarsministeriet, Vilje og evne til at tage ansvar: Dansk forsvar og sikkerhed 2024–2033, version of 30 May 2023, p. 5.

20 Regeringen, DK2030, p. 71.

21 Wester, Kasper Junge, 'Flere Nato-allierede sår tvivl om den danske regerings regnemetoder', OLFI, 9 November 2023 (27 November 2023), *https://olfi.dk/2023/11/09/flere-nato-allierede-saar-tvivl-om-den-danske-regerings-regnemetoder/*.

22 Regeringen DK2030, p. 71.

23 Danish Defence, 'The Danish Armed Forces', n.d. (retrieveded: 7 December 2023), *https://www.forsvaret.dk/en/*.

24 International Institute of Strategic Studies – IISS, 'Chapter Four: Europe', in The Military Balance, vol. 123, no. 1, 2023: p. 50–149, p. 84; North Atlantic Council, NATO Defence Planning, p. 2; Forsvarsministeriet, Personalestyrelsen, 'Værnepligtige i Forsvaret og Beredskabsstyrelsen', 11 January 2023; Forsvaret, 'Reservestyrken', 25 March 2021 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/vaernsfalles/center-for-reservestyrken/reservestyrken/*; Hjemmeværnet, 'Få en fritid i uniform?', n.d. (retrieved 14 November 2023), *https://www.vistillerop.dk/?gad=1*; borger.dk, 'Frivillig soldat i Hjemmeværnet', n.d. (retrieved 13 December 2023), *https://www.borger.dk/politi-retsvaesen-forsvar/Forsvar-og-beredskab/hjemmevaernet/frivillig-soldat-i-hjemmevaernet*; Hjemmeværnet, 'Fra reserve til aktiv på to dage', 27 September 2016 (retrieved 13 December 2023), *https://www.hjv.dk/oe/HJK/nyheder/Sider/Fra-reserve-til-aktiv-paa-to-dage.aspx*.

25 Danish Defence, 'Organisation of the Danish Armed Forces', 23 August 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/en/about-us/organisation/*; Forsvaret, 'Forsvarskommandoen', n.d. (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/forsvarskommandoen/*.

26 Danish Defence, 'Structure of the Army', 25 August 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/en/organisation/army/structure/*; IISS, 'Chapter Four: Europe', p. 84; Danish Defence, 'The Army', n.d. (retrieved 14 November 2023), *https://www.forsvaret.dk/en/organisation/army/*.

27 Danish Defence, 'Structure of the Army'.

28 IISS, 'Chapter Four: Europe', p. 84.

29 Forsvaret, 'Om Hæren', 9 May 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/haeren/om-haeren/*.

30 Nyboe McGhie, Steffen, 'Danmark må opgive at levere en kampklar brigade til NATO i 2024', Berlingske, 9 March 2021 (retrieveded 31 October 2023), *https://www.berlingske.dk/samfund/danmark-maa-opgive-at-levere-en-kampklar-brigade-til-nato-i-2024*.

31 Forsvaret, Om 2. Brigade, 15 July 2022 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/haeren/2brigade/om-os/*; Danish Defence, 'Structure of the Army'.

32 IISS, 'Chapter Four: Europe', p. 84.

33 Forsvaret, '2. Brigades opgaver', 15 July 2022 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/haeren/2brigade/2-bde-opgaver/*.

34 Forsvaret, 'Hærens CAESAR-artilleripjecer doneres til Ukraine og nyt skal anskaffes hurtigt', 19 January 2023 (retrieved 18 October 2023), *https://www.forsvaret.dk/da/nyheder/2023/harens-caesar-artilleripjecer-doneres-til-ukraine-og-nyt-skal-anskaffes-hurtigt/*; Bisht, Inder Singh, 'Denmark Receives Replacements for Caesar Howitzers Donated to Ukraine', The Defense Post, 7 August 2023 (retrieved 31 October 2023), *https://www.thedefensepost.com/2023/08/07/denmark-replacements-caesar-howitzers/?expand_article=1*.

35 Forsvarsministeriet Materiel- og Indkøbsstyrelsen, 'Nyt luftværn til Hæren'; Jørgensen, Lars Bach, 'Forsvaret investerer milliarder i nye luftværnskanoner', TV2, 16 May 2023 (retrieved 18 October 2023), *https://nyheder.tv2.dk/samfund/2023-05-16-forsvaret-investerer-milliarder-i-nye-luftvaernskanoner*.

36 Haw, Sebastian, 'Army has too few soldiers to defend Denmark, says top general', CPH post, 27 March 2023 (retrieved 6 October 2023), *https://cphpost.dk/2023-03-27/news/army-has-too-few-soldiers-to-defend-denmark-says-top-general/*; Forsvarsministeriet, Genopretning af Forsvarets fundament, p. 19.

37 North Atlantic Council, NATO Defence Planning, p. 2; Forsvarsministeriet, Genopretning, 2023, p. 9; Haw, 'Army has too few'; Nyboe McGhie, 'Danmark må opgive at levere'.

38 Danish Defence, 'Structure of the Navy', 1 September 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/en/organisation/navy/structure-of-the-navy/*.

39 Forsvaret, 'Søværnet', n.d. (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/soevaernet/*; IISS, 'Chapter Four: Europe', p. 84–85.

40 Forsvaret, 'Om 1. Eskadre', 17 August 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/soevaernet/1.Eskadre/om-1.-eskadre/*.

41 Danish Defence, 'Structure of the Navy'; Forsvaret, Eskadrens skibe og uddannelsescentre', 13 May 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/soevaernet/1.Eskadre/enheder/*; Forsvaret, 'Is- og sneberedskab', 11 February 2021 (retrieved 6 October 2023), *https://www.forsvaret.dk/da/opgaver/nationale-opgaver/is-sneberedskab/*.

42 Forsvaret, 'Om 2. Eskadre', 13 May 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/soevaernet/2.eskadre/om-os/*; Danish Defence, 'Structure of the Navy'.

43 Forsvaret, 'Fregatten NIELS JUEL', 26 August 2022, (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/soevaernet/2.eskadre/NielsJuel/*; Forsvaret, 'ASW-fregatter', 5 August 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/materiel2/ASWfregatter/*.

44 Forsvaret, 'Internationale Operationer', 24 June 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/soevaernet/2.eskadre/internationale-operationer/*.

45 Forsvaret, 3. Eskadre. n.d. (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/soevaernet/3.Eskadre/*.

46 Forsvaret, 'Frontex', 7 July 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/soevaernet/3.Eskadre/3.-esk-frontex/*; Forsvaret, 'Bevogtning af Europas ydre grænser', n.d. (retrieved 7 December 2023), *https://www.forsvaret.dk/da/opgaver/internationale-opgaver/frontex/*.

47 Danish Defence, 'Structure of the Navy'.

48 North Atlantic Council, NATO Defence Planning, p. 4–5; Forsvarsministeriet, Oplæg til første delaftale under forsvarsforliget 2024–2033, 2023.

49 Danish Ministry of Defence, Defence Agreement 2018–2023, p. 2; Forsvaret, 'ASW-fregatter'; Gain, Nathan, 'Royal Danish Navy Enhancing MH-60R Helicopters ASW Capabilities', Naval News, 8 April 2020 (retrieved 14 November 2023), *https://www.navalnews.com/naval-news/2020/04/royal-danish-navy-enhancing-mh-60r-helicopters-asw-capabilities/*; Forsvarsministeriet, Oplæg.

50 Forsvaret, 'Fregatten NIELS JUEL'; Lye, Harry, 'Denmark aims to field SM-2 across Iver Huitfeldt class from 2025 onwards', Shephard Media, 23 May 2022 (retrieved 20 October 2023), *https://www.shephardmedia.com/news/naval-warfare/denmark-aims-to-field-sm-2-across-iver-huitfeldt-class-from-2025-onwards/*.

51 Danish Ministry of Defence, Defence Agreement 2018–2023, p. 4.

52 Forsvarsministeriet, Genopretning, p. 19.

53 Forsvaret, 'Flyvevåbnet', 13 May 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/flyvevaabnet/*; IISS, 'Chapter Four: Europe', p. 84–85.

54 Forsvaret, 'Om Fighter Wing Skrydstrup', 13 May 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/flyvevaabnet/fw/om-os/*; Forsvaret, 'F-35 – Danmarks nye kampfly', n.d. retrieved 14 November 2023), *https://www.forsvaret.dk/da/materiel2/f-35---danmarks-nye-kampfly/*; Forsvaret, Hvorfor F-35?', 28 August 2023 (retrieved 17 October 2023), *https://www.forsvaret.dk/da/materiel2/f-35---danmarks-nye-kampfly/hvorfor-f-35/*.

55 Johnson, Kimberly, 'Denmark Takes Delivery of Four F-35s', FLYING, 2 October 2023 (retrieved 17 October 2023), *https://www.flyingmag.com/denmark-takes-delivery-of-four-f-35s/*; Forsvarsministeriet, 'Forligskreds orienteret om forsinkelse af F-35 kampfly', 7 September 2023, (retrieved 17 October 2023), *https://www.fmn.dk/da/nyheder/2023/forligskreds-orienteret-om-forsinkelse-af-f-35-kampfly/*.

56 O'Dwyer, Gerard, 'Nordic nations move to link air forces into 250-strong aircraft fleet', Defense News, 24 March 2023 (retrieved 17 October 2023), *https://www.defensenews.com/global/europe/2023/03/24/nordic-countries-move-toward-linking-their-air-forces-250-planes/*.

57 Forsvaret, 'Flyveskolen', 4 October 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/flyvevaabnet/hw_karup/flyveskolen/*.

58 Forsvaret, 'Helicopter Wings opgaver og enheder', 13 May 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/flyvevaabnet/hw_karup/opgaver-og-enheder/*; Gain, 'Royal Danish Navy'; IISS, 'Chapter Four: Europe', p. 85.

59 Forsvaret, 'Om Air Transport Wing', 13 May 2020 (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/flyvevaabnet/ATW/om-os-underside/*.

60 Forsvaret, 'Air Control Wing', n.d. (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/flyvevaabnet/AirControlWing/*.

61 Danish Defence, 'Structure of the Air Force' (retrieved 14 November 2023), *https://www.forsvaret.dk/en/organisation/airforce/structure-of-the-air-force/*.

62 Forsvarsministeriet, 'Forsvarsordførerne orienteret om kritisk NATO-rapport'.

63 Jakobsen and Rynning, 'Denmark: Happy to fight', p. 892.

64 Forsvarsministeriet, 'Forligskreds orienteret'; Reuters, 'How many F-16 jets will Ukraine get and how will they change war?', 23 August 2023 (retrieved 17 October 2023), *https://www.reuters.com/business/aerospace-defense/how-many-f-16-jets-will-ukraine-get-how-will-they-change-war-2023-08-23/*.

65 Gain, 'Royal Danish Navy'.

66 Forsvarsministeriet, Genopretning, p. 19.

67 Danish Defence, 'Organisation'; IISS, 'Chapter Four: Europe', p. 84.

68 Danish Defence, 'Special Operations Command', n.d. (retrieved 14 November 2023), *https://www.forsvaret.dk/en/organisation/special-operations-command/*.

69 Danish Defence, 'Joint Arctic Command', 4 March 2021 (retrieved 14 November 2023), *https://www.forsvaret.dk/en/organisation/joint-arctic-command/*.

70 Forsvarsministeriet, Vilje och evne, vers. June 2023, p. 6; Gosselin-Malo, Elisabeth, 'Denmark seeks'.

71 Forsvaret, 'Joint Movement and Transporation Organisation', n.d. (retrieved 14 November 2023), *https://www.forsvaret.dk/da/organisation/flyvevaabnet/jmto/*.

72 Danish Defence, 'Host Nation Support', 2 March 2023 (retrieved 14 November 2023), *https://www.forsvaret.dk/en/roles-and-responsibilities/host-nation-support2/*.

73 Forsvarets Efterretningstjeneste, 'Hovedopgaver', n.d. (retrieved 14 November 2023), *https://www.fe-ddis.dk/da/arbejdsomrade-a/*.

74 IISS, 'Chapter Four: Europe', p. 84.

75 Nissen, Thomas Elkjer, 'Psykologiske Operationer i internationale operationer: Propaganda eller kampstøtte?', Krigsvidenskab.dk., 6 February 2006 (retrieved 19 October 2023), *https://krigsvidenskab.dk/emne/psykologiske-operationer-i-internationale-operationer-propaganda-eller-kampstotte*; Forsvaret, 'Efterretningsregimentets opgaver og enheder', 16 October 2020 (retrieved 19 October 2023), *https://www.forsvaret.dk/da/organisation/haeren/efterretningsregimentet/opgaver-og-enheder/*.

76 North Atlantic Council, NATO Defence Planning, p. 2–3.

77 Gosselin-Malo, 'Denmark seeks'; Forsvarsministeriet, Aftale om en arktis-kapacitetspakke, 2021, p. 1.

78 Centre for Cyber Security, 'Centre for Cyber Security', n.d. (retrieved 14 November 2023), *https://www.cfcs.dk/en/*; Danish Ministry of Defence, 'Cyber Security', 3 November 2022 (retrieved 14 November 2023), *https://www.fmn.dk/en/topics/cyber-security/cyber-security/*; Forsvarsministeriet, Vilje och evne, vers. June 2023, p. 9.

79 IISS, 'Chapter Four: Europe', p. 84.

80 Forsvarsministeriet Personalestyrelsen, 'Værnepligtige i Forsvaret'.

81 borger.dk, 'Værnepligt', n.d. (retrieved 17 October 2023), *https://www.borger.dk/politi-retsvaesen-forsvar/forsvar-og-beredskab/vaernepligt*.

82 Forsvarsministeriet Personalestyrelsen, 'Værnepligtige i Forsvaret'.

83 Forsvarsministeriet, Første delaftale under forsvarsforliget 2024-2033, 2024, p. 3–4.

84 Forsvarsministeriet, Vilje och evne, vers. June 2023, p. 4, 8.

85 Forsvarsministeriet, Genopretning, p. 14.

86 Forsvarsministeriet, Genopretning, p. 2–19.

87 Forsvaret, 'Hærens CAESAR-artilleripjecer doneres'; Bisht, 'Denmark Receives Replacements'.

88 Forsvarsministeriet Materiel- og Indkøbsstyrelsen, 'Nyt luftværn til Hæren'; Jørgensen, 'Forsvaret investerer milliarder'.

89 Forsvaret, 'Fregatten NIELS JUEL'; Naval News Staff, 'Norwegian-Led Mjølner 2022 Multinational Exercise Concludes In Arctic', Naval News, 17 May 2022 (retrieved 14 November 2023), *https://www.navalnews.com/naval-news/2022/05/norwegian-led-mjolner-2022-multinational-exercise-concludes-in-arctic/*; Lye, 'Denmark aims to field SM-2'.

90 Forsvaret, 'ASW-fregatter'.

91 Danish Ministry of Defence, Defence Agreement 2018–2023, p. 2; Forsvaret, 'ASW-fregatter'; Gain, 'Royal Danish Navy'.

92 Forsvarsministeriet, Genopretning, p. 9.

93 Park Lynge, Lonni, 'Søværnets nye patruljefartøj'; Forsvarsministeriets Materiel- og Indkøbsstyrelse 'FMI og Konsortiet'.

94 North Atlantic Council, NATO Defence Planning, p. 4; Rasio, Giovanni, 'DSEI 2023: OSK pitches Arctic frigate design for new Danish Navy requirement', Shephard Media, 13 September 2023 (retrieved 20 October 2023), *https://www.shephardmedia.com/news/naval-warfare/dsei-2023-osk-pitches-arctic-frigate-design-for-new-danish-navy-requirement/*.

95 Forsvaret, 'F-35 – Danmarks nye kampfly'; Forsvaret, 'Hvorfor F-35?'.

96 Johnson, Kimberly, 'Denmark Takes Delivery'; Forsvarsministeriet, 'Forligskreds orienteret'; Reuters, 'How many F-16 jets'.

97 Danish Ministry of Defence, Defence Agreement 2018–2023, p. 2; Forsvaret, 'ASW-fregatter'; Gain, 'Royal Danish Navy'.

98 Forsvarsministeriet, Genopretning, p. 9.

99 Ibid., p. 2–19.

100 Danish Ministry of Defence, National Action Plan: Promoting Danish interests with respect to the European Defence Fund, 2019, p. 15–16; Danish Government, National Defence Industrial Strategy of the Danish Government, 2021, p. 16–19.

101 Danish Government, National Defence Industrial Strategy, p. 8, 24–25.

102 Udenrigsministeriet, 'Dansk støtte til Ukraine', 6 October 2023 (retrieved 18 October 2023), *https://um.dk/udenrigspolitik/dansk-stoette-til-ukraine*; Regeringen, DK2030, p. 70.

103 Kriseinformation.dk, 'Military contributions', 21 August 2023 (retrieved 18 October 2023), *https://en.kriseinformation.dk/war/denmarks-response/donations/military-support*.

104 Forsvaret, 'Hærens CAESAR-artilleripjecer doneres'; Skydsgaard, Nikolaj, 'Denmark to send artillery to Ukraine, delaying own build-up', Reuters, 19 January 2023; Bisht, 'Denmark Receives Replacements'.

105 Forsvarsministeriet, 'Forligskreds orienteret'; Reuters, 'How many F-16 jets?'; Forsvarsministeriet, 'Ukraine kan forvente at modtage de første danske F-16-kampfly til sommer', 22 February 2024, (retrieved 4 March 2024), *https://www.fmn.dk/da/nyheder/2024/ukraine-kan-forvente-at-modtage-de-forste-danske-f-16-kampfly-til-sommer/*.

106 Associated Press, 'Danes, Dutch to donate Leopard 2 tanks to Ukraine', 20 April 2023 (retrieved 18 October 2023), *https://apnews.com/article/denmark-netherlands-ukraine-tanks-9f6a383f99c09eb25e47fd711b775651*.

107 See section 1.6 for the methodology behind the assessment of operational capability.

108 Schaub Jr., Gary and Jakobsson, André Ken, 'Denmark in NATO: Paying for protection, bleeding for prestige', War on the Rocks, 17 July 2018 (retrieved 19 October 2023), *https://warontherocks.com/2018/07/denmark-in-nato-paying-for-protection-bleeding-for-prestige/*; Forsvarsministeriet, Genopretning.

109 North Atlantic Council, NATO Defence Planning, p. 3; Forsvaret, 'Letland – sikring af NATOs østlige flanke', n.d. (retrieved 15 November 2023), *https://www.forsvaret.dk/da/opgaver/internationale-opgaver/letland--sikring-af-natos-ostlige-flanke/*.

110 Forsvaret, 'NATOs stående flådestyrker', n.d. (retrieved 19 October 2023), *https://www.forsvaret.dk/da/opgaver/internationale-opgaver/SNMG1/*; Forsvaret, 'Opgaveløsningen fortsætter i Mellemøsten', 18 October 2023 (retrieved 15 November 2023), *https://www.forsvaret.dk/da/nyheder/2023/mission-update-uge-42---2023/*.

111 Forsvaret, 'Luftovervågning over Baltikum', n.d. (retrieved 15 November 2023), *https://www.forsvaret.dk/da/opgaver/internationale-opgaver/baltic-air-policing/*.

112 North Atlantic Council, NATO Defence Planning, p. 2; Forsvarsministeriet, Genopretning, p. 9; Haw, 'Army has too few soldiers'; Nyboe McGhie, 'Danmark må opgive at levere'.

113 North Atlantic Council, NATO Defence Planning, p. 2–3.

114 Lye, 'Denmark aims to field SM-2'.

115 Forsvarsministeriet, 'Danmark klar til at tilbyde markante bidrag til NATO's styrkeberedskab i de kommende år', 19 June 2023 (retrieved 20 October 2023), *https://www.fmn.dk/da/nyheder/2023/danmark-klar-til-at-tilbyde-markante-bidrag-til-natos-styrkeberedskab-i-de-kommende-ar/*.

116 Park Lynge, 'Søværnets nye patruljefartøj'; Forsvarsministeriets Materiel- og Indkøbsstyrelse, 'FMI og Konsortiet Danske Patruljeskibe'.

117 North Atlantic Council, NATO Defence Planning, p. 4; Rasio, 'DSEI 2023'.

118 North Atlantic Council, NATO Defence Planning, p. 4.

119 Forsvaret, 'F-35 – Danmarks nye kampfly'.

120 Lindqvist, Andreas, 'Forsvarsministeriet forventer, at Danmarks nye kampfly er »nede« 30 procent af tiden'. Berlingske, 10 October 2023 (retrieved 20 October 2023), *https://www.berlingske.dk/samfund/forsvarsministeriet-forventer-at-danmarks-nye-kampfly-er-nede-30-procent*.

121 Forsvarsministeriet, 'Danmark klar'.

3. Norway

Jakob Gustafsson

Norwegian security and defence policy reflects the historical pattern of a small state with a great-power neighbour. Norway is eager to tie allies to its defence while also being mindful to ensure pragmatic relations with Russia and avoid great-power rivalry in its immediate neighbourhood. This pattern is visible in its post-1945 balancing act between deterrence and reassurance towards the Soviet Union and later Russia. Norway has refrained from permanent peacetime stationing of foreign forces on Norwegian soil to avoid escalating tensions with Russia, instead making the country dependent on a well-prepared reinforcement apparatus in case of crisis and war.

In recent years, Norway has increased its focus on deterrence, mainly due to a more assertive Russia, but also increased US interest in Norwegian territory. While the Norwegian Armed Forces are modern and capable, they face challenges in force structure and capabilities, prompting ongoing efforts to bolster the force and address long-standing gaps.

3.1 Security and defence policy

In response to Russia's full-scale invasion of Ukraine, Norway is reevaluating the merits of reassurance vis-à-vis Russia. The current Social Democrat-led centre-left government still operates with a dual-policy mindset. It acknowledged a new era in European and Norwegian security and allowed increased Allied presence while strengthening the armed forces, including increases to the defence budget to finance peacetime vigilance, readiness, and wartime stock replenishment. It still, however, assesses low tensions in the High North to be of mutual Norwegian-Russian interest, including bilateral cooperation on fisheries, search and rescue, and border control. Thus, Norway seeks not only to increase but also enhance control over Allied activity in sensitive regions such as the Barents Sea to avoid misunderstandings and escalation.[1]

Norway's threat assessments are centred on Russia and geography, with a focus on Norway's northern region of Finnmark and adjacent waters. The main concern is not direct offensive intentions from Russia but that, in the event of a NATO-Russia crisis or war, Russia might view Norwegian territory as necessary for forward defence of its Kola Peninsula-based Northern Fleet and nuclear second-strike capabilities. In line with this "bastion" concept, Russia could aim to achieve sea control in the Barents Sea and deny freedom of manoeuvre for Western powers, most importantly the US, down towards the Greenland-Iceland-UK (GIUK) Gap, possibly placing Norway behind enemy lines and hindering reinforcements.

Norway's defence concept builds on three pillars: national capabilities; collective defence through NATO; and bilateral reinforcements, particularly from the US. While the defence of Norway heavily depends on allied reinforcements, national capabilities are crucial for managing smaller-scale incidents and crises and increasing national control over events handled in an allied framework. In times of war, the Armed Forces' task is to quickly trigger NATO's Article 5 by directly confronting armed aggression. Given the vital importance of reinforcements, Norway prioritises fostering NATO cohesion and strong relations with the US.[2] Having strived since 2008 for NATO to return to its roots, Norway welcomes the organisation's increased focus on deterrence and defence, including the regionalisation of the force and command structure, to a large degree triggered by the development of new regional defence plans.

The US is Norway's primary ally. The close relationship mainly stems from US interest in Russia's nuclear capabilities on the Kola Peninsula. It has historically been characterised as an "alliance within the alliance" and involves the prepositioning of US Marine Corps (USMC) equipment and close cooperation on intelligence and surveillance in the High North. In 2022, a defence cooperation agreement was signed, granting the US access and operating rights to three Norwegian air bases and one naval port. Among other allies, the UK holds significance, with long-standing naval and marine ties and nascent cooperation centred on both countries operating P-8s and F-35s.

Two potential paradigm shifts are on the horizon. Finland and Sweden joining NATO enhances Norway's geostrategic position, offering increased strategic depth, multiplied supply lines, and the fostering of even closer Nordic defence cooperation. However, it could also challenge Norway's traditional balancing act, as restrictions on Allied exercises in Northern Norway make less sense if they are allowed in, for example, Northern

Finland. Furthermore, the potential rearmament of Germany, already a strategic partner in future submarine projects and NATO land forces, could pave the way for an expanded German presence in the North and Norwegian Seas, where collaborative efforts already exist in safeguarding energy infrastructure.[3]

The current long-term defence plan, mainly covering 2021–2024 and adopted in 2020, opted for a force structure far smaller than recommended by the Chief of Defence (CHOD) at the time. It emphasises enhancing the Armed Forces' readiness by reducing alert times, bolstering the capability for daily operations, and increasing endurance. The plan outlines a gradual rise in personnel and investments, addressing long-neglected areas such as infrastructure, spare parts, and wartime stockpiles. As NATO's self-proclaimed eyes and ears in the north, situational awareness and intelligence are emphasised. In recent years, Norway has also improved its reception capabilities and host-nation support.[4] Despite earlier reluctance, the government announced in May 2023 that Norway will meet NATO's two percept GDP spending target by 2026, incorporating military support for Ukraine as defence expenditure.[5] However, this was revised in March 2024, and the government now seeks to reach the target in 2024.[6]

Preparations for the next long-term defence plan include the release of the Defence Commission's report on Norwegian defence from a 10–20 year perspective and the CHOD's recommendation on the future force structure, in 2023. The Defence Commission – the fourth since the Second World War – underlines the suboptimal state of the Armed Forces, citing minimal personnel levels and depth, chronic cost overruns, and delays in acquisitions. It recommends significant investments and advocates for a nuanced strategy of "hedging" to reduce dependence on the US, foster stronger ties with the UK, Germany, France, the Nordic neighbours, and other Northern European states, and substantially enhance national capabilities.[7] The CHOD emphasises addressing operational weaknesses, properly staffing and equipping the force structure, reforming maritime capabilities, enhancing air defences and long-range precision fires, and increasing the overall size of the Armed Forces for greater endurance.[8] The next long-term plan will be presented to parliament in spring 2024.

3.2 Military expenditures

In 2023, Norway spent USD 8.8 billion on its armed forces, in current prices, representing an almost 40 percent increase in military spending since 2005 in constant prices. Norwegian military spending was 1.7 percent of its GDP in 2023, comparable to the levels observed in 2005.

In 2023, Norway allocated 34 percent of its military spending to personnel, 29 percent to equipment, 6 percent to infrastructure, and 31 percent to other types of expenditure. The decline in constant prices between 2020 and 2022 can largely be attributed to inflation, as military spending in current prices increased during this period. Military expenditure as a share of GDP also decreased due to challenges in keeping pace with economic growth.[9] Strong economic performance has made it more difficult for Norway to reach the two-percent target. Nevertheless, as noted, the Norwegian government

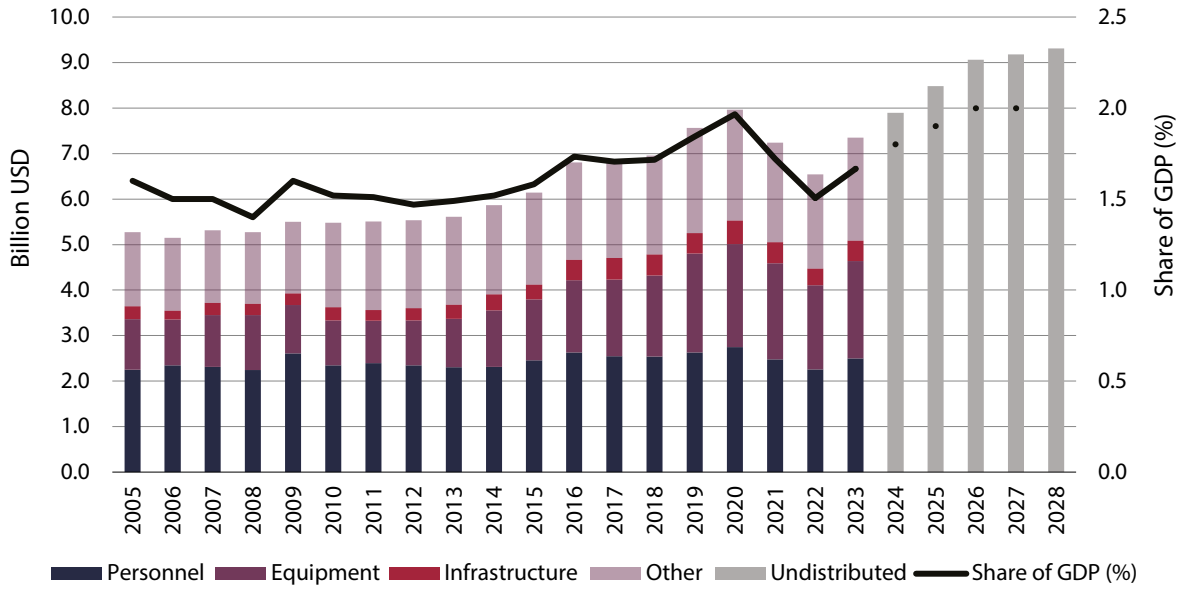


Figure 3.1 Military expenditures of Norway, 2005–2028 in 2015 constant prices.
Sources/Remarks: NATO (2010, 2016, 2023).

plans to reach 2 percent of GDP by 2024.[10] This is partly in response to the Russian invasion of Ukraine but mainly due to the pressure within NATO to meet the two-percent guideline.

For the upcoming long-term defence plan, the Norwegian Defence Commission proposes an immediate annual increase of 30 billion NOK, or roughly USD 3 billion, in defence expenditure to address current deficiencies. Additionally, it suggests 40 billion NOK per year over the next decade for acquisitions and expanding the force structure, primarily in the maritime domain and on air defences. After this period, it is recommended to permanently add 10 billion NOK per year to cover increased operating costs.[11] The CHOD's military advice for the next long-term defence plan assesses that maintaining the current level of ambition requires at least NOK 58 billion extra until 2028, while a higher ambition would require an additional NOK 8 billion annually between 2025–2031, with more resources necessary to renew the maritime structure.[12]

The budget proposal for 2024 focusses on completing the 2021–2024 long-term plan, emphasising personnel, and addressing deficiencies in infrastructure, training capacity, barracks, and logistics. It aims to overcome persistent bottlenecks that hinder growth in anticipation of the next, likely more ambitious, long-term plan.[13]

3.3 Armed Forces

The Norwegian Armed Forces has nine main tasks, with three standing out as the most important. The first two build on NATO's collective defence and deal with deterring and defending against threats and attacks against Norway and its allies. The third task is to avert and handle incidents and crises with national capabilities, including facilitating allied engagement if needed. Other tasks include surveillance and intelligence-gathering to secure situational awareness and national control; upholding sovereignty; multinational crisis management; and international cooperation.[14]

The Armed Forces consists of approximately 15,500 personnel in the regular force and 50,000 in reserves, with around 40,000 belonging to the Home Guard. Additionally, about 10,000 conscripts annually receive training and perform readiness duties as part of the regular force after their initial training.[15]

The Norwegian Joint Headquarters, located in Reitan in northern Norway, commands the operations of the main service branches: the Army, the Navy, including the Coast Guard, the Air Force, and the Home Guard. The Norwegian Defence Logistics Organisation provides logistics support. The Norwegian Special Operations Command, based in Oslo, commands land and naval special forces. The Norwegian Intelligence Service, headquartered in Oslo, and directly subordinated to the CHOD, possesses offensive cyber capabilities, while the Norwegian Cyber Defence safeguards the Armed Forces' digital infrastructure.[16]

Army

The Norwegian Land Operations Centre, based in Bardufoss, northern Norway, has the tactical command of the country's sole brigade. The brigade comprises three mechanised battalions and various support units, including an artillery battalion with a nascent air-defence battery, an engineer battalion, and a combat service and support battalion. The units are mainly stationed in Bardufoss and Setermoen, with the high-readiness mechanised Telemark battalion located in Rena, in southern Norway. During peacetime, the brigade operates at approximately 70–80 percent of its full manning capacity.[17]

Finnmark Land Command (FLC), in northern Finnmark, bordering Russia, comprises a developing mechanised reconnaissance battalion, a border-guard battalion, and around 2,000 home-guard personnel, including some 200 in high-readiness units equipped with advanced gear.[18] Besides the brigade and FLC, there are a light infantry battalion in Oslo and an independent intelligence battalion at Setermoen, ensuring situational awareness for the Army. Additionally, the Army has a logistics regiment supporting operations alongside the organic logistics units of the brigade.

The Army comprises approximately 8,300 soldiers, including around 4,400 conscripts, at various training levels.[19] Most units have a combination of professionals and conscripts in training, with the exception of the fully professional Telemark battalion. Some battalions have fully professional companies based in Rena, contributing to a high-readiness task force built around the Telemark battalion.

The Army is in the process of completing a heavy mechanised brigade, with the former light infantry battalion currently undergoing mechanisation and a fourth mechanised battalion being stood up from 2026. To enhance its materiel, the 22–28 operational Main Battle Tanks (Leopard 2A4) that remain, after eight were donated to Ukraine, are being replaced by 54 Leopard 2A8s starting in 2026 (notably, the decision ran counter to the advice of the CHOD, who recommended prioritising long-range fires, air defence, and helicopters over new MBTs). Upgrades include some 90 recently enhanced Infantry Fighting Vehicles (CV9030N), the integration of 24 K9 artillery pieces (with four more expected by 2025), and reintroduced mobile air defences.[20] Despite these improvements, the current fleet

of MBTs and around 90 IFVs may pose challenges for equipping the armoured and mechanised units of the brigade and FLC in 2023. Plans are underway to procure additional IFVs towards the end of the decade.[21] Furthermore, donations of air-defence missiles to Ukraine have delayed full operational capability (FOC) of the Army's air-defence capability from 2026 to 2028.[22]

Aside from the simultaneous challenges of mechanising and expanding the brigade while growing FLC, the Army faces a hurdle in managing its dual roles of training conscripts and maintaining readiness. Conscripts undergoing training form a significant part of the Army units, and they are assessed to be operationally ready after 6–9 months.[23] As a result, units often rely on rapid mobilisation to achieve full personnel levels. Additionally, Brigade Nord units rotate to the NATO eFP battlegroup in Lithuania, creating vacancies at home. To address this, an active reserve is being established to fully staff units and replace conscripts not yet fully trained. In 2022, the reserve contained some 2,500 soldiers, which the Chief of the Army wants to double in the short term.[24] However, the concept is still evolving, and reports from active reserve officers suggest that there is limited or no refresher training and equipment shortages.[25]

Navy

The Royal Norwegian Navy comprises the Fleet and the Coast Guard, with the Norwegian Naval Operations Centre exercising tactical command. The main naval base, Haakonsvern, is in Norway's southwest, while Ramsund Naval Station serves as the main port in Northern Norway. The Fleet is built around a frigate squadron of four frigates, a corvette squadron of six corvettes, a minesweeper squadron of four vessels, and the submarine branch, with six submarines. Additionally, there is a coastal ranger commando and a naval explosive ordnance disposal commando.[26]

The Coast Guard, headquartered in Sortland in the north of Norway, has 15 vessels for upholding Norwegian sovereignty, including border control, fisheries inspection, and handling oil spills. Eight of the vessels are lightly armed with a 57mm cannon.[27] Since 2022, the Coast Guard has been actively involved in enhancing surveillance and protecting Norwegian energy infrastructure.

The Navy comprises around 4,600 sailors, with approximately 2,250 in training as conscripts.[28] The service faces challenges due to a low vessel count and limited availability. Most major platforms are approaching the end of their lifecycles, resulting in outdated technology and extended periods at berth for necessary upgrades and maintenance.[29]

The Navy faces challenges in retaining personnel, particularly specialists sought after by the private sector. The insufficient number of crews leads to prolonged and unpredictable deployments, negatively impacting morale. As of 2020, there were five crews for the four frigates, slated to increase to six by 2026, and five crews for the six corvettes.[30] One frigate is currently testing the successful Coast Guard model of two crews per vessel, but there are no indications in the long-term plans or budgets that this will be extended to all frigates.[31]

The Navy is currently facing delays and technical challenges. The six *Ula*-class submarines are to be replaced with four (and four more on option) 212CD-class submarines procured in cooperation with Germany. Initially, two submarines were to be decommissioned starting in 2022, with delivery of 212CDs starting soon thereafter, but delays have pushed the first delivery to 2029. Decommissioning appears to be delayed as well, but the number regularly deployed is likely low, given their age of more than 30 years and the upgrades needed to use some of them as gap fillers in the years ahead.[32] Additionally, efforts to integrate NH90 helicopters for anti-submarine warfare (ASW) on frigates and search-and-rescue and other tasks on coast guard vessels were cancelled in 2022. Instead, six Sikorsky MH-90R Seahawk helicopters for the coast guard will be delivered from 2025.[33] An additional order for ASW versions is likely, but Norwegian frigates currently lack ASW capabilities.

The Navy faces a significant challenge due to the absence of a comprehensive plan for the future of the service beyond 2030. The 2020 long-term plan deferred this issue, and it has not been revisited since. However, in 2022, the government announced that the 2024 long-term plan would include a blueprint for the future force structure, with ongoing evaluations of capability needs. The Defence Commission's report is integral to these preparations, urging substantial naval investments, an increase in new submarines, and prompt decisions on the future force structure to be implemented before 2030.[34]

The CHOD advocates for a strategic shift, urging against costly upgrades of existing vessels at the end of their lifecycles. Instead, he proposes collaborating with allies to procure a set of new vessels, emphasising simplicity in logistics by minimising the variety of vessel types. The recommendation includes acquiring 4–6 new frigates with helicopters or unmanned systems and implementing a system of two standard vessels with modular weapons and sensor systems, based on civilian standards. Additionally, the CHOD prioritises increasing the number of new submarines from 4 to 6, reinstating sea-minelaying capabilities, and leveraging unmanned systems in the maritime domain.[35]

Air Force

The Norwegian Air Operations Centre, colocated with the Norwegian Joint Headquarters in Reitan, has tactical command of the Air Force. It comprises two fighter-jet squadrons (F-35A), a maritime patrol squadron (P-8 Poseidon), a transport squadron (C-130J Hercules), and two transport helicopter squadrons (Bell 412SP). The service consists of approximately 4,300 personnel, including around 1,200 conscripts in training.[36]

Ørland Air Station, located in the middle of Norway, serves as the primary base for the F-35s. Evenes Air Station, in Northern Norway, hosts the maritime patrol aircraft and functions as a forward operating base for fighter squadrons, supporting NATO's Quick Reaction Alert, a part of the Alliance's air policing. There are two air-defence battalions, one stationed at each main base, with two batteries of NASAMS III mid-range air defence at Ørland Air Station and one at Evenes. The battalion at Evenes is expected to reach full operational capability in 2024.[37] Several other air bases are maintained for helicopter wings and transport aircraft, with some earmarked to host allied forces during wartime. For instance, the US is investing approximately USD 2 billion in Rygge Air Station, in southern Norway, to accommodate its fighter jets.[38]

Concerns have arisen about an anticipated shortage of fighter-jet pilots due to impending retirements and inadequate training of new pilots. Similar challenges exist in logistics support, with only three technicians per fighter jet, compared to the 9–13 in other countries, leading to occasional reliance on leased support from the private sector.[39]

The Air Force is in the process of receiving a total of 52 F-35A fighter jets (currently 40 delivered, with a handful used for training in the US) and replacing the aging fleet of P-3 maritime patrol aircraft with five P-8 *Poseidon* with initial operating capacity (IOC) in 2023.[40] The cost of the F-35 acquisition has sparked intense domestic debate, with concern expressed about resource allocation within the Armed Forces. As of 2022, 24 jets were operational, and FOC is targeted for 2025. Ongoing deliveries brought one of the squadrons to full strength in 2023, while the other was at about half strength.[41] The Chief of the Air Force has expressed that the shortage of technicians may impede achieving FOC by 2025.[42] Furthermore, there are challenges related to insufficient ammunition stockpiles, but plans and financing are in place to address this by 2026.[43]

The debate over the lack of proper air defences and vulnerability due to operating only two bases for fighter jets has been ongoing, intensified by the Russian targeting of critical infrastructure in Ukraine. The 2020 long-term plan aims to modernise the NASAMS systems from 2023 but defers additional procurement and the matter of longer-range capability until potential financing is available, indicating that such systems could be funded from 2028.[44] Air defence is expected to be a priority of the 2024 long-term plan, particularly as parts of the existing arsenal were donated to Ukraine. The CHOD calls for more NASAMS systems and enhanced capability against ballistic missiles.[45] Additionally, the Air Force is developing a dispersal concept to reduce vulnerability, as exemplified by the landing of Norwegian F-35s on a Finnish highway in 2023.[46]

Joint assets

As noted above, under the CHOD, the Norwegian Joint Headquarters commands national operations, and the Norwegian Intelligence Service provides intelligence by various means, including naval and space assets, and offensive cyber capabilities. The Norwegian Cyber Defence is tasked with defensive operations and protecting the Armed Forces' digital infrastructure.[47] Norway retains some space capabilities, most notably with regard to the civilian spaceport in Andøya, one of the few operational satellite launch stations in Europe, which the Norwegian defence sector sees as an asset for Norway and allies alike.[48]

The Norwegian Special Operations Command (NSOC) comprises a command element and two special operations task groups from the Army and one from the Navy, supported by a Special Operations Air Task Group and an Air Force Special Operations Aviation Squadron, including a helicopter squadron.[49] Norwegian Special Forces have a history of close cooperation with their US and UK counterparts, which is to be further strengthened. An additional naval task group is in the process of being established, with FOC projected for 2026.[50]

The Norwegian Defence Logistics Organisation sets up the national logistics operations HQ, providing logistics support and host-nation support to allied forces. It organises units for allied reinforcements, including a heavy engineer battalion, a military police battalion, a transport (reception, staging, and onward movement, RSOM) battalion, and a host-nation support battalion specifically for the USMC. These battalions, with a core of permanent personnel augmented by reservists in crisis and war, are slated to reach FOC no later than 2026.[51] As of 2023, the command will exercise tactical command of NATO logistics in the north on behalf of Joint Force Command Norfolk.[52]

The Norwegian Home Guard, with 40,000 personnel, focuses on territorial defence, safeguarding critical infrastructure and supporting allied reinforcements. Reservists who have undergone conscript training and former professionals man the units. Some 3,000 form mobile high-readiness units with advanced equipment

and more frequent exercises.[53] Plans involve adding 5,000 soldiers over the coming years, starting with 500 in 2023.[54]

Personnel

The Norwegian Armed Forces employs a mixed manning model, comprising professionals, conscripts in training, reservists, and volunteers. With approximately 25,500 personnel in the regular force, around 10,000 are conscripts in training, with multiple annual call-ups to avoid periods when all conscripts are at the start of their training simultaneously.[55] Conscript training normally ranges from 12–16 months but can vary between 6 and 18 months based on the role.[56] The longer period of conscript training serves to better utilise trained conscripts for readiness after initial training. Following service, conscripts enter the active reserve, with approximately half in the Home Guard and the other half in the regular force.[57] There are about 50,000 trained reservists, mainly in the Home Guard.

The Norwegian Armed Forces suffers from personnel shortages, with many units operating at minimal staffing levels and lacking reserves. In 2022, some 18,000 employees worked some 21,400 man-years, and in 2021, 25 percent of employees worked more than 1.38 man-years.[58] The CHOD identifies the shortage of personnel as the most significant risk facing the Armed Forces in the years to come. The main challenge lies in retaining and recruiting officers, with a projected shortfall of around 1,000 officers by 2028, based on current trends.[59] Specialists pose the hardest retention challenge, with an annual attrition rate of approximately 11 percent, while 35 percent transition to new positions within the Armed Forces, requiring a significant amount of time to train personnel in their new positions. A 2023 survey found that 25 percent of service members expressed a desire to leave the Armed Forces within the next two years.[60]

The current long-term plan calls for adding 550 professionals and 700 conscripts to the force structure by 2024. However, events and subsequent increases in defence budgets have outpaced the plan adopted in 2020. The 2024 budget proposal adds 170 extra professionals, specifically targeting the endurance of the fighter-jet fleet, air defence, and ship crews. Although the 2024 long-term plan is expected to include more

Table 3.1 Personnel and materiel in the Norwegian Armed Forces

Personnel/Materiel	Numbers in 2023[(a)]	Major reforms towards 2030
Personnel		
Regular force	25,500 (incl. 10,000 conscripts)	Further growth expected, details in forthcoming long-term plan.
Army	8,300 (incl. 4,400 conscripts)	
Navy	4,600 (incl. 2,250 conscripts)	
Air Force	4,300 (incl. 1,400 conscripts)	
Home Guard	800 (incl. 400 conscripts)	
Reserves	50,000 (40,000 in the Home Guard, 10,000 in the other services)	+ 5,000 Home Guard Further growth of the active reserve.
Materiel		
Tanks	22–28 (Leopard 2A4)[(b)]	54 Leopard 2A8 NOR
Armoured combat vehicles	112 (CV9030 in different variants, mainly IFVs)	
Heavy artillery pieces	24 (K9)	Additional 4 K9s
Surface combatants	10 (4 Nansen-class frigates, 6 Skjold-class corvettes)	Mid-life upgrades on frigates
Submarines	6 (Ula-class)	4 212CD submarines, first delivery 2029
Combat aircraft	40 F-35As[(c)]	Additional 12 F-35As
Transport aircraft	4 C-130J-30 Hercules[(d)]	
Air-defence batteries	3 NASAMS III	Modernisation and longer-range missiles.

Sources/Remarks: (a) If not stated otherwise, the information regarding personnel, and for models and quantities of materiel, are obtained from IISS, The Military Balance 2023, Chapter Three: Europe (London/Oxfordshire: International Institute for Strategic Studies/Routledge, 2023), p. 132–134. **(b)** 16 more are in store. Before Norway donated 8 MBTs to Ukraine, the IISS reported 36 were operational, whereas Norwegian media put the number at "about 30", thus, 22–28; see Tangen Olsen, Dag, 'Mot en nasjonal skandale?', Norges forsvarsforening, 12 December 2022 (retrieved 31 October 2023), https://www.forsvarsforeningen.no/norges-forsvar/norges-forsvar-6-2022/mot-en-nasjonal-skandale/. **(c)** As noted, 24 jets were operational in 2022. **(d)** Det Kongeliga Forsvarsdepartement, Prop 1 S, 2023, p. 111.

dramatic measures, the addition of 170 professionals compared to the 2020 plan does not suggest a high sense of urgency.[61]

Materiel

The Norwegian Armed Forces is a modern force with high-end capabilities, but this has been achieved at the expense of depth and volume. This trade-off impacts the availability of materiel and hinders the ability to handle lower-level incidents, crises, and armed conflicts effectively over time.[62] The current long-term plan seeks to address issues involving, among others, atrophied maintenance capabilities, infrastructure, personal equipment, spare parts, and munitions stockpiles. In preparation for the upcoming 2025–2028 long-term defence plan, the government released a white paper in April 2022 that candidly acknowledges challenges and delays in expanding the force structure after years of out-of-area operations and peacetime procedures, including the cost increases in major acquisitions.

While improvements have been made in certain areas, including daily operations, there are ongoing challenges. A deficiency of advanced ammunition, crucial for battle decisiveness, limits the endurance of MBTs, artillery pieces, and F-35s. Inadequate infrastructure results in personnel and materiel being housed in substandard barracks and storage facilities, which in turn affects morale and increases wear and tear.[63] These issues are likely to impact all branches of the Armed Forces, and recent donations to Ukraine have exacerbated short-term problems.

The Armed Forces is undergoing a significant platform replacement, incorporating new fighter jets, submarines, maritime patrol aircraft, and main battle tanks in the years ahead. The CHOD continuously emphasises the critical need for air defences. The protection provided by the two air-defence battalions stationed at air-force bases is not sufficient to protect other allied reception areas, critical infrastructure, and major cities. In other areas, the primary challenge may not be a lack of platforms but rather insufficient ammunition and logistics support.

Norway benefits from an advanced defence industry, with key manufacturers such as the Kongsberg Group (Joint Strike Missile, Naval Strike Missile, NASAMS air defence) and Nammo (ammunition and motors for missiles like AMRAAM and IRIS-T).[64] The government has supported Nammo's increased production capacity through direct investments and a NOK 4.2 billion (roughly USD 0.4 billion) order of artillery ammunition, pending parliamentary approval.[65]

Norway traditionally depends on US manufacturers for major platforms such as fighter jets and maritime patrol aircraft, and German manufacturers for submarines and MBTs, while the acquisition of Korean artillery is an exception. The decision regarding Norway's future surface fleet is likely to involve close cooperation with allies.

Support for Ukraine

Norway has significantly contributed to Ukraine, including the donation of main battle tanks, and is preparing to donate F-16 fighter jets along with providing training for Ukrainian pilots. Despite initial hesitation, Norway is now the largest contributor to Ukraine in terms of the percentage of the donor country's GDP, aligning with other Nordic countries that abandoned their longstanding policy of not supplying arms to countries at war.[66]

Norway has donated military assets to Ukraine, including eight Leopard MBTs, anti-tank weapons, 23 M109 howitzers, three artillery hunting radars and thousands of shells, eleven M207 multiple-launch rocket systems, Hellfire missiles, and Mistral air-defence systems. Norway cooperates with the US in supplying NASAMS mid-range air-defence firing units. As for training and education, Norwegian officers train Ukrainian personnel in Norway, the UK, Germany, and Lithuania.

Norway's most significant contribution, however, lies in the 2023 initiative to provide Ukraine with NOK 75 billion (roughly USD 7.5 billion) from 2023 to 2027 for both civilian and military use. This initiative is partly aimed at dispelling the perception of Norway as a war profiteer, given the economic windfall from the dramatic increases in gas and oil prices contributing to the Norwegian state budget. As of October 2023, Norwegian support had amounted to approximately NOK 29 billion (roughly USD 2.9 billion), with a small portion directed towards other countries in the region, primarily Moldova.[67]

In the short term, support for Ukraine has further hollowed out equipment and ammunition stockpiles, complicating force planning due to uncertainty about future donations.[68] In the long term, the CHOD relies on political assurances for replacing donated materiel, acknowledging the challenge of doing so while simultaneously expanding the force structure.[69]

3.4 Assessment of military capability

Current operational capability[70]

The Norwegian Armed Forces, while small, encompasses a diverse range of capable units, including a mechanised brigade, two fighter-jet squadrons, a frigate squadron, a corvette squadron, and six submarines. However, achieving this breadth has come at the expense of volume

and depth, as personnel and logistical support have been stretched thin.

As for land forces, most personnel of the brigade, the Finnmark Land Command, and the Home Guard should be available with three months' notice. With multiple annual call-ups for conscripts, the not yet fully prepared Army reserve should be able to replace conscripts in training, and fill vacant positions. However, recent major exercises of the brigade involve only the peacetime structure, resulting in incomplete unit manning and no training for reserve-based units. While three months' preparation allows for personnel and equipment deployment, it may be insufficient for effective task-solving.

The high-readiness battalion task group, which has been Norway's contribution to the NATO Response Force in recent years, is the only fully manned unit in peacetime. Thus, it could make more sense to organise 1–2 battalion task groups, comprising the professional Telemark battalion and professional companies from other battalions, alleviating current materiel constraints and leaving personnel in reserve for greater endurance.

With three months' notice of major combat operations, according to a conservative estimate, the Army could potentially assemble 1–2 battalion task groups with organic air defence and artillery, along with the border-guard battalion of FLC and the Oslo-based King's Guard battalion. A more optimistic projection suggests mobilising a reduced mechanised brigade. While the Home Guard could likely mobilise a majority of its personnel, the limited strategic and operational mobility of most units constrains their utility beyond supporting the reception of reinforcements, contingent on the conflict type and geography.

Regarding the Navy, the four frigates rotate between training new crews, maintaining situational awareness in the High North, undergoing maintenance and participating in NATO's Standing Naval Forces.[71] Consequently, at most, two frigates are operationally ready. With five crews for the four frigates, it is likely that 2–3 frigates could be ready in three months. The current fleet of 6 corvettes, manned by five crews, suggest that 2–3 could be operational. As for the six submarines, their age and coming upgrades mean that the Navy could probably contribute 2–3 submarines within three months.

The Norwegian Air Force, consisting of two fighter-jet squadrons, had 24 operational fighters in 2022 and approximately 1.5 operational squadrons in 2023. Due to the shortage of technicians and FOC for the F-35 fleet not expected until 2025 at the earliest, the Air Force could likely muster one fighter squadron with about 12–16 jets, with a few in reserve, within three months.

In sum, Norway can muster up to 1 reduced brigade, 1 border-guard battalion, 2–3 frigates, 2–3 corvettes, 2–3 submarines and 1 squadron of fighter jets, in addition to its Home Guard units, for its national defence in three months' time. The Armed Forces possesses the capability to respond effectively to an attack, signalling armed aggression, and triggering Article 5. However, their limited volume and materiel pose challenges to sustained operations, potentially hindering the reception and control of Allied reinforcements. This also hampers the capacity to maintain readiness during prolonged crises. The Norweigian CHOD has acknowledged that the Armed Forces has significant operational weaknesses and will struggle to fulfil their most demanding tasks.[72]

Sea and air assets available for collective defence outside Norway are approximately equivalent. However, their availability is contingent on support from allies, and there are sustainability concerns. On land, it is anticipated that no more than a battalion task group would be available for expeditionary operations.

Future operational capability

The Norwegian Armed Forces, although behind schedule on the current long-term plan, is expected to meet its objectives in the coming years. This involves adding personnel, equipment, and support to the existing organisation, along with some growth in the force structure. However, compensating for donations to Ukraine may take up to five years, still potentially leaving some gaps to be filled.

A crucial uncertainty affecting future operational capability is the content of the 2024 long-term defence plan. Political considerations are uncertain following Russia's invasion of Ukraine. While both the CHOD and the Defence Commission have advocated for a significant strengthening of Norwegian defence, the long-term plans have historically not met the Armed Forces' requests. The lingering question is whether a different outcome will emerge this time.

The Army's capability will increase as Brigade Nord continues its transformation into a heavy mechanised brigade and the FLC expands. The establishment of a fourth manoeuvre battalion in the brigade will also have started, with FOC planned for 2032. Ongoing procurements for additional IFVs, APCs, artillery, and personal equipment are underway. However, the increased force structure may create temporary gaps elsewhere as existing personnel and materiel are distributed among more units. The Army is poised for a qualitative upgrade with the commencement of new MBT deliveries in 2026 and the full operational capability of its organic air-defence capabilities. Towards the end of the decade, the Army plans to acquire long-range precision fires, presumably rocket artillery.[73]

The Navy faces uncertainty. During the next few years, major vessels such as corvettes, frigates, and submarines will undergo maintenance and/or mid-life upgrades to extend their operational lives until around 2030, after which they will be decommissioned.[74] The upcoming long-term plan is expected to invest heavily in naval capabilities, but this will primarily impact the Navy post-2030. In the meantime, the service´s immediate focus is on maintaining readiness with current resources.

The Air Force will significantly enhance its operational capability, as all 52 F-35A fighter jets achieve FOC, even if this falls short of the 2025 deadline. Challenges related to infrastructure and technical support may persist. In the future, bolstering air defence is expected to be a priority, with upgrades planned for the existing NASAMS system, including longer-range missiles. However, the procurement of additional systems to protect sites other than air bases is not currently planned. The acquisition of systems against long-range ballistic missiles is deferred until 2028.[75]

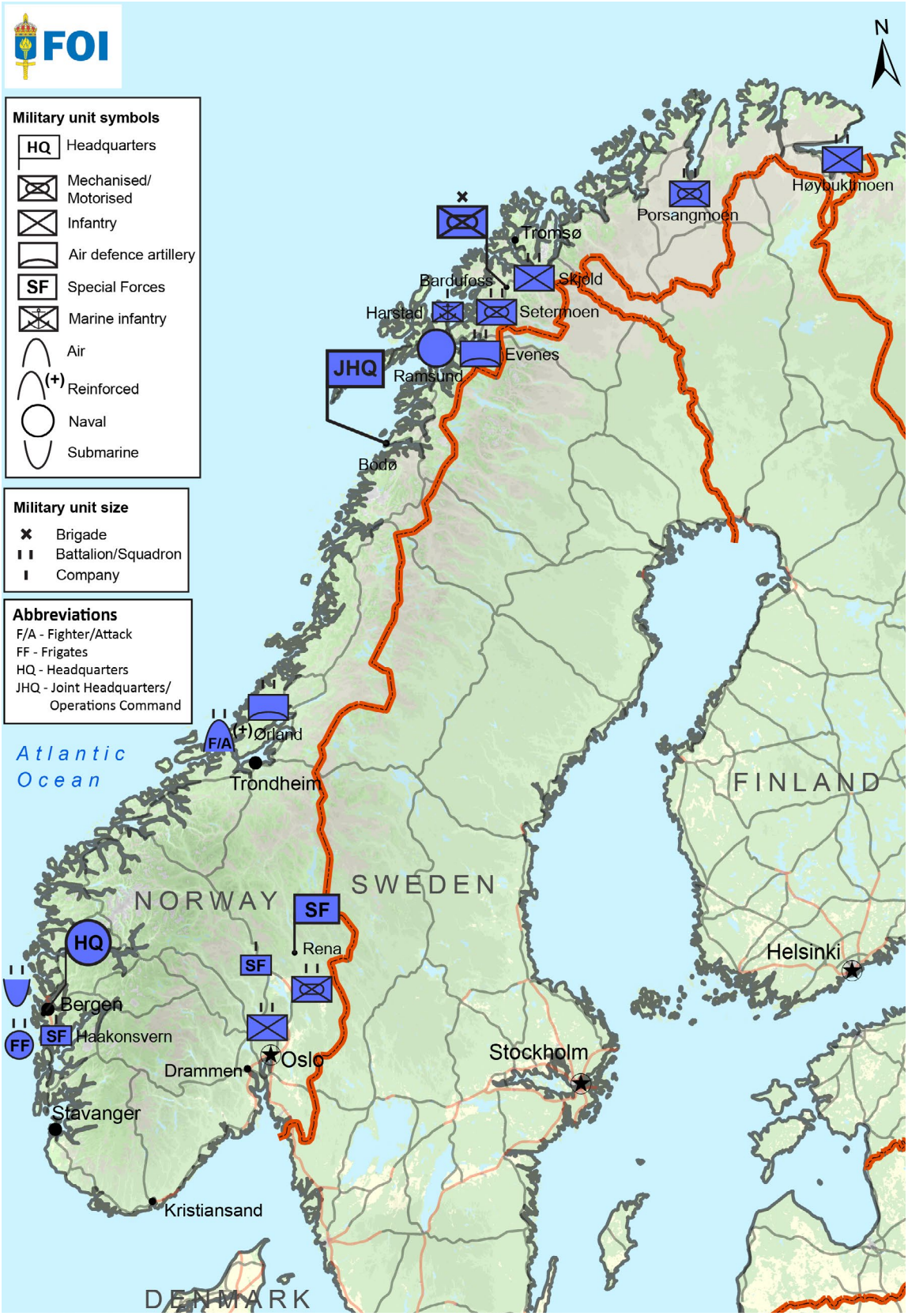
The readiness of the Armed Forces will increase in a five-year perspective. In response to morale issues, the conflict in Ukraine, and NATO's heightened focus on readiness, Norway is implementing changes to enhance personnel retention and increase readiness. Notably, basic training in all services will no longer occur in operational units, an active reserve is being established, and conscription service has been extended to optimise conscripts' contributions to readiness. Legislative adjustments have extended the period during which trained conscripts can be called for refresher training and readiness duties if they volunteer. Over time, these measures, coupled with differentiated conscript intakes, aim to increase overall readiness and will, for example, ensure that three out of four manoeuvre battalions in the brigade are ready at any given time.[76]

In sum, there will be modest improvements in the operational capability of Norway's Armed Forces during the next five years. Structural issues such as those involving retention, cost overruns, and delays will persist, but the ongoing efforts are expected to begin to close existing capability gaps while also allowing for some growth in the force structure. Norway's transparent approach to addressing problems rather than ignoring them is likely to be a key advantage as these incremental improvements are implemented. ■

Table 3.2 Force structure of the Norwegian Armed Forces

Force	Organisation in 2023[(a)]	Major reforms towards 2030
Joint	Joint Operational Headquarters Special Forces Command (1 navy special forces unit, 2 army special forces units) Norwegian Intelligence Service Norwegian Defence Logistics Organisation	Additional naval special forces unit Reserve-based engineer battalion, transport battalion, military police battalion and host-nation support battalion under the Logistics Command, FOC 2026
Army	Norwegian Land Operations Centre 1 mechanised brigade, Brigade Nord (3 mechanised battalions, 1 artillery battalion, 1 engineer battalion, support units) Finnmark Land Command (1 mechanised battalion (forming), 1 light infantry (border guard) battalion, home guard readiness units) 1 light infantry battalion (King's Guard) 1 intelligence battalion 11 Home Guard districts	1 mechanised battalion forming from 2026 Mechanised battalion FOC projected 2025
Navy	Norwegian Naval Operations Centre 1 frigate squadron 1 corvette squadron 1 mine-countermeasures squadron 1 ISR company (coastal rangers) 1 EOD platoon	
Air Force	Norwegian Air Operations Centre 1 fighter-jet squadron (F-35A) 1 fighter-jet squadron (forming) (F-35A) 1 maritime-patrol squadron (P-8 Poseidon) 1 electronic-warfare squadron 2 transport-helicopter squadrons 1 search and rescue squadron 2 air-defence battalions (one of which reaches FOC in 2024)	2 fully operational fighter jet squadrons

Sources/Remarks: (a) If not stated otherwise, the information is obtained from IISS, 'Norway', 2023, pp. 132–134.



Map 3.1 Overview of the Norwegian Armed Forces and its basing
Remarks: The map covers major operational headquarters and manoeuvre forces.
Source: Designed by Per Wikström

Endnotes

1 Det Kongelige Forsvarsdepartement, Prioriterte endringer i status og tiltak I forsvarssektroen (Meld. St. 10), 2022, p. 11, 21.

2 Det Kongelige Forsvarsdepartement, Evne til forsvar – vilje til beredskap (Prop. 14S), 2020.

3 Interviews, Oslo, February 2023.

4 Det Kongelige Forsvarsdepartement, Evne til forsvar.

5 Bjarne Johnsen, Alf, 'Regjeringens forsvarsplan: Det meste av pengene går trolig til Ukraina', Verdens Gang, 2 May 2023 (retrieved 5 November 2023), *https://www.vg.no/nyheter/innenriks/i/P4eVAe/slik-skal-forsvaret-styrkes*.

6 Government of Norway, Norway will meet NATO's 2% guideline in 2024, 15 March 2024 (retrieved 18 March 2024), https://www.regjeringen.no/en/aktuelt/norway-will-meet-natos-2-guideline-in-2024/id3029643/.

7 Forsvarskommisjonen av 2021, Forsvar for fred og frihet (NOU 2023: 14), May 2023, p. 329.

8 Forsvaret, Trygghet i usikre tider: Forsvarssjefens fagmilitære råd 2023, June 2023.

9 NATO, Defence Expenditure of NATO Countries (2014–2023), July 2023.

10 Government of Norway, Norwegian Government plans to meet NATO's 2 % goal by 2026, 2 May 2023 (retrieved 19 June 2023), *https://www.regjeringen.no/en/aktuelt/norwegian-government-plans-to-meet-natos-2-goal-by-2026/id2975079/*.

11 Forsvarskommisjonen, Forsvar for fred og frihet, p. 321–322.

12 Forsvaret, Trygghet i usikre tider, p. 45, 128.

13 Det Kongelige Forsvarsdepartement, 'Et styrket forsvarsbudsjett i en krevende tid', 6 October 2023 (retrieved 5 November 2023), *https://www.regjeringen.no/no/aktuelt/forsvarsbudsjettet-oker-med-20-prosent/id2997543*.

14 Det Kongelige Forsvarsdepartement, Evne til forsvar, p. 26.

15 IISS, The Military Balance 2023, Chapter Three: Europe (London/Oxfordshire: International Institute for Strategic Studies/Routledge, 2023), p. 132–134.

16 Det Kongeliga Forsvarsdepartement, Prop 1 S, 2019, p. 19.

17 Gustafsson, Jakob, 'Norway', in Hagström Frisell, Eva and Pallin, Krister (eds.), Western Military Capability in Northern Europe 2020 – Part II: National Capabilities, FOI Reports FOI-R--5013--SE (Stockholm: Swedish Defence Research Agency – FOI, February 2021), p. 30; and Forsvarskommisjonen av 2021, Forsvar for fred og frihet, p. 195.

18 Bonafede, Håkon, '«Finnmarksgeriljaen» er jegersoldatene Putins menn ikke vil ha etter seg', Klikk, 25 April 2022 (retrieved 31 October 2023), *https://www.klikk.no/reportasje/finnmarksgeriljaen-skal-stoppe-russerne-7134798*.

19 Forsvaret, 'Hæren', 15 May 2023 (retrieved 31 October 2023), https://www.forsvaret.no/om-forsvaret/organisasjon/haeren.

20 Det Kongeliga Forsvarsdepartement, Prop 1 S, 2023, p. 102; and Fiorenza, Nicholas, 'Norway orders more K9 SPHs and K10 ammunition resupply vehicles', Janes, 9 November 2022 (retrieved 5 November 2023), *https://www.janes.com/defence-news/news-detail/norway-orders-more-k9-sphs-and-k10-ammunition-resupply-vehicles*.

21 Det Kongeliga Forsvarsdepartement, Framtidige anskaffelser til forsvarssektoren (FAF) 2023 – 2030, 2023, p. 11.

22 Det Kongeliga Forsvarsdepartement, Endringar i statsbudsjettet 2023 under Forsvarsdepartementet (Prop 17 S), 2023, p. 21.

23 Det Kongeliga Forsvarsdepartement, Statusrapport Landmaktutredningen, 2017, p. 20.

24 Moe, Ingeborg, 'Finnene gjorde ikke som alle andre. Dette vil Norges hærsjef lære av Finland', 30 September 2022 (retrieved 31 October 2023), *https://www.aftenposten.no/verden/i/69kx40/finnene-gjorde-ikke-som-alle-andre-dette-vil-norges-haersjef-laere-av-finland*.

25 Westermoen, Christoffer, 'Hvordan øves hærreserven?', Forsvarets forum, 3 August 2023 (retrieved 31 October 2023), *https://forsvaretsforum.no/beredskap-haeren-meninger/hvordan-oves-haerreserven/278807*; and Bongo, Torbjørn, 'Norge trenger ikke privatisering av Forsvaret', Forsvarets forum, 1 July 2022 (retrieved 31 October 2023, *https://forsvaretsforum.no/meninger-nof-personell/norge-trenger-ikke-privatisering-av-forsvaret/274420*.

26 Gustafsson, Jakob, 'Norway'.

27 Gustafsson, Jakob, 'Norway'.

28 IISS, The Military Balance 2023, p. 132–134.

29 Forsvarskommisjonen, Forsvar for fred og frihet, p. 54–55.

30 Norwegian Government Offices, Svar på spørsmål fra utenriks- og forsvarskomiteen oversendt i brev av 30. april 2020 vedr. Prop. 62 S (2019–2020)', 2020, p. 23, 31.

31 Drevon, Fredrik, 'Sjøforsvaret har et sterkt ønske om tobesetningsløsning på fregattene', Forsvarets forum, 21 December 2022 (retrieved 5 November 2023), *https://forsvaretsforum.no/fregatt-marinen-sjoforsvaret/sjoforsvaret-har-et-sterkt-onske-om-tobesetningslosning-pa-fregattene/300014*.

32 Det Kongelige Forsvarsdepartement, Kampkraft och Bærekraft (Prop. 151 S), 2016, p. 60; and Det Kongeliga Forsvarsdepartement, Prop 1 S, 2023, p. 109.

33 Forsvaret, 'Seahawk blir Forsvarets nye maritime helikopter', 14 March 2023 (retrieved 5 November 2023), *https://www.forsvaret.no/aktuelt-og-presse/presse/pressemeldinger/maritimt-helikopter*.

34 Forsvarskommisjonen, Forsvar for fred og frihet, p. 325.

35 Forsvaret, Trygghet i usikre tider, p. 63–69 and 81–82.

36 IISS, The Military Balance 2023, p. 132–134.

37 Stranden Lindgaard, Ingrid and Marius Trøen, Ole, 'Dette er det norske luftvernsystemet Zelenskyj ønsker i Ukraina', NRK, 31 March 2023 (retrieved 5 November 2023), *https://www.nrk.no/trondelag/volodymyr-zelenskyj_onsker-norske-nasams-luftvernbatteri-i-ukraina-1.15914431*; and Forsvaret, '– Nå handler det om å utvikle et forsvar av Evenes flystasjon', 12 May 2022 (retrieved 20 November 2023), *https://www.forsvaret.no/aktuelt-og-presse/aktuelt/-na-handler-det-om-a-utvikle-et-forsvar-av-evenes-flystasjon*.

38 Det Kongelige Forsvarsdepartement, Investeringar i Forsvaret, p. 14.

39 NTB, 'Forsvaret frykter de vil ha for få piloter til F-35', Teknisk Ukeblad, 7 March 2019 (retrieved 20 November 2023), *https://www.tu.no/artikler/forsvaret-frykter-de-vil-ha-for-fa-piloter-til-f-35/459800*; and Wikhaug Christensen, Eilén, 'Sjef for Luftforsvaret: Vi når ikke målet om full operativ kapasitet', Forsvarets forum, 2 December 2022 (retrieved 20 November 2023), *https://forsvaretsforum.no/f-35-luft-luftforsvaret/sjef-for-luftforsvaret-vi-nar-ikke-malet-om-full-operativ-kapasitet/295024*.

40 Det Kongeliga Forsvarsdepartement, Prop 1 S, 2023, p. 42, 112.

41 Lindgaard Stranden, Ingrid, 'Har fylt opp én skvadron, nå etableres en til', NRK, 21 June 2023 (retrieved 20 November 2023), *https://www.nrk.no/trondelag/har-fylt-opp-en-skvadron_-na-etableres-en-til-1.16443342*.

42 Sveen Finstad, Vemund, 'Flyvåpenets historie og veien mot herredømme i luften', Aftenposten, 29 June 2022 (retrieved 20 November 2023), *https://www.aftenposten.no/historie/i/nWzexn/flyvaapenets-historie-og-veien-mot-herredoemme-i-luften*; and Wikhaug Christensen, 'Sjef for Luftforsvaret'.

43 Det Kongelige Forsvarsdepartement, Investeringar i Forsvaret og andre saker (Prop 94 S), 2023, p. 21.

44 Det Kongelige Forsvarsdepartement, Evne til forsvar, p. 96.

45 Forsvaret, Trygghet i usikre tider, p. 71.

46 Forsvaret, 'Norske F-35 landet på motorvei i Finland', 21 September 2023 (retrieved 20 November 2023), *https://www.forsvaret.no/aktuelt-og-presse/presse/pressemeldinger/norske-f-35-landet-pa-motorvei-i-finland*.

47 Det Kongeliga Forsvarsdepartement, Prop 1 S, 2019, p. 19.

48 Johnsen, Gunnar, 'Norge kan vinne europeisk romkappløp. Med en fart på 28.000 km/t', Aftenposten, 4 September 2023 (retrieved 31 October 2023), *https://www.aftenposten.no/verden/i/GMbLe9/norge-kan-vinne-europeisk-romkapploep-med-en-fart-paa-28000-km-t*.

49 Forsvaret, 'Forsvarets spesialstyrker', 7 January 2021 (retrieved 24 November 2023), *https://www.forsvaret.no/om-forsvaret/organisasjon/forsvarets-spesialstyrker*.

50 Det Kongeliga Forsvarsdepartement, Prop 1 S, 2023, p. 43.

51 Gram, Bjørn Arild, 'Skriftlig spørsmål fra Hårek Elvenes (H) til forsvarsministeren', *Stortinget*, 2 January 2023 (retrieved 24 November 2023), *https://www.stortinget.no/no/Saker-og-publikasjoner/Sporsmal/Skriftlige-sporsmal-og-svar/Skriftlig-sporsmal/?qid=92030*.

52 Meisingset, Hans, 'Norge tar ledelsen på NATO-logistikken i nordområdene', Forsvaret, 10 February 2022 (retrieved 24 November 2023), *https://www.forsvaret.no/aktuelt-og-presse/aktuelt/norge-tar-ledelsen-pa-nato-logistikken-i-nordomradene*.

53 Gustafsson, 'Norway'.

54 Gram, 'Skriftlig spørsmål'.

55 IISS, The Military Balance 2023, p. 132–134.

56 Det Kongeliga Forsvarsdepartement, Prop 1 S, 2022, p. 157.

57 Gram, Bjørn Arild, Skriftlig spørsmål fra Hårek Elvenes (H) til forsvarsministeren, Stortinget, 9 May 2022 (Retrieved 31 October 2023), *https://www.stortinget.no/no/Saker-og-publikasjoner/Sporsmal/Skriftlige-sporsmal-og-svar/Skriftlig-sporsmal/?qid=89186*.

58 Forsvarskommisjonen av 2021, Forsvar for fred og frihet, p. 49–52; Forsvaret, Forsvarets årsrapport 2022, 1 May 2023, p. 9.

59 Forsvaret, Trygghet i usikre tider, p. 36.

60 Langved, Åshild and Furuly, Jan Gunnar, 'Slitne forsvarsansatte har mistet troen på ledelsen', Aftenposten, 19 June 2023 (retrieved 31 October 2023), *https://www.aftenposten.no/norge/i/dwamEA/slitne-forsvarsansatte-har-mistet-troen-paa-ledelsen.*

61 Det Kongeliga Forsvarsdepartement, Prop 1 S, 2023, p. 51–55.

62 Det Kongelige Forsvarsdepartement, Prioriterte endringer, p. 25–26.

63 Forsvaret, Trygghet i usikre tider, p. 36, 41.

64 Hilde, Sigurd Paal, 'Concern, but no Zeitenwende in Norway', DGAP Report no. 6, 2023, p. 47.

65 Det Kongelige Forsvarsdepartement, Investeringar i Forsvaret, p. 7.

66 Trebesch, Christoph, 'Ukraine Support Tracker: Europe clearly overtakes US, with total commitments now twice as large', Kiel Institute for the World Economy, 7 September 2023 (retrieved 24 November 2023), *https://www.ifw-kiel.de/publications/news/ukraine-support-tracker-europe-clearly-overtakes-us-with-total-commitments-now-twice-as-large*.

67 Government of Norway, 'Norwegian support to Ukraine and neighbouring countries', 22 November 2023 (retrieved 24 November 2023), *https://www.regjeringen.no/en/topics/foreign-affairs/humanitarian-efforts/neighbour_support/id2908141/*.

68 Forsvarskommisjonen, Forsvar for fred og frihet, p. 49.

69 Forsvaret, Trygghet i usikre tider, p. 34.

70 See section 1.6 for the methodology behind the assessment of operational capability.

71 Moxnes, Bjørnar, 'Skriftlig spørsmål fra Bjørnar Moxnes (R) til forsvarsministeren', 25 October 2021 (retrieved 20 November 2023), *https://www.stortinget.no/no/Saker-og-publikasjoner/Sporsmal/Skriftlige-sporsmal-og-svar/Skriftlig-sporsmal/?qid=86173*.

72 Forsvaret, Trygghet i usikre tider, p. 34.

73 Det Kongeliga Forsvarsdepartement, Framtidige anskaffelser, p. 11

74 Det Kongeliga Forsvarsdepartement, Framtidige anskaffelser, p. 19–20.

75 Bugge Hjorth, Christian, 'Luftverninvesteringer rekker kun til oppgradering av Ørland og Evenes', Norges forsvarsforening, 15 November 2023 (retrieved 20 November 2023), *https://www.forsvarsforeningen.no/nyheter/luftverninvesteringer-kun-til-oppgradering-av-orland-og-evenes/*.

76 Førland Olsen, Øyvind, 'Berglund om Brigade Nord: Det er selvfølgelig mange ting som kunne vært bedre', BFO, 2 December 2022 (retrieved 20 November 2023), *https://bfo.no/siste-nytt/nyheter/brigade-nord-i-dag-og-i-fremtiden*.

4. Sweden

Robin Häggblom

Sweden has traditionally adopted a high-profile role in international politics, partly due to its Cold War legacy of being a military non-aligned country. The country's position of neutrality in case of war was supported by a relatively strong conventional defence. In reality, the option to join the Western Alliance if attacked was always important but kept highly secret. The collapse of the Soviet Union led to major Swedish defence reductions after the Cold War, but Russia´s growing assertiveness in the late 2000s led to the beginning of a shift in Swedish security policy in 2009, emphasising building national security with international partners.

Following the Russian annexation of Crimea in 2014, a renewed focus on national defence has enjoyed broad political support in two defence resolutions. However, the major changes in Sweden's defence effort have only been realised since 2020. In the coming years, NATO membership and adopted defence reforms are expected to improve national security and considerably enhance Swedish military capabilities. However, many years of neglect and long lead times will require sustained efforts well beyond 2030. In addition, joining NATO will entail new demands for Swedish defence.

4.1 Security and defence policy

During the Cold War, Sweden maintained a large military and civilian defence organised in a so-called total defence concept spanning the entire society. The immediate post-Cold War period saw efforts to retain this, but by 2010 the Total Defence had been dissolved and the Armed Forces had converted from a large and conscripted force designed for national defence to a small and all-volunteer force primarily dedicated to fostering Swedish interests through international crisis management. Despite initial debates about the wisdom of significantly reducing national defence, declining interest from political parties and society at large rendered the outcome inevitable.

Following the Russian invasion of Georgia in 2008, a change in Swedish security and defence policy began in 2009 with a renewed interest in homeland defence and, for the first time, a requirement for the Armed Forces to cooperate with other countries and organisations with respect to all tasks. Sweden unilaterally declared that it would not remain a passive bystander in the event of an attack on an EU or a Nordic country, asserting its readiness to both give and receive military assistance.[1] Nonetheless, apart from the EU Treaty of Lisbon, signed in 2007, which lacked reliable military arrangements, no binding multilateral or bilateral agreements were concluded in the wake of these developments.

As a result of Russia's annexation of Crimea in 2014, the primacy of the mission of national defence for the Armed Forces was confirmed in a political unity that still holds fast. Notably, the 2015 defence resolution set off the first increases in military spending in a long time. Whereas no significant growth of the armed forces was decided, they were to be fully manned, equipped, and trained, which was far from being the case at the time. Additionally, some reorganisation for high-intensity warfare was begun, and several capability needs identified, but for the most part not solved. Another important decision was the reactivation of civilian defence and the total defence concept. Finally, there was an increased emphasis on exercises and other activities with NATO and other countries, particularly Sweden's Nordic neighbours. That emphasis has evolved into uniquely close cooperation with Finland, which, by 2023, has expanded to encompass joint operational planning for certain wartime contingencies.[2]

Thus, Swedish defence is again focused on a war with Russia as the aggressor.[3] Apart from a few years before 2009, the defence has primarily been designed to protect against threats to the country's sovereignty and existence, with the assumption that Russia's interest in aggression against Sweden is tied to broader conflict with the West. Furthermore, the likelihood of avoiding conflict in a broader confrontation between Russia and the West is considered slim in most scenarios. This, coupled with a notably weaker national defence, is the primary rationale behind increased cooperation since 2009, including extensive domestic deliberations on NATO membership.

Sweden remains committed to promoting peace and stability, including disarmament. By 2023, there is limited interest in military involvement in other parts of the world beyond fostering partnerships and preparing for NATO membership. Nonetheless, the full implications of being allied and the rising geopolitical tensions may not be fully understood or internalised. This includes the role of nuclear weapons in NATO's deterrence strategy.[4]

The challenges of rebuilding national defence became apparent after 2015, with the Armed Forces and civilian authorities struggling to meet politically mandated improvements. Progress has been hindered by insufficient funding and resource bottlenecks in personnel and materiel, compounded by a lack of urgency and bureaucratic obstacles.[5] After some years, the result was a still hollow force with little credibility and, thus, not even considered to deliver basic deterrence. The defence resolution of 2020 increased the tempo and significantly strengthened the reform. This included raising funding for the Armed Forces, expanding the wartime strength to 90,000 personnel by 2030, addressing capability imbalances, and plugging the many holes in the organisation.[6]

With Russia's full-scale invasion of Ukraine in early 2022, existing policies were abruptly put to the test; after much initial hesitancy within the ruling Social Democratic Party, which had consistently advocated the country's traditional policy, Sweden decided to apply for NATO membership, together with Finland, in May 2022. Only the small Left Party and Green Party voted against it in Parliament. Finland's decision was pivotal for this historic change in Swedish policy.[7] After a long wait, Sweden achieved ratification by all member states in Februaty 2024, including Turkey and Hungary which had stalled the process since the summer of 2022.

All possible preparations appear to have been taken for Alliance membership, including measures to ensure military assistance from strong partners during the ratification process. A new defence resolution in 2024 is expected to confirm and further advance defence reform, including raising Sweden's military expenditures to at least 2 percent of GDP. The change in government in the autumn of 2022, to a right-wing coalition with traditionally more positive attitudes towards defence, probably contributes to this. By 2023, Sweden had provided significant support to Ukraine and was contributing to the Alliance's deterrence measures.

Nevertheless, Sweden faces persistent challenges in the development of both its military and civilian defence.[8] The nationally set force targets are ambitious, particularly up to 2030, and the current pace of reform may not be sufficient to meet them. Furthermore, Alliance strategy and planning will impose new demands on Swedish policies and capabilities, including taking on both rear area and frontline tasks as an integral part of NATO deterrence and defence.[9]

4.2 Military expenditures

Swedish military expenditures fell considerably in real terms in the early 2000s, stabilising at USD 5-6 billion by 2005 while they continued to fall as share of GDP and levelling out at around 1 percent in 2009. The first persistent increases were realised from 2017 onwards, as a result of the Defence Resolution of 2015. In 2022, the military expenditure was USD 7.8 billion in 2015

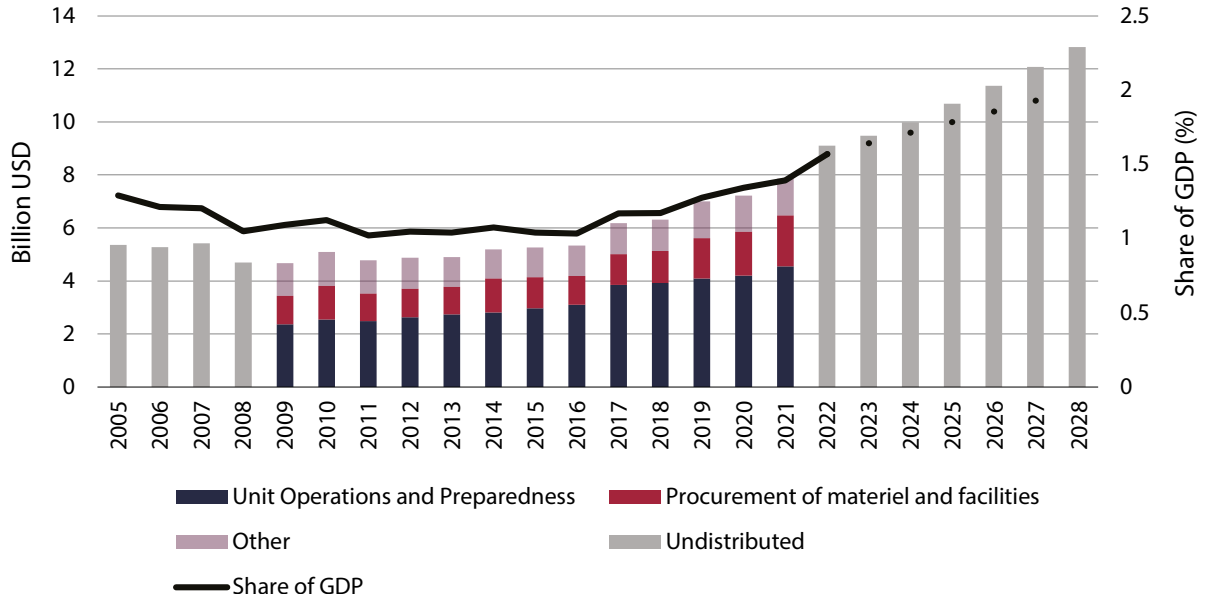


Figure 4.1 Military expenditures of Sweden 2005–2028 in 2015 constant prices.

Sources/Remarks: Budgetpropositioner (budget proposals) 2007–2024. The exchange rate is the yearly average (2015) from the Swedish Riksbank. The forecast of real GDP is from the IMF, with the 2021 base from the World Bank. The forecast of military expenditure is based on the plan to reach 2 percent of GDP, according to national definition, by 2028. Regeringen, Regeringens proposition 2023/:24:1. Utgiftsområde 6. Försvars och samhällets krisberedskap, p. 40.

prices, or USD 7.7 billion in current prices. In terms of share of GDP, this is estimated at 1.3 percent.

Swedish nomenclature for expenditures differs from NATO's. Therefore, the figures are not comparable to those of the other countries in the study. Figure X shows the military expenditure divided into categories according to the Swedish appropriation structure. Unlike the NATO structure, the Swedish spending categories do not single out personnel and infrastructure. Furthermore, it can be difficult to identify total investments in materiel, which is why the equipment category is not comparable either. An estimate of the Swedish military expenditures in 2019, according to the NATO structure, showed 38 percent to personnel, 27 percent to equipment, 2 percent to infrastructure, and 33 percent to other.[10]

In terms of the NATO definition, Sweden aims to reach the Alliance target of 2 percent of GDP for military expenditures in 2024.[11] Notably, the Swedish Central Bank, in a recent forecast, highlights "continued major uncertainties" regarding how the Swedish economy as a whole will develop in the near- and mid-term.[12] Given plans announced in the autumn of 2023, a significant real increase in defence expenditures, both in absolute terms and as a share of GDP, seems assured. Sweden's more conservative calculation method projects that military spending will reach the 2 percent of GDP by 2028. However, significant divergence from current economic growth forecasts could affect the real value of 2 percent of GDP, both upwards and downwards, in the long run. A lower GDP growth could also impact the willingness to allocate the funds necessary for all envisioned reforms in the next 5 to 10 years.

Despite the significant increases in spending since 2015, several observers have noted that the simultaneous rise in political ambition has created new capability gaps, thereby necessitating either additional funding or cost-cutting measures.[13] In general, spending on equipment or infrastructure is relatively secure, at least in the short term, whereas training, exercises, and operations are more flexible and can be adjusted if budget constraints arise.[14] The consequences of the latter are not always evident to outside observers, but they impact operational readiness and force development, as well as, notably, morale within the Armed Forces. Additionally, the overall rise in price inflation since 2022, especially affecting military materiel due to international tensions, could significantly diminish purchasing power for the long term.

In sum, the extent to which reaching 2 percent of GDP or even surpassing it will suffice to finance improvements and expansions in defence, which may see further developments in 2024, remains uncertain.

4.3 Armed Forces

The main task of the Swedish Armed Forces is to defend the nation from armed aggression, which includes the related peacetime missions of protecting Swedish sovereign rights and territorial integrity. In addition, there is the task of promoting national interests through conflict prevention and managing armed conflicts and wars abroad and at home. The Armed Forces shall be able to perform its tasks independently or in cooperation with other states and organisations.[15] As NATO membership is realised, modifications that emphasise Sweden's role as a part of Alliance collective defence are expected to come into effect immediately. Notably, Sweden traditionally maintains a clear division between military and civilian tasks, with the Armed Forces playing a relatively minor role in assisting civilian authorities compared to many other countries.

For personnel, the Armed Forces of Sweden relies on a combination of full-time regular officers and soldiers, part-time officers and soldiers, or reservists on contract, as well as trained conscripts in reserve, who are called up in the event of mobilisation. In addition, there are volunteers, of whom the majority serve on part-time contracts in the Home Guard.

As a result, the peacetime and wartime orders of battle differ significantly, especially in the ground forces. The overall regular force of full-time military personnel in 2022–2023 was around 15,000 strong, to which could be added a yearly intake total of slightly over 5,000 new conscripts for basic training and some 10,000 full-time civilian personnel. The Armed Forces reserves, including personnel on part-time contract and trained conscripts in reserve, along with the Home Guard, contribute approximately 25,000 and 21,000, respectively. This likely expanded the fully mobilised wartime force to around 70,000 in 2023, and is expected to continue growing.[16]

The Swedish Armed Forces is commanded by a Chief of Defence (CHOD), supported by headquarters in Stockholm during peacetime. The CHOD's subordinates are the Chiefs of the Defence staff, the Joint Operations Staff, and the Military Intelligence and Security Service. The Chief of Joint Operations Staff commands forces assigned for operations, with the Army, Navy, and Air Force Staffs as subordinate commands, all situated in different locations some 70–80 km from Stockholm. The Home Guard Staff is part of the Defence Staff. For operations, the four Regional Commands, with the Home Guard units, are also subordinated to the Chief of Joint Operations Staff.[17]

Army

The Swedish Army is led by the Chief of the Army, with the Army Staff based in Enköping, inland from and to the west of Stockholm. The Chief of the Army is responsible for both force development and operations.

The wartime order of battle is currently centred on two mechanised brigades, with their main peacetime garrisons in Boden in the north and in Skövde in the southwest. The different parts of the brigades conduct regular exercises together, but the brigades are not normally assembled in peacetime and are set up only in the event of mobilisation. As of 2023, one mechanised brigade is reportedly fully trained and equipped, while the other brigade is still in the process of being set up and is only operational in parts.[18]

The training of support units, i.e., artillery, air defence, engineering, and sustainment, in many cases takes place in functional units spread out throughout the country. The army bases are concentrated in the central and southern parts of Sweden, reflecting the population density, while areas in the north have particularly sparse regular military presence.

In addition to the brigades, there are army units that report directly to the Army Staff. This diverse collection includes a reduced battalion with some extra support on Gotland, a mountain ranger battalion with arctic capabilities, an airmobile light-infantry battalion, two air-defence battalions, an intelligence battalion, a security battalion, a military-police battalion, and a CBRN unit.[19] Like the brigades, they are only partially set up and ready during peacetime, whereas reaching full operational capability requires mobilisation.

The cores of the Swedish brigades and the battlegroup on Gotland are mechanised battalions equipped with a mix of CV 9040 infantry fighting vehicles and Leopard 2A5 tanks, while the motorised units are equipped with wheeled vehicles, such as the Patria AMV. Heavy artillery is provided by self-propelled Archer systems. In 2023, air defence for the manoeuvre units was provided by CV90s with antiaircraft guns (LVKV90) and short-range RBS70 and -90 missile systems being reintroduced in the brigades, as well as by the medium-range RBS 23 (Bamse) system on Gotland.

Notably, the brigades are relatively light on supporting arms and services, with additional units and capabilities, for example, regarding artillery, air defence and logistics, still under development. The 2020 defence resolution highlighted that the wartime organisation was insufficient for a sustained defence effort against a large-scale attack. Therefore, expansion and restructuring efforts are underway to achieve a better balance between manoeuvre and support units in general.[20]

The Army's medium-term plan up to 2030 is to continue to develop the capability to operate at brigade and divisional levels. A division headquarters has begun development to achieve initial operational capability around 2025 and full capability by 2030, including supporting units, ensuring the capacity to lead ground operations in two directions. The organisation will be built around the present two mechanised brigades, with the second becoming fully operational by 2026, maintaining and expanding the battlegroup on Gotland, and plans to add a third mechanised brigade, as well as a reduced motorised brigade, to the order of battle sometime after 2030.[21]

For improved combat support, some four additional heavy artillery battalions are planned, but two of them only after 2030, possibly including one with long-range MLRS capability. Already as early as 2024, two air-defence battalions with medium-range (IRIS-T) and long-range capabilities (Patriot) are to become operational. Additionally, two more ranger battalions will be organised, one from the existing airmobile infantry battalion and another one with arctic capability. Furthermore, there are plans to acquire more unmanned aerial systems (UAS), including loitering munitions, as well as counter-UAS systems.[22]

In addition, new units are planned around two re-established regiments in the North and on Gotland, with five light infantry battalions set to achieve full operational capability by 2030. Together with the Home Guard, they will provide security and protection in vital areas and lines of communication, including for multinational operations and Host Nation Support (HNS).[23]

Navy

The Swedish Navy is led by the Chief of the Navy, with the Navy Staff based at Muskö, off the coast south of Stockholm. Like the other service chiefs, the Chief of the Navy is responsible for both force development and operations.

The Swedish Navy comprises two surface flotillas, a submarine flotilla, and two amphibious regiments with marine infantry. The Berga naval base south of Stockholm is home to one of the surface flotillas, while the historic Karlskrona naval base, in the southeast, is home to the other surface unit and the submarine flotilla.

The two surface flotillas each comprise around a dozen ships, including a mix of 2–3 modern corvettes, 2 older light corvettes, or patrol ships, 3 surveillance ships, and 3–4 mine-clearing ships. The most modern surface-warfare vessels are the five Visby-class corvettes with stealth characteristics. The other surface combatants include two smaller Göteborg-class corvettes and two Stockholm-class offshore patrol ships, converted from corvettes. All corvettes and patrol ships are armed

with anti-ship missiles (RBS 15), torpedoes for antisubmarine warfare, and dual-purpose naval guns.[24]

The submarine flotilla currently consists of four submarines: three units of Gotland-class, delivered in the 1990s, and one of the Södermanland-class, first delivered in the late 1980s, but subsequently modified several times. The main armament includes heavy and light torpedoes for engaging enemy ships and submarines, as well as mines for offensive laying. All submarines are diesel-electric, with an air-independent propulsion (AIP) system, extending their underwater endurance to several weeks. Additionally, the flotilla also includes a submarine rescue ship and a unit for sea transport of special forces.[25]

The marines, known in Sweden as the Amphibious Corps, are mainly responsible for setting up two battalions of marine infantry. One battalion, based at Berga on the East coast, is fully trained and equipped, while the other, based in Gothenburg, on the west coast, was activated in 2021 and is slated to reach full operational capability by 2025.[26] The Swedish marines specialise in coastal combat missions, including reconnaissance, anti-ship, and landing operations.

The Navy possesses capable systems, but faces challenges due to their limited number, given the 2400 km coastline stretching from Skagerak to the Gulf of Bothnia. Maintaining a naval presence simultaneously on both the west an east coasts is difficult with current resources. Additionally, the ships lack missile air defence and logistical support. Furthermore, the current main surface combatants are not designed for sea-control operations and the open sea, and replacement or updates of all platforms are needed in the next 5–10 years.[27]

The Navy's medium-term plan up to 2030 does not include any significant increase in size, or the setting up of new units, aside from the additional marine infantry battalion and two mobile naval-base battalions. Enhancements in naval logistics are also anticipated through the development of the naval bases. Surface-combat capabilities will be advanced by the mid-life update of the Visby-class corvettes, including introduction of missile air defence as well as modernisation of sensor and electronic warfare systems.[28]

Four new and larger corvettes, the *Luleå* class, are planned to enter service around 2030, enhancing the Navy's ability to conduct prolonged operations the open sea and further improving its contribution to NATO's integrated air and missile defence (IAMD). Additionally, the submarine fleet is expected to return to five boats with the replacement of the two Södermanland-class boats, one of which is already retired, by two new A26 Blekinge-class submarines by 2030.[29] .

As part of the reform, the marines' capabilities for fighting both from vessels and on land will be enhanced by the acquisition of new and more capable assault craft, equipped with heavier weapon systems for both the anti-ship, air-defence, and fire-support roles . The current coastal missile (RBS15) defence unit is expected to be reorganised into two units for improved availability, with plans to introduce a new missile system, starting in 2025.[30]

Air Force

The Swedish Air Force is led by the Chief of the Air Force, with the Air Staff based at Uppsala, north of Stockholm, including responsibility for both force development and operations, similar to the other service chiefs.

The Swedish Air Force is organised around five operational air wings, including units for logistical support and air-base protection. Three of these, one in the north, in Luleå, and two in the south, in Såtenäs and Kallinge, respectively, are responsible for operating Sweden's fleet of just under 100 JAS 39 Gripen fighter aircraft. The wing in Såtenäs also possesses the main capability for air transport, housing half a dozen C-130H Hercules, with one modified for tanker missions. Additionally, the Såtenäs wing includes two aircraft for signals intelligence (SIGINT), two for airborne early warning and control (AEW&C), and four for specialised transport, including VIP flights, all mostly operating from other bases.[31] The Swedish Air Force is also a partner in the European Heavy Airlift Wing, in Hungary, which operates three C-17 Globemaster transport aircraft.[32]

All helicopters are operated by the Armed Forces Helicopter Wing, with its main base and two squadrons of transport helicopters (UH-60M Blackhawks and AgustaWestland 109s) in Linköping. Additionally, a maritime squadron (NH90s and AgustaWestland 109s) is located in Kallinge, to the south, while a transport squadron (NH90s) is stationed in Luleå, in the far north.

In the European context, the Swedish Air Force is a relatively modern and large force with respect to fighter assets and defensive counter-air capabilities. It also has a robust concept for dispersing and operating the force from road bases with mobile support assets. However, the concept suffers from many years of neglect and requires rebuilding and modification.[33] Furthermore, inventories of munitions and spare parts are identified as important areas for improvement.[34] Some capabilities are also lacking, in particular, powerful and long-range munitions for engaging ground targets, as well as dedicated capabilities for suppression of enemy air defence (SEAD), a common gap among Western air forces.[35]

The Air Force's medium-term plan until 2030 involves maintaining current force numbers, replacing older systems, and enhancing deficient or lacking

capabilities. In the short term, the Air Force aims for an initial capability within NATO's IAMD, with further development to follow. It is expected that the conversion from the JAS 39 C/D Gripen to the improved JAS 39E will begin by 2025 and continue through 2030. Notably, as of 2023, only 60 JAS 39E Gripens have been ordered, enough to equip four squadrons. The remaining two squadrons of JAS 39C/Ds are planned to remain in service, with no retirement date yet set.[36]

At the time of writing, no decision has been reached regarding the replacement of the aging C-130H transport aircraft, but plans call for acquiring at least four new aircraft before 2030. The small fleet of specialised AEW&C and SIGINT aircraft will be maintained in the medium term, supplemented by the introduction of new AEW&C aircraft (Global Eye) after 2025, with options on additional purchases.[37] When the NH90 and AW 109 helicopters are phased out, the Air Force expects to receive more UH-60M Blackhawks and a new dedicated maritime helicopter, but the timeline is unclear and no orders have been placed yet.

Another significant development towards 2030 is the improved protection of both main and temporary air bases, including a new tactical concept, acquisition of counter-unmanned aerial systems (C-UAS) and better CBRN protection. The development of logistical capacity for allied basing of aircraft will be initiated early in the coming years. Mobile base support for air operations is planned to improve with a new C2 and communication system, as well as better logistical capacity.[38] Additionally, the ability to sustain operations is going be reinforced through the acquisition of more munitions, particularly air-to-air missiles, and spare parts.[39]

In the latter part of the period up to 2030, important planned developments include full integration into NATO IAMD, acquisition of an air-launched missile for engaging ground targets at long ranges, and further improved C2 systems for coordinating both air and ground assets. Furthermore, development of the capability to produce a Recognized Space Picture (RSP) and achieve situational awareness in the domain is included in the Armed Forces' plans. Acquisition of reconnaissance and surveillance satellites has also been proposed, with the first launch around 2030.[40]

Joint assets

The Regional Commands (RCs), based in Boden (North), Kungsängen (Middle), Skövde (West), and Revinge (South), are important for Sweden's national defence. Gotland is formally part of the Middle Region, but in effect a fifth military region, with its own territorial command. With responsibility for their respective regions, they ensure military control, protect infrastructure, and support other military operations, including the coordination of military and civilian activities. Notably, this extends to coordination with allies and partners during multinational operations.[41]

The main asset of the RCs is the more than 20,000 soldiers of the Home Guard, which includes the equivalent of approximately 40 battalions of light infantry. The battalions operate as companies, or platoons, mainly suited for security tasks and defensive missions. In the medium term, plans include increasing their numbers to 26,000 and, more importantly, significantly strengthening both the RCs and the Home Guard, with respect to support functions and equipment.[42]

The Armed Forces' forward logistics are managed by two joint battalions, still in the process of becoming fully operational, primarily for providing support to Army operations. Rear logistics are organised by the Armed Forces Logistics, an entity that is present in about 30 locations nationwide, essentially everywhere the Armed Forces have peacetime establishments.[43] Plans for the medium term involve significant reorganisation and enhancement of both forward and rear logistics, with additional units and expanded capabilities, including the ability to connect with Alliance logistics networks at home and abroad.[44]

The Swedish Special Forces sort directly under the Armed Forces Headquarters. It includes a dedicated command in the Defence Staff, the core of operators in the Special Operations Group (SOG), based at Karlsborg, and supporting assets, including for communications, technology, and logistics. Some of the latter belong to the Special Forces Units (SFU), which contain dedicated support assets, for example, for sea and air transport, dispersed through the Armed Forces.[45]

The Swedish Telecommunications and Information Systems Unit is responsible for the Armed Forces' C2 and communications assets. A significant investment in the near to medium term involves renewing and strengthening the Armed Forces communications network and the ground-based sensor chain. Sweden possess cyber capabilities for both defensive and offensive operations. The cyber assets will be both further improved and expanded in the medium term, with one unit operational in 2023 and a second unit expected to be fully developed around 2027.[46] Additionally, operational units for electronic warfare; strategic communication, including psychological operations; and meteorology and oceanography are organised by the Command and Control Regiment, in Enköping, and are also partly in the process of being set up.[47]

Personnel

As noted above, the Swedish personnel system is based on a combination of full-time regulars and part-time reservists as well as conscripted reserves and volunteers. The officer corps is predominantly made up of regulars, with the Home Guard being the exception, and some reservists. A particularity is the corps of non-commissioned officers (NCOs), denoted as specialist officers. Conscription was put to rest in 2010, after over a century of large-scale application, making all military service voluntary. However, it soon became evident that there was insufficient recruitment to fully man the wartime organisation as required.

Accordingly, conscription was resumed in 2018, this time for both men and women, with a small yearly intake that had grown to around 6,000 conscripts called up for basic training by 2023. In 2024, trained conscripts in reserve will already make up at least one-fourth of the soldiers and sailors in the wartime organisation, including squad leaders or equivalent. The importance of conscription will continue to grow, with yearly intakes set to rise gradually to around 10,000 by 2030. By then, conscripted personnel will fill approximately 40 percent of all positions in the mobilised force.[48]

Nevertheless, personnel on full-time and part-time contracts continue to be important for demanding positions and maintaining high readiness. The Armed Forces struggles with reaching the required personnel strength for both regulars and reservists. High turnover rates persist for various reasons, such as low pay, limited career opportunities, and increased workload following efforts to expand the force. In 2020, the vacancy rate averaged 25 percent for regular soldiers, although this figure varied greatly across units.[49] The number of soldiers have increased slightly since then, but, at the same time, the organisation is growing and, with it, the number of positions to fill.[50]

Recruiting officers has also posed a persistent challenge, especially since conscription was paused. There is a particular shortage of officers with the training and age to serve in field units, which puts limits on the speed of growth.[51] In addition, it remains difficult to fill many specialist roles, such as technical officers across all services, in the field of C2 systems, army logistics officers, pilots, and air-combat controllers.[52] As of 2022, while there has been a rise in applicants to the officers' programme, they were still significantly fewer than the number of available slots.[53]

In sum, the Armed Forces needs both an expansion of conscription and increased recruitment of contracted personnel. While conscription will gradually increase, its pace is limited by training capacity. Efforts to enhance the appeal and benefits of service are ongoing for contracted personnel.[54] Nevertheless, the forces are likely to continue to struggle with manning, which will negatively affect the reaching of capability targets.

Materiel

The Swedish Armed Forces generally has reasonably modern materiel, particularly in platforms such as infantry fighting vehicles, main battle tanks, artillery, surface combatants, submarines, and combat aircraft. This is due to a long tradition of acquiring high-tech capabilities and an ambition to maintain a strong defence industrial base. Nevertheless, with previous cuts in military expenditures and rising systems costs, the numbers have become low and each unit more expensive.[55]

The acquisition of weapons and munitions has also suffered. With the disappearance of a high-end state threat after the Cold War, several capabilities were effectively scrapped, including within artillery, ground-based air defence, coastal defence, and logistics. As mentioned, there are plans to replace and complement both major platforms and systems by 2030 and beyond. These large investments over a long period will come with many challenges, including changing conditions and uncertain costs.

Another critical area, noted already in the 2015 defence resolution, has been an embarrassing lack of personal equipment, firearms, communications systems, night-vision devices, ammunition, and standard vehicles. Some of this has been corrected, but the organisation is now growing and shortages continue to plague the forces.[56] A conspicuous example is the mechanised brigades, where deficiencies in materiel, together with other obstacles, have delayed development for several years. In this context, the role of so-called essential security interests regarding combat aircraft and underwater systems has been noted. The costly JAS 39E Gripen aircraft and A26 Blekinge-class submarine programmes have led to fiscal pressure and negative consequences for other acquisitions and modernisation throughout the Armed Forces.[57]

For its size, Sweden has a large defence industry, with about 28,000 employees in companies with defence as their primary business. Key defence companies are Saab, BAE Systems Hägglunds and BAE Systems Bofors.[58] Historically militarily non-aligned, Sweden's self-sufficiency has been deemed vital for protecting its national sovereignty.[59] Additionally, being able to procure materiel designed or modified for national needs is an often-claimed advantage.[60] The industry has been capable of developing and producing a wide array of equipment, including combat aircraft, surface combatants, submarines, armoured vehicles, artillery, air defence, guided and unguided munitions, and C4ISR systems. Only a few of the major weapon systems in

current use by the Swedish Armed Forces, such as main battle tanks and helicopters, are imported.

Sweden's advanced defence industry has often served the Armed Forces with both efficient and effective solutions, but this has sometimes also been expensive and, from an operational standpoint, entailed less-preferred purchases.[61] Additionally, Sweden increasingly relies on importing or developing subsystems and components in cooperation with other countries. With fewer orders for major platforms over a long period, the capacity to develop and produce them nationally has probably been eroded as well. In the security environment of 2023, Sweden is acknowledging that the increased demand for defence equipment internationally will likely affect both the costs and timelines of the defence reform, despite its national industrial capabilities.[62]

In sum, the advantages for Sweden of having an advanced defence industry remain obvious. Nevertheless,

Table 4.1 Personnel and materiel in the Swedish Armed Forces

Personnel/Materiel[(a)]	Numbers in 2023	Major reforms towards 2030
Personnel[(b)]		Overall growth towards wartime strength of around 105,000, mainly through conscripts and some on contract.
Regulars	25,000	30,000
Reservists	7,500[(c)]	10,000
Trained conscripts (for mobilisation)	20,000	40,000
Volunteers (Home Guard)	21,000	25,000
Materiel		
Tanks	~110 (Leopard 2A5s)[(d)]	~110 Leopard 2A5s upgraded to 2A7/2A8 standard. Replacement, towards the end of the period, of tanks sent to Ukraine.[(e)]
Armoured combat vehicles	265 (CV9040s)[(f)]	Upgrades and acquisition of vehicles is expected, with deliveries of a new generation from 2026 and smaller series to replace prior donations to Ukraine.[(g)]
Heavy artillery pieces	26 self-propelled (155 mm Archers)[(h)]	48 new systems, towards the stated goal of 72 Archers. Rocket artillery is studied.
Surface combatants	9 (5 Visby-class corvettes, 2 Göteborg-class light corvettes, and 2 Stockholm-class patrol vessels)	4 Luleå-class heavy corvettes, to enter service around 2030. Stockholm-class to be retired.
Submarines	4 (3 Gotland-class SSKs, and 1 Södermanland-class SSK)	2 Blekinge-class SSK being built to replace Södermanland-class SSK and bring the force to 5 submarines.
Combat aircraft	98 (96 JAS 39C/D Gripens; 2 JAS 39E Gripens)	JAS 39E enters service from 2025. The current plan is 60 JAS 39Es and 30–40 JAS 39C/Ds in service 2030.
Transport aircraft	6 (5 C-130Hs; 1 KC-130H)	New aircraft to enter service before 2030.
UAVs	8 RQ-7 Shadows	Plans for advanced loitering munition and reconnaissance systems.[(i)] Small drones are introduced early on large scale in the Armed Forces. [(j)]
Air-defence batteries	13 long and medium range (4 RBS 103 (Patriot); 8 RBS 98 (IRIS-T SLS); 1 RBS-23 (Bamse))	Continued and finalised development of unit with RBS 103/98 mix.

Sources/Remarks: (a) Unless otherwise specified, this table is based on the International Institute of Strategic Studies – IISS, The military balance 2023, p. 137–139. **(b)** Varying figures; approximations are shown in the table. **(c)** This includes soldiers and sailors on part-time contracts as well as officers in reserve. **(d)** Up to 10 tanks from a total of 120 (IISS) having been sent to Ukraine as aid in early 2023; source: Regeringen, 'Nytt stöd av tunga avancerade vapen till Ukraina', 24 February 2023. A total of 134 have been contracted to undergo midlife updates, according to the Swedish Armed Forces; source: Försvarsmakten, Försvarsmaktens årsredovisning 2022, Bilaga 2, p. 5. **(e)** Försvarsmakten, Försvarsmaktens reviderade budgetunderlag för 2024, p. 10. **(f)** Significant numbers of CV90-based supporting vehicles are also found in service; the number refers to the IFV variant. Note that all 50 of the CV9040C version have been sent to Ukraine as aid; source: Försvarsmakten, 'Ukrainska soldater redo för fronten', 8 June 2023. Replacement of CV9040C by CV9035 Mk IIIC is expected according to a rapid timeline; source: Försvarets materielverk (FMV), 'Förprojektering för ersättningsanskaffning av stridsfordon', 11 October 2023. **(g)** Försvarsmakten, Försvarsmaktens reviderade budgetunderlag för 2024, p. 10. **(h)** 48 were originally manufactured; 14 were sold to the UK in 2023; while 8 were given to Ukraine as aid; source: Regeringen, 'Sverige och Storbritannien samarbetar om ökat militärt stöd till Ukraina', 16 March 2023; and Försvarsmakten, 'Försvarsmakten tillförs 48 nya Archerpjäser', 13 September 2023. **(i)** Försvarsmakten, Försvarsmaktens reviderade underlag inför det kommande försvarsbeslutet, Bilaga 2, p. 19. **(j)** See, e.g., Försvarsmakten, 'Försvaret satsar stort på små drönare', 15 October 2023; and 'RPAS till Hemvärnet', 7 February 2024.

the significantly reduced size of the Swedish Armed Forces, in combination with Sweden's increasing integration into the EU and NATO, has weakened the need and the case for national solutions and reliance exclusively on domestic industries.

Military support for Ukraine

After a hesitant start – in line with several European countries – Sweden has donated a considerable amount of military materiel and supplies to Ukraine, including systems not set for retirement in the near future. As of December 2023, the total value of the military support was estimated at around SEK 22 billion, or just over USD 2.1 billion.

The support includes heavy artillery systems (Archer), main battle tanks (Leopard 2A5 tanks) and infantry fighting vehicles (CV90). In addition, antitank weapons (NLAW, AT4), anti-ship missiles (RBS 17, modified Hellfires), air-defence systems (RBS 70), portable multi-role weapon systems (Carl Gustaf), terrain vehicles, mine-clearing equipment, automatic rifles, personal equipment, and more has been shipped to Ukraine. Munitions for various systems, including AIM-120 AMRAAM missiles for NASAMS air-defence systems, are also part of the support, and a sustainment system is being set up for the range of advanced materiel. Sweden is actively participating in several multinational efforts to train Ukrainian service personnel.[63]

The Armed Forces have received additional funding to replace parts of the materiel given to Ukraine. Some orders have already been placed, for example, for the production of new Archer self-propelled artillery and CV90s.[64] However, full coverage of the costs for the Armed Forces has yet to be assured and the delivery of new equipment will take time. It is evident that the support will affect both the operational capability and the growth of the Army in the short to medium term, with the final outcome remaining uncertain.[65]

4.4 Assessment of military capability

Current operational capability[66]

Traditionally, the Swedish Armed Forces were designed for and focused on independently defending Swedish territory against large-scale aggression until international partners, as a large resort, could maybe arrive with military assistance. Currently, a fully equipped and mobilised force could probably protect Sweden's territorial integrity against systematic incursions in a crisis, as well as deter and defend against attacks of less-than-large-scale. In case of a major attack in the context of a Western conflict with Russia, i.e., involving not only Sweden, the forces may also be capable of at least delaying aggression in one key direction, but probably only temporarily on their own.

Sweden's military forces are not only modern and generally equipped with advanced materiel, but are staffed by personnel who are increasingly proficient in warfighting. Their most obvious weakness is the small quantities of its assets, including logistics, which limits the ability to maintain guard in a secondary direction, retain an operational reserve, and sustain prolonged operations. Additionally, it is clear that significant parts of the forces are still neither fully equipped nor fully trained, making their relevance in some scenarios uncertain.

With a notice of three months and due preparations for major combat operations, the Army may have 1 mechanised brigade – at least the manoeuvre units with reduced support – ready to move for national operations, but only in part for expeditionary purposes. In addition, the order of battle could roughly include 1 airmobile infantry battalion, 1 mountain ranger battalion, 1 motorised infantry battalion, 1 intelligence battalion, and up to 2 additional single mechanised battalions, with one on Gotland. Security and military police units could also be ready. As for supporting arms and services, there are significant questions, given that fires, air defence, and logistics units are generally in the process of being set up. While the Army may be able to improvise in some areas within this timeframe, supporting capabilities are likely to be insufficient in important parts.

Within 3 months, the Navy could likely muster two reduced surface flotillas, or the equivalent of two squadrons, with a total of around 3–4 modern corvettes, 2–4 lighter corvettes or patrol ships, 1 surveillance ship, and 3–5 mine-clearing ships, that is, around half and maybe a bit more of the surface fleet. In addition, at least 2 submarines should be available. The result could vary significantly, depending on the service intervals of ships and the availability of trained crews. The sole battalion of marines should also be more or less operational. However, similar to the army, logistical support on the three naval bases as well as the naval base battalions is still being developed, which likely makes prolonged operations difficult.

The Air Force's flying units typically maintain high availability, frequently deployed for guarding the territory as well as for exercises. Thus, within a 3-month timeframe, the majority of fighter aircraft, or at least 4 squadrons and maybe more, will likely be nominally available for high-intensity operations, although the shortage of pilots may prove a problem. In addition, all or most of the transport, SIGINT, and AEW&C assets should be available, with some uncertainty with respect to the ageing transport aircraft. While the 4 helicopter squadrons may be generally ready, some systems would

likely not be operational due to high service demands. Base support, including some mobile assets, would be in place but not fully operational and available for all flying units, given the ongoing development. More technical specialist are critical for improving the availability of all flying assets. In addition, the high operational intensity indicates that capability development for warfighting could suffer.

As for joint assets, availability would vary between units within a 3-month timeframe. Central and regional staffs, as well as special forces, would generally be operational. However, a stretched officer corps would result in little redundancy and some vacancies, as well as a need for additional training, especially for multinational operations. On paper, the situation seems to be similar for units within telecommunications, cyber operations, electronic warfare, and meteorology, but with lower availability for those components that are still being set up. The ongoing transformation of logistical support within the Swedish Armed Forces implies that joint forward and rear assets could possibly be partially ready but not fully operational.

The Swedish Armed Forces have improved their readiness over the last few years, albeit from a low level. Also, certain capabilities necessary for high-intensity operations, in particular in supporting arms and services, are slowly being renewed and strengthened. However, the Armed Forces is still far from being ready as a whole with an advance warning of three months, or even less so within a week, which is the direction stated in the 2020 Defence Resolution. Similar to several other Western countries, there are indications that readiness requirements are still being underestimated, and that sufficient personnel and materiel may not be in place even for those units that are expected to be ready. Additionally, given that several units would be amalgamated for the first time during a mobilisation, they would require additional training for warfighting, which may be a challenge to include in time.

Finally, even if the current force structure was successfully mobilised in full, it would still lack sufficient size and depth, including some important capabilities, for a large-scale and prolonged defence operation. As noted above, this was a crucial and public conclusion of the 2020 Defence Resolution, which had already prompted radical reform of the Armed Forces, including its growth and restructuring, before the war in Ukraine unfolded.

Future operational capability

The Swedish Armed Forces are in a state of change, given the direction of the 2020 Defence Resolution. The likely end result, at least in a few years, is intended to be a force that is considerably better prepared for warfighting. In short, this entails both a larger and more modern structure, including a better balance between combat and supporting capabilities, which can sustain operations in more than one direction as an integral part of Allied collective defence.

However, the reform almost immediately came under scrutiny following Russia's full-scale invasion of Ukraine, including the old and new lessons of warfighting, and Sweden's NATO application. Consequently, the Armed Forces now face a greater demand for short-term readiness, the increased importance of certain capabilities, and active participation in Alliance deterrence and defence. Some major new capability requirements include fires, air and missile defence, unmanned systems, and logistics. NATO membership entails, for example, integration into the Alliance C2 system, contributions to Allied forward defence on the ground, assisting in the protection of NATO reinforcement at sea and in the air, and support to rear-area basing.[67]

The Army is clearly undergoing the most significant changes, including both major growth and improved quality in most aspects. The second mechanised brigade should be fully operational well before 2030, given full coverage for materiel shipped to Ukraine. The two brigades expected to be ready only after 2030 require further materiel acquisitions, for example, of armoured fighting vehicles and artillery. Supporting arms and services, in particular fires, air defence, and logistics, have the greatest needs and will very likely improve the most, but some units will only be ready late, towards 2030. The expansion of ranger units from existing forces should be manageable, whereas new territorial light-infantry units are dependent on infrastructure that is not yet in place, which raises concerns for their establishment in time. The development of a divisional capability will proceed but is contingent on the uncertain finalisation of all its parts by 2030.

For the Navy, improvement in the coming years will require the successful procurement and integration of the new classes of corvettes and submarines. This is planned to happen over a rather long period which may entail unforseens challenges. A second battalion of marine infantry and two new mobile-base battalions are important additions that are rather early in the period up to 2030, according to plans, and should be realised. The later arrival of new major platforms will put pressure on older hulls, making midlife updates critical in order to keep them at sea with some new capabilities, for example, missile air defence on corvettes. This might, in turn, negatively affect readiness in the meantime.

The Air Force is also facing changes in platforms and is improving its robustness. The conversion to the JAS 39E Gripen starts in 2025, offering enhanced

tactical systems, extended range and increased weapons load. However, the Gripen fleet will be mixed and updates of the JAS 39C/D are critical to keeping it competitive beyond 2030. Improved logistics and better protection of air bases will already start to augment robustness early in the coming years. Throughout the period up to 2030, integration into NATO IAMD will be a top priority and is likely to yield early results. However, long-range strike and space capabilities should only arrive after 2030. Addressing the pressing need for new transport aircraft remains an urgent concern. If realised, the addition of AEW&C aircraft could be a substantial improvement towards 2030 or beyond.

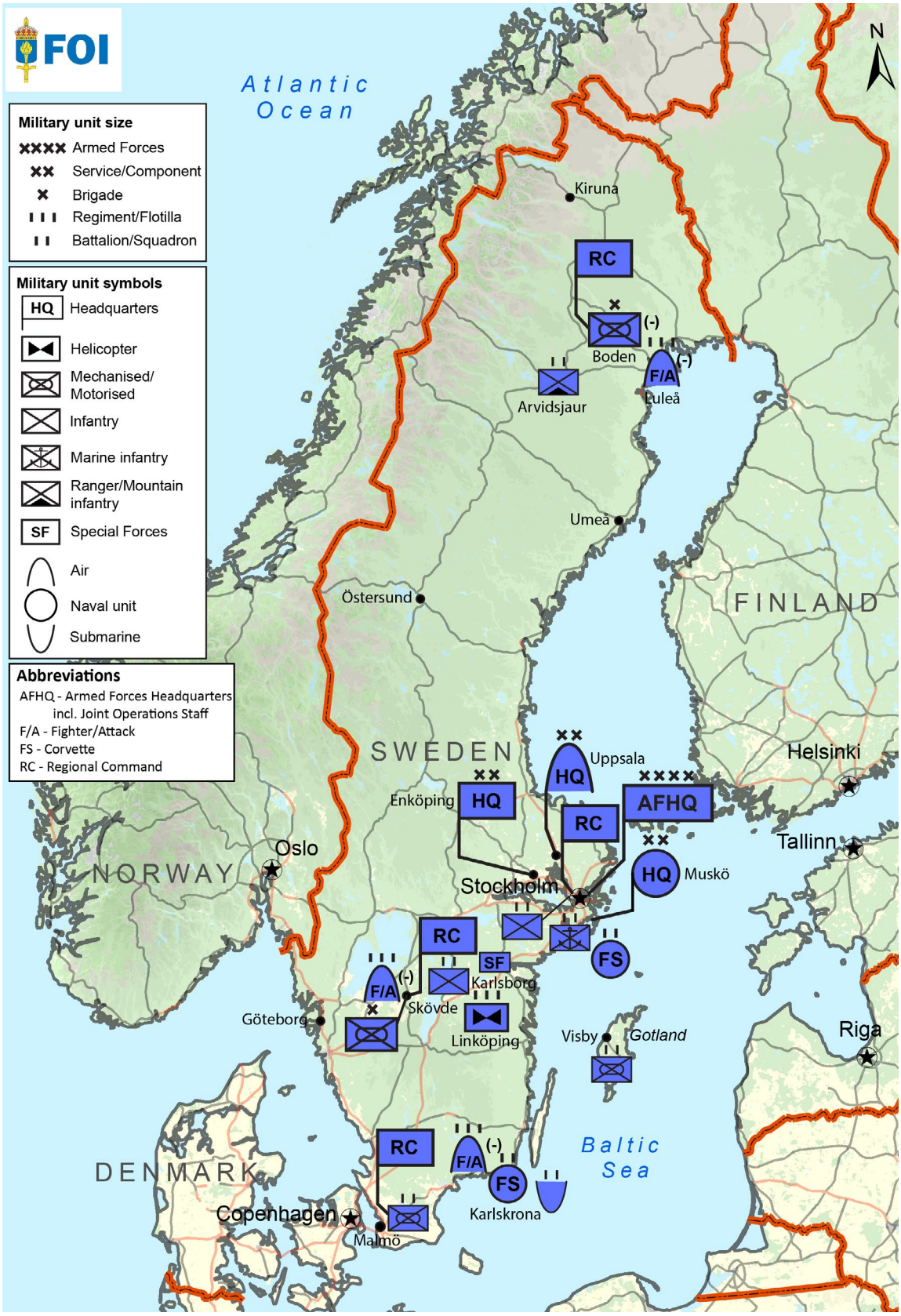
The significant changes in joint assets involve strengthening C2 and communications systems, as well as rebuilding and developing forward and rear logistics for warfighting purposes. This entails coordination with civilian defence and, notably, integration with NATO C2 systems and logistics, including for HNS, both of which have been named early top priorities – together with IAMD – when Sweden joins the Alliance. Without these joint capabilities, the Armed Forces cannot operate effectively, which is why early results are probable. Additionally, turning the Home Guard into reasonably equipped light infantry is key to ensuring territorial control and readiness around the country, with good prospects for success.

With the envisaged reform, Sweden's military capability is likely to take a major leap by 2030. However, the journey ahead is fraught with challenges, as indicated by delays and financial uncertainties already signalled, pushing important parts beyond 2030 and requiring new defence resolutions.[68] The primary obstacle for all services, which will require over a half-decade to surmount, is manning the growing organisation.[69] The second important obstacle stems from spiralling costs fuelled by general price inflation and substantial demands for defence materiel, compounded by the continuous revelation of accumulated deficiencies within the forces.[70] The third significant obstacle, it turns out, is bureaucratic friction, created by laws and regulation that blocks or slows building and training activities, disagreement between government agencies and with regional or local authorities, and the generally phlegmatic handling of matters that is marked by years of peacetime considerations.[71] ■

Table 4.2 Force structure of the Swedish Armed Forces

Force	Organisation 2023[a]	Major reforms towards 2030
Joint	Armed Forces Headquarters (The Defence Staff incl. Special Forces Staff, Joint Operations Staff Military Intelligence and Security Service, Home Guard Staff) 1 Telecommunications and information systems unit 1 Operational signals battalion Armed Forces' logistics organisation 2 logistics battalions 1 special forces unit 1 cyber defence unit 1 electronic warfare battalion 1 electronic warfare support unit 1 operational communications unit 1 meteorology and oceanography centre 4 Regional Staffs[b] 40 light infantry battalions (equivalent)	1 more operational signals battalion Ongoing reorganisation and strengthening 1 more cyber defence unit by 2028
Army	Army staff 2 mechanised brigades (one reduced) 1 mechanised battlegroup (reduced battalion, reinforced) 1 airmobile infantry battalion 1 ranger battalion 1 intelligence battalion 1 security battalion 1 military police battalion 2 air defence battalions	The reduced mechanised brigade in full operating capability (FOC) by 2026. Mechanised battlegroup FOC by 2028. 2 more ranger battalions (one converted) by 2024 and 2027. 5 light territorial infantry battalions by 2030.
Navy	Naval staff 2 surface warfare flotillas (flotilla command, 1 corvette squadron, 1 mine-clearing squadron, sustainment squadron) 1 submarine flotilla (flotilla command, 1 submarine squadron) 1 signals intelligence unit (ship) 1 surveillance ship unit 1 marine base 1 marine infantry battalions	4 new heavy corvettes and 2 new submarines from 2030. 1 more marine infantry battalion in 2025. 2 mobile logistics battalions 2025–2027, and 3 marine bases.
Air Force	Air Force staff 6 fighter squadrons (JAS 39C/D) 1 transport squadron 1 AEW/SIGINT squadron 1 VIP flight squadron 1 armed force helicopter wing (3 transport squadrons, 1 maritime squadron) 5 wings (air bases)	4 fighter squadrons converted to JAS 39E from 2025. New medium-heavy transport aircraft towards 2030. New AEW&C aircraft (Global Eye) after 2025. Conversion to new helicopters begun (from NH90 and AW 109)

Sources/Remarks: (a) Försvarsmakten, FM2019-9956:33 Planerad utveckling av krigsorganisationen 2021–2030. **(b)** Försvarsmakten, Doktrin för gemensamma operationer, p. 40.



Map 4.1 Overview of the Swedish Armed Forces and its basing
Remarks: The map covers major operational headquarters and manoeuvre forces.
Source: Design by Per Wikström

Endnotes

1 Regeringen, Regeringens proposition 2008/09:140. Ett användbart försvar, p. 36–44.

2 Regeringen, Regeringens proposition 2014/15:109, Försvarspolitisk inriktning – Sveriges försvar 2016–2020, p. 7–19, 23–25, 36–39, 51–58, 63ff.

3 Försvarsdepartementet, Ds 2023:19 Allvarstid: Försvarsberedningens säkerhetspolitiska rapport, 2023, p. 41.

4 Sveriges radio, 'Rapport: Ryssland största hotet mot svensk säkerhet', 19 June 2023.

5 Statskontoret, När planeringen möter verkligheten – Försvarsmaktens interna ledning, styrning och uppföljning, 2018, p. 12–14, 36–38.

6 Regeringen, Regeringens proposition 2020/21:30. Totalförsvaret 2021–2025, p. 98–111.

7 Strömberg, Maggie and Nilsson, Torbjörn, 'Så gick det till när S vände om Nato', in Svenska Dagbladet, 2 July 2022.

8 Försvarsdepartementet, DS 2023:12, Kontrollstation 2023, p. 11–14, 22–23.

9 Försvarsdepartementet, DS 2023:19, p. 198–200.

10 Ädel, Maria, Johnson, Andreas & Junerfält Tobias, Dealing with Defence-Specific Purchasing Power – A Discussion and Further Development on Current Methodology, FOI-R--5209--SE, 2022, p. 20.

11 Försvarsdepartementet, Ds 2023:12, Kontrollstation 2023, p. 31.

12 Riksbanken, Penningpolitisk rapport – April 2023, p. 14.

13 See, e.g., Statskontoret, När planeringen möter verkligheten, p. 12–14, 36–37; and Nilsson, PM, Nilsson, PM. 'Upp till bevis för Moderaterna i försvarsfrågan', Dagens industri, 18 June 2018.

14 Stenberg, Ewa, 'Marinen diskuterar besparingar och inställda övningar', Dagens Nyheter, 29 May 2023.

15 Regeringen, Förordning (2007:1266) med instruktion för Försvarsmakten, 2023.

16 Försvarsmakten, Försvarsmaktens årsredovisning 2022, Bilaga 1 Personalberättelse, p. 3; Försvarsmaktens kompletterande budgetunderlag för 2023, Bilaga 1, p. 32; and Försvarsmaktens budgetunderlag för 2024, Bilaga 2, p. 30. The figures vary between sources and are under constant change given the ongoing growth of the Armed Forces, accordingly only a rough estimate is given in the text.

17 Försvarsmakten, FIB 2022:6. Försvarsmaktens arbetsordning, 2023, p. 10ff.

18 Försvarsmakten, Försvarsmaktens budgetunderlag för 2023, Bilaga 2, p. 1–2.

19 Försvarsmakten, Försvarsmaktens årsredovisning 2022, Huvuddokument, p. 136–143.

20 Regeringen, Regeringens proposition 2020/21:30, p. 99.

21 Försvarsmakten, Försvarsmaktens budgetunderlag för 2024, Bilaga 2, p. 6–7; Försvarsmaktens budgetunderlag för 2023, Bilaga 1 och 2, p. 5–6 and p. 2; and Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, 2023, p. 15.

22 Försvarsmaktens, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, 2023, p. 18–19.

23 Regeringen, Regeringens proposition 2020/21:30, p. 102, 117.

24 Försvarsmakten, Tredje sjöstridsflottiljen, *https://www.forsvarsmakten.se/sv/organisation/tredje-sjostridsflottiljen/*; and Fjärde sjöstridsflottiljen (retrieved 12 February 2024), *https://www.forsvarsmakten.se/sv/organisation/fjarde-sjostridsflottiljen/*.

25 Försvarsmakten, Första ubåtsflottiljen (retrieved 12 February 2024), *https://www.forsvarsmakten.se/sv/organisation/1ubflj/*.

26 Försvarsmakten, Försvarsmaktens budgetunderlag för 2024, Bilaga 3, p. 4.

27 Regeringen, Regeringens proposition 2020/21:30, p. 103–104.

28 Försvarsmakten, Försvarsmaktens budgetunderlag för 2024, Bilaga 3, p. 3–4; and Försvarsmaktens reviderade budgetunderlag för 2024, Bilaga 1, p. 11–13.

29 Försvarsmakten, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, p. 20–22, and Försvarsmaktens budgetunderlag för 2024, Bilaga 2, p. 8.

30 Försvarsmakten, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, p. 20–22.

31 Försvarsmakten, Flygvapnet (retrieved 13 February 2024), *https://www.forsvarsmakten.se/sv/var-verksamhet/det-har-gor-forsvarsmakten/flygvapnet/*.

32 Previously, in case of war alert, the Armed Forces had immediate access to 40 percent of the SAS – Scandinavian Airlines – commercial airline fleet of over 100 aircraft, via state ownership and registration of aircraft in the country. Although the formal situation is unclear as of 2023, we suspect that this option is no longer available. In addition, the Swedish Government is expected to relinquish its part in the ownership of the airline.

33 Sveriges Radio, 'Nytt flygbassystem byggs upp – ska göra flygvapnet mer flexibelt', 8 December 2022.

34 Försvarsmakten, Försvarsmaktens reviderade budgetunderlag för 2024, Bilaga 1, p. 14.

35 Dalsjö, Robert, 'Därför behövs Gripen C/D även på 2020-talet', Kungliga krigsvetenskapsakademins Handlingar och tidskrift, 2017:4, p. 17; and Wiseman's Wisdoms, 'Robot 75 och flygburna attackvapen', 6 December 2019 (retrieved 14 February 2024), *https://wisemanswisdoms.blogspot.com/search/label/Attackvapen*.

36 Försvarsmakten, Försvarsmaktens reviderade budgetunderlag för 2024, Bilaga 1, p. 13–17.

37 Försvarsmakten, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, p. 22–24; and Försvarets materielverk (FMV), 'FMV beställer två GlobalEye till Försvarsmakten', 30 June 2022 (retrieved 14 February 2024), *https://www.fmv.se/aktuellt--press/aktuella-handelser/fmv-bestaller-tva-globaleye-till-forsvarsmakten/*.

38 Försvarsmakten, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, p. 22–24.

39 Försvarsmakten, Försvarsmaktens reviderade budgetunderlag för 2024, Bilaga 1, p. 14.

40 Försvarsmakten, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, p. 23-24; and Försvarets materielverk (FMV), 'Särskilt långräckviddig radar – ny svensk förmåga', 5 July 2023 (retrieved 14 February 2024), *https://www.fmv.se/aktuellt--press/aktuella-handelser/sarskilt-langrackviddig-radar--ny-svensk-formaga/*.

41 Försvarsmakten, Doktrin för gemensamma operationer 2020 (DGO 2020), p. 57, 127.

42 Försvarsmakten, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, p. 17, 29–30.

43 Försvarsmakten, FIB 2022:6, p. 17, 141; and Försvarsmakten, 'Logistik' (retrieved 14 February 2024), *https://www.forsvarsmakten.se/sv/var-verksamhet/det-har-gor-forsvarsmakten/logistik/*.

44 Försvarsmakten, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, p. 17, 27–28.

45 Försvarsmakten, FIB 2022:6, p. 16; and Försvarsmakten, 'Specialförband' (retrieved 14 February 2024), *https://www.forsvarsmakten.se/sv/var-verksamhet/det-har-gor-forsvarsmakten/specialforband/*.

46 Försvarsmakten, 'Försvarsmaktens telekommunikations- och informationssystemförband' (retrieved 14 February 2024), *https://www.forsvarsmakten.se/sv/organisation/forsvarsmaktens-telekommunikations-och-informationssystemforband-fmtis/*; FIB 2022:6, p. 17; and Försvarsmaktens budgetunderlag för 2024, Bilaga 2, p. 19.

47 Försvarsmakten, 'Ledningsregementet' (retrieved 15 February 2024), *https://www.forsvarsmakten.se/sv/organisation/ledningsregementet/*; and FIB 2022:6, p. 141.

48 Försvarsmakten, Försvarsmaktens budgetunderlag för 2024, Bilaga 2, p. 30–31; and Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, p. 32.

49 Regeringen, Regeringens skrivelse 2022/23:37. Riksrevisionens rapport om personalförsörjningen av kontinuerligt tjänstgörande gruppbefäl, soldater och sjömän, p. 4, 29, and 33–35.

50 Försvarsmakten. Försvarsmaktens årsredovisning 2022, Bilaga 1, p. 3.

51 Försvarsdepartementet, Ds 2023:12, Kontrollstation 2023, p. 16.

52 Försvarsmakten, Försvarsmaktens årsredovisning 2022, Bilaga 1, p. 4; and Försvarsmaktens budgetunderlag för 2024, Bilaga 2, p. 30.

53 Sveriges Television (SVT), 'Akut brist på officerare inom svenska försvaret – på utbildningen gapar platser tomma', 28 April 2023 (retrieved 16 February 2024), *https://www.svt.se/nyheter/inrikes/skriande-brist-pa-officerare-inom-svenska-forsvaret-pa-utbildningen-gapar-platserna-tomma*; and Försvarsmakten, Försvarsmaktens årsredovisning 2022, Huvuddokument, p. 41.

54 Försvarsmakten, Försvarsmaktens budgetunderlag för 2024, Bilaga 2, p. 30–32.

55 Nordlund, Peter et al, Mindre försvarsmateriel och organisation för pengarna. En analys av materiel- och krigsförbandsbeståndet, FOI-R--4250--SE, 2016, p. 46–47.

56 Regeringen, Regeringens proposition 2023/24:1, p. 20–21.; and Owetz, Josefine, 'Logistikchefen om bristen på personlig utrustning: Ett misslyckande', Officerstidningen, 6 September 2023.

57 Riksrevisionen, RIR 2021:23. Att bygga nationell försvarsförmåga – statens arbete med att stärka arméstridskrafterna, p. 5–6, 9, 35, 57; and Statens offentliga utredningar, SOU 2022:24. Materielförsörjningsstrategi. För vår gemensamma säkerhet, p. 209.

58 Nordlund, Peter, 'Sweden and Swedish Defence – Introduction to the Special Issue', in Defence and Peace Economics, Volume 33, 2022, p. 392-393.

59 Regeringen, Regeringens proposition 2020/21:30, p. 120.

60 Statens offentliga utredningar, SOU 2022:24, p. 47–50.

61 Olsson, Per, Pang för pengarna – en ESO-rapport om Sveriges militära materielförsörjning, Statens offentliga utredningar, 2019, p. 78–82.

62 Olsson, Per, Dalberg, Sanna and Junerfält, Tobias, Defence Industry Outlook 2022, p. 32, 34, 45.

63 Regeringen, Militärt stöd till Ukraina (retrieved 16 February 2024), *https://www.regeringen.se/regeringens-politik/sveriges-stod-till-ukraina/militart-stod-till-ukraina/*.

64 Försvarets Materielverk (FMV), 'FMV tecknar kontrakt på 48 Archerpjäser', 13 September 2023, *https://www.fmv.se/aktuellt--press/aktuella-handelser/fmv-tecknar-kontrakt-pa-48-archerpjaser/*; and Försvarets Materielverk (FMV), 'Första steg tagna för att ersätta donerade CV90', 11 October 2023, *https://forsvarssektorn.se/article/fmv-foersta-steg-tagna-ersaetta-donerade-cv90/*.

65 Försvarsdepartementet, DS 2023:12, Kontrollstation 2023, p. 9–10; and Försvarsmaktens, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, p. 2–3

66 See section 1.6 for the methodology behind the assessment of operational capability.

67 Försvarsmakten, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 1, p. 9; and Bilaga 2, p. 2–11.

68 Försvarsdepartementet, DS 2023:12, Kontrollstation 2023, p. 11–14.

69 Försvarsmakten, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 1, p. 7–9.

70 Försvarsmakten, Försvarsmaktens reviderade underlag inför kommande försvarsbeslutet, Bilaga 2, p. 6, 12.

71 Stenberg, Ewa, 'Byråkratin sinkar upprustningen: "En fara för Sverige"', Dagens Nyheter, 8 February 2024; and Dalsjö, Robert, 'Armén, Natomedlemskapet och kriget i Ukraina', in Krigsvetenskapsakademins handlingar och tidskrift, Nr. 3, Juli-September 2023, p. 133–134.

5. Finland

Michael Jonsson

As a frontline state, having fought the Soviet Union twice during World War II and sharing a 1340 km land border with Russia, Finland is one of the few countries in Europe that never moved away from maintaining large-scale, mobilising defense forces, based on conscription. With the invasion of Ukraine, Russia caused a 'fundamental change […] in the security and operating environment of Finland'.[1] This prompted Helsinki to apply for NATO membership in May 2022, achieving full membership on April 4, 2023, hence bookending Finland's long farewell to neutrality. The Finnish defence budget has increased significantly after Russia's full-scale invasion, and large amounts of munitions have been procured for all three services.[2] This complements the strategic acquirements of 4 newly designed Pohjanmaa-class corvettes and 64 F-35A multi-role fighter jets, making the traditional land power more well-rounded.[3]

5.1 Security and defence policy

Finland's security and defence policy has been shaped by the legacy of World War II – when the country faced the Soviet Union in two brutal wars – and its 1340 km-long land border with its eastern neighbour.[4] During the Cold War, this led to a balancing act between avoiding provocation of the Soviet Union while staunchly upholding its Nordic identity and will to defend the country. After the fall of the Soviet Union, Helsinki shifted swiftly towards the West; in 1992, it acquired 64 F-18s from the US and joined the European Union in 1995.

The Finnish Defence Forces (FDF) has maintained its ambition to independently defend the entire Finish territory over time, backed by universal male conscription and a large mobilising army.[5] Finland has been moving away from its uneasy *modus vivendi* with Russia since the end of the Cold War. After the Russian annexation of Crimea, in 2014, the process accelerated. Finland shifted its security policy of military nonalignment, expanding bi- and multilateral military cooperation. Russia's 'weaponisation' of migration, in 2015, (and repeated in 2023), further hurt relations.[6]

The FDF cooperates closely with its Swedish counterpart. In December 2019, the respective Chiefs of Defence signed a common military strategic concept, followed by a trilateral statement of intent, in 2020, with Norway. In March 2023, the air forces of Finland, Sweden, Norway and Denmark declared their plan to create 'the ability to operate seamlessly together as one force' over the medium to long term, pooling very significant capabilities.[7] Finnish-Estonian collaboration on coastal defence in the Gulf of Finland is also underway.

The Finnish relationship to NATO has evolved gradually, from political anathema, during the Cold War, to increasing cooperation, since 2014 and onwards. In 2016, a study concluded that Finland would benefit most if it joined the alliance together with Sweden.[8] Meanwhile, Helsinki cooperated ever more closely with the US and NATO, including on a range of sizable exercises.[9] However, it consistently maintained its 'NATO option', i.e. reserving the right to apply for membership.[10] Before the Russo-Ukrainian war, only a minority of the Finnish people supported NATO membership. It was expected, though, that if the government advocated membership, a change in opinion would occur.[11] Once Moscow launched its invasion, public opinion shifted even faster than that of the political elite. In January 2022, only 28 percent supported NATO membership; by May, it was 76 percent.[12] The then Finnish Prime Minister, Sanna Marin, concluded that "Russia is not the neighbour we thought it was".[13] With a Security White Paper declaring that Russia's war of aggression had irrevocably changed Finland's security and operating environment, Helsinki announced its application in May 2022.[14] While this may seem like the inevitable endpoint of a long process, close observers describe the application as a "miracle".[15] Finnish experts have also been surprised by Russia's relatively muted reactions, at least so far.[16] Following an unexpectedly turbulent application period, Finland gained full membership on April 4, 2023.

As of October 2023, Finland was negotiating a Defence Cooperation Agreement (DCA) with the US; the DCA will regulate what may become a rotational or intermittent presence of US troops, including access to naval and air-force bases, and exercise areas.[17] As Finland joins NATO, Nordic cooperation will inevitably deepen, albeit gradually and with some friction.[18]

Given the FDF's steady course since the end of the Cold War, Finnish defence policy clearly favours evolution over revolution. That said, incremental adjustments are being made continuously. For instance, when

in 2017 a government Defence White Paper described a sharply deteriorating security situation, with shortened early warning, the FDF prioritised readiness.[19] This included creating high-readiness units, both standing and mobilising, equipped for quick response to a range of threats.[20] In 2017–2020, the Finnish Army modernised, for example, by acquiring self-propelled howitzers and main battle tanks (MBTs), and ordering counterbattery radars. Its doctrine was also adapted, based on lessons from Ukraine.[21] Since February 2022, the FDF has quickly procured large amounts of munitions, ranging from 155mm artillery grenades to long-range precision-guided munitions.

The recent procurements partly address long-identified needs, albeit faster than expected. They also reflect a 'Finnish way of warfare', which is army-heavy, emphasising strong artillery and the need for mass, armour and deep domestic inventories of munitions.[22] The numerical expansion of long-range, precision-guided munitions, coupled with improved sensors and new platforms within all three services, is, however, an important novelty. Finland is also adapting to lessons from Ukraine and discreetly replacing materiel donated to Kyiv. As always, local officials are circumspect about what they have learnt until the planned measures have been executed.

Finland is strongly conditioned by its turbulent century of independence, above all the Winter and Continuation Wars against the Soviet Union during World War II. This explains why the FDF maintained its focus on territorial defence when most European peers were shifting to expeditionary capabilities, and why Helsinki is unfailingly pragmatic in its foreign policy. The Finnish strategic outlook is fundamentally, based on *realpolitik*, hardnosed and focused on national military capabilities, based on the assumption that one cannot entirely trust anyone else.[23]

This outlook can be divided into three subcultures, traditionally described as 'self-defence and neutrality', 'trust and dialogue', and 'supporters of the West', whose relative hierarchy and prescriptions for Finnish foreign policy have shifted over time.[24] Together, they create an attitude that favours a staunch defence of its independence based on domestic military capabilities, coupled with avoidance of unnecessary conflict with Moscow, while discreetly establishing ties with the West. When Russia has been weaker, Finland has moved west.[25]

Crucially, Finland's nationally focused outlook will have to adjust in important ways to NATO membership and collective defence. Points of friction might include a situation when deployment of significant Finnish forces or capabilities abroad is requested, situating Finland in NATO's command and control structure, and accommodating NATO's '360-approach'. Helsinki's relationship with Russia will increasingly become deterrence-based, and Finland will have to accept a greater degree of interdependence and compromises with allies.[26] Close observers note that this change of mindset will be gradual and not entirely easy.[27]

5.2 Military expenditures

During 2012–2015, Finland reformed and downsized its armed forces, so that defence spending decreased.[28] This caused a need for modernised equipment, particularly within the Army: between 2015–2020, the defence budget increased.[29] Starting in 2021, defence spending increased drastically, as the payments for the acquisition of 4 naval vessels (Squadron 2020, with a budget of USD 1.4 billion) and 64 new fighter jets (the HX Fighter Program, with a USD 7.5–10.6 billion budget) began.[30] The Defence Ministry's budget hence increased by over 50 percent between 2020 and 2021.[31]

As a result of the Russo-Ukrainian war, Finland supplemented its defence budget with $710 million in 2022. An additional $1.8 billion was set aside for 2022–2027 acquisitions.[32] According to its national definition of military expenditures, Finland planned to spend spend USD 7.3 billion on defence in 2023, in current prices.[33] In constant prices, Finland has increased its military spending by 89 percent since 2014, see Figure 5.1. As a new NATO member, Finland more than meets the NATO target of spending 2 percent of GDP (2.5), and spending at least one-fifth of its defence expenditure on equipment (50.8 percent in 2023).

Figure 5.1 assumes a prolongation of defence spending at 2.5 percent of GDP in 2024–2028. But this could grow further, as demonstrated by recent increases in the defence budget.

5.3 Armed Forces

The FDF have a peacetime active personnel of 19,600, of which 7,850 are full-time employees and 11,750 conscripts.[34] Additionally, the paramilitary Finnish Border Guard (FBG) has about 2,700 full-time employees. The active reserve covers some 250,000 persons, divided between 185,000 in the Army, 24,000 in the Navy, 29,000 in the Air Force, and 12,000 in the FBG.[35] The number of reservists trained annually has increased from 19,000 to 28,000. The reserve is perhaps most accurately described as 'several hundred thousand'.[36] The

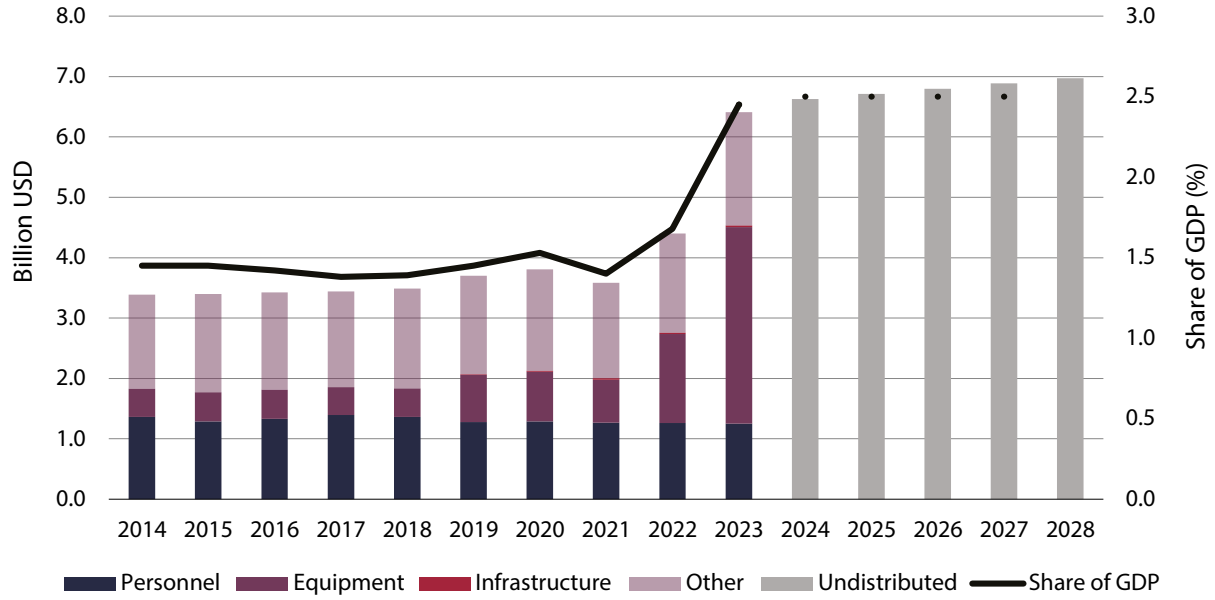


Figure 5.1 Military expenditures of Finland 2014–2028 in 2015 constant prices.

Sources/Remarks: Valtion talousarvioesitykset (2007-2023), World Bank (2023). The figure presents an estimate of Finland's military expenditures in line with the NATO definition used for all other countries in this report and thus include the paramilitary Finnish Border Guard and international operations.

Commander of the FDF leads the organisation from the Defence Command in Helsinki.

Army

The Finnish Army is organised into the Army Command and eight brigade-level units.[37] The sharp tip of the Army's spear consists of the operational (manoeuvre) troops, which have main battle tanks (Leopard 2A6 and 2A4), infantry fighting vehicles (CV90 and BMP-2M) and rocket artillery (M270 MLRS) and self-propelled howitzers (K9).[38] The FDF Order of Battle (ORBAT) is not discussed openly, but the operational troops reportedly include 2 mechanised brigades, 2 armoured regiment battlegroups, 1 Special Forces battalion and 1 helicopter battalion.[39]

Until recently, the remainder of the Army was divided into regional and local troops, but the regional level will eventually be abolished, as noted by the 2021 Defence White Paper.[40] While it emphasised the role of local troops in responding to 'broad-spectrum influencing', several recent medium-sized exercises (3–6,000 troops) have demonstrated that at least some local troops are expected to shoulder combat missions as well.[41] The regional context, mission sets and range of equipment will vary significantly between different local troops.[42]

The Army is home to a majority of the FDF high-readiness units. By 2021, readiness and capabilities had reportedly improved, in part due to faster mobilisation, changes to conscription training, and developed command and control, but also to less visible procurements of anti-tank weapons, individual soldier's equipment and land-defence-ordnance.[43]

The Army has received significant new materiel over the past decade, including 100 Leopard 2A6, self-propelled K9 howitzers and munitions for its M270 MLRS systems.[44] Several of the procurements made in 2022 were expedited because of the Ukraine war.[45] The 2022 Security White Paper emphasised the need for deeper munition reserves, an increase in the reservist trainings, increases of the FDF personnel by 500, and expanding FBG military capabilities.[46] Since then, the Army has ordered an additional 38 K-9 self-propelled howitzers from South Korea, bringing the total to 96.[47] In a joint program with Latvia, Sweden and Germany, the FDF has also ordered 160 APCs from Finnish defence contractor Patria.[48] Above all, Finland has expanded its inventories of a wide range of munitions, within all services, including the procurement of several hundred GMLRS-guided missile pods for its M270 MLRS systems.[49] Such pods, also used by HIMARS, have been used to great effect in the Ukraine war.[50] Additional 155mm ammunition was also procured, both long-range and anti-tank versions.[51]

Unmanned Aerial Vehicles (UAVs) have been in active service within the FDF since at least 2017, and it currently has a small fleet of Orbiter 2 UAS and ADS-95 Rangers.[52] The FDF plans to significantly expand its UAV capability, possibly with a range of

systems, at different levels.[53] Parrot Anafi US drones have been procured, for $6 million, for short-range ISR and targeting. The 2021 Defence White Paper also mentioned studies of the 'suitability of unmanned aerial and ground vehicles' for different land-defence tasks, and 'developing capabilities that enable command, control and targeting of the long-range strikes of the other Services'.[54] This presumably refers to loitering munitions and higher-end UAS (MALE or HALE UAVs), respectively, and the FDF has tested the MQ-9 Reaper and other systems.[55]

The ground-based air defence, organised under the Army, is armed primarily with a medium-range missile system (NASAMS 2). In April 2023, Israeli Rafael won a tender to provide long-range ground-based air defence systems (GBAD) with its David's Sling to Finland, priced at USD 340 million.[56] Capable of intercepting targets at least up to an altitude of 15,000 meters, it will close a hole in Finland's layered GBAD.[57] No delivery dates have yet been communicated. Finland is also looking to increase its inventory of Stinger MANPADs, possibly in a vehicle-borne configuration, to counter UAVs and cruise missiles (XM)s.[58]

Current limitations for the Army may include the pace of reserve training relative to the sizable fighting force. Other challenges include the absence of exercises that would test full-scale instead of piecemeal mobilisations, strains on certain personnel categories, access to UAV counter-UAV capabilities in large quantities, and providing modern equipment for local troops who are given more high-end missions. While none of this is news to the FDF, addressing them is a long-term process, again, given the large scale of the Army and multiple active procurements.

Navy

The Finnish Navy consists of the Navy command, in Turku, with three operational units – the Coastal Fleet, the Coastal Brigade and the Nyland Brigade – and the Naval Academy.[59]

The surface combatants include 8 fast-attack missile craft (4 Rauma- and 4 Hamina-class), 2 minelayers (Hämenmaa class) and 3 mine-hunter vessels (Katanpää class). The Navy has no submarines, a legacy of the peace agreements following WWII,[60] but it has modern naval-mining capability.[61] The Nyland Brigade trains marine infantry, while the Coastal Brigade has fixed-position artillery and anti-ship missiles.[62]

In 2018–2022, the Navy's four Hamina-class missile boats underwent midlife upgrades, including being equipped with Gabriel V AShM, Saab 47 torpedoes, and a new combat-management system.[63] The Navy is acquiring four multirole corvettes of Pohjanmaa class, with planned delivery by 2028. The Rauma and Hämeenmaa hulls will be decommissioned as the Pohjanmaa class enters service. Once operational, the Pohjanmaa will have medium-range air defences, anti-ship missiles (Gabriel V), soft-kill self-defence, mine-laying and ASW capabilities, as well as longer range and year-round operability.[64] In January 2023, Finland signed a contract for additional anti-tank guided missiles (Spike ATGM) that will also be used for coastal defence.[65] In addition, the Navy has issued a tender for a new class of minesweepers, priced at EUR 20 million.[66] Together, these tenders reflect Finland's perceived geographical position as a logistical 'island', and the resulting need to keep its SLOCs open.

Challenges for the Finnish Navy include recurrent reports of delays to the Squadron 2020 (Pohjanmaa) project.[67] Bringing the corvettes to full operational capability and replacing older platforms will be a considerable undertaking. Beyond this, the demilitarised Åland islands present a dilema, and in the southern Baltic Sea the lack of submarines limits options, even though Hamina and Pohjanmaa will provide enhanced ASW capabilities.[68]

Air Force

The Finnish Air Force consists of the Air Force Command and three operational units: the Karelia Air Command and the Lapland Air Command, both on Quick Reaction Alert; the Satakunta Air Command; and the Air Force Academy. Readiness levels for the Air Force are high, as demonstrated when foreign aircraft violate Finnish airspace.[69] Its main equipment includes 62 multirole fighters, the F/A-18 C/D Hornets, which underwent two midlife upgrades in the early 1990s. They now carry long-range precision munitions (Joint Air-to-Surface Standoff Missiles, JASSM), with a range of 350 km.[70] In 2022, the service acquired both air-to-air (AIM-9X Sidewinder) and air-to-ground (AGM-154 JSOW) munitions.[71]

In December 2021, it was announced that the F-35A Lightning II would become the new fighter jets of the Finnish Air Force, with deliveries planned for 2026–2030.[72] The F-35 is widely expected to bring significant improvements in sensors and situational awareness, anti-ship capabilities, dynamic ground targeting and, possibly, air-to-air capabilities. Crucially, the F-35 will be equipped with the AGM-88G Advanced Anti-Radiation Guided Missile – Extended Range (AARGM-ER) This missile is key to air-to-surface destruction/suppression of enemy air defences (DEAD/SEAD), and with up to 150 procured for a total of USD 500 million available in operationally relevant quantities.[73] Once the F-35s are operational, Finland's air defences will improve

significantly, especially once the David's Sling long-range GBADs reach FOC.

The main challenge for the Air Force is its restricted operating environment, within range of Russian cruise and ballistic missiles and relatively close to its advanced GBAD systems. Its F-18s are also reaching the end of their life cycle, as reflected by heated debates over whether they could be donated to Ukraine, once decommissioned.[74] As in the Navy, the phasing in of new platforms (F-35) will be a major and long-term undertaking during the latter half of the 2020s, alongside the introduction of the long-range GBADs. With a vast expansion of the possible types of missions, pilot training also needs to expand substantially.[75]

Joint assets

The FDF joint functions are comparatively large, including a logistics command, a SOF battalion, the Defence Intelligence Agency, and the FDF C5 Agency. The Logistics Command, subordinated to the Defence Command, is responsible for acquisition and maintenance of materiel, and supports 80 international exercises annually. The command has 2,200 personnel, is present in 40 localities in Finland and has a headquarters (in Tampere), a logistics school and three Logistics Regiments.[76] Finnish Special Operations Forces are organised under the Army, and consist of a Special Forces battalion – mainly based at the Utti Jaeger regiment in Kouvola, Karelia, but also with a Naval Special Operations Detachment.[77] While organised under the Army, the Special Jaeger Battalion and the attached Helicopter Battalion train with all services, and have been deployed abroad repeatedly. The regiment has 460 professional staff and 220 conscripts.[78] The Finnish Defence Intelligence Agency, subordinated to Defence Command, is mainly located in Helsinki and Jyväskylä. The Finnish Defence Forces C5 Agency, subordinated to Defence Command, employs 400 personnel, mostly civilian, which includes a cyber division that develops cyber defence and maintains the FDF cyber situational awareness.[79] Finland also annually trains some 30–40 "cyber conscripts" for technical duties in the FDF.[80] Following February 2022, the threat of serious antagonistic cyber activities has increased significantly, and the responsible authorities and private-sector actors have heightened their readiness, as has the intelligence community.[81]

Personnel

Annually, 22,000 conscripts and 28,000 reservists are trained in Finland.[82] Readiness, availability and the time needed for mobilisation are generally more challenging than filling the units *per se*, since reservists man approximately 90 percent of the wartime army.[83] Since 2017, the FDF has not grown dramatically in numbers or units.[84] Instead, it has improved its readiness and sharpened its capabilities. The Army was the first beneficiary of more modern equipment, but the Navy and the Air Force are now becoming the primary beneficiaries. Conscript training is divided into two cohorts, annually, and ranges between 6–12 months, with a widespread use of simulators and online materials to make it as efficient as possible.

Increased numbers of exercises, domestic as well as international, have improved the FDF's operational capability, particularly its interoperability. Since 2017, Finland has participated in some 80–90 international exercises and training activities annually.[85] Joint exercises among the Finnish, Swedish and Norwegian air forces are particularly long-established and well-functioning.[86]

As a result of its continuous focus on territorial defence, the mobilised Finnish Army is considerably larger than other armies in Scandinavia. Having first prioritised readiness and early warning and then the integration of new equipment, the focus is now to enhance endurance in a high-intensity, drawn-out war against a peer adversary. Given heightened readiness, NATO membership, the reform of local troops, increased reservist trainings and major procurement projects, FDF officers will inevitably be a scarce resource. Even the planned expansion of the personnel roster may not fully resolve this, and a debate is underway on whether reserve officers can help alleviate some of the workload.[87] To uphold sufficiently sizable conscript cohorts, in the face of shrinking age cohorts and a growing share of young males unfit for service, expanding female conscription is likely.[88] Given the existing legislation, conscripts will presumably have to volunteer to serve in units that might operate outside of Finland.

Materiel

The main acquisitions since 2017 include self-propelled artillery (96 K-9) and 100 Leopard 2A6 MBTs, alongside munitions for its MLRS rocket artillery systems and counterbattery radars.[89] The 100 Leopard 2A4s that were said to have been put 'in storage' are instead in service, even though a smaller portion has been converted to alternative roles.[90] Less visible but still important additions have included light UAVs, anti-tank weapons, MANPADs, individual soldier's equipment and land-defence-ordnances.[91] Hence, the same type of capabilities that have made the Ukrainian Territorial Defence Forces (TDF) remarkably successful against

even mechanised Russian units should to some extent become available to the FDF's local troops, too.[92] Given their size, this is presumably a gradual process, with some units more highly prioritised due to their mission.

While Finland has traditionally held deep inventories of artillery and other munitions, the numerical expansion of long-range PGMs, previously a niche capability, is genuinely new. Over time, the introduction of new platforms, particularly the F-35s, also offers the potential of gradually improving the FDF's situational awareness writ large. Reversely, phasing in F-35s, Pohjanmaa, David's Sling and other procurements will be labour-intensive.

Since several of Finland's new procurements, primarily David's Sling, but also Gabriel V AShM and other shorter-range weapons, come from Israel, the war with Hamas raises some questions regarding security of supply or delivery timetables. Minister of Defence Häkkänen believes, however, that such contingencies are covered under existing agreements.[93]

The Finnish defence industry is relatively modest in size but well established and successful in specific niches.[94] Patria is the most renowned Finnish defence company, internationally. Currently, it is producing 200+ 6x6 APCs for Latvia, Sweden and Germany, while Japan has selected the 8x8 version.[95] Millog is primarily a maintenance provider for the FDF. It services the materiel of the Finnish Army and Navy, and the surveillance systems of the Air Force.[96] A third strategic partner is Insta, which provides technological expertise, including in areas such as C3 and network activities, reconnaissance, surveillance and target acquisition support.[97] Beyond the big companies, there is a host of small Finnish companies designing advanced niche solutions, including sophisticated decoy targets.[98]

Table 5.1 Personnel and materiel in the Finnish Defence Forces

Personnel/Materiel	Numbers in 2023	Major reforms towards 2030
Personnel [(a)]		
Regular force	8,000	
Conscripts	12,000 [(b)]	
Reserves	250,000 [(c)]	Merging of regional and local troops. Increased reservist training.
Materiel		
Tanks	200 (Leopard 2A6; 2A4) [(d)]	
Armoured combat vehicles	212 (102 CV9030FIN, 110 BMP-2M) [(e)]	160 Patria 6x6 APCs under procurement.
Heavy artillery pieces	682 (133 self-propelled, including 23 K9 Thunder; 36 2S1 122mm Gvozdika; 22 MRLS 227mm M270, 34 122mm RM-70 18 120mm XA-361 AMOS; and 549 towed 120–155mm). [(f)]	In total, 96 K9 Thunder have been purchased. Donations to Ukraine may impact the quantity of specific systems.[(g)]
Surface combatants	8 (4 Hamina-class fast-attack missile vessels, 4 Rauma-class fast-attack missile vessels). Hamina modernised, i.a. with AshM and ASW. [(h)]	Rauma replaced by Pohjanmaa 2025–2028.
Combat aircraft	62 (F/A-18CD)	Will be replaced by 64 F-35 during 2026–2030.
Transport aircraft	9 (3 C-295M; 6 PC-12NG)[(i)]	
UAVs	No (MALE or larger)[(j)]	Possible introduction of loitering munitions and/or MALE drones.
Air-defence batteries	7 (5 Crotale, 2 NASAM 2), various short-range systems.[(k)]	David's Sling long-range GBAD procured, quantity unknown.

Source/Remarks: **(a)** Unless otherwise specified, this table is based on IISS, The Military Balance 2023, p. 87–89. **(b)** Ibid., p. 88–89. Annually, approximately 22,000 conscripts are trained, of which a majority are trained for 165 days, divided over two contingents; Finnish Defence Forces, About us. While IISS reports that approximately 18,000 conscripts are trained annually, the FDF reports approximately 22,000. **(c)** IISS, The Military Balance 2023, p. 88; the 250,000 reserves here include 12,000 FBG reserves, which would be folded into the FDF in case of war. 28,000 reservists undergo refresher-training annually. **(d)** IISS, The Military Balance 2023, p. 88; Finland, Finnish Defence Forces, 'Confidence- and Security Building', 1. **(e)** Finland also has 300+ Soviet-legacy MT-LBV; and almost 700 Sisu XA variants, used mainly as APCs or ACVs. Finnish Defence Forces, 'Confidence- and Security Building', 1. **(f)** IISS, The Military Balance 2023, p. 88; the FDF reports a total of almost 1700 artillery pieces, of which almost 1300 are 120/122mm mortars, or howitzers. Finnish Defence Forces, 'Confidence- and Security Building', 1. **(g)** Specifically, 122 and 152mm systems may have been donated; Häggblom, 'Finland Could Do More'. **(h)** Finland, 'Marinen tog emot'. **(i)** FDF also has 20 NH90 rotary-wing aircraft. Finnish Defence Forces, 'Confidence- and Security Building', 1. **(j)** FDF has 11 ADS-95 Rangers in service, and has procured two batches of Parrot Anafi ISR/targeting drones. **(k)** IISS, The Military Balance 2023, p. 88. 20 Crotale and 24 NASAMs firing units, respectively. The short-range systems include Stingers, RBS 70 and 7 Leopard 2 ITPSV Marksman.

Military support to Ukraine

As of late October 2023, Finland has sent 19 packages of defence materiel to Ukraine, with a total replacement value of USD 1.5 billion. While the first 11 packages in 2022 had a replacement value of USD 300 million, packages 12–18 have been worth USD 1,170 million, signalling a clear step change.[99] Per capita, these donations are significant, but the FDF has been careful to balance them against domestic needs, and offers few details about the materiel sent.[100] While the specifics are intentionally obscured, a notable contribution has been six Leopard 2 armoured mineclearing vehicles.[101] Furthermore, Finnish Patria 6x6 APCs have been spotted in Ukraine, while various statements have referred to 'heavy artillery and munitions'.[102] Although substantial, the military support to Ukraine is at the same time designed to minimise the negative impact on Finnish national defence capabilities. This is demonstrated by the debate over why a country with 200 modern MBTs in service has only contributed six to Ukraine.[103]

5.4 Assessment of military capability

Current operational capability[104]

Given three months' notice of major combat operations, a majority of the Finnish Defence Forces are likely to be available for wartime operations. Overall, readiness is higher within the Air Force and the Navy than in the much larger Army. Within the Army, the operational troops are prioritised with regard to receiving modern materiel and readiness, reportedly entailing the equivalent of a little over three brigades.[105] As for the local troops, including 9 light infantry brigades, 7 engineering regiments and 3 logistics regiments, a majority is also estimated to be available for operations within three months, although likely of varying quality.[106] While operational troops are suitable for manoeuvre warfare, local troops are mainly geared towards regional defence or delaying actions. Some units have higher readiness, and the modernity of the equipment will inevitably vary, notably, between local troops, contingent on their types of missions. Readiness and availability pose greater challenges than filling the units per se, since reservists staff some 90 percent of the wartime army.[107] The FDF is designed for territorial defence and the vast majority of its units are expected to operate nationally, not abroad.

Finnish defence experts believe that the Russo-Ukrainian War shows that the FDF has prepared for the right type of war, even if there have been numerous minor surprises.[108] With sizable mechanised units, modern MBTs, strong artillery and improved C2, the Finnish Army, once mobilised, is a capable fighting force for the defence of its territory.[109] In a large-scale, high-intensity, drawn-out conflict, its considerable mass, reserves and munitions storage would be clear assets, as would its long-range PGMs. While intangibles are notoriously difficult to measure, the perceived will to defend Finland has consistently been high.[110]

In the Finnish Navy, 5-6 fast-attack missiles (Hamina/ Rauma), 2 mine-hunter coastal vessels (Katanpää) and 3-4 minelayers (Hämeenmaa/ Pansio) will likely be available, alongside the Nyland Brigade, within a three-month timeframe. The coastal artillery and the marine infantry brigade are defensive assets, with the latter capable of offensive operations in the archipelago, particularly as the units' firepower is gradually augmented, as are the minelaying and anti-ship capabilities. The demilitarised islands of Åland represent a soft spot. But Finland has signalled its intention to use a combination of the, in peacetime, civilian FBG and 'deepening military cooperation with various actors', presumably including Sweden and the US, to defend them.[111] Finland's dependence on sea lines of communication (SLOCs) also presents a vulnerability. In the Gulf of Finland and the southern Baltic Sea, the lack of submarines limits the available options, but the midlife upgrade (MLU) of the Hamina class has modernised its ASW capabilities, and the Gabriel V anti-ship missile has expanded range.[112] In several of these respects, the close Swedish-Finnish naval cooperation is helpful, especially once Sweden has joined NATO.[113]

The Finnish Air Force can be expected to have 36-48 of its combat air aircraft, i.e.. well over half of the fleet, ready for major combat operations within 3 months. The forward presence of Russian long-range air-defence systems, cruise and ballistic missiles represent a threat, even if they are currently depleted due to the war in Ukraine.[114] That said, the Finnish Air Force's dispersed basing concept and long-range precision capabilities make it very adept at operating in a highly challenging environment, even as their F-18s are nearing the end of their life cycle. With 7 medium-range air-defence (AD) batteries and a host of short-range systems, Finnish GBADs can provide spot defence and/ or a pop-up threat in several locations, even though they currently lack high-altitude capability.[115] With expanded air-to-air munitions, the Finnish Air Force is well equipped for the air-combat role, particularly as the Russian VKS has not surpassed even modest expectations in Ukraine.[116]

Taken together, the FDF is well-positioned to conduct high-intensity, drawn-out defence-in-depth operations, not entirely dissimilar to those carried out successfully by the Armed Forces of Ukraine. While some capabilities might have been highlighted for dramatic effect during the NATO accession period, the FDF has prepared for this type of war, albeit under narrow

budget constrictions.[117] The materiel budget is now growing. The FDF has plugged several known capability needs, and it is adapting to some of the early lessons drawn from the war in Ukraine. The one outstanding issue is the absence of large quantities of UAV and C-UAV capabilities, likely a work in progress. Needless to say, with a 1,340 km land border with Russia, and Finnish population centres clustered predominantly along its southern coast, operational concepts vary across the country, with Karelia as a centre of gravity. While nationally focused, by European standards, the FDF has substantial capabilities for defending its territory in a high-intensity war.

Future Operational Capability

During the next five years, the Finnish force structure is unlikely to change significantly, with minor exceptions.[118] Helsinki is currently negotiating a defence cooperation agreement with the US, likely to be concluded before the end of 2023. Which types of US troop presence Finland will allow and whether they will be rotational or intermittent is so far unknown.[119]

During the same period, FDF capabilities will improve significantly, particularly within the Air Force and Navy, but the road to full operational capability will inevitably be bumpy. With the strategic acquisition of, first, the Pohjanmaa corvettes and then the F-35, it has been clear that the latter part of the 2020s would put the FDF in an 'exceptional situation'.[120] As Finland is now also simultaneously adapting to NATO membership, reforming its local troops, acquiring high-altitude GBADs and may introduce new UAV capabilities, the comparatively small officers corps will be stretched thin. Hence, the FDF inevitably has a turbulent period ahead of it, with comprehensive change in all services.

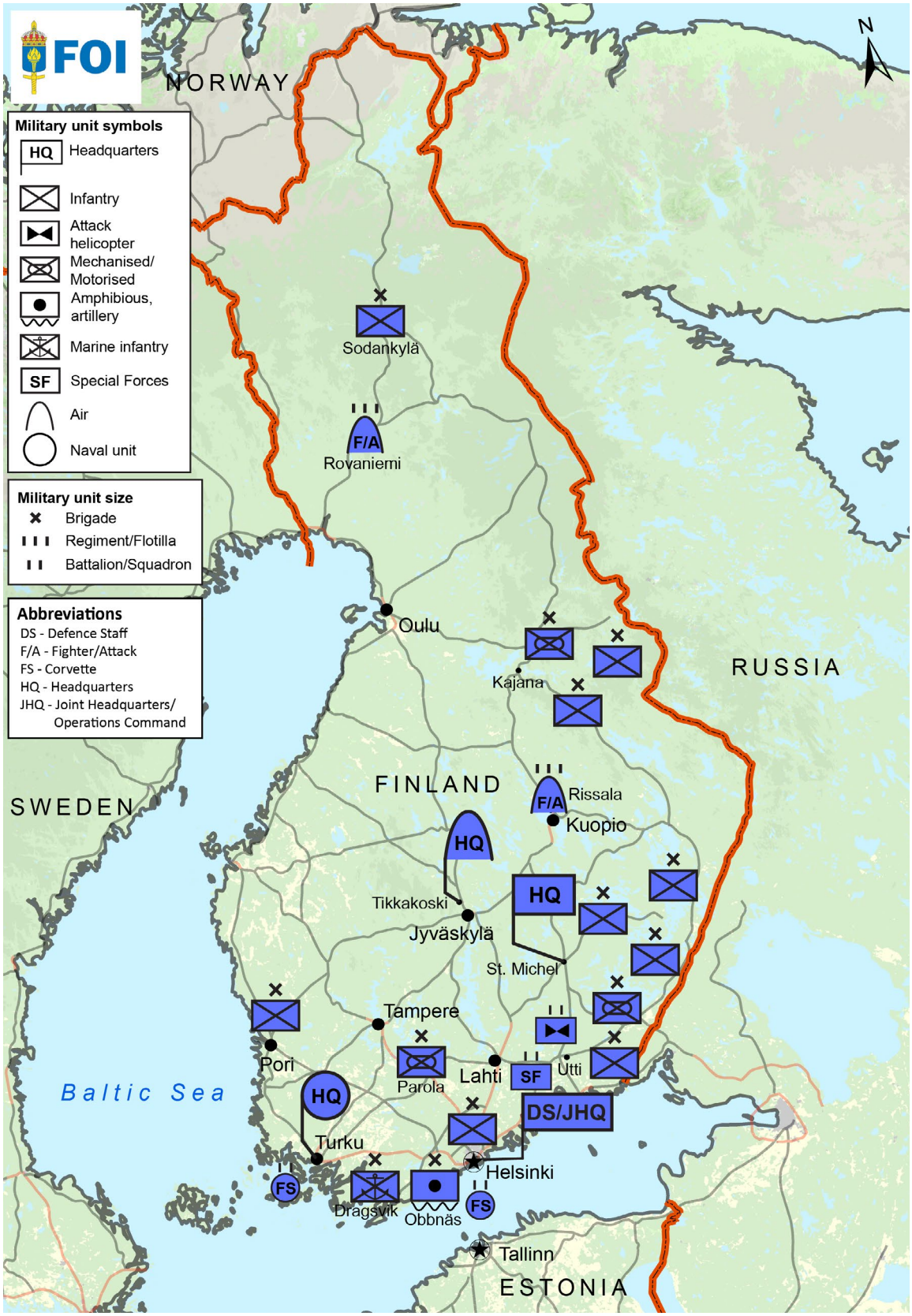
Previously spared the type of wholesale, dramatic shifts that most other European militaries have undergone twice in the past three decades, the FDF may find its coming circumstances particularly taxing. This is in part because the FDF needs to maintain high readiness, but also because its officer cadre is comparatively small, with little redundancy. Naturally, the adaptations will vary from routine to fundamental shifts, to include introducing more of the same, for example regarding resources and exercises, as well as implementing completely new systems and NATO membership. While the FDF has a dedicated cadre, friction will inevitably arise, for instance, over costs, design, deliveries, or personnel bottlenecks. The fact that Finland lacks the broad and deep defence industrial base of Sweden, for instance, may also complicate bringing some of the high-end systems to FOC. However, given a respite by a weakened Russia, and with defence treated as a genuine national priority, these challenges are ultimately resolvable.

When the strategic acquisitions eventually become fully operational, they will improve several capabilities of the FDF. The Pohjanmaa will have medium-range air defences, anti-ship missiles, soft-kill self-defence, mine-laying, ASW capabilities, and longer range.[121] The F-35 will presumably improve not only the FDF's ISTAR and EW capabilities significantly, but also anti-ship and dynamic ground targeting.[122] Crucially, the AARGM-ER anti-radiation missiles will provide a DEAD/SEAD capability in operationally relevant numbers; this is a niche capability in Europe, and would be critical in the early phases of a war in the Baltic Sea region.[123] The David's Sling units will also plug a hole in the multilayered Finnish GBADs. To the extent that new sensors can be fused, this could also markedly improve situational awareness. Eventually, nascent cooperation with Estonia on coastal defence can enable sea control in the Gulf of Finland. Once Sweden has joined NATO, the combined ASW capabilities will also be greatly improved. Although currently not much discussed, more UAVs are likely to be introduced at different levels and for different purposes alongside C-UAS capabilities in the next five years. Hence, while the FDF has always been strong in mass, artillery and its will to fight, towards 2030 it may also have improved its long-range PGM capabilities in operationally relevant quantities within all three services. Combined, this will have improved the range, capabilities, options and firepower of the FDF, and ultimately, Finland's already considerable deterrent. ■

Table 5.2 Force structure of the Finnish Defence Forces

Force	Organisation in 2023	Major reforms towards 2030
Joint	FDF Command Joint Headquarters The Defence Forces Logistics Command The FDF C5 Agency Finnish Defence Intelligence Agency	
Army	2 mechanised brigades 2 armoured regiment battlegroups [a] 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] 3 logistics regiments	Operational/manoeuvre units may differ from reporting. Regional and local troops are merged into local troops. Possible introduction of large quantity of UAVs. 96 self-propelled K-9 howitzers procured. [d] David's Sling GBADs under procurement.
Navy	1 naval brigade [e] 3 support elements 1 coastal brigade 1 marine infantry brigade Staff and logistics resources	Four multirole corvettes (Pohjanmaa class) will be delivered, nominally 2028.[f] The Rauma and Hämeenmaa class will be decommissioned.
Air Force	2 fighter/ground attack squadrons [g] (F/A-18C/D) Staff and base units [h]	F-35A Lightning II will replace F/A-18 C/D Hornet during 2026–2030. [i]

Sources/Remarks: (a) Same as IISS 2020, differs from other sources. 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. **(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 2023, p. 87–89. **(d)** It is currently not clear whether heavy howitzer batteries will be introduced, as originally planned. C.f. Finland, Finnish Defence Forces, 'Self-propelled howitzer K9 Thunder – From research to procurement programme', n.d. **(e)** IISS, The Military Balance 2023, p. 88–89. Consists of 8 fast-attack missile vessels (4 Hamina, 4 Rauma); 8 mine warfare vessels, including 3 Katanpää MCC, and 5 minelayers (2 Hämeenmaa, 3 Pansio), as well as an assortment of smaller and support vessels. **(f)** Gain, 'New Delays for Finland's Squadron 2020'. **(g)** As reported in Finland, Finnish Defence Forces, 'Confidence- and Security Building Measures. Vienna Document", accessed October 31, available at: https://puolustusvoimat.fi/documents/1948673/2014902/CBMFI23.pdf/082adc2c-4a8d-7d53-3809-ea81e98d6015/CBMFI23.pdf?t=1672404827995, 8. **(h)** Unless otherwise specified, this table is based on IISS, The Military Balance 2023, p. 87–89. **(i)** Finland, Airforce, 'Lockheed Martin F-35A Lightning II är Finlands nya multirollflygplan' 14 December 2021



Map 5.1 Overview of the Finnish Armed Forces and its basing

Remarks: The map covers major operational headquarters and manoeuvre forces. The map depicts an assessment of possible deployment of units, as the Finnish Defence Forces order of battle is not publically available.

Source: Design by Per Wikström

Endnotes

1 Finland, Statsrådet, Redogörelse om förändringarna i den säkerhetspolitiska miljön, Statsrådets publikationer 2022:19. 2022.

2 Finland, Ministry of Defence, 'Defence budget for 2023 continues to strengthen defence capability', 1 September 2022.

3 Defense Post, 'Finland's Future Pohjanmaa Corvettes to Receive Additional Weapon System,' 28 November 2023.

4 Unless otherwise stated, this chapter draws on Jonsson, Michael, 'Finland', in Frisell, Eva Hagström and Pallin, Krister (eds.), Western Military Capability in Northern Europe 2020. Part II: National Capabilities, FOI-R--5013--SE, (Stockholm: Swedish Defence Research Agency – FOI, February 2021), p. 39–50.

5 Conscription is voluntary for women and, in 2022, 1000 females were trained.

6 Interviews, Helsinki, March 2023.

7 Altman, Howard, 'Nordic Air Defence Pact Combines Forces of Hundreds of Fighter Aircraft', The Warzone, 24 March 2023.

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

9 Including Arrow 18, in Finland; Red Flag 2018, in the US; and Northern Wind 2019, in Sweden. The Finnish 2021 exercise, Arctic Lock, was set to have a sizable NATO participation, but was curtailed, due to the coronavirus pandemic.

10 Forsberg, Tuomas, 'Finland and NATO: Strategic Choices and Identity Conceptions', in Cottey, Andrew (ed.), The European Neutrals and NATO: Non-alignment, Partnership, Membership? (London: Palgrave MacMillan, 2018) p. 97–127; Finland, Government, Government's Defence Report, Publications of the Finnish Government 2021:8 (Helsinki: Finnish Government, 2021), p. 42.

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

12 Forsberg, Tuomas, 'Finland and Sweden's Road to NATO', Current History, vol. 122, no. 842, March 2023: 89–94, 89–90.

13 Langh, Sara, 'Sanna Marin: Finlands förhållande till Nato måste omvärderas i snabb takt, YLE, 2 April 2022.

14 Finland, Redogörelse om förändringarna, p. 6.

15 Interview 7, Helsinki, March 2023.

16 Interviews 4–7, Helsinki, March 2023.

17 Hakahuhta, Ari and Louhisto, Anna, 'Finlands Försvar kan vändas upp och ner – så kan vårt nya avtal med USA se ut', YLE, 12 August 2023.

18 Jonsson, Michael and Häggblom, Robin, 'Cooperation can make the NATO Lake a Reality', War on the Rocks blog, 29 August 2022.

19 Finland, Statsrådets försvarspolitiska redogörelse, Statsrådets publikationer 2017:6, 2017, p. 5.

20 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).

21 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).

22 C.f. Häggblom, Robin, '"The best artillery in Europe"', Corporal Frisk blog, 19 January 2017.

23 Dalsjö, Robert, 'Trapped in the Twilight Zone? Sweden between Neutrality and NATO', FIIA Working Paper 94, April 2017, 9; Pesu, Matti and Iso-Markku, Tuomas, The Deepening Finnish-Swedish Security and Defence Relationship: From Operative Cooperation to Strategic Interoperability. FIIA Briefing Paper 291 (Helsinki: FIIA, October 2020).

24 Smith, Hanna, 'EU-medlem och Ryssland granne: En analys av Finlands strategiska kultur', Nordisk Østforum 2018, no. 32: 87–103, 88–89.

25 Smith, 'EU-medlem och Ryssland granne', p. 90–94.

26 Iso-Markku, Tuomas, et al., Finland's NATO Accession: What Will Change? FIIA Comment 3 (Helsinki: FIIA, March 2023).

27 Interviews, Helsinki, March 2023.

28 Finland, Riksdagens kansli, Försvarets utmaningar på på lång sikt – Slutrapport från den parlamentariska utredningsgruppen, Riksdagens Kanslis Publikation 2014:4 (Helsinki: Riksdagens kansli, 2014), p. 16.

29 Finland, Statsrådets försvarspolitiska redogörelse 2017, p.11.

30 Salonius-Pasternak, Charly, Securing Finland: The Finnish Defence Forces are again focused on readiness, FIIA Comment Nr. 13, May 2017.

31 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.

32 Finland, Ministry of Defence, 'Supplementary budget strengthens defence capabilities', 20 May 2022.

33 Finland, Ministry of Defence, 'Defence Budget for 2023 to be submitted to Parliament', 19 September 2022

34 International Institute of Strategic Studies (IISS), The Military Balance 2023 (London: Routledge, 2023), 88–89; according to the FDF website, the salaried peacetime personnel in domestic duties are approximately 12,000, of which some 4000 are civilians; see Finland, Finnish Defence Forces, About us, 5 April 2023.

35 IISS, The Military Balance 2023, p. 89. This refers to personnel allocated to wartime FDF units. Not to be confused with the Finnish concept of aktiivi reservi, that denotes participation in voluntary defence organisations and training.

36 Finland, Finnish Defence Forces, 'Increased funding for the Finnish Defence Forces strengthens Finland's defence capabilities and the defence forces' preparedness', 6 April 2022; Ossa, Heljä and Koivula, Tommi, 'What Would Finland Bring to the Table for NATO?' War on the Rocks blog, 9 May 2022; as the FBG is subordinated to the FDF in wartime, its personnel and reserves are included in the FDF wartime organisation.

37 Finland, Finnish Defence Forces, Army units.

38 Some of the 100 Leopard 2A4 nominally 'in store' have been converted to bridge-layers, anti-aircraft guns, and mine-clearing vehicles. But some 80 Leopard 2A4s are likely in service; Häggblom, Robin, 'Free the Leopards', Corporal Frisk blog, 15 January 2023.

39 IISS, The Military Balance, p. 88.

40 Finland, Government's Defence Report, p. 8.

41 Finland, Finnish Defence Forces, 'Local Defence Exercises', n.d., accessed 5 April 2023; YLE, 'Finnish Army to conduct local defence drills across the country', 21 February 2023.

42 Interviews, Helsinki, March 2023.

43 Finland, Government's Defence Report, p. 21.

44 Finland, Finnish Defence Forces, 'The Finnish Defence Forces has received the total delivery of the Main Battle Tank Leopard 2A6', 25 October 2019; a first batch of 48 K9 was procured in 2017. In November 2022, another 48 were ordered; Finland, Finnish Defence Forces, 'More pieces of the self-propelled howitzer K9 to the army', 18 November 2022; Ossa and Koivula, 'What Would Finland Bring'.

45 For instance, K9 artillery and long-range MLRS munitions. C.f. Finland, Government's Defence Report, p. 31.

46 Finland, Ministry for Foreign Affairs, Government Report on changes in the security environment, Publications of the Finnish Government 2022:20, May 2022, 15–18.

47 Army Technology, 'Finland exercises contract option to procure more K9 howitzers', 21 November 2022.

48 Army Technology, 'Finland signs agreement to buy pre-series Patria 6x6 vehicles', 31 January 2022. Estonia was initially part of this order, but eventually withdrew and procured APCs from a Turkish manufacturer.

49 Häggblom, Robin, 'Finnish Weapons for Different Purposes', Corporal Frisk blog, 6 December 2022; The GMLRS order alone could include over 400 pods, for a total cost of almost $ 660 million, in 2021 and 2022.

50 C.f. Häggblom, 'Finnish Weapons'; as Häggblom points out, the quantity Finland procured is equivalent to the average, global, annual production in peacetime, even though the current production is greater; Jonsson, Michael and Norberg, Johan, 'Russia's War Against Ukraine: Military Scenarios and Outcomes', Survival 2022, vol. 64, no. 6, 5 December 2022: 95.

51 Finland, Ministry of Defence, 'Long-range 155mm ammunition to be procured for the Defence Forces', 28 September 2022; Finland, Ministry of Defence, 'Defence Forces to procure 155mm special munitions', 24 February 2023.

52 Shephard News, 'Aeronautics to upgrade Finland's small UAS fleet as country cements NATO entry', 4 April 2023; IISS, The Military Balance, p. 88; Finland, Finnish Defence Forces, 'Unmanned Aerial Systems (UAS) in Battle Group Reconnaissance – Thoughts on capability requirements and use', 25 August 2017; Finland, Finnish Defence Forces, 'Common fighting spirit and knowledge as special assets', 4 November 2017.

53 Finland, Finnish Defence Forces, 'Finnish Defence Forces to build UAS capability', 11 April 2022; Finland, Government's Defence Report, p. 31.

54 Ibid.

55 Finland, Finnish Defence Forces, 'Finnish Defense Forces is Testing Unmanned Aerial Systems', 1 July 2021; Finland, Finnish Defence Forces, Huvudstaben, 'Testningen av försvarsmaktens obemannade luftfartygssystem fortsätter', 16 June 2022.

56 Finland, Ministry of Defence, 'New Long-Range Air Defence System; Finland, Army, 'High-altitude capability for ground-based air defence to progress', 5 March 2022; Finland. 'New Long-Range Air Defence System'.

57 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).

58 Häggblom, 'Finnish Weapons'.

59 Finland, Finnish Defence Forces, Brigade-level units, n.d.

60 Huhtanen, Jarmo, 'Puuttuva pelote', Helsingin Sanomat, 12 August 2023.

61 IISS, The Military Balance 2023, p. 88; Häggblom, Robin, 'My Mines and those of my Brother', Corporal Frisk blog, 15 July 2021.

62 Häggblom, 'My mines'; Häggblom, Robin, 'Reach out and touch someone – at 40 km', Corporal Frisk blog, 11 September 2019.

63 Naval News, 'Finnish Navy Receives 4th and Final Hamina-Class FAC', 15 September 2022.

64 Finland, Finnish Defence Forces, 'Marinen tog emot den första robotbåten av Hamina-klass som genomgått livstidsförlängning', 15 January 2020.

65 Army Technology, 'Eurospike to supply Spike guided missiles to Finland', 30 January 2023.

66 Häggblom, Robin, 'Though She be but Little She is Fierce – Minesweeping Capability 2030', Corporal Frisk blog, 12 February 2022.

67 Gain, Nathan, 'New Delays for Finland's Squadron 2020 Pohjanmaa Corvette Program', Naval News, 4 November 2021.

68 Naval News, 'Finnish navy lifts veil on its future anti-ship missile: The Gabriel V', 14 December 2019; Finland, 'Marinen tog emot'.

69 Draper, Lucy, 'Russia violates Finnish airspace for the sixth time in a year', Newsweek, 7 October 2015.

70 Finland, Finnish Defence Forces, 'Air force units', n.d.

71 Häggblom, 'Finnish Weapons'.

72 Finland, Airforce, 'Lockheed Martin F-35A Lightning II är Finlands nya multirollflygplan', 14 December 2021.

73 Jennings, Gareth, 'US approves AARGM-ER sale to Finland', Jane's Defence, 24 October 2023.

74 Lindqvist, Marcus, 'Kan Finland donera sina Hornet-stridsplan till Ukraina? "Folk har inte någon uppfattning om hur komplicerat det är"', Hufvudstadsbladet, 13 March 2023.

75 Häggblom, Robin, 'F-35A Lightning II – JF is coming', Corporal Frisk blog, 7 July 2023.

76 Finland, Finnish Defence Forces, 'The Finnish Defence Forces Logistics Command', n.d., accessed 9 October 2023.

77 Finland, Finnish Defence Forces, 'Finnish Special Operations Forces to be Consolidated Under Utti Jaeger Regiment', n.d., accessed 9 October 2023.

78 Finland, Finnish Defence Forces, 'Facts about Utti Jaeger Regiment', n.d., accessed 9 October 2023.

79 Finland, Finnish Defence Forces, 'Finnish Defence Forces C5 Agency', accessed 9 October 2023.

80 Finland, Finnish Defence Forces, 'Applying for cyber conscript training', n.d., *https://intti.fi/en/cyber, accessed 9 October 2023*.

81 Finland, Statsrådet, 32–34, 29.

82 Finland, Finnish Defence Forces, About us; Finland, 'Increased funding for the Finnish Defence Forces'.

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

84 Partial exceptions could include units into which the Leopard 2A4s have been organised. Similarly for heavy howitzer batteries into which K9s were meant to be organised, and similarly for David's Sling GBADs.

85 Finland, Finnish Defence Forces, 'Försvarsmaktens plan för internationella övningar under 2017 har godkänts', Huvudstaben, 25 November 2016.

86 Altman, 'Nordic Air Defence Pact'; Jonsson and Häggblom, 'Cooperation can make the NATO Lake'.

87 C.f. Finland, Government Report on changes,16.

88 'Intti muuttuu – tarpeesta vai tasa-arvosta?', Mighty Finland blog, accessed 31 October 2023.

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

90 Häggblom, 'Free the Leopards'.

91 Finland, Government's Defence Report, 21.

92 C.f. Dalsjö, Robert, Några observationer från kriget i Ukraina av relevans för svenskt försvar, FOI Memo 7970 (Stockholm: Swedish Defence Research Agency – November 2022), p. 6.

93 Sundman, Robert, 'Häkkänen uskoo Israelin kanssa tehtyjen asekauppojen toteutuvan sovitusti', Helsingin Sanomat, 29 October 2023.

94 The Finnish defence industry is smaller relative to GDP and population than its Swedish counterpart, but comparable to the Norwegian one. C.f. Olsson, Per and Nordlund, Peter, Effektiv materielförsörjning: Nordiska länders strategi, organisation och försvarsindustri, Report FOI-R--4452--SE (Stockholm: Swedish Defence Research Agency, August 2017), p. 33–37.

95 Patria, 'Patria in brief', n.d., accessed 3 April 2023. Patria owns 50% of Norwegian munitions manufacturer Nammo, and over 60% of FDF maintenance partners Millog and Millworks, and is in turn 50% owned by Norwegian Kongsberg Defence and Aerospace.

96 Association of Finnish Defence and Aerospace Industries, 'AFDA Facts and Figures 2020', p. 98.

97 Finland, Army, 'Building up capability in cooperation', n.d., accessed 31 October 2023.

98 Salonius-Pasternak, Charly, Defence Innovation: New Models and Procurement Implications: The Finnish Case, Ares Policy Paper No. 65, March 2021, p. 7.

99 Finland, Ministry of Defence, 'Finland to deliver more defence materiel to Ukraine', 20 January 2023.

100 Finland, Ministry of Defence, 'Finland donates defence materiel assistance to Ukraine including more of mine-clearing Leopard 2 tanks', 23 March 2023.

101 Finland, Ministry of Defence, 'Finland donates defence materiel'.

102 Malyasov, Dylan, 'Finnish-made armored vehicles spotted in Ukraine', Defence Blog, 28 September 2022; Preussen, Wilhelmine, 'Finland to send record €400M military aid package to Ukraine', Politico, January 2023. Likely candidates are the remaining Soviet-calibre legacy artillery in Finnish service (i.e., 152mm and 122mm). For an excellent review, see Häggblom, Robin, 'Finland Could Do More', Corporal Frisk blog, 17 April 2022.

103 Häggblom, 'Free the Leopards'; Hakahuhta, Ari and Auvinen, Pirjo, 'Lähde Ylelle: Suomi harkitsisi taistelupanssarivaunujen lahjoittamista Ukrainalle, mikäli useat maat aikoisivat samaa', YLE, 10 January 2023.

104 See section 1.6 for the methodology behind the assessment of operational capability.

105 IISS, The Military balance 2023, p. 88.

106 IISS, The Military balance 2023, p. 87-89; While previous analyses suggested 6 months were needed for full mobilisation, readiness has since improved. Finland, Government's Defence Report, p. 19.

107 Finland, Försvarets utmaningar, p. 4.

108 Finland, Government Report on changes, 15–16. The report argues that the Ukraine war 'proved that the basis on which we have developed our defence capabilities is right'.

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

110 Salonius-Pasternak, Charly, 'Why Finns Joined the Fight', Engelsberg Ideas, 10 May 2023.

111 Finland, Government Report on changes, p. 18. This is presumably, in part, an implicit reference to the cooperation between Swedish and Finnish coastal rangers/marine infantry.

112 Naval News, 'Finnish navy lifts veil on its future anti-ship missile: The Gabriel V', 14 December 2019; Finland, 'Marinen tog emot'.

113 Jonsson and Häggblom, Cooperation can make the NATO Lake'.

114 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, p.10.

115 Häggblom, 'Different approaches', 123-148.

116 Dalsjö, Robert, 'Russian Airpower in Ukraine – Menace or Nuisance?" Wavell Room blog, 24 May 2023.

117 Finland, 'Government Report on changes ', p. 15; the report argues that the Ukraine war 'proved that the basis on which we have developed our defence capabilities is right'. Cranny-Evans, 'Defence in depth'; Jonsson and Gustafsson, 'Färdplan för tillväxt'.

118 As noted above, this could include the organisation of K9s, Leopard 2A4s and David's Sling GBADs.

119 Steve Erlanger, 'Finland Raced to Join NATO. What Happens Next Is Complicated', New York Times, 25 September 2023.

120 Finland, Statsrådets försvarspolitiska redogörelse 2017, p. 25.

121 Ibid.

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

123 Jennings, 'US approves AARGM-ER'.

6. Estonia

Maria Engqvist

Since the end of the 1990s, Estonia has pursued a security policy relying upon two pillars: strengthening its national defence capabilities and fostering strong alliances, particularly NATO and, to some extent, also the EU. Regionally, the three Baltic countries consider themselves to constitute a single defence space. This holistic view is underlined in the Estonian Security Concept, and is evident in joint defence-policy statements and procurement efforts.[1] The modus operandi of the Russian Armed Forces in Ukraine has, according to Estonian decision-makers affirmed Estonia's security and defence policy, while highlighting the need for adjustments and reinforcement in its military capabilities. Although Estonia's defence modernisation process predates Russia's invasion of Ukraine, the latter has accelerated rather than shifted its focus.

6.1 Security and defence policy

Estonia, a small country on NATO's Eastern flank, has, since regaining independence from the Soviet Union in 1991, relied upon a two-pronged approach to safeguard its sovereignty. Drawing from its bitter experience from the Second World War, and the subsequent Soviet occupation, Estonia places paramount importance on developing robust national-defence capabilities and establishing alliances and partners, particularly with NATO, the EU, and the US.[2] The core tenet of Estonia's security policy emphasises strong national-defence capabilities on land, complemented by allied support in the air and sea domains.

The Russo-Ukrainian War has underscored the already entrenched threat perception in all three Baltic States, with Russia seen as the pacing threat to Estonian security.[3] The Russian invasion of Ukraine in 2022 accelerated Estonia's existing policy to bolster national defence, including plans to modernise the Defence Forces and overall capabilities.[4] Estonian decision-makers, heavily influenced by the war, are actively implementing the initial lessons learned. Strengthening civilian-defence capabilities is an integral part of this process, drawing on explicit lessons from Ukraine, as well as on its national doctrinal approach. These notions are also emphasised in Estonia's National Security Concept from 2023, the principal doctrinal document guiding the country's national security and defence policy.[5]

A doctrinal shift has, however, occurred as Estonia has abandoned the concept of fighting to delay the adversary and is now focussing on achieving a bespoke deterrence by denial. The strategic focus now centres on defending Estonia's territory at all costs, employing all available means.[6] The task of the EDF has thus transformed from employing delaying actions through anti-tank warfare, while awaiting allied assistance, to stopping the enemy at the border. This shift is evident in the increased emphasis on the territorial defence units and reserves, with plans to double their size by the end of 2023. Although achieving this objective is unlikely in reality, it is meant to signal to the adversary that their intended efforts will be painful, regardless of the end state.

Estonia's Defence Forces maintain a traditionally strong role in Estonian society, with a popular consensus on the necessity of an increased political focus on defence issues.[7] While the Russian-speaking population may face heightened suspicion since the invasion, there is a relatively high level of willingness within this group to defend Estonia in the case of a national crisis or state of war.[8]

With limited resources, Estonia prioritises its close ties with international partners, particularly through its NATO and EU memberships, which form the basis of the Estonian security-policy framework. The US and the UK are key bilateral partners, with the UK-led eFP playing a central role in Estonia's defence capability and readiness. From an Estonian point of view, it is desirable to deepen the already close military-political relationship with the UK in the coming years, though uncertainties persist regarding future UK funding within the eFP-framework.[9] Furthermore, Estonia has actively contributed to out-of-area operations since joining NATO in 2004. It is an appreciated partner, demonstrating commitment to international crisis response in regions such as Kosovo, Iraq, Afghanistan, and Mali, a commitment that has continued since Russia's invasion of Ukraine in 2022.[10]

The planned expansion of the Estonian Defence Forces (EDF) faces limitations stemming from the country's economic size and demographic trajectory. With a population of approximately 1.3 million, recent growth

is driven by immigration rather than increased birth rates.[11] The 3 percent GDP goal for defence spending is seen as a minimum, with efforts to surpass it from 2024 onwards. This financial commitment allows Estonia to address neglected areas, such as acquiring Ground-Based Air Defence (GBAD), previously constrained by budget considerations.[12]

6.2 Military expenditures

In 2023, Estonia spent nearly USD 1.2 billion on its military, in current prices. This marks a 156 percent increase since 2005, in fixed prices, as seen in Figure 6.1. The country allocated 2.7 percent of its GDP to military spending in 2023, up from 1.5 percent in 2005. While military expenditure experienced a brief decline after the 2008 financial crisis, it swiftly recovered. In 2023, approximately 23 percent of Estonia's military spending was allocated to personnel, 32 percent to equipment, 7 percent to infrastructure, and 38 percent to other types of expenditure. Estonia's stated goal is to reach 3.2 percent of GDP by 2024 and maintain this level of spending in the coming years (see Figure 6.1). However, Estonia is grappling with one of Europe's highest inflation rates, and taxation pressure will have increased somewhat in 2023, albeit from a relatively low level. Financial support from the US and EU is deemed crucial for sustaining the goals set out in Estonia's national defence plan.[13] In 2022 alone, the U.S. provided Estonia with USD 140.5 million in Foreign Military Financing.[14]

6.3 Armed Forces

The EDF is essentially a reserve-force organisation, relying heavily on its ability to train and maintain a well-educated reserve force primarily through its national conscription system. The main task of the EDF is to deter military threats and defend Estonia in war.[15] Over the past thirty years, Estonia has evolved into a land warfare-oriented nation, reflected in the dominance of the Army and Defence League within the EDF organisation. The anticipation of a potential land attack primarily from the east shapes this emphasis. The Estonian Navy and Air Force are anaemic in comparison, but they play crucial roles in supporting national defence as a whole and enabling Allied activities and reinforcement. Approximately 100 personnel currently staff the EDF headquarters, located in Tallinn.[16] Approximately 37,000 personnel make up the so-called rapid response readiness force. Out of these, 4,200 are in active service, and the EDF trains roughly 3,500 conscripts annually.[17] There are plans to increase the number of annual conscripts in the coming years, although the EDF has faced challenges in meeting this goal for some time.[18]

In December 2022, following the NATO Madrid Summit, a division (ESTDIV) was formed to improve the national defence organisation structure and to better

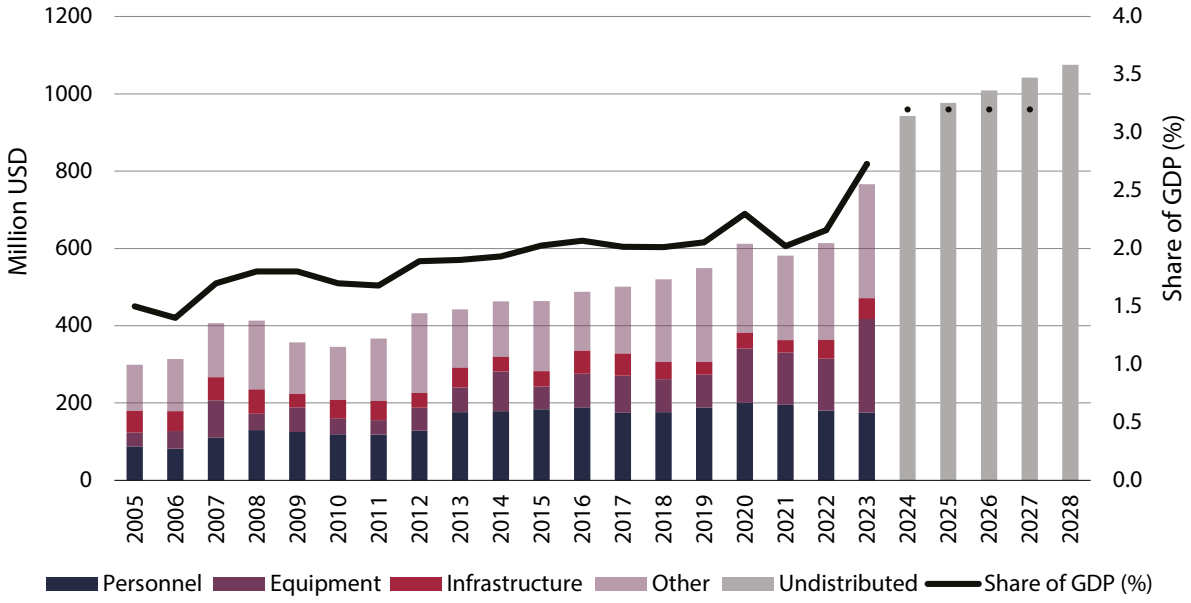


Figure 6.1 Military expenditures of Estonia 2005-2028 in 2015 constant prices.
Source: NATO (2010, 2016, 2023).

align with the NATO chain of command. The implementation of the division structure is underway and is scheduled to be finalised by 2024.[19] The implementation of the division structure does not change the basic constitution, or material stock, of the EDF per se.

Army

The Estonian Army is the core of the EDF as an organisation, comprising approximately 1,500 army professionals and 2,600 conscripts. The newly established division (ESTDIV) includes the 1st and 2nd Infantry Brigades, a logistics battalion, an artillery battalion, the Army HQ and Signals Battalion, and a 3rd allied brigade, assigned by the UK.[20] The 1st Infantry Brigade, situated in Tapa, is the main unit of the EDF. It is currently partially mechanised, with the Scouts Battalion, Kalev Battalion, and Viru Battalion operating infantry fighting vehicles (CV9035s, as well as the Patria Pasi 180 and 188).[21] The brigade houses one tactical group with rapid response capability within the professional Scouts Battalion.[22] The UK-led eFP Battlegroup is integrated in the 1st Brigade.[23] The wartime task of the 1st Brigade is to defend the Estonian territory north of Lake Peipus. The Estonian Air Defence battalions are currently under the Army; they are not organised under the EAF, and are within the 1st Infantry Brigade in Tapa.[24]

The 2nd Infantry Brigade is headquartered in Luunja, but its peacetime units, two battalions and one company, are located in Taara. During wartime, the 2nd brigade is tasked with defending the area south of Lake Peipus. According to the National Defence Development Plan until 2031, the 2nd Brigade is slated for reinforcement and partial mechanisation, a process that is currently in progress.[25] A key political question for enhancing the capabilities of the 2nd Brigade is the planned expansion of the Nursipalu training area, which would triple in size to 9,000 ha.

Estonia also hosts allied army units and the UK-led eFP battlegroup, comprising approximately 1,300 troops, has been stationed in Estonia since 2017, with regular rotations from the UK.[26] Denmark had around 160 soldiers deployed in Estonia as part of the eFP from September 2022 to March 2023. However, the continuation of Danish participation remains uncertain.[27]

Navy

The main tasks of the Estonian Navy are maritime surveillance, and mine countermeasures. As of 2023, the Navy comprised 400 sailors, including 300 professional seamen and 100 conscripts.[28] The mainstay of the Navy is its mine warfare and countermeasures ships: one Lindormen-class, and three Sandown-class minehunters. As of 2019, the three Sandown-class ships have undergone modernisation.[29]

In 2021, a major reform was announced: the fleet of the Police and Border Guard (Politsei- ja Piirivalveamet, PPA) would merge with and organise under the Navy by 1 January 2023. In 2022, the Estonian parliament approved the transfer of responsibility for maritime situational awareness from the PPA to the Navy. As a part of this change, four PPA vessels and all PPA coastal surveillance radars were transferred to the Navy with the aim of consolidating and strengthening the country's limited capabilities in the maritime domain.[30] The fleet is old, and it is estimated that the majority of the ships in this merged fleet, including the mine-countermeasures vessels, will have to be replaced within 15–20 years.[31]

In 2021, Estonia signed two contracts improving its naval capabilities and the common Baltic coastal defence.[32] Estonia is acquiring sea mines, the Finnish PM16 Blocker, and surface-to-surface missiles, the Singaporean-Israeli Blue Spear 5G missile.[33] The Blue Spear 5G is scheduled for delivery in late 2023, and is likely to be deployed at the Ämari Air Base. Estonia has chosen the truck-mounted variant of Blue Spear 5G.[34] As the system becomes operational, Estonia will have the capability to defend not only its own coastal line, but also portions of those belonging to its Baltic neighbours, Latvia and Lithuania.

Air Force

The Estonian Air Force (EAF) comprises approximately 400 professionals, and its main tasks include air surveillance and the operation of key airfields and bases, particularly the Ämari Air Base, south of Tallinn. The EAF headquarters is located in Tallinn. While the EAF does not operate fighter jets, it maintains two small/light transport planes (M28 Skytruck), two jet-trainer aircraft (Aero L-39), and two patrol helicopters (Robinson R44).[35]

Albeit small, the EAF serves as an important enabler of NATO's Baltic Air Policing mission. The lack of long-range air defences has been a longstanding security concern, especially since Russia's invasion of Ukraine in 2022. Since 2019, Estonia has been actively pursuing medium-range air-defence systems to enhance its capabilities.

Additionally, Estonia is jointly procuring the short-range man-portable air-defence system, PIORUN, in collaboration with Poland.[36] Currently, Estonia operates short-range portable missiles (Mistral) and twin-barrelled Soviet anti-aircraft cannons (ZU-23-2) integrated with Saab Giraffe AMB radars.[37]

The limited capabilities of existing air-base facilities have been in focus in Estonia's defence development plans in recent years. Within the framework of

the US EDI (European Deterrence Initiative), the US has invested close to USD 11 million in improving infrastructure at Ämari Air Base.[38] The base is a crucial hub on NATO's Eastern Flank, hosting rotating NATO allies year-round and around the clock. It will undergo renovation starting in 2024, scheduled to conclude in 2025, during which NATO's Air Policing Mission will temporarily shift to Lielvārde Air Base, in Latvia.[39]

Joint assets

The Joint HQ for the EDF, located in Tallinn, is staffed with approximately 100 personnel. The Estonian Special Operations Forces (ESTSOF) focuses on unconventional warfare, encompassing special reconnaissance, surveillance, direct action, and military support. It is a separate unit reporting directly to the Commander of the Defence Forces.[40] The Military Intelligence Centre is tasked with collecting military intelligence and coordinating intelligence efforts for other units within the EDF, as well as for the Minister of Defence, the Commander of the EDF, and his deputy. The Cyber Command, also a joint asset of the EDF, executes operations in cyberspace, provides cyber defence, and maintains situational awareness. Additionally, it collaborates with the Estonian Contingent at the NATO Cooperative Cyber Defence Centre of Excellence, in Tallinn.[41]

The Support Command, consisting of 6 units, coordinates logistical support to the EDF, both nationally and internationally, from its HQ in Tallinn. It includes a Logistics School, for logistics development and education; a Movement and Transport Service, which plans and arranges troop movements; a Supply Battalion for managing and maintaining defence materiel; a Personnel Support Service Centre; and a Medical Centre.[42] In times of war, the Commander of the Defence Forces leads the Defence League and territorial defence, essential joint assets of the EDF.

Defence League

The Defence League is a key component of Estonia's national defence. According to the Estonian Defence League Act, the purpose of the Defence League is to "enhance, by relying on free will and self-initiative, the readiness of the nation to defend the independence of Estonia and its constitutional order".[43] It comprises roughly 18,000 volunteers between the ages of 17–60, organised into 15 defence districts (e.g., one battalion for each Estonian county). Affiliated organisations, including the Women's Voluntary Defence Organization, Young Eagles, and Home Daughters, brings the total number of volunteers to around 29,000. Half of the Defence League has wartime tasks akin to a regular army, while the other half supports and protects critical infrastructure. The Defence League members regularly participate in annual exercises together with not only the EDF, but also with allies, such as the Swift Response 2023.[44] Despite having recently received upgraded and new equipment, parts of the Defence League suffer from shortages of materiel, such as uniforms, due to Estonia's extensive aid to Ukraine. Replacing donated materiel, and strengthening the overall capability of the Defence League, are priorities of the current Estonian government.

Personnel

As earlier mentioned, the EDF is essentially a reserve force organisation. This dimensions its personnel policies as well as the activities of the Defence Forces. Comprising professional officers, such as the Scouts Battalion, and volunteers (the Defence League and its respective branches), the EDF has since 2022 intensified its efforts to conduct more rehearsal exercises for reservists, with an additional 20,000 called up for training in 2023. The total enrolment in the national mobilisation registry is 230,000 people.[45] Approximately 37,000 personnel are on active duty and active reserve, ready for immediate mobilisation (rapid response readiness, deemed ready within approximately one week), with the Scouts Battalion and the eFP group serving as available rapid response units. According to the National Defence Development Plan, Estonia seeks to increase the number of rapid response readiness units to two brigades by 2031.

The number of conscripts fluctuates annually, roughly 3,200 per year before 2022. Estonia's National Defence Development Plan stipulates that the number of conscripts shall increase to 4,000 annually by 2026. However, Estonia's demography constrains the country's ability to achieve higher conscription numbers in the future.[46] In 2023, the government decided to extend the conscription service period from 8 to 11 months, thus addressing the existing one-month gap between the two annual drafts.[47]

Exercises are carried out on a regular basis. The largest annual exercises in 2023 were Spring Storm and Hedgehog, involving approximately 14,000 participants from different defence branches, conscripts, and allied units, with half coming from the reserve. These major exercises have a 120-day notice period.[48] The snap exercise, Quill, is dedicated to testing the abilities of the territorial defence forces and the EDF's chain of command. Typically conducted with little warning, it requires special government approval upon the EDF commander's request. It is small-scale exercise, which in 2023 was carried out with approximately 600

reservists and 300 members of the Defence League.[49] These snap exercises provide insights into the EDF's ability to mobilise reserve forces, with roughly 60 percent present within 48-hours' notice.

A pressing matter for Estonian decision-makers is to convert the lessons learned from Ukraine into measures useful for the defence of Estonia. Estonia aims to double the size of the territorial defence units from 10,000 personnel to 20,000 by 2023. To achieve this, reservists will be called up for training in the autumn of 2023, and an additional EUR 30 million have been allocated for equipment procurement.[50]

Materiel

Estonia's defence ambitions are constrained by its small economy, particularly in materiel and procurement. Historical reliance on donated or discounted equipment from allies has left the country with an aging stock, notably in the Navy and towed artillery. Efforts are underway to upgrade the existing platforms, including the CV9035.The decision to supply Ukraine with defence materiel has, however, expedited existing efforts to acquire new systems. Notably, Estonia donated its core defence capability, towed artillery, to Ukraine before receiving the equivalent number of recently procured South Korean K9 units. This was a strategic risk that the Estonian leadership accepted in light of the fact that it had previously procured 36 pieces of K9 scheduled for delivery in the coming years. Currently, 18 have already been delivered, with 12 in active service, and the remaining 18 are set for delivery by 2026.[51]

As of 2023, Estonia was rapidly acquiring new materiel, with 54 percent of military expenditures in 2023–2026 allocated to procurement.[52] Before Russia's invasion of Ukraine, GBAD was not prioritised in the funding; this has now changed. Efforts have been made to strengthen the coastal defence with sea mines and Blue Spear 5G coastal SSM defence missiles. Additionally, Estonia is enhancing its indirect fires capability at the divisional level by procuring MLRS and long-range loitering-munitions units scheduled for delivery in 2024–2025, including HIMARS from the US, and long-range loitering munitions from Israel Aerospace Industries (IAI).[53] Substantial acquisitions of logistics materiel, particularly trucks, and a significant quantity of ammunition have also been made. Estonia's defence industry, though small and specialised, is crucial for innovation, the promotion of Estonian high-tech capabilities, and supporting the life cycle management of the EDF. Key companies, such as the robotic-vehicle manufacturer, Milrem Robotics, and the anti-UAV developer, Marduk Technologies, have sold systems that have been delivered to Ukraine, with Germany acting as an intermediary.[54]

Military support for Ukraine

Estonia's political and military leadership anticipated the invasion of Ukraine and acted swiftly to support it against Russia. The political and public support to assist Ukraine's war effort is relatively strong compared to that of many other European countries, and Estonia's donation has been substantial in relation to the size of its GDP. The support includes heavy arms, such as the entire stock of the Estonian towed artillery, 122mm D-30s and 155mm FH-70s, grenade launchers, mortars, MANPADS, tank mines, ammunition, and MRAP vehicles.[55] Additionally, as of spring 2023, Estonia had donated winter equipment and organised combat training for roughly 800 Ukrainian soldiers.

Estonia's substantial assistance to Ukraine competes with its efforts to enhance its own capabilities, posing a systemic challenge. As a small country with limited resources, its efforts to help Ukraine are made at the expense of other policy areas. The decision to prioritise defence efforts over other policy areas in the 2023 state budget reflects calculated risks accepted by Estonian leaders. At the moment, the Estonian population appears generally accepting of these concessions, recognising the strategic importance of supporting both national and Ukrainian defence efforts.[56]

6.4 Assessment of military capability

Current operational capability[57]

Estonia's small size defines its available military options. While lacking strategic depth and facing challenges in resisting a numerically superior enemy over time without allied support, being a small country nevertheless offers advantages. Smaller distances allow for more efficient deployment of available capabilities, reducing the need to cover extensive terrain.

Under the current circumstances, assuming a three months' notice, the majority of the EDF ought to be available for wartime operations, although the sufficiency of supplies and personal equipment is uncertain, in particular given the considerable support to Ukraine. The mobilised force would include the 1st and 2nd infantry brigades of the Army, deploying to their designated areas of operation, North and South of Lake Peipus. Since both the 1st and 2nd infantry brigades are mostly reserve-based, except for the all-professional Scouts Battalion in the 1st brigade, the level of readiness within these units varies.

Table 6.1 Personnel and materiel in the Estonian Armed Forces

Personnel/Materiel	Numbers in 2023	Major reforms towards 2030
Personnel		
Regular forces	~ 37,000	~
Conscripts	~3,600 (estimate for 2023, amount called in for service)	4,000 annually in 2026
Territorial defence units/Reserves	~10,000	~20,000 in late 2023
Defence League	~ 18,000	
Materiel		
Armoured combat vehicles	180 XA-180 Sisus (56) XA-188 Sisus (80) CV9035EEs (44)	
Heavy artillery pieces	12–18 K9 Thunder self-propelled howitzers	36 K9s procured in total, another 18 pieces to be delivered before 2026 HIMARS procured. MLRS procured.
Transport aircraft	M28 Skytrucks (2)	
Air defence	Mistral (unknown amount, short-range) Pioruns (300, short-range)	300 PIORUNs delivered (2024). Joint procurement with Latvia of SAMs.
Coastal defence		Blue Spear procured (unknown amount). Scheduled for delivery 2025-2026.

Sources/Remarks: ERR, https://news.err.ee/1608726247/estonia-to-raise-number-of-conscription-call-ups-to-more-than-4-000-by-2026; Lanoszka, Alexander, Sirotová, Jacqueline, Zaborowski, Marcin, 'Will the Eastern Flank be Battle Ready?', Globsec, 2023, https://www.globsec.org/what-we-do/publications/will-eastern-flank-be-battle-ready.

In addition, the quality of available reserve units for deployment depends on the time elapsed after completing conscription, or reserve training. Conscripts typically contribute to the rapid-response readiness force up to four years after completing training, forming wartime units with their respective training groups. After some time, factors such as the capacity to summon and train citizens in the reserve come into play, a capacity which is unclear. Nevertheless, at least the Scouts Battalion and the eFP battlegroup, both on high readiness alert, should be well prepared, perhaps even for offensive operations within three months, depending on the situation.

The operational status of Estonia's supporting units, especially the Artillery Battalion, is unclear due to ongoing modernisation and reconstitution resulting from substantial materiel donations to Ukraine. However, the K6 self-propelled howitzers in service should be deployable. The question of logistics supply will be crucial in the event of war or armed conflict. The availability of the Logistics Battalion within three months is fraught with uncertainty at the moment, for example because of the need for new trucks that are expected to be delivered in 2024.[58] The Defence League serves as a valuable supplementary resource, ready to support the regular units and fulfil its assigned tasks, particularly the defence of the region that the local unit is based in, upon receiving orders.

As both the Estonian Air Force and Navy are of a much smaller size than the country's Army, they have somewhat different operational tasks. Since the decision has been made to place the coastal defence missile, Blue Spear 5G, at the Ämari Airbase, the 400-strong Navy will be expected to carry out mine countermeasures and surveillance. As for the Estonian Air Force, a crucial task should be to guard and protect Ämari Air Base during a state of war in order to secure allied assistance. The level of readiness remains deliberately opaque, but given the humble size of the two defence branches, it is reasonable to believe that they, too, should be ready for wartime operations within three months' time.

In sum, Estonia has good cultural and organisational preconditions to effectively mobilise the majority of its Armed Forces within three months' time. The public's general will to defend Estonian sovereignty in the event of an invasion is deemed to be very high. The reserve-based system, with regular and ever-increasing rehearsal training, provides for flexibility in a country with limited resources. The EDF currently has roughly 230,000 people listed in the national mobilisation registry.[59] Questions persist, however, regarding the system's capacity to manage a mass-scale mobilisation effectively.

Future operational capability

Since 2022, Estonia has reallocated funds within its state budget in order to replace materiel that has been donated to Ukraine, and to modernise existing materiel and facilities, all key to increasing capabilities in the next couple of years. Overall, the focus remains on mechanisation, readiness, logistics improvement, development of infrastructure, and ammunition procurement.[60] These efforts aim to enable division- and brigade-level operations with allies.

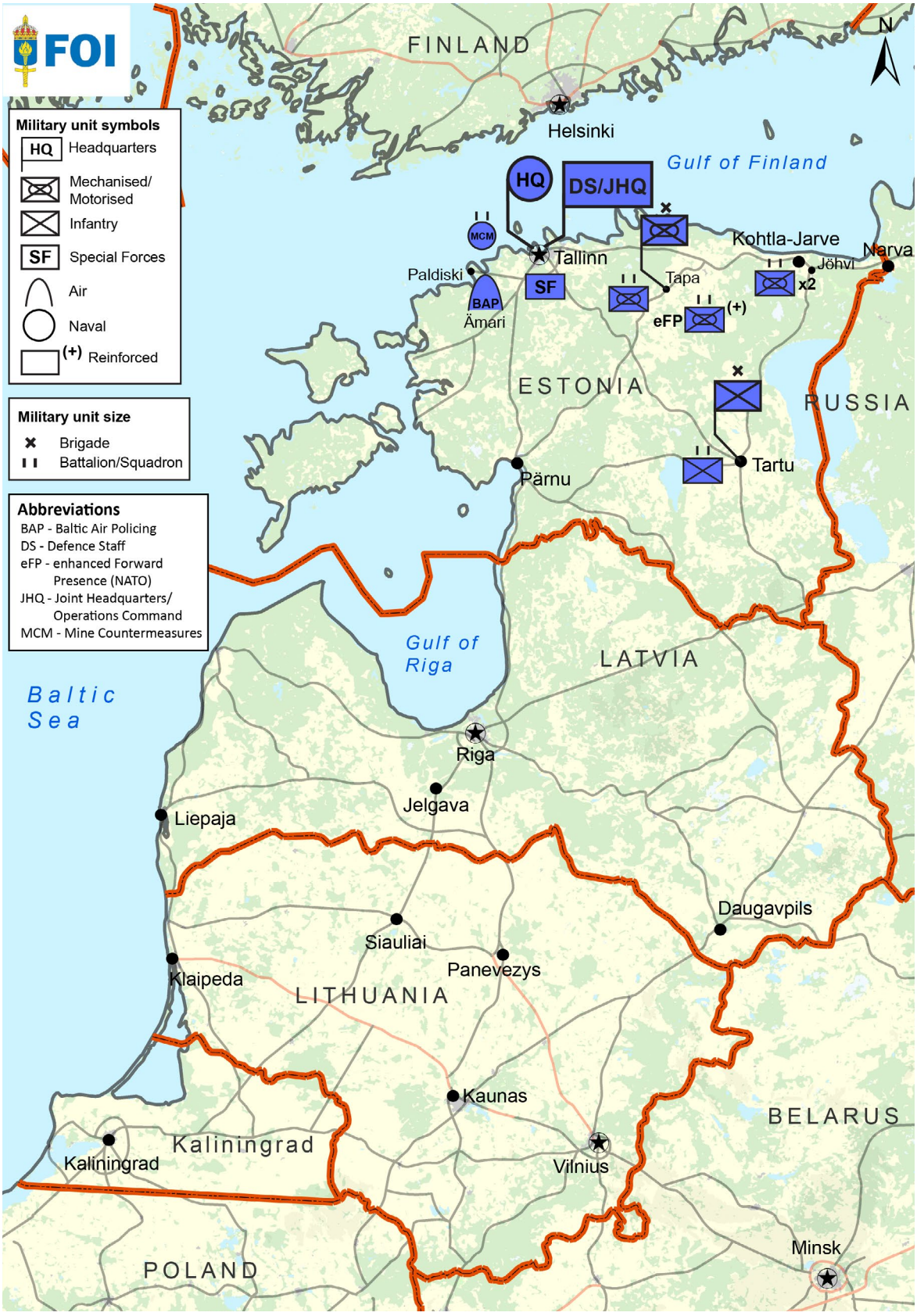
Despite intense procurement activities in 2022–2023, the delivery of ordered systems is expected to require up to six years, and perhaps even more. During this period, Estonia will rely on allied capabilities, rotating systems, and personnel, while progressively boosting its national capabilities. The procurement initiatives will qualitatively upgrade the existing inventory, addressing concerns about aging or donated systems. Some delays, primarily due to budget constraints, such as regarding GBAD, may be mitigated in the future through joint procurement with Baltic neighbours. The absence of air defence will remain a significant vulnerability until integrated solutions are operational in the EDF.

Up to 2030, however, Estonia is primarily expected to increase its land-warfare capability through reinforcement of its Army, together with notable, but not transformative, positive side effects on its Air Force and Navy. Overall, Estonia is expending effort on enabling activities with its allies. The new division structure of the EDF will, for example, facilitate NATO reinforcements. The renovation of the Ämari Air Base is also expected to be significant in this regard. Investment in the K6 self-propelled howitzer system, logistics components, and ammunition stocks contributes to Estonia's increased capability on land. With respect to this, the acquisition of the short-range man-portable air-defence system, PIORUN, as well as long-range loitering munitions, will also significantly improve the Estonian defence capability. Current efforts to strengthen the Defence League will also be important. Furthermore, the reorganisation of Estonia's Navy and the acquisition of surface-to-surface missiles will markedly enhance Estonia's coastal defence. Currently, there are no known plans to acquire new vessels to replace the aging Lindormen- and Sandown-class vessels that are used by the Navy; this question will inevitably need political attention in the future, alongside other areas of importance.

Demographic challenges, persistent since Estonia's independence in the early 1990s, continue to shape the growth of its Armed Forces. Hence, until 2030, Estonia faces limited prospects for significant force enlargement, with population growth driven mainly by immigration of non-Estonian citizens. Consequently, personnel increases up to 2030 are expected to be modest but stable. Recognising this, the political leadership and the Estonian Defence Forces have recently invested in reserve-force training to enhance overall readiness, a crucial factor given Estonia's conditions for building military capability. ■

Table 6.2 Force structure of the Estonian Armed Forces

Force	Organisation in 2023	Major reforms towards 2030
Joint	Estonian Division Headquarters Special Operations Forces (ESTSOF) Cyber Command Military Intelligence Centre Support Command Defence League	Implementation of divisional structure
Army	1st Infantry Brigade 2nd Infantry Brigade Logistics Battalion Signals Battalion Artillery Battalion	Mechanisation of the 2nd Infantry Brigade
Navy	Mine Warfare Squadron Coastal Defence Squadron Combat Service Support Squadron	Undergoing organisational reform (2023)
Air Force	Air Surveillance Wing Air Base (Ämari)	Ämari Air Base undergoing renovation, scheduled for completion in 2025



Map 6.1 Overview of the Estonian Armed Forces and its basing
Remarks: The map covers major operational headquarters and manoeuvre forces.
Source: Design by Per Wikström

Endnotes

1 Hurt, Martin, Jermalavičius, Tomas, Vargulis, Mārtiņš, Zdanavičius, Liudas, 'Baltic Defence Development. Adding value to the defence of the Baltic Sea Region', March 2023, International Centre for Defence and Security, *https://icds.ee/en/baltic-defence-development-adding-value-to-the-defence-of-the-baltic-sea-region/.*

2 Lawrence, Tony, 'Estonia: Size Matters', National Defense University Press, PRISM, vol. 10, no. 2, 10 March 2023, *https://ndupress.ndu.edu/Media/News/News-Article-View/Article/3323882/estonia-size-matters/*.

3 Kaitseministeerium, Defence Policy, *https://www.kaitseministeerium.ee/en/objectives-activities/defence-policy.*

4 Kaitseministeerium, National Defence Development Plan 2031, *https://kaitseministeerium.ee/en/national-defence-development-plan-2031*.

5 Kaitseministeerium, Defence Policy.

6 Hurt, Martin, Jermalavičius, Tomas, Vargulis, Mārtiņš, Zdanavičius, Liudas. 'Baltic Defence Development. Adding Value to the Defence of the Baltic Sea Region', March 2023, International Centre for Defence and Security, *https://icds.ee/en/baltic-defence-development-adding-value-to-the-defence-of-the-baltic-sea-region/*.

7 Lawrence, Tony, 'Estonia: Size Matters', National Defense University Press, PRISM, vol. 10, no. 2, 10 March 2023, *https://ndupress.ndu.edu/Media/News/News-Article-View/Article/3323882/estonia-size-matters/*.

8 Lawrence, 'Estonia: Size Matters'.

9 Billon-Gilland, Alice, Jermalavičius, Tomas, 'British Power in Baltic Weather: The UK's Role in Nordic-Baltic Security and UK-Estonia Defence Cooperation', International Centre for Defence and Security, *https://icds.ee/en/british-power-in-baltic-weather-the-uks-role-in-nordic-baltic-security-and-uk-estonia-defence-cooperation/.*

10 Lawrence, Estonia: Size Matters', p.24.

11 Statistics Estonia, Population, *https://www.stat.ee/en/find-statistics/statistics-theme/population.*

12 Hurt, Martin, Jermalavičius, Tomas, Vargulis, Mārtiņš, Zdanavičius, Liudas, 'Baltic Defence Development. Adding Value to the Defence of the Baltic Sea Region', March 2023, International Centre for Defence and Security, *https://icds.ee/en/baltic-defence-development-adding-value-to-the-defence-of-the-baltic-sea-region/*.

13 ERR, 'US Air Force completes US$ 10.8-million Ämari investment', 11 August 2020, *https://news.err.ee/1122683/us-air-force-completes-us-10-8-million-amari-investment*.

14 U.S. Embassy in Estonia, "Estonia Receives Foreign Military Financing from the United States", https://ee.usembassy.gov/2022-10-05/

15 Kaitseministeerium, 'Defence Policy'.

16 ERR, 'Maj.Gen. Veiko-Vello Palm appointed Estonian division commander', 16 January 2023, *https://news.err.ee/1608851900/maj-gen-veiko-vello-palm-appointed-estonian-division-commander.*

17 The Military Balance 2023, 'EDF'.

18 Ibid.

19 ERR, 'New division to help coordinate allied cooperation', 24 November 2022, *https://news.err.ee/1608798847/new-division-to-help-coordinate-allied-cooperation*.

20 EDF, *https://mil.ee/en/defence-forces/*.

21 ERR, '€200-million EDF armored vehicle procurement fast-tracked', 14 April 2022, *https://news.err.ee/1608565045/200-million-edf-armored-vehicle-procurement-fast-tracked.*

22 EDF, 'Scouts Battalion', *https://mil.ee/en/landforces/estonian-division/1st-infantry-brigade/scouts-battalion/.*

23 ERR, 'Brig. Giles Harris returns to command NATO eFP in Estonia', 1 April 2023, *https://news.err.ee/1608934436/brig-giles-harris-returns-to-command-nato-efp-in-estonia.*

24 Eesti Kaitsevägi. 'Üldinfo' *https://mil.ee/en/defence-forces/*.

25 ERR, '2nd Infantry Brigade commander: We won't be caught with our pants down', 7 February 2023, *https://news.err.ee/1608876926/2nd-infantry-brigade-commander-we-won-t-be-caught-with-our-pants-down.*

26 Brooke-Holland, Louisa, 'UK forces in Estonia', Research Briefing, House of Commons Library, 21 November 2022, *https://commonslibrary.parliament.uk/research-briefings/cbp-9639/#:~:text=Since%202017%20the%20UK%20has%20led%20a%20multinational%20battlegroup%20in%20Estonia*.

27 Interviews in Tallinn, April 2023; Danish Defence, 'Estonia – Nato Enhanced Forward Presence (eFP)', *https://www.forsvaret.dk/en/roles-and-responsibilities/International-operations/estonia---nato-enhanced-forward-presence-efp/*.

28 The Military Balance 2023, EDF.

29 Einmann, Andres, 'Eesti mereväe lipulaev läbis Šotimaal uuenduskuuri', Postimees, 3 February 2019, *https://majandus.postimees.ee/6514388/eesti-merevae-lipulaev-labis-sotimaal-uuenduskuuri*.

30 Hurt, Martin, Jermalavičius, Tomas, Vargulis, Mārtiņš, Zdanavičius, Liudas, 'Baltic Defence Development. Adding value to the defence of the Baltic Sea Region', March 2023, International Centre for Defence and Security, *https://icds.ee/en/baltic-defence-development-adding-value-to-the-defence-of-the-baltic-sea-region/*; see, also, Hussar, Karolina, 'Valitsus otsustas ühendada PPA ja kaitseväe laevastikud. Laanet: see on lähiaja suurim riigireform', Delfi, 25 November 2021, *https://www.delfi.ee/artikkel/95232017/valitsus-otsustas-uhendada-ppa-ja-kaitsevae-laevastikud-laanet-see-on-lahiaja-suurim-riigireform.*

31 Hurt, Martin, Jermalavičius, Tomas, Vargulis, Mārtiņš, Zdanavičius, Liudas. 'Baltic Defence Development. Adding value to the defence of the Baltic Sea Region', March 2023, International Centre for Defence and Security. *https://icds.ee/en/baltic-defence-development-adding-value-to-the-defence-of-the-baltic-sea-region/*, p.2.

32 ERR, 'Rannakaitse täisvõimekuse saavutamiseks kuluks paar aastat', 2 October 2020, *https://www.err.ee/1142379/rannakaitse-taisvoimekuse-saavutamiseks-kuluks-paar-aastat.*

33 Yeo, Mike, 'Proteus reveals more details of Blue Spear missile, Defense News, 15 February 2022, https://www.defensenews.com/smr/singapore-airshow/2022/02/15/proteus-reveals-more-details-of-blue-spear-missile/.

34 The Baltic Times, 'Estonia signs contract for purchase of anti-ship missile system', 6 October 2021, *https://www.baltictimes.com/estonia_signs_contract_for_purchase_of_anti-ship_missile_system/.*

35 World Air Forces 2023, *https://www.flightglobal.com/download?ac=90688*.

36 Lauri, Vahur,'Välisilm takes stock of current situation with Estonia's defense forces', ERR, 14 March 2023, *https://news.err.ee/1608914363/valisilm-takes-stock-of-current-situation-with-estonia-s-defense-forces.*

37 ERR, 'Estonia basing medium-range air defense procurement on price, capability', 10 February 2023, *https://news.err.ee/1608881231/estonia-basing-medium-range-air-defense-procurement-on-price-capability.*

38 ERR, 'US Air Force complete US$10.8-million Ämari investment', 11 August 2022, *https://news.err.ee/1122683/us-air-force-completes-us-10-8-million-amari-investment*.

39 Kaitseministeerium, 'During reconstruction at Estonian base in 2024 allied air policing will move temporarily to Latvia', 21 May 2023, *https://www.kaitseministeerium.ee/en/news/during-reconstruction-estonian-base-2024-allied-air-policing-will-move-temporarily-latvia*.

40 The ESTSOF was part of the Military Intelligence Battalion until 2012. EDF, 'Special Operations Forces', *https://mil.ee/en/landforces/special-operations/*.

41 EDF. Cyber Command. *https://mil.ee/en/landforces/cyber-command/.*

42 EDF, 'Support Command', *https://mil.ee/en/landforces/support-command-of-the-estonian-defence-forces/.*

43 Riigi Teataja. 'The Estonian Defence League Act', §2, *https://www.riigiteataja.ee/en/eli/521032014005/consolide.*

44 Spc. Lee, Steven, U.S. Army, 'Estonian Defence League Soldiers participate in US Army's Swift Response 23', 16 May 2023, *https://www.army.mil/article/266734/estonian_defence_league_soldiers_participate_in_us_armys_swift_response_23*.

45 EDF, 'Estonian Defence Forces', *https://mil.ee/en/defence-forces/.*

46 Kaitseministeerium, 'National defence development plan 2017-2026'. *https://www.kaitseministeerium.ee/riigikaitse2026/arengukava/eng/*

47 ERR, 'Government extends general conscription term to 11 months', 4 May 2023, *https://news.err.ee/1608967162/government-extends-general-conscription-term-to-11-months*

48 ERR, 'Estonia's biggest defense exercise Spring Storm starts', 15 May 2023, *https://news.err.ee/1608978692/estonia-s-biggest-defense-exercise-spring-storm-starts*

49 EDF, 'The Government of the Republic of Estonia approved a defence readiness exercise Okas for territoriel defence units', 5 May 2023, *https://mil.ee/en/news/the-government-of-the-republic-of-estonia-approved-a-defence-readiness-exercise-okas-for-territorial-defence-units/*

50 Hurt, Martin, Jermalavičius, Tomas, Vargulis, Mārtiņš, Zdanavičius, Liudas. 'Baltic Defence Development. Adding value to the defence of the Baltic Sea Region', March 2023, International Centre for Defence and Security. *https://icds.ee/en/baltic-defence-development-adding-value-to-the-defence-of-the-baltic-sea-region/*

51 Interviews in Tallinn, April 2023; Oryx, 'Answering The Call: Heavy Weaponry Support To Ukraine', *https://www.oryxspioenkop.com/2022/04/answering-call-heavy-weaponry-supplied.html* , accessed 5 September 2023.

52 Gosselin-Malo, Elisabeth, 'Estonia's global arms buying spree seeks drastic combat gains'. Defence News, 13 June 2023, *https://www.defensenews.com/global/europe/2023/06/13/estonias-global-arms-buying-spree-seeks-drastic-combat-gains/*

53 Fiorenza, Nicholas, 'Estonia orders long-range loitering munitions', Janes, 2 May 2023, *https://www.janes.com/defence-news/news-detail/estonia-orders-long-range-loitering-munitions-from-iai*

54 Milrem Robotics, "Milrem Robotics to deliver 14 THeMIS UGVs to Ukraine in cooperation with KMW", 29 November 2022, *https://milremrobotics.com/milrem-robotics-to-deliver-14-themis-ugvs-to-ukraine-in-cooperation-with-kmw/*

55 Statista, 'Total bilateral aid commitments to Ukraine as a percentage of donor gross domestic product (GDP) between January 24, 2022 and May 31, 2023, by country', 18 July 2023, *https://www.statista.com/statistics/1303450/bilateral-aid-to-ukraine-in-a-percent-of-donor-gdp/*

56 Interviews in Tallinn, April 2023.

57 See section 1.6 for the methodology behind the assessment of operational capability.

58 Volvo Trucks. Press release. *https://www.volvotrucks.com/en-en/news-stories/press-releases/2023/oct/volvo-trucks-enters-10-year-framework-agreement-with-Estonia-and-Latvia.html*, 2023-10-04.

59 EDF, 'Estonian Defence Forces', *https://mil.ee/en/defence-forces/*.

60 ERR, 'Estonia procured twice as much ammunition in 2022 than in previous 30 years', 20 February 2023, *https://news.err.ee/1608891029/estonia-procured-twice-as-much-ammunition-in-2022-than-in-previous-30-years*.

7. Latvia

Michael Jonssson

Since regaining independence in 1991, Latvia's long history of Soviet occupation has shaped its security and defence policy.[1] As a small, frontline state dependent on allied support, Riga perceives Russia's full-scale invasion of Ukraine and its subordination of Belarus as an existential threat. As a consequence, conscription was reinstated in July 2023. Rocket artillery, anti-ship missiles and medium-range air defences are under procurement, and the personnel of the armed forces will expand steeply.[2] Latvia is also one of Kyiv's staunchest political supporters and has provided it with significant defence materiel relative to its own GDP and inventories.[3]

7.1 Security and defence policy

Since 2014, Latvia has sharply increased its defence spending, which has almost tripled in real terms, or doubled as a share of GDP, from just below 1 percent to its current 2.25 percent, and set to reach 3 percent in 2027.[4] The Russian annexation of Crimea catalysed a renewed focus on national defence, in contrast to the era of expeditionary operations. During this period, Latvia has focused on improving the readiness, staffing, and capabilities of existing Army units rather than establishing new ones.[5] Latvia abolished conscription in 2006. However, the Russian invasion of Ukraine has forced it to reconsider. Its initial plans, which put a premium on swift growth, have changed into a more gradual approach that emphasises quality, sequenced growth and sustainability.[6] If managed successfully, a reintroduction of conscription could potentially help fill vacancies, and expand army recruitment and the reserves.[7] Analysts note, however, that this is also contingent on significant improvements in reserve training.[8]

One reason why Latvia did not reintroduce conscription earlier was not only the costs involved, but also the belief that there would be no time for mobilisation in case of a conflict with Russia.[9] The war in Ukraine has brought home the need for greater mass, firepower and reserves. By filling vacancies in existing units rather than creating mobilising units, the Latvian model resembles that of Lithuania more than Estonia. Since 2015, the National Guard has also been developing high-readiness units.[10] Hence, a sizable share of the force may be available in case of a Russian surprise attack.

The national defence priorities, declared in the 2016 State Defence concept, identified Russia as the main threat and NATO as the cornerstone of Latvian security. Emphasising the need for stronger alliance cohesion and collective defence capabilities, it prioritised development of the Latvian National Armed Forces (LNAF), including the National Guard. Given Russia's ability to launch military attacks at short notice, Latvia needed the ability to respond rapidly. Host-nation support and infrastructure that enables reception of NATO reinforcements are deemed vital. The concept also emphasised Latvia's total defence, including civilian resilience.[11] The updated State Defence Concept of 2020 confirmed the directions of 2016, noting that increased Latvian military capabilities and NATO's eFP battlegroup enhanced deterrence.[12]

A new National Security Concept was adopted by the Latvian parliament in September 2023.[13] The war in Ukraine has shaped perceptions of Russia, particularly its military capabilities and way of warfare. Russian brutality against civilians, reliance on indirect fires and sheer mass and scale create a greater Latvian need for manpower, large quantities of ammunition and an ability to produce and repair military equipment domestically.[14] Emphasising security of supply, developing materiel domestically, adopting "comprehensive security" and creating high-readiness units, Latvia has drawn inspiration from Finland.[15]

The Soviet occupation in 1940 looms large in Latvian strategic thinking. After independence, Riga sought security guarantees through NATO membership.[16] If not before, the 2014 Russian annexation of Crimea created a sense of existential threat to Latvia. War games suggesting that Moscow could occupy Riga within days,[17] or speculation that Russia could start an uprising in Latvia's eastern region, Latgale, added to this.[18] Hence, Latvia prioritises "instruments of hard security," that is, primarily military means, and its relation to NATO in general and the US in particular.[19] This is a key aspect of Latvian strategy that the Ukrainian war has reinforced, but not fundamentally shifted.[20] With Latvia long having warned of Russia's revisionist foreign policy aims, Riga feels vindicated but at the same time silently sceptical about some of its European allies.[21] Hence, Latvia is a keen supporter of the transatlantic link and has taken a wait-and-see approach to ideas

about European strategic autonomy. Several respondents emphasised that Latvia trusts the US to a far greater extent than it does its European partners, contingent both on political will and military capabilities.[22]

Beyond Russia, the perceived threat from neighbouring Belarus has also grown. Now Latvia considers the two states as "one and the same."[23] This perception has emerged gradually, from the Russo-Belarusian cooperation during the Zapad-21 military exercise to the use of migrants to pressure Latvia, Lithuania and Poland.[24] The Russian operation against Kyiv early in 2022 also demonstrated that a Russian offensive can be launched from Belarusian territory.

The Latvian defence establishment closely monitors the war in Ukraine and draws lessions.[25] This includes not only the reintroduction of conscription, but also lessons about tactics and weapons.[26] Russia's 2014 annexation of Crimea led Latvia to increase its defence funding and implement its already planned reforms more quickly. Similarly, Moscow's 2022 invasion of Ukraine accelerated implementation of existing plans without necessarily changing their content fundamentally.[27]

Military infrastructure is a priority in Latvia and it has accomplished more in the last 5–6 years than in the previous 25.[28] Even so, with conscription ramping up, and the eFP battlegroup set to expand into a full brigade, this will strain existing military infrastructure and require investment in housing, training ranges, and logistics. In this context, it is notable that specific agencies dedicated to military procurement and logistics (VALIC) and infrastructure (VAMOIC) became operational in 2021.[29] Furthermore, in July 2022, it was announced that within two years, a new military training ground would be built in the Selija region of Latvia.[30]

The LNAF is currently attempting to grow swiftly, both in numbers and capabilities, which will almost inevitably entail some friction. This includes recruitment and retention in both the professional Armed Forces and the National Guard, scaling conscription while maintaining quality and popularity, and introducing long-range precision-guided munitions in all three services. While doable, this may well stretch the Latvian officers corps, defence budget and military infrastructure alike, and take more time to achieve fully than is currently hoped.

7.2 Military expenditures

In spite of the Covid-19 pandemic, Latvia upheld its defence budget, even though it plateaued, rather than increased.[31] In 2023, the defence budget equals 2.25 percent of GDP, but it will reach 3 percent in 2027, or perhaps even earlier.[32] The growth from $230 million in 2014 to $1 billion in 2023 (current prices), represents a remarkable increase. In spite of another economic crisis, this time driven by inflation, the defence budget will expand further due to major procurements.[33] Frequent shifts in the defence budget – until recently, Latvia did not plan to reach 3 percent of GDP until 2027 – demonstrate the tectonic shifts in Latvian defence planning,

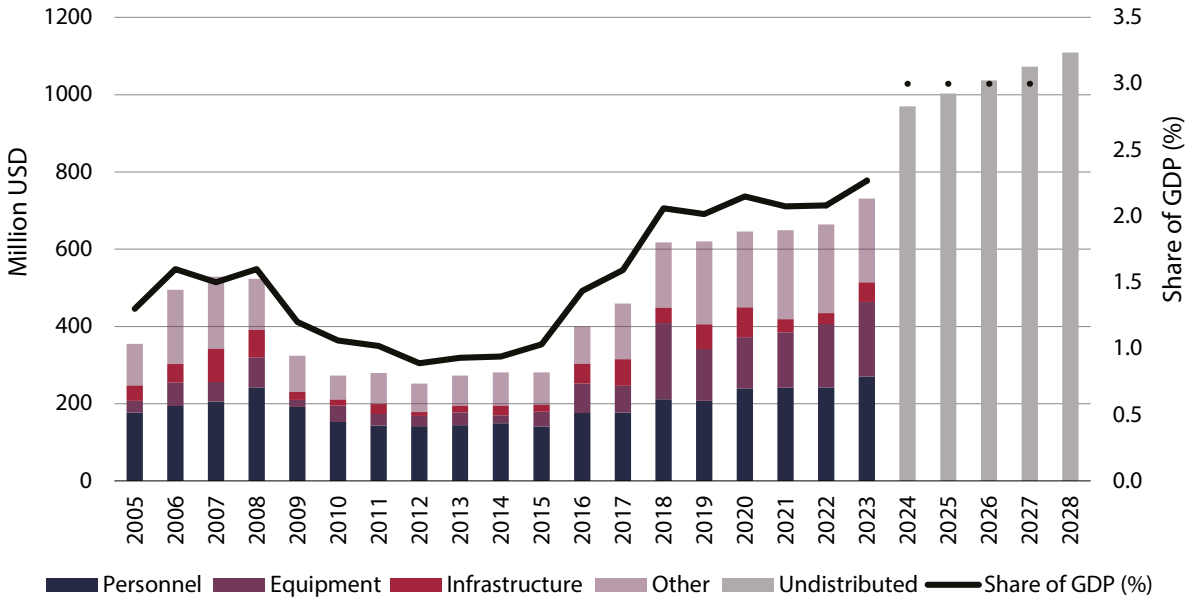


Figure 7.1 Military expenditures of Latvia 2005-2028 in 2015 constant prices.
Sources/Remarks: NATO (2010, 2016, 2023). The figure assumes a prolongation of the defence budget at 3 percent of GDP.

which are occurring very swiftly. Even with the steep increases, it remains to be seen whether the budget will suffice to cover growing costs for maintenance of materiel and expansion of the force and infrastructure, the reintroduction of conscription, and procurement of major weapons systems.[34]

In 2023, Latvia spent USD 1.0 billion on its armed forces, in current prices (NATO 2023). In constant prices, Latvia has increased its military spending by 106 percent since 2005; see Figure 7.1. Latvia allocated 2.25 percent of its GDP on military spending in 2023, up from 1.3 percent in 2005. In 2023, 37.0 percent of Latvia's military spending was allocated to personnel, 26.3 percent to equipment, 6.9 percent to infrastructure and 29.7 percent to other types of expenditure. Latvia aims to reach 3 percent of GDP by 2027, but may get there earlier due to strategic procurements.[35]

7.3 Armed Forces

The Latvian Armed Forces consist of the standing forces and the National Guard. The former comprise not only the Army's light mechanised brigade, the Special Forces, the Navy, and the Air Force,[36] but also the Joint Headquarters in Riga and its battalion, military police, and logistics command.[37] The National Guard is part of the Armed Forces, but mainly staffed by volunteers commanded and trained by Army officers. Given the regular Army's modest size, the four National Guard brigades are a vital part of Latvia's territorial defence and Host Nation Support.

The professional force encompassed approximately 7,250 personnel in 2023. The Canada-led eFP battlegroup, deployed since 2017, is reportedly fully integrated into the mechanised brigade and an integral part of the national defence plan.[38] Consisting of 1,800 personnel from 10 countries, notably Spain, Italy, Poland and Slovakia, the battle group continuously exercises jointly with the Mechanised Infantry Brigade.[39] The Danish Armed Forces deployed a combat battalion with IFVs and 650 personnel to Latvia in fall 2022 and spring 2023.[40]

Army

The Army brigade is stationed in Ādaži, about 25 kilometres northeast of Riga. Its 1800 soldiers are professionals, ensuring high readiness. It comprises two lightly mechanised battalions, a self-propelled artillery battalion, a combat-support battalion and a combat-service support battalion.[41] The brigade has received most of the advanced equipment procured since 2014, including about 170 used but modernised CVR(T) armoured fighting vehicles (AFV) and 59 used self-propelled howitzers (M109A5).[42] In August 2021, Latvia procured 200 Patria 6X6 Armoured Personnel Carriers, with deliveries planned for the 2021–2029 period.[43] The Patrias are being allocated to both the professional brigade and the National Guard.[44]

As mentioned above, the eFP in Latvia is led by Canada, with troop contributions from several other countries. Alongside this, the Headquarters Multinational Division North (MND North) based near Riga, and in Slagelse, Denmark, is primarily staffed by Denmark, Latvia and Estonia. MND North, moving towards full operational capability in 2023, has tasks that range from facilitating training and exercises to full-scale defence activities, and the headquarters is organised to enable scaling-up in the event of a crisis.[45] It cooperates closely with the battlegroups in both Latvia and Estonia, and aims at having the capacity to lead a multinational division, including eFP and national forces as well as allied reinforcements that may be flowed into the area.

While the eFP still primarily serves as a tripwire, since February 2022 it has added some new elements, bridging key capability gaps. For instance, in June 2022, the Spanish contingent to the eFP deployed NASAMS air defences to protect Lielvārde Air Base, and Canada will be deploying 15 Leopard 2s by the end of 2023.[46] The eFP presence has increased from some 1,400 to over 1,800 personnel, and Canada will gradually increase its troop deployment up to a maximum of 2,200 personnel.[47] During fall 2022 and spring 2023, the Danish battalion boosted both personnel and capabilities, including IFVs.[48] The U.S. troop presence varies over time but has grown from 100 to 6- or 800, according to various sources.[49] Information on the type of troops deployed, or their capabilities, is scarce, presumably contingent on on-going exercises.[50] Media reports suggest, however, that US Special Operations Forces (SOF) have frequently visited.

Through rapid deployments, for instance of HIMARS rocket artillery, NATO seeks to demonstrate that Latvia can be reinforced quickly.[51] Furthermore, an extensive exercise schedule serves both to improve interoperability and showcase NATO firepower in the Baltics.[52] Specific exercises also ensure full operational capacity, among others, for Spanish NASAMS.[53] That said, as in the other Baltic States, the stated ambition to expand the eFP to a full brigade faces bottlenecks, such as in the national military infrastructure, as well as in the forces available from the contributing countries, particularly Canada.[54] Due to the multitude of contributing countries, this may however be a more limited problem for the eFP contingent in Latvia.[55]

National Guard

The National Guard's core tasks include territorial defence, delaying actions and protecting critical infrastructure. Latvia is currently in the process of modernising and strengthening the combat readiness of the historically underfunded National Guard. Despite plans to expand the force from some 8,000 personnel in 2018 to 12,000, growth was slow until 2021.[56] However, after Russia's full-scale invasion of Ukraine, growth accelerated and by late 2022 the force had reached 10,000.[57] The structure has been organised into four brigades with territorial areas of responsibility, closely integrating the command and control of the regular army and the National Guard.[58] Professional army officers lead and train the volunteer soldiers, who go through basic training upon entering, coupled with annual training. There are high readiness units within the service. These become specialists, in areas such as sniping, engineering and air defence.[59]

Latvian officials stress that the National Guard is fully integrated with the Armed Forces, creating a force structure of five brigades in total. The brigade headquarters are located in Riga, Valmiera, Rēzekne and Kuldiga. In 2021, Latvia procured 200 Patria 6x6 armoured personnel carriers for USD 215 million, to improve mobility of National Guard and Army units.

In line with the closer integration with the Army, professional units, including one combat-support battalion and one combat-support company, are being created within the National Guard brigades, in strategically located areas in the country's east and north. These units are equipped with self-propelled howitzers (M109), man-portable air defence missiles (RBS-70) and anti-tank missiles (Spike). Additionally, since 2015 the National Guard has developed 18 high-readiness units, which probably amounts to a company from each battalion. The Armed Forces, including the National Guard, conducts exercises in Close Air Support and Joint Terminal Attack Control with NATO allies, such as the US.[60]

Navy

The small Latvian Navy, headquartered at Liepaja, consists of 500 sailors. It comprises a mine countermeasures squadron with five Alkmaar-class minehunters and a patrol boat squadron with five Skrunda-class vessels. The Coast Guard's six coastal patrol boats are part of the naval forces.[61] Addressing a long-standing capability gap, Latvia decided in 2022 to procure short- to medium-range anti-ship missiles. In 2021, Estonia announced that it had procured the Israeli Blue Spear AShM, with a range of 290 kms and deliveries planned for late 2023.[62] Estonia had initially hoped to procure these in cooperation with Latvia, but Riga delayed its procurement. In February 2023, Latvia had reportedly decided to procure the Naval Strike Missile, manufactured by Kongsberg.[63] In May, the deal was confirmed, with Latvia paying USD 110 million for the AShM with 190 km range.[64]

Air Force

The Latvian Air Force consists of 500 airmen, headquartered at Lielvārde Air Force Base.[65] Lacking fighter jets, the Air Force's main task is air surveillance and securing reinforcements. Its capability to support the ground forces' mobility has improved with the delivery of four Black Hawk helicopters, added to the handful of older transport airplanes. Latvia donated its old Soviet helicopters to Ukraine.[66] Since 2017, the service has received sophisticated radars (TPS-77 and AN-MPQ-64F1) and new man-portable air defence systems (Stinger and updated RBS-70s), increasing its early warning and capability to provide point defence, support ground forces and protect critical infrastructure. In December 2022, the LNAF announced the procurement of additional RBS-70 and Giraffe radars.

The lack of long-range GBADs in the Baltic States has long been recognised as a key vulnerability.[67] To address this, in June 2022 Latvia and Estonia signed a Letter of Intent in for the joint procurement of medium-range air defence systems. Simultaneously, a Spanish-supplied Norwegian advanced surface-to-air missile system (NASAM) was deployed at Lielvārde Air Force Base, as a stop-gap measure.[68] In May 2023, the German Iris-T medium air defence system was selected, with planned delivery in 2025, for USD 630 million.[69] While Latvian officials would like to obtain long-range air defences, such as Patriot, nationally financed procurement at market rates is unlikely, as prices are steep relative to the national defence budget.[70]

Joint assets

Latvian joint assets are remarkably large, at 2300 personnel (compared to 1800 in the army).[71] This includes a military police battalion, but also a joint headquarters battalion, and special operations and logistics commands, respectively.[72] The specific personnel composition of these components, however, is not apparent from open sources. The Latvian Special Operations Forces (SOF) is organised as a separate command under the Commander of the LNAF. There are SOF units, nevertheless, within both the joint forces, and the National Guard.[73] Both Latvian SOF and National Guard units have long trained with US counterparts.[74] The US Special Command–Europe and NATO also established a facility in Riga, including helipads,

ammunitions storage and a vehicle-servicing facility.[75] In 2014, a Cyber Defence Unit was established within the National Guard. In 2023, the Latvian Ministry of Defence adopted a new cyber-security strategy, and US Cyber Command, mainly together with its (civilian) Latvian counterpart, conducted a three-month hunt for cyber threats to Latvia's critical infrastructure.[76] There is also a logistics command, headquartered in Riga but with three regional centres. Beyond this, minor elements, such as a PSYOPS platoon and a radar squadron, are subordinated to the National Guard and the Air Force, respectively.[77]

Personnel

The Latvian Armed Forces have grown to 7,250 active servicemen in 2023, compared to 6,900 in 2020.[78] By early 2022, there were 800 vacancies. However, this does not reflect the improved readiness, availability and capabilities of existing units. The need to increase personnel counts is longstanding, but recruitment is hampered by demographics, emigration and private-sector competition.[79] A first round of conscripts in 2023 will include 300 volunteers, but the aim is to ramp up the annual cohorts.[80] Similar to the Finnish model of high-readiness troops, Latvian conscripts will receive six months of training, followed by five months of active duty, to fill vacancies in existing brigades.[81] The roll-out of the conscription model represents a major undertaking that could strain military trainers, budgets and infrastructure alike.[82]

The reintroduction of conscription implicitly reflects a recognition that the recruitment of purely professional soldiers in Latvia has reached the end of the road.[83] Once trained, conscripts can fill vacancies in both the professional brigade and the National Guard, but this hinges on cohorts becoming significantly larger.[84] Drawing lessons from the war in Ukraine, Latvia seeks to expand LNAF personnel substantially. The aim is to increase the standing force by 2000 personnel and the National Guard from 10,000 to 12,000, bringing the active force from 22,000 to 26,500 by 2027.[85] The plan is also to expand the number of reservists, bringing the total force to 50,000 in 2028.[86] This was based on larger conscription cohorts, but may still be achievable.[87] Public support for conscription has increased, to 61 percent, with 29 percent opposed, and weaker support amongst Russian speakers and youth.[88] Earlier recruitment challenges, together with very ambitious plans for expanding both the standing forces, National Guard, and reserves raises questions regarding feasibility.

Materiel

As part of the army brigade's mechanisation, Latvia has received and integrated the 47 M109A5 self-propelled howitzers procured in 2017. In 2021, another 18 M109A5s were procured, with the US donating 155mm

Table 7.1 Personnel and materiel in the Latvian Armed Forces

Personnel/Materiel	Numbers in 2023	Major reforms towards 2030
Personnel		
Regular force	7,250 [(a)]	8,600
Territorial defence forces	10,000 [(b)]	12,000
Reserves	36,000 [(c)]	Up to 30,000
Materiel		
Tanks		
Armoured combat vehicles	170 CVRTs (different versions).	
Heavy artillery pieces	59 M109A5 155mm 25 M120 mortars 120mm	6 HIMARS procured.
APC	+8 Patria 6x6	200 delivered until 2029.
Surface combatants	-	Naval Strike Missiles procured.
Drones	No (MALE or larger) [(d)]	Possible introduction of further capabilities.
Transport aircraft	4 An-2 Colt 2 PZL	
Helicopters	4 Black Hawks	
Air defence	24 L/70 (40mm); 1 battery NASAMS deployed by eFP	Iris-T medium-range GBADs procured.
	Man-portable: RBS-70	Replacement procurement underway.

Sources/Remarks: Data, if not stated otherwise, is from IISS, The Military Balance 2023, p. 108–109. **(a)** Latvia, National Armed Forces, 'About National Armed Forces', n.d. **(b)** Latvia, 'About National Armed Forces'. **(c)** Ibid. **(d)** Latvia has reportedly procured smaller Penguin drones from UAV Factory. There are also reports indicating that Latvia showed interest in procuring Bayraktar TB-2 drones, but no final procurement was confirmed.

munitions for the system.[89] In total, some 170 British CVR(T) tracked combat vehicles have been procured and are now fully operational. Some of the CVR(T) s field 30mm cannons and Spike anti-tank missiles.[90] In October 2021, shortly after the end of the Russian and Belarussian Zapad-21 exercise, US troops flew in HIMARs rocket artillery to the airbase in Spile.[91] Encouraged by its demonstrated successes in Ukraine, Latvia announced a purchase of six HIMARS and 34 pods in October 2023.[92]

Additionally, Latvia has striven to secure ammunition stocks for its howitzers and anti-tank weapons, somewhat complicated by inadequate storage facilities. Similarly, maintenance for advanced equipment is lacking, as evidenced by the sending of CVR(T)s to the UK for repairs.[93] Latvia has prioritised facilities at Ādaži military base, where most professional soldiers and the eFP battlegroup are stationed. Other priorities include the facilitating of allied reinforcements, including changes to the reception capabilities at Lielvārde airbase, training areas and shooting ranges.[94] In 2022, it was reported that a new training range for allied troops will be established in the Sēlija region within two years. Over time, a new army base will also be constructed for NATO troops at a so far undisclosed location.

Latvia has a small but burgeoning defence industry, which it seeks to expand. This includes unmanned aerial vehicle (UAV) manufacturer Atlas Dynamics, which has delivered small intelligence, surveillance and reconnaissance (ISR) drones to Ukraine and plans to establish manufacturing there.[95] US-owned Edge Autonomy – founded in Latvia and with a facility near Riga airport – supplies drones to 70 countries, mainly in an ISR role.[96] The company, under its previous name, UAV Factory, has been supplying drones to the Latvian state, including the LNAF, since 2020.[97] Currently, there are efforts to improve existing counter-UAV (C-UAV) systems, and initiatives to explore the possibility of developing loitering munitions.[98] As part of the USD 210 million deal to procure Patria APCs, 30 percent is devoted to facilitating production and maintenance in Latvia.[99]

Military support to Ukraine

Like its Baltic neighbours, Latvia has provided support to Ukraine that is extensive in proportion to its GDP and inventories. By August 2022, Latvia had provided six M109 self-propelled howitzers, and four transport helicopters (2 Mi-2s and 2 Mi-17s) to Ukraine.[100] Other support, which may strain domestic inventories, has not been reported numerically. By January 2023, the replacement value of the materiel support totalled approximately 1 percent of the Latvian GDP, or $390 million. Assistance has also included "tens" of Stinger MANPADS, machine guns, ammunition, soldier equipment and UAVs.[101] This equals almost half of Latvia's annual defence budget, or a tenth of its self-propelled howitzers, and a significant share of its helicopters and SHORADs. Latvia has also been training 2000 Ukrainian soldiers in 2023.[102] In sum, Latvia provides as much support as it can to Ukraine without compromising growth and capabilities in the medium term, replacing material donations through expedited procurement.

7.4 Assessment of military capability

Current operational capability[103]

Given three months' notice of and preparations for major combat operations, a large part of the Latvian National Armed Forces, including the understrength Army brigade, can be available for wartime operations, with artillery, combat support, and combat service units. This also probably holds for the four national guard brigades, with a total of 13 infantry battalions and four combat support battalions.[104] In other words, availability is good, as Latvia has long prioritised readiness. The Army, however, struggles with recruitment and retention and has significant vacancies, making the full staffing of its units challenging.[105] Likewise, it lacks some heavier mechanised equipment, notably MBTS, rocket artillery and IFVs. The National Guard has also struggled with recruitment but received an influx of new recruits following the outbreak of the Russo-Ukrainian war. To date, the addition of conscript cohorts can only partially address this. New combat support units, however, add crucial capabilities in the country's north and east, as does its ability to provide Joint Terminal Attack Control (JTAC) for close air support. The capable Latvian Special Forces units also collaborate closely with U.S. and regional counterparts.

Latvia's small Navy is assessed as being able to have the bulk of its mine countermeasures and patrol boats ready within three months, but still lacks medium-range anti-ship missiles. Similarly, the small Air Force is estimated as capable of having a majority of its personnel available within the same timeframe. Equipped with sophisticated radars and new man-portable air defence systems, it can provide early warning and point defence, with Spanish NASAMs providing a stop-gap solution for medium-range GBADs. The Navy and Air Force are mainly tasked with ensuring the arrival of reinforcements by keeping SLOCs and Lielvārde airbase open, respectively.

Until 2022, the Latvian National Armed Forces focused on preventing a surprise attack and enabling the

arrival of reinforcements. Specific Latvian concerns, such as Russia's using Belarus as a launching pad, or launching airborne VDV assaults on key targets, have been borne out by the Ukraine war.[106] In relation to NATO's new strategic aim to defend "every inch of NATO territory," however, Latvia's current military capabilities remain limited, even when including the eFP battlegroup and their added capabilities.[107] Mass, endurance and firepower need to expand significantly, which is now underway. Riga has had trouble matching its strong political will with an equally swift improvement in military capabilities.[108] The reintroduction of conscription in 2023 could help address this over time, however.

With the National Guard as its first line of defence, there are limits to Latvia's abilities to meet an advancing mechanised column head-on, even though the territorial defence forces (TDF) in Ukraine have shown that infantry units can be remarkably effective. Military geography also offers plenty of potential for delaying or harassment operations, particularly if combined with CAS. Notably, military trainers refer favourably to the quality of Latvian forces.[109]

Future operational capability

The coming five years will be eventful for the LNAF, including its procurement of rocket artillery, anti-ship missiles and medium-range air defences. Simultaneously, Latvia is receiving 200 new APCs, reintroducing conscription, seeking to expand its professional and volunteer forces, and working to enlarge the eFP towards brigade size, including follow-on forces. Hence, the defence budget, as well as military infrastructure and logistics and civil defence structures, may need to increase further, despite a serious economic crisis. To fund these expansions, Latvia plans to allocate 3 percent of GDP to defence, with a the aim of attaining it in 2027.[110]

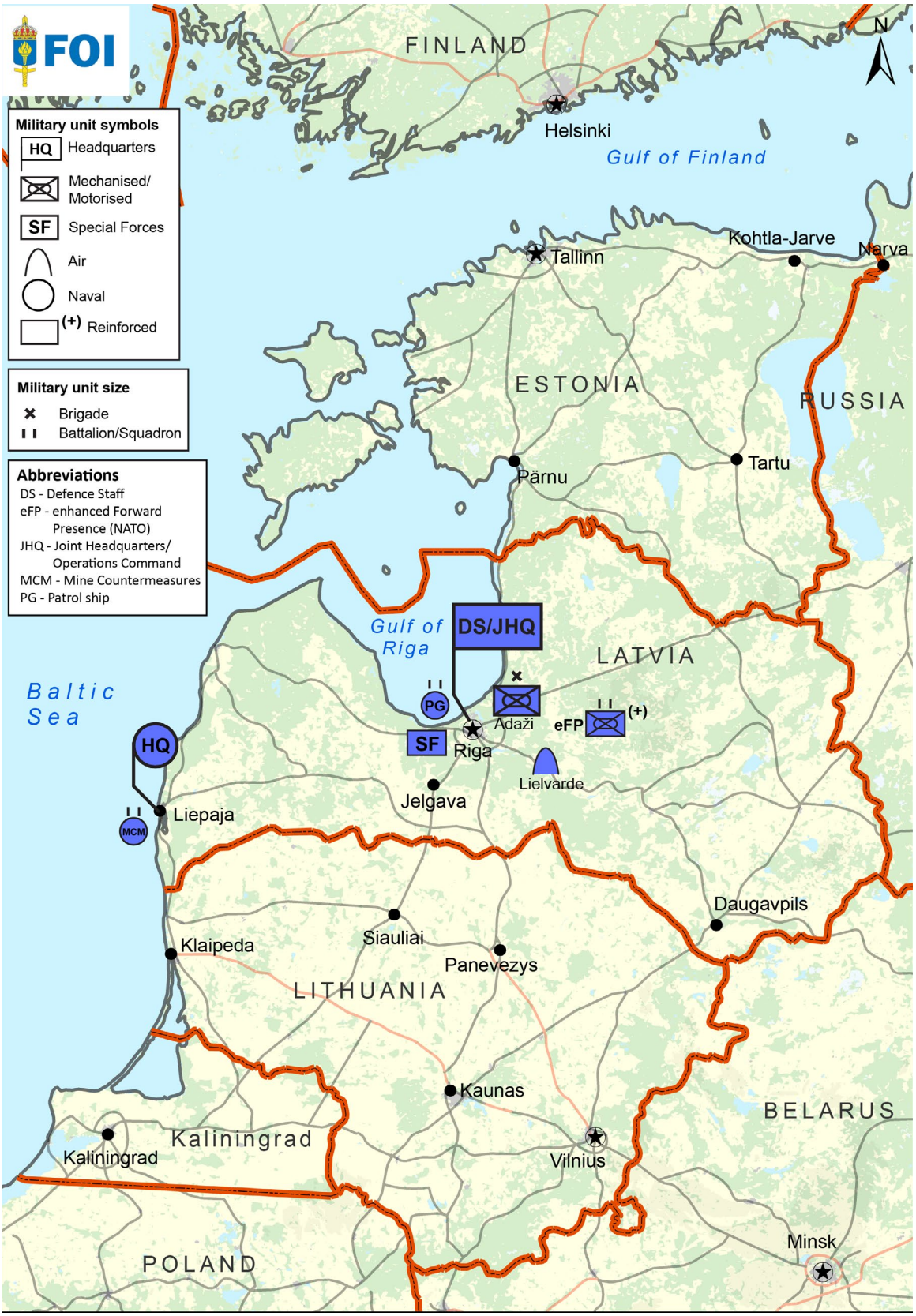
Achieving all of this while maintaining readiness seems highly challenging, even in a fair-weather scenario. Some level of friction seem inevitable. While the sense of urgency is palpable, the fast pace of procurement and personnel expansion may come at the expense of having a cohesive, long-term plan, as exemplified by the debate over conscription. That said, over a span of around five years, the LNAF could grow substantially in size, expand its reserves significantly, and introduce modern, long-range precision-guided munitions (PGMs) within all three services. Latvia's plans demonstrate a substantially increased level of ambition: not only preventing a surprise attack but stopping advancing units head-on.[111] Likewise, improving armoured mobility, deepening artillery inventories, and receiving a small number of transport helicopters will also enhance capabilities. It is also entirely possible that Latvia will develop its UAV and C-UAV capabilities significantly. Lastly, with Finland and possibly Sweden in NATO, the opportunity for allied reinforcements increases substantially.

Achieving such a great leap in capabilities and mass will not occur overnight. Nonetheless, there seems to be strong political consensus on the need to do so over time.[112] The plan, however, is critically dependent on a successful scaling up of the conscription service. Riga aims to develop a high-quality, popular and sought-after service that facilitates recruitment into the professional army, the National Guard and the reserves. Achieving this amid a turbulent period for national security is challenging, and the project has great potential yet faces great peril, in equal measures. But its success is essential to fulfilling Latvia's ambition of defending every inch of its territory.[113] Baltic deterrence hinges on four components: national capabilities, NATO eFP, military mobility and NATO's collective military power.[114] While the war in Ukraine demonstrates that the threat against the Baltic states is existential, it has also set in motion changes that strengthen all four of those components.[115] ■

Table 7.2 Force structure of the Latvian Armed Forces

Force	Organisation in 2023	Major reforms towards 2030
Joint	Joint headquarters Special forces Military police Headquarters batallion Logistics command	
Army	1 Army Headquarters 1 Mechanised (light) brigade - 2 Mechanised (light) battalions; - 1 Infantry battalion (forming) - 1 Artillery battalion (forming) - 1 Combat-support battalion - 1 Combat-service support battalion 4 National guard brigades - 13 Infantry battalions, 4 combat-support battalions	Procurement of rocket artillery (6 HIMARS). Filling vacancies (approx. 800). Expansion of force (approx. 2000) Scaling-up of conscription. Possible introduction of UAVs at scale. Expansion of reserves (up to 30,000, total). Delivery of 200 APCs. Filling vacancies. Expansion of force (approx. 2000).
Navy	1 Naval forces headquarters 1 Mine countermeasures squadron 1 Patrol boat squadron Coast guard	Procurement of long-range Naval Strike Missiles.
Air force	1 Air Force Headquarters 1 Transport squadron 1 Air defence battalion 1 Radar squadron	 Delivery of Black Hawks. Delivery of Iris-T medium range GBAD.

Sources/Remarks: If not stated otherwise, see IISS, The Military Balance 2023, p. 108–109,



Map 7.1 Overview of the Latvian Armed Forces and its basing
Remarks: The map covers major operational headquarters and manoeuvre forces.
Source: Design by Per Wikström

Endnotes

1 Unless otherwise stated, this chapter draws on Gustafsson, Jakob, 'Latvia', 63–72, in Frisell, Eva Hagström and Pallin, Krister (eds.), Western Military Capability in Northern Europe 2020 – Part II: National Capabilities, FOI Report FOI-R--5013--SE (Stockholm: Swedish Defence Research Agency – FOI, February 2021).

2 Andzans, Maris, 'Latvia Applauds the Return to Conscription', Europe's Edge, CEPA, 13 July 2023.

3 Al Jazeera, 'Latvia urges Western allies to step up military aid for Ukraine', 16 January 2023; LETA, 'Latvian minister: We're Nr.1 when it comes to military aid for Ukraine', 12 October 2022.

4 Andzans, Maris, 'Latvia Poised to Summon Conscripts as Russian Menace Grows', Europe's Edge, Center for European Policy Analysis – CEPA, 8 February 2023; International Institute of Strategic Studies – IISS, The Military Balance 2023 (London: Routledge, 2023), p. 108; Adamowski, Jaroslaw, 'Latvia to boost defense spending with naval missile, HIMARS deals', Defense News, 14 February 2023.

5 Interview 1, Riga, February 2023.

6 Adamowski, 'Latvia to boost defense spending'; LTV De Facto, 'Plans to double army size might have been too ambitious', 20 February 2023.

7 Nikers, Olevs, 'Latvia Contemplates Conscription in Face of Russian Aggression', Eurasia Daily Monitor, 2 August 2022; Interview 4, Riga, February 2023.

8 Grant, Glen, cited in Nikers, 'Latvia Reinstitutes Conscription Amid Calls to Strengthen National and Regional Security', Eurasia Daily Monitor, 9 May 2023.

9 Szymański, Piotr, The multi-speed Baltic states: Reinforcing the defence capabilities of Lithuania, Latvia and Estonia (Warsaw: Centre for Eastern Studies, 2015), p. 14–15.

10 Nikers, Olevs, 'Latvia Focuses on Improving Societal Resilience and Increasing Size of National Guard', Jamestown Eurasia Daily Monitor, 2018.

11 Saeima, Valsts aizsardzības koncepcija, 2016, p. 8–12. Latvian Ministry of Defence, Valsts aizsardzības koncepcija, 2020, p. 5–7, 20.

12 Ibid.

13 LSM, 'Saeima approves updated National Security concept for Latvia', 29 September 2023.

14 Interviews 1–4, Riga, February 2023; also, c.f., Jonsson, Michael and Norberg, Johan, 'Russia's War Against Ukraine: Military Scenarios and Outcomes', Survival – Global Politics and Strategy, vol. 64, no. 6, 5 December 2022, p. 91–122.

15 Interviews 2–4, Riga February 2023.

16 Rikveilis, Airis, 'Latvia', in Biehl, Heiko, Griegerich, Bastian and Jonas, Alexandra (eds.), Strategic Cultures in Europe: Security and Defence Policies Across the Continent, p. 207–216 (Springer: Potsdam, 2013), 208.

17 Shlapak, David A. and Johnson, Michael W. Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics (Santa Monica: RAND Corporation, 2016).

18 C.f., Sander, Gordon F., 'They Speak Russian, But Do They Support Putin's War?', Politico, 20 March 2022.

19 Rikveilis, 'Latvia", 208.

20 C.f., Rostoks, Toms, 'Military Capabilities First, Politics Later: Latvia's Approach to European Strategic Autonomy', in Česnakas, G. and Juozaitis, J. (eds.), European Strategic Autonomy and Small States' Security: In the Shadow of Power (London: Routledge, 2022), p. 115.

21 C.f., interview with then Minister of Defence Artis Pabriks in Brennan, David, 'Putin Must Learn Soviet Empire Isn't Coming Back: Latvia Minister', Newsweek, 15 May 2022.

22 Rostoks, 'Military Capabilities First', p. 109–120, 110, 114; respondents in Riga made similar observations, noting that US reinforcements landed in Latvia within four hours of Russia's beginning its attempted invasion of Ukraine in 2022.

23 Foreign minister Artis Pabriks, as cited in Horton, Alex, Demirjian, Karoun and Birnbaum, Michael, 'U.S. allies most vulnerable to Russia press for more troops, weapons', Washington Post, 13 August 2022.

24 Arraf, Jane and Peltier, Elian, 'Migrants Say Belarusians Took Them to E.U. Border and Supplied Wire Cutters', New York Times, 13 November 2021; Rostoks, Toms, 'Deterrence Policy in Latvia in 2021 and 2022', in Latvian Foreign and Security Policy Yearbook 2022, p. 94–107 (Riga: Latvian Institute of International Affairs, 2022), p. 94.

25 Interview 1, Riga, February 2023; Rob Schmitz, 'Latvia is growing its military as Russia becomes increasingly aggressive', NPR, 10 August 2023.

26 Schmitz, 'Latvia is growing its military'.

27 Interview 2, Riga, February 2023.

28 Rostoks, 'Deterrence Policy in Latvia', p. 100.

29 Ibid., p. 95.

30 The Baltic Times, 'US experts to arrive in Latvia to advise on building new military base and training grounds', 26 July 2022.

31 Rostoks, 'Deterrence Policy in Latvia', p. 95.

32 Ministry of Defence, 'Defence spending reaches 2.25% of Latvia's gross domestic product', 10 March 2023; LSM, 'State defense concept adopted in Latvia', 5 September 2023.

33 LSM, 'U.S. moves forward with 220-million-dollar HIMARS sale to Latvia', 25 October 2023.

34 Between 2017 and 2021, maintenance costs grew from EUR 135 to 205 million. Rostoks, 'Deterrence Policy in Latvia', p. 98; Adamowski, 'Latvia to boost defense spending'.

35 LSM, 'State defense concept'.

36 IISS, The Military Balance 2023, p. 108–109.

37 Latvia, National Armed Forces, 'Structure', n.d.

38 Stoicescu, Kalev and Järvenpää, Pauli, Contemporary deterrence: Insights and lessons from enhanced Forward Presence (Tallinn: International Centre for Defence and Security, 2019), p. 8–9; and Rostoks, Toms, 'Latvia as a host nation', in Lanoszka, Alexander, Leuprecht, Christian and Moens, Alexander (eds.), Lessons from the Enhanced Forward Presence, 2017–2020 (Rome: NATO Defense College, November 2020), p. 56–58.

39 Government of Canada, 'Enhanced Forward Presence Battle Group Latvia welcomes new Commander', 3 January 2023; Tarocinski, Jacek and Gotkowska, Justyna, 'Expectations versus Realities: NATO Brigades in the Baltic States?', Centre for Eastern Studies – OSW, 6 December 2022.

40 Fiorenza, Nicholas, 'Ukraine conflict: Denmark deploys battalion to Latvia', Janes, 6 May 2022.

41 IISS, The Military Balance 2023, p. 109; there have also been reports of the formation of a third infantry battalion, mainly manned by National Guard soldiers, the National Armed Forces '3rd Infantry Battalion'.

42 The CVR(T) has also been armed with Spike guided missiles. C.f., Kelly, Fergus, 'Latvia to buy Israeli Spike guided missiles for CVR-T vehicles for €108 million', The Defense Post, 12 February 2018; also, c.f., Joint Forces, 'Latvian CVR-T Fleet on Allied Spirit 22,' 7 March 2022.

43 Fiorenza, Nicholas, 'Latvia orders 6x6 APCs from Patria', Janes, 1 September 2021.

44 Latvian Public Broadcasting, 'Latvia gets first 'Patria' armored vechicles', 8 March 2022.

45 Danish Defence, 'Baltic NATO headquarters moving towards important coordinating role', 29 March 2022.

46 Army Technology,'Spanish NASAMS unit completes readiness certification in Latvia', 8 November 2023.

47 Tarocinski and Gotkowska, 'Expectations versus Realities'.

48 Mansø, Rikke Gjøl and Christensen, Rasmus Bøttcher, 'Danske soldater blev med stor hast sendt til Letland for at afskrække Putin: "Vi mangler alt fra ammunition til underbukser"', DR, 20 June 2022.

49 Horton, Demirjian and Birnbaum, 'U.S. allies most vulnerable'; IISS, The Military Balance 2023, p. 109.

50 Andzans, Maris, 'Latvian Defence: Gradually advancing' in Sprūds, Andris, and Broka, Sintija (eds.), Latvian foreign and security policy: Yearbook 2020 (Riga: Latvian Institute of International Affairs, 2020), p.123.

51 Latvia, National Armed Forces, 'U.S. High Mobility Artillery Rocket Systems Deployed in Latvia during exercise "Namejs 2022"', 26 September 2022.

52 C.f., Latvia, National Armed Forces, 'Iron Spear 2022', 29 June 2022; it involved MBTs and IFVs.

53 Salerno-Garthwaite, Andrew, 'NATO NASAMS air defence system online in Latvia', Army Technology, 19 April 2023.

54 Tarocinski and Gotkowska, 'Expectations versus Realities'.

55 Ibid.

56 Nikers, Olevs, 'Latvia Focuses on Improving'.

57 Simanovica, Dace, 'Latvia's National Guard numbers increased rapidly this year', LSM, 11 November 2022.

58 Nikers, Olevs, 'Latvia strives to modernize its command and control', Eurasia Daily Monitor (Jamestown Foundation), vol. 13 no. 65, 4 April 2016.

59 Nikers, 'Latvia Focuses on Improving'.

60 Whitlock, Chase, 'Northern Strike – Joint training strikes Michigan', Citizen-Soldier, 24 October 2017.

61 IISS, The Military Balance 2023, p. 109.

62 Thomas, Matthew, 'Estonia's New Anti-Ship Missiles: Crucial Naval Capability and Overdue Strategic Shift to Sea,' Baltic Security Foundation, 29 October 2021.

63 Adamowski, 'Latvia to boost defense spending'.

64 Adamowski, Jaroslaw, 'Latvian government approves $110 million Naval Strike Missile buy', Defense News, 5 May 2023; this procurement occurred five years ahead of earlier plans.

65 Ibid., p. 123.

66 Latvian Public Broadcasting, 'Latvia in line to buy four Black Hawk helicopters', 6 August 2018.

67 Latvian Public Broadcasting, 'Baltic States push for air defense system implementation', 14 March 2022.

68 Airforce Technology, 'Latvia and Estonia to jointly procure air defence', 4 July 2022.

69 Nikers, Olevs, 'Latvia and Estonia Agree to Joint Acquisition of IRIS-T Air Defense Systems', Eurasia Daily Monitor, 20 June 2023; Baltic News Network, 'Latvia will not have its own medium-range anti-air defence in coming years', 17 February 2023.

70 The initial cost for the Swedish procurement of two Patriot battalions, for instance, was priced at approximately USD 1.2 billion. The Swedish Armed Forces have since procured additional interceptors. C.f., Judson, Jen, 'Swedish government greenlights Patriot deal', Defense News, 2 August 2018; The Local, 'Sweden submits order for more Patriot missiles from the US', 23 December 2023.

71 IISS, The Military Balance2023, p. 109.

72 Latvia, National Armed Forces, 'Structure'.

73 IISS, The Military Balance 2023, p. 109.

74 Nelson, Holli, 'Special Forces Soldiers train with Polish, Latvian allies in West Virginia', Utah National Guard, 3 August 2019.

75 Atlamazoglou, Stavros, 'NATO Has Opened a New Special Operations Facility in the Baltics', The National Interest, 14 January 2022.

76 U.S. Cyber Command, '"Shared threats, shared understanding": U.S., Canada and Latvia conclude defensive hunt operations', 10 May 2023.

77 IISS, The Military Balance 2023, p. 109.

78 Latvia, National Armed Forces, 'Structure'; International Institute for Strategic Studies – IISS, The Military Balance 2020 (London: Routledge, 2023), p. 122; and IISS, The Military Balance 2023, p. 108–109.

79 Rostoks, 'Deterrence Policy in Latvia', p. 94–107.

80 Andzans, 'Latvia Poised'; Nikers, 'Latvia Reinstitutes Conscription'.

81 Adamowski, 'Latvia to boost defense spending'; 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).

82 C.f., earlier discussion on conscription, for instance, Andzans, Maris, 'Latvia's Military Defense and Cyber Defense: Growth Continues, but Room for Progress is not Decreasing', in Broka, Sintija and Sprūds, Andris (eds.), Latvian Foreign and Security Policy: Yearbook 2022 (Riga: Latvian Institute of International Affairs, 2022), p. 108–124, 113;

83 Andzans, 'Latvia Poised'.

84 Ibid.

85 Interview 1, Riga, February 2023; Szymanowski, Grzegorz, 'Latvia reintroduces compulsory military service', Deutsche Welle, 7 April 2023.

86 Interview 3, Riga, February 2023; Nikers, 'Latvia Contemplates Conscription'.

87 Ibid.

88 Andzans, 'Latvia Applauds'.

89 Andzans, 'Latvia's Military Defense', p. 111; the IISS reports that in 2023 there are 59 M109A5s in Latvian service, with the 6 donated to Ukraine presumably already having been subtracte; c.f., and IISS, The Military Balance 2023, p. 109.

90 LETA, 'NBS saņēmuši visas 2014. gadā parakstītajā līgumā paredzētās kāpurķēžu izlūkošanas mašīnas CVR(T)', Sargs.lv, 26 October 2020.

91 Andzans, 'Latvia's Military Defense', p. 116. This was arguably part of a type of 'rocket artillery diplomacy', as HIMARS was similarly deployed and fired at a training range in Sweden the same month; Army Technology, "Long-Range weapon system HIMARS launched in Sweden for the first time", 26 October 2020.

92 LSM, 'U.S. moves forward with 220-million-dollar HIMARS sale to Latvia', 25 October 2023.

93 Andžāns, 'Latvian Defence', p. 121; and LETA/TBT Staff, 'Repairs of CVR(T)s supplied to Latvian Army Still Conducted in UK', Baltic Times, 4 November 2019; and Interview, April 2020.

94 Latvia, Ministry of Defence, 'Latvia plans to invest the average of €50 million a year in the development of military infrastructure over the next four years', 26 February 2019; and Rostoks, Toms and Vanaga, Nora, 'Latvia's security and defence post-2014', Journal on Baltic Security, vol. 2, no. 2, p. 82; host-nation support (HNS) refers to 'civil and military assistance rendered in peace, crisis, and war by a Host Nation to allied forces and NATO organisations, which are located on or in transit through the Host Nation's territory'.

95 Gosselin-Malo, Elisabeth, 'Latvia's Atlas Dynamics to open drone production plant in Ukraine', Defence News, 23 January 2023.

96 Rivkin, Amanda, 'Fire breaks out at US-owned drone factory in Latvia', Deutsche Welle, 7 February 2023.

97 LSM, 'Defense Ministry extends contract with Latvian drone maker UAV Factory', 23 December 2019.

98 Earlier debates over whether to acquire medium-altitude long-endurance (MALE) armed drones have quieted after experiences from Ukraine raised questions as to their survivability in a high-intensity battlefield.

99 Latvian Public Broadcasting, 'Latvia gets first "Patria"', 8 March 2022.

100 Army Technology, 'Latvia delivers six M109AOe howitzers to Ukraine', 17 August 2022.

101 Kincis, Jānis', 'Mūrniece: Latvia has sent 1% of GDP in military aid to Ukraine', Latvian Public Broadcasting, 13 January 2023.

102 LSM, 'Latvia to train 2000 Ukrainian troops this year', 21 January 2023.

103 See section 1.6 for the methodology behind the assessment of operational capability.

104 IISS, The Military Balance 2023, p. 109.

105 Andzans, 'Latvia Poised'; C.f., Szymański, 'The multi-speed Baltic', 14.

106 Horton, Demirjian and Birnbaum, 'U.S. allies most vulnerable'; Szymański, Piotr. The multi-speed Baltic', 14.

107 C.f. Rostoks, 'Deterrence Policy in Latvia', 96.

108 Szymański, 'The multi-speed Baltic', 14–15; Interviews, Riga, February 2023.

109 Harper, Jerad I. and Hunzeker, Michael A., 'Learning to Train: What Washington and Taipei Can Learn from Security Cooperation in Ukraine and the Baltic States', War on the Rocks blog, 20 January 2023.

110 LSM, 'State defense concept'.

111 Ibid.

112 As demonstrated by the fact that a change in government in September 2023 did not alter defence planning.

113 Horton, Demirjian and Birnbaum, 'U.S. allies most vulnerable'; Dalsjö, Jonsson and Norberg "A Brutal Examination. Russian Military Capability', Survival, vol. 64, no. 3, 2022, p. 7–29. .

114 Rostoks, 'Deterrence Policy in Latvia in 2021 and 2022', p. 94–107, 101.

115 Horton, Demirjian and Birnbaum, 'U.S. allies most vulnerable'.

8. Lithuania

Emelie Thorburn

After becoming a member of NATO and the European Union in 2004, Lithuanian security concerns were reassured, despite its geopolitical vulnerability. For a decade, the small state pursued an ambitious foreign policy.[1] By the mid-2010s, the security situation in Lithuania's neighbourhood had deteriorated. After 2014, worries about Russia's ambitions and the threat it posed to Lithuania and its neighbours became the main priority of Lithuanian security and defence policy. Allied reinforcement is key to Lithuania, and with increased defence spending, procurement of heavier materiel, reinstated conscription and a growing focus on total defence, Lithuania aims to strengthen its defence capabilities and ensure allied support by demonstrating its commitment to its own security.

8.1 Security and defence policy

As a small, geographically vulnerable state, multilateral and bilateral defence agreements are the basis of Lithuanian security and defence policy. Accession to NATO and the EU in 2004 meant a formal integration into Western structures, and a substantial improvement of the country's security. It adhered to the calls from important allies to contribute out-of-area capabilities to NATO. It consequently prioritised its participation in out-of-area operations over territorial defence, while reforming its Armed Forces by creating a smaller, professional force.[2]

Despite past experience, out-of-area capabilities made sense at the time, when the dominant perception was that the threat from Russia was diminishing. Lithuania's reduced investment in defence was motivated by the combination of Russia's anticipated transformation, NATO's security umbrella, and heavily strained finances. Analysts have pointed out that the gap between the country's geopolitical vulnerability and the resources devoted to its national defence grew during this period.[3]

A decade later, Lithuania's threat perception changed, starting with Russia's attack on Georgia, in 2008. Since the mid-2010s, Russia repeatedly subjected the Baltic States to considerable pressure that, although remaining below the threshold of armed conflict, used everything from cyber and energy to irregular migration and disinformation, which in turn prompted Lithuania to invest in the security and independence of its energy supply.[4] Russia's behaviour signalled an intent to use force against its closest neighbours. Its illegal annexation of Crimea in 2014 and its war in eastern Ukraine and subsequent full-scale invasion of the country in 2022 confirmed this intent, and extended it to the use of military force.

Russia's use of military force once again highlighted Lithuania's geographic vulnerability. It borders the Russian exclave, Kaliningrad, in the west and the Russian ally, Belarus, in the east. Lithuania's security service terms Russia the country's primary external threat, followed by Belarus.[5] After Russia's full-scale invasion of Ukraine, Lithuania amplified its critique of Russia and demonstrated strong support for Ukraine. The political leadership and the general public offered substantial economic, humanitarian and military assistance to Ukraine. For Lithuanians, geographical proximity and shared experiences of occupation motivated ample support.[6]

As security deteriorated after 2014, Lithuania reoriented its security and defence policy towards territorial defence; the scope of the shift was in parity with its policy overhaul after independence, in 1990.[7] Its defence spending increased considerably and it implemented substantial reforms, including a new concept of total defence, to enhance national defence capabilities and reintroduce conscription.[8] Most of its more recent modernisation plans have focused on readiness and reforming the mobilisation system.[9]

Lithuania is under no illusion that it can avert Russian aggression on its own. Rather, its defence strategies emphasise quick-response capabilities and the ability to hold territory at an early stage.[10] Lithuania's geostrategic circumstances, with potential aggressors both to the west and east, as well as its limited strategic depth, allow little margin for mobilisation or reinforcements.

This geostrategic reality is directly reflected in the form of allied support that Lithuania yearns for, both for itself and its neighbours. Notwithstanding that NATO's Defence Plans for the Baltic States and Enhanced Forward Presence (eFP) are crucial to Lithuanian security, it strongly supports NATO's reorientation towards forward defence, rather than allied reinforcements.[11] The argument is that with little advance warning in the case of an attack, reinforcements from outside Lithuania would not reach it in time. This thinking is confirmed

by Russia's full-scale invasion of Ukraine, which displays how having a standing defence can be vital.[12] Witnessing Russian war crimes in Ukraine has made Lithuania and other eastern flank states stress how important it is to prevent any type of occupation of their territory.

Hence, a fundamental pillar of Lithuanian security and defence policy is to support allied presence on its territory. This is currently comprised of a rotating US battlegroup and a multinational eFP Battlegroup, led by Germany. Initiatives to strengthen Lithuanian defence are intensively focused on improving host-nation support capabilities, i.e. substantial investment in infrastructure. The military cooperation with Germany has resulted in a deepened bilateral relation, recently consolidated by a decision to increase permanent German presence in Lithuania.

Another important pillar of Lithuanian security is national-defence capabilities. In 2022, a majority of parties in the Lithuanian parliament reached an agreement to further prioritise defence.[13] Beyond strengthening the Armed Forces, the agreement establishes goals for strengthening the country's ability to counter various threats. It exemplifies what has been referred to as a consensus culture on defence in the political sphere, being one of the few policy areas where the parties can reach broad agreement.[14] Furthermore, the parties agreed on a fixed level for defence spending of 2.5 percent of GDP.

Broadly speaking, the agreement on defence policy reflects Lithuanian public opinion. Polls conducted by the Ministry of Defence in 2021 show growing support for increasing defence expenditure.[15] Furthermore, polls show broad support for allied presence on Lithuania's territory and its NATO membership. A poll from 2022 confirmed these trends; it reflected the highest confidence in the Lithuanian Armed Forces in a decade.[16]

Despite broad support for strengthened defence, Lithuania has a long way to go. Economic and demographic challenges hamper the planned growth of the Armed Forces and, more importantly, the country has struggled with implementing the concept of total defence.[17] For a long time, security and defence primarily concerned a smaller circle, inhibiting attempts to anchor defence issues within other sectors and a broader public. However, that has gradually been changing since the mid-2010s, as civilian stakeholders have taken a greater interest in defence issues.[18] Several defence reforms, among them reinstating conscription, have contributed to anchor defence matters among a broader public.[19]

8.2 Military expenditures

Since 2014, Lithuanian defence spending has steadily increased, with a substantial surge after Russia's full-scale invasion of Ukraine. In 2023, Lithuania decided to raise defence spending further, aiming at an allocation of 2.5 percent of GDP to defence. The government adopted a resolution to add almost EUR 100 million to the defence budget.[20] It is estimated that in 2023

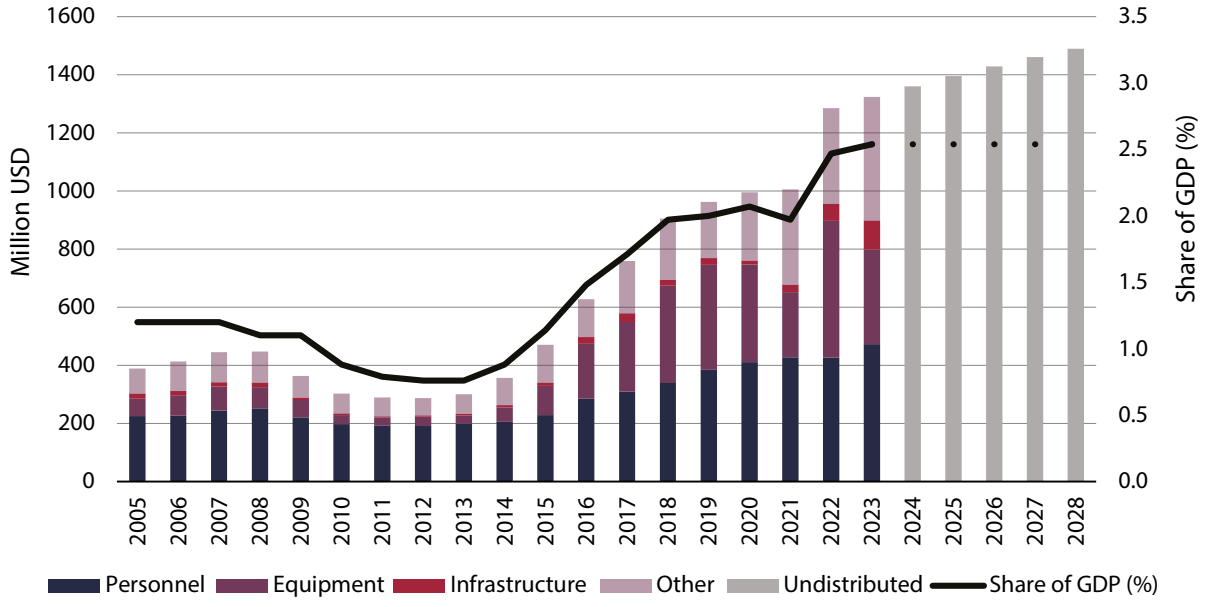


Figure 8.1 Military expenditures of Lithuania 2005-2028 in 2015 constant prices.
Sources/Remarks: NATO (2010, 2016, 2023). The forecast for 2024-2028 is based on a prolongation of the 2023 GDP share.

Lithuania spent about USD 1,3 million on its military, see Figure 8.1. In current prices, the estimated level amounts to USD 1,990 million. This is the highest level during the period 2005–2023. Divided by category, 36 percent is allocated to personnel, almost 25 percent to equipment, 7 percent to infrastructure and about 32 percent to other budget posts.

Finances remain a challenge for Lithuania's defence, as economic growth dampened in 2022 and the country contended with high inflation. The Lithuanian economy is expected to stabilise by 2024.[21] If so, Lithuania would have the prerequisites to complete its current defence investment plans, including procurement of heavier materiel.

8.3 Armed Forces

After independence in 1990, Lithuania re-established its Armed Forces, making it one of the youngest military forces in Europe.[22] Their main task is to defend the State of Lithuania, primarily by carrying out military training and maintaining combat readiness in peacetime, in order to deter a potential enemy.[23] In 2022, the Armed Forces numbered 11,500 professional service members, around 5,500 voluntary service members and 3,500 conscripts.[24] The Chief of Defence leads the Armed Forces from Vilnius. The largest branch by a substantial margin is the Army. It fundamentally constitutes Lithuania's defence capabilities, with support from the Navy, Air Force, and Special Operations Forces.

Army

The Army consists of three brigades, an engineering battalion, a logistics battalion and the National Defence Volunteer Forces. It has 8,850 soldiers, around 5,500 available reserves and about 2,500 conscripts.[25] The 1st Brigade, the Mechanised 'Iron Wolf' Brigade, is primarily stationed in Rukla and organised in seven battalions. It has been the main recipient of the modernisation programmes of recent years. Stationed in the centre of the country, its wartime tasks include defending against attacks originating from eastern Kaliningrad to Belarus. The 1st Brigade maintains higher readiness than the 2nd Brigade, and two of its battalions make up the core of the rapid response force. The German-led eFP battlegroup is integrated with the 1st Brigade.

The 2nd Motorised Brigade, headquartered in Klaipėda, is organised into four battalions.[26] It has obtained older materiel transferred from the 1st Brigade, as the latter has received more modern equipment. The main task of the 2nd Brigade is to defend against incursions from Kaliningrad and secure the port in Klaipėda.[27] The 2nd Brigade is partly manned by professional personnel, approximately fifty percent, and supplemented by reserves. As it primarily receives second-hand materiel, its equipment can be assumed to be somewhat aged. An artillery battalion equipped with new artillery systems is, however, under construction. According to reports, the brigade has largely been set up, but is still consolidating its organisation, which makes it difficult to estimate its capability.[28] It is worth noting that unlike the 1st, the 2nd Brigade does not retain high readiness.

The 3rd Light Infantry Brigade, created in 2016, is reserve-based. When activated, it consists of reservists under the command of officers from military schools and other headquarters. It is based in Vilnius. As the primary aim of the reintroduced conscription system is to fill units and uphold readiness, the 3rd Brigade may use the surplus of trained conscripts that will emerge.

The Lithuanian Army operates a limited number of heavy materiel, mainly Armed Personnel Carriers (APC) and Infantry Fighting Vehicles (IFV) of older and newer models, and air defence and artillery pieces. Two battalions in the 1st Brigade are equipped with new German-made IFV (Boxer/Vilkas).[29] With the new vehicles and the air defence systems purchased since 2015, the Army has shifted its capabilities towards greater mobility and protection.[30] Generally speaking, this mirrors the shift in Lithuanian defence policy.

In coming years, the Army faces two substantial changes. The first regards the German-Lithuanian cooperation, as part of the NATO eFP. In 2023, Germany announced an expansion of its future presence in Lithuania, planning for a brigade of 4,000 troops.[31] Notably, the brigade will be permanently stationed in Lithuania, in contrast to today's reinforcements mainly stationed in Germany. From a Lithuanian perspective, the German political commitment weighs heavy.[32] Questions however remain regarding implementation, personnel availability, infrastructure, and the fact that the modern German Armed Forces have no previous experience with permanent stationing abroad.

The second change regards the decision to create a Lithuanian Army Division by 2030.[33] The Division, planned to consist of 15,000 soldiers, will be organised in the three existing brigades. According to the Chief of Defence, Lithuania already has 75 percent of the capabilities needed to create a division.[34] Several large procurement projects have up until now been of division-level materiel, including US-made rocket-launchers (High Mobility Artillery Rocket System, HIMARS) and French self-propelled artillery (CAESAR), adding to already obtained German self-propelled artillery (PzH2000).[35] Procurement of Main Battle Tanks (MBTs) is under discussion, with plans for a tank battalion in

the 1st Brigade. Modern tanks may enable the Army to carry out counteroffensive operations. If decided upon, the estimated timeline for full operational capability of a tank battalion is five years.[36]

The Division will consist of Lithuanian forces, though allied support in material and capability will be necessary during an interim period.[37] The ambitious end goal of having an Army Division is to be able to defend all of Lithuanian territory, rather than only designated areas of strategic importance.

The decision to create an Army Division raises questions regarding feasibility. In 2023, a shortage of officers limits the actual functional capability of the land forces to one brigade.[38] In fact, only the Iron Wolf Brigade is generally complete with respect to personnel and materiel.[39] Creating a division will require substantial financial resources that go beyond the currently allocated defence expenditures.[40] In order to complete a division, military expenditure likely has to exceed 3 percent of GDP. At the moment, there are no such plans.

Navy

The Navy is the smallest branch of the Lithuanian Armed Forces, numbering 700 sailors.[41] The naval headquarters and the military port are located in Klaipėda. The Navy's primary tasks are sea surveillance and keeping ports and sea lines of communication open. The Navy is organised in a patrol-ship squadron and a mine-countermeasures squadron. It operates four ex-Danish Flyvefisken-class patrol vessels equipped with 76 mm guns, making them the best-equipped ships among the navies of the Baltic States.[42] The Navy lacks substantial combat capabilities, however, and its wartime tasks are limited to surveillance and de-mining.[43] A number of larger procurement projects have been planned for the Navy in the years to come, but no decision has been made. For now, current plans focus on modernising existing platforms alongside investments in command, control, communications and intelligence.[44]

Air Force

The Lithuanian Air Force is small. It has 1,500 personnel, but no fighter jets. The Air Force's main tasks are air surveillance and air defence. It maintains the Šiauliai Air Base, which is prepared for use by NATO allies and hosts the Lithuanian echelon of NATO's Baltic Air Policing initiative. Together with its Baltic neighbours, Lithuania has advocated for an increased allied presence, strengthening air defence as a part of NATO Forward Defence.[45] With the NATO Rotational Air Defence Model adopted in 2023, the alliance plans for an increased air presence and extended long- and medium-range missile defence in the Baltic States.[46]

Joint assets

The Lithuanian Special Forces are the fourth branch of the Armed Forces. It previously had a prominent role in Lithuania's out-of-area contributions, primarily in Afghanistan. It consists of three manoeuvre units tasked with special intelligence and targeted actions.

Lithuania has a political agreement to have cyber capabilities in place by 2024, starting with a cyber defence command.[47] A national and regional Cyber Security Centre is already in place. Whether this will eventually evolve into cyber forces is undecided.

The Riflemen Union, with its almost 13,000 members, is an organisation separate from the Armed Forces. A few units will serve with the Armed Forces in wartime, and may be assigned warfighting tasks. For the most part, however, the Riflemen Union is tasked with maintaining critical societal infrastructure.

Personnel

Lithuania reintroduced conscription in 2017, with the call-up age of 18–23 years. Conscripts are drafted by lottery, though a clear majority of conscripts sign up voluntarily. After completing conscription service, roughly 25 percent proceed to professional service. These and other efforts to boost recruitment have increased the size of the Armed Forces. In 2022, the Armed Forces had 11,500 professional and around 5,500 voluntary service members and 3,500 conscripts.[48] Voluntary service members serve as available reserves in the National Defence Volunteer Force. They continue in the voluntary forces after completing conscription and commit to 30 days of military training per year.[49]

Lithuania plans to increase its military personnel. In 2022, the government decided to increase the number of conscripts to 4,400.[50] However, a shortage of junior officers, non-commissioned officers and specialists remains a challenge. Until recently, the number of officers in training did not correspond with the need, resulting in a shortage of junior officers over time.[51] Demography also poses a challenge to recruitment, as Lithuania, like other states, faces the challenge of an ageing population and the fact that the younger generations are studying longer or, increasingly, moving abroad. This, in particular, challenges Lithuania's plan to set up a division. To staff a division will require a substantial increase in the number of conscripts in training every year.

Thus, a proposed reform to the existing conscription system is under evaluation. One suggested reform is to

increase the number of conscripts to 5,000 per year by making a segment of conscripts serve for six months instead of nine. Another suggestion is to withdraw the exemption available for students. The long-term goal is to have a voluntary force of 47,000 available reserves by 2030.[52] Lithuania is currently debating a shift to comprehensive conscription, which would draft more or less all young Lithuanians. If they do opt for comprehensive conscription, its implementation would take 6–8 years.[53] At this point, this form of conscription lacks majority public support.[54]

Materiel

The Armed Forces' numerically largest heavy materiel asset is the 236 American-made APC (M113 and M577). In 2022, 72 of these were transferred to Ukraine.[55] This capability gap is filled by the 88 new German-made IFVs (Boxer/Vilkas), equipped with a 30mm cannon and Spike long-range anti-tank missiles, with final delivery in 2023. Despite reports suggesting that the IFVs are experiencing technical problems upon arrival, officials claim that all 62 of the vehicles delivered so far are operational.[56] However, even when operational, the number of IFVs does not correspond with the needs of the Armed Forces, suggesting that in terms of heavy equipment, Lithuania only has three battalions suitable for combat.[57]

Lithuania strengthened its air defence in 2020 with three batteries of mobile medium-range air-defence-systems (NASAMS).[58] Lithuania's artillery capability has also been strengthened by 18 used, but upgraded, Panzerhaubitze 2000 self-propelled howitzers, extending its fire range fivefold.[59]

Monitoring Russia's war in Ukraine, Lithuania has identified a need for extended artillery and armoured capabilities.[60] More importantly, these needs correlate with the preconditions, such as tanks, air defence and long-range artillery, to complete the transformation into a division-level structure. Hence, the already existing acquisition plans are being accelerated. Among the priorities for materiel are indirect fire support and ground-based air defence, alongside intelligence and manoeuvre land capabilities.[61] Lithuania's Armed Forces are largely shifting from lighter to heavier units.

In concrete terms, the shift to heavier division-level materiel has resulted in a number of acquisition plans. Lithuania has placed a second order of 120 new German-made IFVs, with delivery expected in 2024–26. Furthermore, Lithuania is looking at extending its medium-range air-defence system with additional NASAMS batteries, as well as strengthening the short-range air-defence system RBS-70 with Bolide and MK-2 missiles.[62]

For artillery, Lithuania signed a contract of eight US-made launchers for high-mobility artillery rocket systems (M142 HIMARS), with scheduled delivery by 2025.[63] It also plans to purchase French-made self-propelled wheeled howitzers (CAESAR Mark II), with expected delivery by 2027.[64] Finally, a materiel plan of great significance is the acquisition of approximately 50 Main Battle Tanks. In 2023, Lithuania signed a letter of intent to purchase German MBTs (Leopard).[65]

The sense of urgency brought on by Russia's full-scale invasion of Ukraine impacts the key preconditions for Lithuanian materiel acquisition – most notably financing. Lithuania's decision to reach 2.5 percent of GDP on defence spending by 2023 rather than 2030 means that several materiel acquisition projects can have substantial time-frame adjustments.[66] Nevertheless, even with more financing, the acquisition of tanks remains uncertain. Thereto, maintenance remains a substantial challenge, affecting both current and future materiel systems.[67] A lack of specialists, technicians and maintenance infrastructure risks hampering Lithuania's prospects to reach its goal of a heavier armed force.

Table 8.1 Personnel and materiel in the Lithuanian Armed Forces

Personnel/ Materiel[(a)]	Numbers in 2023	Major reforms towards 2030
The Armed Forces	11,500 professional soldiers and 5,500 reserves	Army Division of 15,000 soldiers
Tanks		50 Main Battle Tanks (Leopard)
Armoured combat vehicles	62 Boxers (IFVs) 236 APCs (214 M113, 22 M577)	23 Boxers (IFVs) delivery in 2023 120 Boxers (IFVs) delivery 2024–2026[(b)]
Heavy artillery pieces	118 (18 self-propelled PzH 2000[(c)], 18 towed M101) 84 mortars (20 2B11, 22 M/41D, 42 self-propelled M113)	8 M142 HIMARS artillery launchers, delivery by 2025 18 Ceasar Mark II howitzers, delivery by 2027
Attack helicopters		4 Black Hawk helicopters, delivery 2024[(d)]
Air-defence batteries	GROM, 4 NASAMS, Stinger, RBS-70	2 NASAMS

Sources/Remarks: (a) IISS. 'Lithuania', 2023, p. 110–111; **(b)** Malyasov, Dylan, 'Lithuania to buy more Vilkas infantry fighting vehicles', Defence Blog, 7 May 2023; **(c)** Defense Brief, 'Lithuania receives final'; **(d)** Ministry of National Defence, 'Lithuania and the U.S. signed a contract on procurement of a new UH-60 Black Hawk helicopter platform from the U.S. Government', News, 13 November 2020

The importance of national defence industry capacity is another lesson learnt from the war in Ukraine. Hence, Lithuania has made efforts to strengthen its defence industry.[68] The defence industry mainly produces ammunition and dual-use products. For heaver materiel, Lithuania is dependent on import. A long-term aim is to strengthen defence export to sustain national defence industrial capability.

Military support for Ukraine

The openly reported military support that Lithuania provides to Ukraine includes heavy artillery systems, air defence and armoured personnel carriers. In terms of number, the 72 APCs (M113 and M577) are the largest donation of heavy weaponry.[69] In addition, Lithuania donated all of its towed howitzer (M101) artillery from stock, a total of 18 pieces.[70] Rather than sending its own air-defence systems, it financed two medium-range air-defence batteries (NASAMS) for Ukraine. The Armed Forces commander voiced a concern that Lithuania has sent too much heavy materiel, weakening its ability to defend its own territory.[71] With a shortage in both armoured vehicles and artillery, the capability gaps resulting from Lithuania's donation to Ukraine will mean a short-term capability loss for the Lithuanian Armed Forces. After the NASAMS donation to Ukraine in 2023, no new pledges to transfer materiel have been made, though official representatives have suggested aid through shared procurement with the other Baltic States. Lithuania has also provided assistance to Ukraine by training its forces in mine removal.

8.4 Assessment of military capability

Current operational capability[72]

The Lithuanian Armed Forces are in a transformation process accelerated by Russia's war against Ukraine. Plans to expand and improve capabilities focusing on national territorial defence, including host-nation support, are highly prioritised. The level of ambition is high and backed by a rare degree of political unity. For Lithuania, its security and defence policy reflects a sense of urgency driven by the threat from neighbouring Russia and Belarus. Lithuania has put substantial effort into increasing its readiness and reducing its reliance on mobilisation. Equally, the procurement of advanced equipment has increased its firepower, protection and mobility.

The number of units from the Lithuanian Army that are available on a three-months' notice of major combat operations naturally depends on the number of personnel and equipment that are at hand. Several factors indicate that the 1st Mechanised Brigade, or at least parts of it, would be operational. The 1st Brigade has received delivery of at least 62 modern IFVs, which have been integrated alongside modern medium-range air-defence and self-propelled artillery systems. The 1st Brigade is expected to maintain high readiness; it is explicitly tasked to counter unforeseen rapid aggressions. The Brigade is also integrated with the eFP, suggesting its higher readiness levels and continuity in training. However, uncertainties regarding its heavy equipment and personnel indicate that the actual combat capability of some of its units may actually be less than expected. Hence, only the two mechanised battalions on very high readiness may be available on short notice. 1 or 2 additional infantry battalions, likely equipped with IFVs or APCs, with support from artillery capabilities, may be operational within three months.

In the 2nd Brigade, around half of the troops are professional soldiers, and the readiness level is lower. Also, the 2nd Brigade retains older equipment, and large amounts of it have been donated to Ukraine. This suggests that no more than 2 motorised or infantry battalions would be available, depending on how far along the conscripts are in their training, within three months. The many uncertainties regarding staff completion, training and equipment indicate that more likely 1 battalion, or even less, may be available.

As the 3rd Brigade is merely an organisational structure lacking regular personnel and heavy equipment, reserves must be mobilised even to form standing units. Additionally, the level of personnel training, apart from in staff functions, is very uncertain. Hence, its operational capability within three months is likely limited.

Because the Lithuanian Navy is small, and faces no severe challenges, its existing units should be available on three-months' notice. This refers to its one patrol-ship squadron and one mine-countermeasures squadron. Its tasks in wartime are limited to surveillance and mine countermeasures, which are particularly important tasks if allied reinforcements must reach Lithuania by the Baltic Sea.

The same is true of the Lithuanian Air Force: it should be able to have one air-defence battalion available on three months' notice. The Air Force is tasked with air surveillance and air defence, both crucial for Lithuania's ability to receive allied reinforcements. The current shortage of air defence is a key vulnerability. The Armed Forces will have to rely heavily on timely allied air support. Lithuania has a greater variety of air-defence systems than its Baltic neighbours, making it somewhat more resilient in the face of aerial attacks.

In sum, this suggests that Lithuania can present 2–3 mechanised battalions, 1–2 motorised or infantry battalions, and supporting maritime and air-defence

capabilities, within three months. It is highly unlikely that the Lithuanian Armed Forces could engage in counteroffensive operations. Lithuania has pointed out that its structure is organised with smaller manoeuvre units in mind, tasked with holding territory in the early stages of an armed incursion.

Future operational capability

According to its current plans, Lithuania's Armed Forces will considerably increase its operational capability by 2030, particularly in three areas. First, changes to conscription and an increase in the number of conscripts will improve the personnel strength of the Armed Forces in a couple of years, both with respect to professionals and reserves. This will also likely help to enhance the necessary recruitment of more officers.

Second, the many heavy-materiel procurement programmes, including mid- and long-range artillery, air defence and potentially tanks, will result in heavier armoured units with improved offensive capabilities and better protection. As such, this will add to the range of opportunities available to the Lithuanian Armed Forces in a wartime setting, even those that entail offensive operations.

Third, the many infrastructure projects under construction will impact readiness levels, as these facilitate having more conscripts in training and more troops on high readiness. Improved infrastructure is also a key condition for increased allied presence on Lithuania's territory.

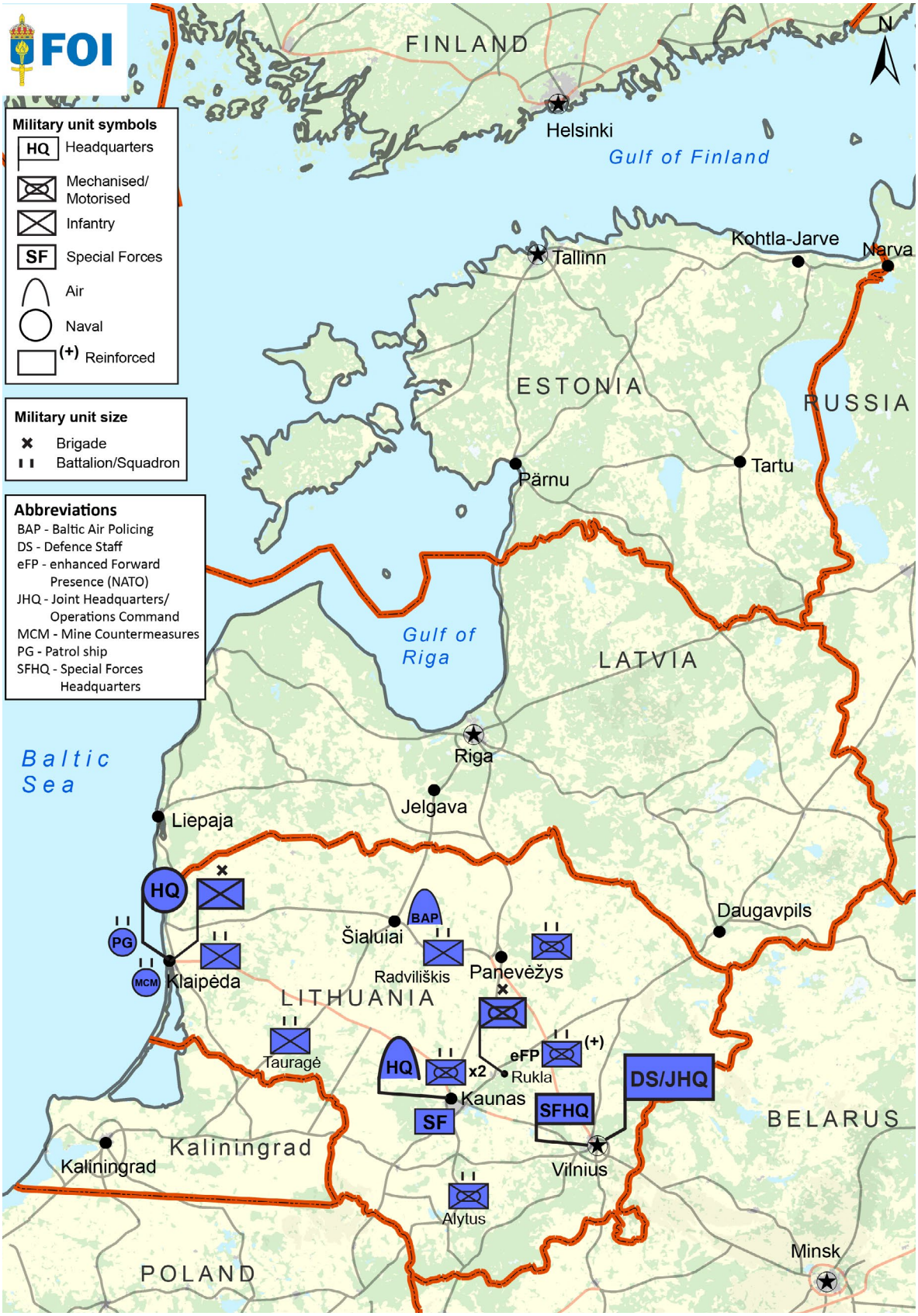
The most transformative change to the Lithuanian land forces in coming years, however, will be the transition from a brigade-level to a division-level organisation. Even though existing structures will still constitute the base, many questions remain. As one brigade will remain reserve-based, the operational capability, even when fully implemented, will never, at short notice, have the strength of a regular division-sized army. Nevertheless, the Army will have personnel, materiel and command structures in place to be able to present a division-sized army in a long-duration conflict. Overall, the development of Lithuania's military capabilities hence corresponds with the nature of anticipated future conflicts, and in the 2030s the country will likely be better prepared than it is today.

Its ambitious improvement plans, however, will have to be weighed against the challenges of funding, demographics and infrastructural needs. The political support for increased defence spending has been nearly unanimous, yet, similarly to other European states, Lithuania's economic growth has slowed. Tough trade-offs may await in the years to come. Moreover, extending the draft pool is associated with several challenges, including funding. Lithuania must also handle the transition from a largely static army to a modernised and mobile army. This entails not only integration of new systems and changes in training, but also development of and implementation of new doctrine.

Finally, if the plans to strengthen the Lithuanian Armed Forces are fully implemented, its operational capability would improve substantially. To do so, however, requires that it addresses major challenges. The sense of urgency that Lithuanians felt as Russia launched its full-scale invasion of Ukraine may be the key to carrying out the changes in full. ■

Table 8.2 Force structure of the Lithuanian Armed Forces

Force	Organisation in 2023	Major reforms towards 2030
Joint	Defence Staff	
Army	Army Headquarters 1st Mechanised Brigade 'Iron Wolf' (General Staff, Algirdas Infantry Battalion, Ulon Battalion, Hussars Battalion, Vaidotas Infantry Battalion, Artillery Battalion, Logistics Battalion 2nd Motorised Brigade 'Žemaitija' (Butigeidis Dragoon Battalion, Kęstutis Infantry Battalion, Margiris Infantry Battalion, Pečiulionis Artillery Battalion) Engineer Battalion 3rd Light Infantry Brigade 'Aukštaitija' under construction 6 territorial defence battalions	An Army Division of 3 Brigades, one mechanised, one motorised, and one infantry, by 2030 1 Tank Battalion in the 1st Brigade. Finalise the 3rd Light Infantry Brigade, 'Aukštaitija'
Navy	Navy Headquarters Patrol ship squadron Mine countermeasure squadron Port and coastal defence service Logistics service	
Air Force	Air Force Headquarters Air Base Air Defence Battalion	
Special Forces	Special Forces Headquarters (Special Purpose Service, Combat Diver Service, Vytautas the Great Jaeger Battalion, and Training and Combat Support Centre)	



Map 8.1 Overview of the Lithuanian Armed Forces and its basing
Remarks: The map covers major operational headquarters and manoeuvre forces
Source: Design by Per Wikström

Endnotes

1 Park, Ausra and Jakstaite-Confortola, Gerda, 'Small States Status-Seeking: Lithuania's Foreign Policy Status Aspirations', Europe-Asia Studies, vol. 73, no. 7, p. 1279–1302, 2021, p. 1285.

2 Gustafsson, Jakob, 'Lithuania', in Hagström-Frisell, Eva and Pallin, Krister (eds.), Western Military Capabilities in Northern Europe 2020 – Part II: National Capabilities, FOI Report FOI-R--5013--SE (Stockholm, Swedish Defence Research Agency – FOI, 2021); Hedberg, Masha and Kasekamp, Andres, 'Baltic States', in Meijer, Hugo and Wyss, Marco (eds.), The Handbook of European Defence Policies and Armed Forces, p. 214–230 (Oxford: Oxford University Press, 2018), p. 223.

3 Chivvis, Christopher S., Cohen, Raphael. S., Frederick, Bryan, Hamilton, Daniel S., Larrabee, F. Stephen and Lin, Bonny, NATO's Northeastern Flank: Emerging Opportunities for Engagement (Santa Monica: RAND Corporation, 2017), p. 182.

4 Chivvis et al., NATO's Northeastern Flank, p. 174.

5 Ministry of National Defence, National Threat Assessment 2023, 2022.

6 Interview, Vilnius, September 2023.

7 Bankauskaitė, Dalia and Šlekys, Deividas, 'Lithuania's Total Defense Review', National Defense University Press – PRISM, vol. 10, no. 2, 10 March 2023, p. 55.

8 Hedberg and Kasekamp, 'Baltic States', p. 226.

9 The International Institute of Strategic Studies – IISS, 'Lithuania', in The Military Balance 2022 (London: Routledge, 2023), p. 110.

10 Hedberg and Kasekamp. 'Baltic States', p. 217.

11 Raik, Kristi and Šešelgytė, Margarita, 'Estonia, Latvia and Lithuania', in Tardy, Thierry (ed.), The Nations of NATO – Shaping the alliance's relevance and cohesion, p. 279–299 (United Kingdom: Oxford University Press, 2022), p. 281.

12 Interview, Vilnius, September 2023.

13 Andrukaitytė, Milena, 'Lithuania's parties sign new defence agreement, pledging to keep military spending above 2.5%', LRT, 15 June 2022. *https://www.lrt.lt/en/news-in-english/19/1739576/lithuania-s-parties-sign-new-defence-agreement-pledging-to-keep-military-spending-above-2-5* (Retrieved 6 March 2023).

14 Interview, Vilnius, September 2023.

15 Ministry of National Defence, 'Poll reveals a growing trust in the Lithuanian Armed Forces and professional service and a particularly firm support to NATO membership', News, 25 January 2022. *https://kam.lt/en/poll-reveals-a-growing-trust-in-the-lithuanian-armed-forces-and-professional-service-and-a-particularly-firm-support-to-nato-membership/* (Retrieved 27 July 2023).

16 Ministry of National Defence, 'Public opinion poll points to increased trust in the Armed Forces and NATO Allies, improved critical assessment of information environment and will to resist', News, 20 February 2023. *https://kam.lt/en/public-opinion-poll-points-to-increased-trust-in-the-armed-forces-and-nato-allies-improved-critical-assessment-of-information-environment-and-will-to-resist/* (Retrieved 27 July 2023).

17 Jackūnaitė, Kristina, 'No total defence in sight: Lithuania's plans to prep society for war stall', LRT, 19 April 2023. *https://www.lrt.lt/en/news-in-english/19/1965174/no-total-defence-in-sight-lithuania-s-plans-to-prep-society-for-war-stall* (Retrieved 2 May 2023).

18 Šlekys, Deividas, 'Lithuanian Military Transformation and Changing Efficiency of Defence', in Matonytė, Irmina, Česnakas, Giedrius and Statkus, Nortautas (eds.), Lithuania in the Global Context: National Security and Defence Policy Dilemmas, p. 307–325 (Vilnius: General Jonas Žemaitis Military Academy of Lithuania, 2020), p. 317.

19 Šlekys, 'Lithuanian Military Transformation', p. 311.

20 LRT, 'Lithuania raises 2023 defence spending by nearly €98m', LRT, 1 March 2023. *https://www.lrt.lt/en/news-in-english/19/1926513/lithuania-raises-2023-defence-spending-by-nearly-eur98m#:~:text=Lithuania%27s%20defence%20spending%20for%202023,Finance%20Ministry%20said%20on%20Wednesday* (Retrieved 27 April 2023).

21 European Commission, Economic forecast for Lithuania, 15 May 2023.

22 Lithuanian Armed Forces, Who are we. *https://kariuomene.lt/en/who-we-are/history/23563* (Retrieved 26 April 2023).

23 Lithuanian Armed Forces, Lietuvos kariuomenės užduotis. *https://kariuomene.lt/musu-misija/kariuomenes-uzduotis/18* (Retrieved 22 September 2023).

24 Ministry of National Defence, National Defence: Facts and Figures 2022, July 2023, p. 9.

25 IISS, 'Lithuania', p. 110; Lithuanian Armed Forces, Land Force. N.d. *https://kariuomene.lt/en/structure/land-force/23583* (Retrieved 26 April 2023).

26 Lithuanian Armed Forces, 'Lietuvos didžiojo etmono Jono Karolio Chodkevičiaus pėstininkų brigada „Žemaitija"', N.d. *https://www.kariuomene.lt/sausumos-pajegos/padaliniai/brigada-zemaitija/22914* (Retrieved 26 April 2023).

27 Gustafsson, Jakob, Granholm, Niklas and Jonsson, Michael, Färdplan för tillväxt: Erfarenheter för Sverige från arméstridskrafternas tillväxt i Litauen och Estland, FOI Memo 6832 (Stockholm: Swedish Defence Research Agency – FOI, 2019), p. 6.

28 Saldūnas, Vaidas, 'Karas Ukrainoje Lietuvą verčia imtis to, kam dar nesame pasirengę: papildomai kainuos ne tik milijardus', Delfi, 10 May 2023. *https://www.delfi.lt/news/daily/lithuania/karas-ukrainoje-lietuva-vercia-imtis-to-kam-dar-nesame-pasirenge-papildomai-kainuos-ne-tik-milijardus.d?id=93286175* (Retrieved 21 September 2023).

29 Rogulis, Dovydas, 'The Development of the Lithuanian Armed Forces and Its Response to the Russian Conventional Threats in 2015–2020', Vilnius University Press, vol. 51, no. 1, p. 48–58, 2021, p. 50.

30 Rogulis 'The Development of the Lithuanian Armed Forces', 2021, p. 50.

31 Pitel, Laura and Foy, Henry, 'Germany plans "permanent" force in Lithuania to strengthen NATO's eastern flank', Financial Times, 26 June 2023. *https://www.ft.com/content/78f80ec0-6df8-4f8a-902d-f319afb9fe90* (Retrieved 6 July 2023).

32 Interview, Vilnius, September 2023.

33 Špokas, Edvardas and Šemelis, Augustinas, 'Lietuviškai divizijai sukomplektuoti gali prireikti iki 6 milijardų eurų', LRT, 8 May 2023. *https://www.lrt.lt/naujienos/lietuvoje/2/1980621/lietuviskai-divizijai-sukomplektuoti-gali-prireikti-iki-6-milijardu-euru* (Retrieved 10 July 2023).

34 LRT, 'Rupšys: sutarus išvystyti kariuomenės pajėgumus iki divizijos lygmens, reikėtų turėti ir tankų', LRT, 13 March 2023. *https://www.lrt.lt/naujienos/lietuvoje/2/1935195/rupsys-sutarus-isvystyti-kariuomenes-pajegumus-iki-divizijos-lygmens-reiketu-tureti-ir-tanku* (Retrieved 10 July 2023).

35 LRT, 'Sausumos pajėgų vadas: planuojama įkurti diviziją pakylėtų Lietuvos gynybą į kitą lygmenį', LRT, 17 March 2023. *https://www.lrt.lt/naujienos/lietuvoje/2/1940912/sausumos-pajegu-vadas-planuojama-ikurti-divizija-pakyletu-lietuvos-gynyba-i-kita-lygmeni* (Retrieved 10 July 2023).

36 Skėrytė, Jūratė, 'Projektus dėl divizijos įkūrimo Anušauskas Seimui žada pateikti birželį', LRT, 28 May 2023. *https://www.lrt.lt/naujienos/lietuvoje/2/1999554/projektus-del-divizijos-ikurimo-anusauskas-seimui-zada-pateikti-birzeli* (Retrieved 10 July 2023).

37 Andrukaitytė, Milena, 'Valstybės gynimo taryba pritarė siūlymui Lietuvos kariuomenėje kurti diviziją', BNS, 8 May 2023. *https://www.bns.lt/topic/1911/news/68660361/print/true/* (Retrieved 10 July 2023).

38 Špokas and Šemelis, 'Lietuviškai divizijai', 2023.

39 Martišius, Mantas, 'Mantas Martišius. Divizija apnuogins Lietuvos potencialą', Delfi, 16 May 2023. *https://www.delfi.lt/news/ringas/lit/mantas-martisius-divizija-apnuogins-lietuvos-potenciala.d?id=93363597* (Retrieved 12 July 2023).

40 Špokas and Šemelis, 'Lietuviškai divizijai', 2023.

41 IISS. 'Lithuania', p. 110.

42 Young, Thomas Durell, 'NATO's Selective Sea Blindness – Assessing the Alliance's New Navies', Naval War College Review, vol. 72, no. 3, Article 4, 2019, p. 23.

43 Lange, Heinrich, Combes, Bill, Jermalavičius, Tomas, and Lawrence, Tony To the seas again: Maritime defence and deterrence in the Baltic region (Tallinn: International Centre for Defence and Security – ICDS, 16 April 2019), p. A-2.

44 Lange et al., To the seas again, p. A-2.

45 Ministry of National Defence, 'The need to deploy additional air defenses in the Baltic region stressed at the changeover of NATO Baltic Air Policing Mission detachment ceremony', News, 31 March 2023. *https://kam.lt/en/the-need-to-deploy-additional-air-defenses-in-the-baltic-region-stressed-at-the-changeover-of-nato-baltic-air-policing-mission-detachment-ceremony/* (Retrieved 26 April 2023).

46 Ministry of National Defence, 'Significant step towards a stronger Baltic air defence – declaration on consolidated airspace for NATO needs signed', News, 11 July 2023. *https://kam.lt/en/significant-step-towards-a-stronger-baltic-air-defence-declaration-on-consolidated-airspace-for-nato-needs-signed/* (Retrieved 21 July 2023).

47 Bakaitė, Jurga, 'Lietuva kurs kibernetinę kariuomenę: kaip ji atrodys ir kodėl idėja jau dabar susilaukė kritikos?' LRT, 23 August 2022. *https://www.lrt.lt/naujienos/lietuvoje/2/1756300/lietuva-kurs-kibernetine-kariuomene-kaip-ji-atrodys-ir-kodel-ideja-jau-dabar-susilauke-kritikos* (Retrieved 21 September 2023).

48 Ministry of National Defence, National Defence, p. 9.

49 Lithuanian Armed Forces, Krašto apsaugos savanorių pajėgos. N.d. *https://www.kariuomene.lt/sausumos-pajegos/padaliniai/krasto-apsaugos-savanoriu-pajegos/22915* (Retrieved 19 September 2023).

50 LRT, 'Seimas pritarė pataisoms, leisiančioms didinti šauktinių ir kariūnų skaičių', LRT, 21 June 2022. *https://www.lrt.lt/naujienos/lietuvoje/2/1724198/seimas-pritare-pataisoms-leisiancioms-didinti-sauktiniu-ir-kariunu-skaiciu* (Retrieved 12 July 2023).

51 Interview, Vilnius, September 2023.

52 Andrukaitytė, Milena, 'L. Kasčiūnas: siūlymai dėl šauktinių reformos išjudins diskusiją', Bernardinai, 9 August 2023. *https://www.bernardinai.lt/l-kasciunas-siulymai-del-sauktiniu-reformos-isjudins-diskusija/* (Retrieved 19 September 2023).

53 Martišius, Mantas, 'Mantas Martišius.

54 Interview, Vilnius, September 2023.

55 Oryx, 'You've Got A Friend In Me – Lithuanian Weapons Deliveries To Ukraine', Oryx, 17 June 2022. *https://www.oryxspioenkop.com/2022/06/youve-got-friend-in-me-lithuanian.html* (Retrieved 17 July 2023)

56 Bakaitė, Jurga, 'Brangiausias Lietuvos kariuomenės pirkinys dar neveikia? KAM tikina, kad taip nėra', LRT, 25 July 2022. *https://www.lrt.lt/naujienos/lietuvoje/2/1744900/brangiausias-lietuvos-kariuomenes-pirkinys-dar-neveikia-kam-tikina-kad-taip-nera* (Retrieved 13 July 2023); Heiming, Gerhard, 'Contract for another 120 boxers for Lithuania planned for autumn', Europäische Sicherheit & Technik, 10 May 2023. *https://esut.de/en/2023/05/meldungen/41951/vertrag-ueber-weitere-120-boxer-fuer-litauen-fuer-herbst-geplant/* (Retrieved 29 September 2023).

57 Bakaitė, Jurga, 'Nuo tankų iki naikintuvų: kokių ginklų reikėtų kariaujant prieš Rusiją ir ką turi Lietuva?', LRT, 8 August 2023. *https://www.lrt.lt/naujienos/lietuvoje/2/1746321/nuo-tanku-iki-naikintuvu-kokiu-ginklu-reiketu-kariaujant-pries-rusija-ir-ka-turi-lietuva* (Retrieved 19 September 2023).

58 Beniušis, Vaidotas, 'Kariuomenės vadas: Lietuvos oro gynybos sistema pasiekė naują lygį', LRT, 10 July 2020. *https://www.lrt.lt/naujienos/lietuvoje/2/1196274/kariuomenes-vadas-lietuvos-oro-gynybos-sistema-pasieke-nauja-lygi* (Retrieved 19 September 2023).

59 Defense Brief, 'Lithuania receives final upgraded PzH 2000 self-propelled howitzer', Defense Brief, 24 March 2022. *https://defbrief.com/2022/03/24/lithuania-receives-final-upgraded-pzh-2000-self-propelled-howitzer/* (Retrieved 21 July 2023).

60 Interview Vilnius, September 2023.

61 Interview Vilnius, September 2023.

62 Ministry of National Defence. 'Lithuania acquires air defence weaponry', News, 21 October 2022. *https://kam.lt/en/lithuania-acquires-air-defence-weaponry/* (Retrieved 18 September 2023).

63 Lithuanian Armed Forces, 'Lithuanian Armed Forces prepares to integrate HIMARS: Joint training with Allies and personnel training planned', News&Events, 19 April 2023. *https://kariuomene.lt/en/lithuanian-armed-forces-prepares-to-integrate-himars-joint-training-with-allies-and-personnel-training-planned/25255* (Retrieved 18 September 2023).

64 Lithuanian Armed Forces, 'Self-propelled Caesar howitzers complete fire tasks in Lithuania for the first time', News&Events, 13 July 2023. *https://www.kariuomene.lt/en/newsevents/self-propelled-caesar-howitzers-complete-fire-tasks-in-lithuania-for-the-first-time/25453* (Retrieved 18 September 2023).

65 LRT, 'Lithuania to sign letter of intent on acquisition of Leopard tanks – Minister', LRT, 24 July 2023. *https://www.lrt.lt/en/news-in-english/19/2042458/lithuania-to-sign-letter-of-intent-on-acquisition-of-leopard-tanks-minister* (Retrieved 28 July 2023).

66 Bakaitė, Jurga, 'Nuo tankų iki naikintuvų'.

67 Ibid.

68 LRT, 'Four Lithuanian ministers sign defence industry development agreement', LRT, 25 May 2023. *https://www.lrt.lt/en/news-in-english/19/1998106/four-lithuanian-ministers-sign-defence-industry-development-agreement* (Retrieved 19 September 2023).

69 Oryx, 'You've Got A Friend In Me'; Špokas, Edvardas, '€400m of military support – What has Lithuania sent to Ukraine?', LRT, 24 February 2023. *https://www.lrt.lt/en/news-in-english/19/1921978/eur400m-of-military-support-what-has-lithuania-sent-to-ukraine* (Retrieved 2 March 2023).

70 Militarny, 'Lithuania hands over the 105-mm M101 howitzers to Ukraine', Militarny, 7 September 2022. *https://mil.in.ua/en/news/lithuania-hands-over-the-105-mm-m101-howitzers-to-ukraine/* (Retrieved 19 September 2023).

71 Stankevičius, Augustas, 'Rupšys siūlys VGT neperduoti haubicų, oro gynybos sistemų Ukrainai: turime ieškoti kitų priemonių', Delfi, 26 October 2022. *https://www.delfi.lt/news/daily/lithuania/rupsys-siulys-vgt-neperduoti-haubicu-oro-gynybos-sistemu-ukrainai-turime-ieskoti-kitu-priemoniu.d?id=91594795* (Retrieved 6 March 2023).

72 See section 1.6 for the methodology behind the assessment of operational capability.

9. Poland

Emelie Thorburn

After joining NATO in 1999, Poland adhered to calls for contributions to international operations, even though concerns regarding Russia persisted. As the Russian threat increased, Poland shifted attention toward territorial defence and defence of the eastern flank, and initiated a substantial reformation and modernisation of the Polish Armed Forces. Russia's full-scale invasion of Ukraine in 2022 accelerated this effort, and at once changed Poland's role on the international stage. Defence plans include a reformation of the personnel structure, vast materiel acquisition programmes, and new military units, leading up to the overarching goal of having Europe's largest army in 2030.

9.1 Security and defence policy

Even after the Soviet Union collapsed and Poland joined NATO, Poland remained concerned about Russia's imperial intentions. With the Russo-Georgian war in 2008 and Russia's illegal annexation of Crimea in 2014, Poland saw the Russian threat materialise once again. In 2020, it adopted the National Security Strategy of the Republic of Poland, replacing a previous act from 2014.[1] The strategy declares Russia as Poland's main threat and long-term challenge, pointing to Russia´s modernised forces, intensive exercise schedule, and disregard for the international security order. Belarus is equally an emergent threat, in particular after Belarus incited a migration crisis on the Polish border in 2021, and again as Russia launched parts of its full-scale invasion of Ukraine from Belarusian territory in 2022.

The Polish outlook on security and defence is characterised by an unease towards neighbouring great powers, following from its historical experience of occupation and loss of sovereignty. The Russian threat to Polish interests is particularly salient.[2] Moreover, there is a concern for abandonment, and importance attributed to self-reliance in defence.[3] Though NATO's Article 5 is undisputed, Polish strategic thinking includes a scenario where allied support lingers, or in the worst case is absent.[4] Hence the prominence given to bilateral relations with the US and ensuring the US presence on Polish territory.[5] From a Polish perspective, US engagement is the sole guarantor for effective deterrence and defence on the eastern flank.[6] To Poland, the US decision to establish the headquarters for its Army V Corps in Poznań and make some of its presence permanent rather than rotating has great military and political value.[7]

The changing security landscape, since 2022 dominated by the war in Ukraine, has nevertheless brought a new international role for Poland. Before the war, Poland saw itself as both a security consumer and a security provider.[8] Now, the latter has gained prominence. Bordering Ukraine, Poland has both steadily supported its neighbour, accepting millions of refugees and coordinating arms deliveries, and seen its importance rise on the international stage.[9] Poland has openly declared its readiness to take on a leadership role in Europe and aims to divert more of NATO's attention towards the eastern flank.[10] An increased NATO presence, together with a clear Ukrainian victory, are deemed necessary to prevent future Russian aggression against its neighbours.[11]

The three pillars of Poland's security policy are national defence capabilities, collective defence within NATO, and strong bilateral ties with the US. After years of adhering to NATO demands to contribute to international operations, the growing Russian threat compelled Poland to reorient its Armed Forces away from expeditionary to territorial defence.[12] A new defence concept adopted in 2017 articulated national security and the defence of Polish sovereignty as the main tasks of the Armed Forces.[13] This coincided with a process of reforming the Armed Forces, starting with strengthening its long-range defence capabilities, reinstating army-units, and setting up a territorial defence branch.[14]

In 2022, Poland accelerated the reformation of its Armed Forces by adopting the Homeland Defence Act, adding new ambitious goals to the existing ones.[15] The act includes changes to the recruitment system and the organisational structure of the Armed Forces, as well as new procurement programmes and an out-of-budget financing mechanism through an Armed Forces Support Fund.[16]

Both within NATO and when strengthening its national capabilities, Poland stresses the importance of deterrence. Recent statements emphasise the need to be able to immediately defend all Polish territory, in contrast to relying on reinforcements to reconquer occupied territory. The Ukrainian experience of Russian atrocities serves as a warning example and an argument for deterrence by denial, ensuring that Polish cities do

not "become another Bucha".[17] Its prioritised capabilities are armour, firepower and air defence.[18]

The relative consensus on the Russian threat and the need to increase national defence stands out in an otherwise polarised political landscape. However, reports highlight the lack of broad agreements when developing national defence capabilities.[19] After the policy shift in the mid-2010s, few processes of comprehensive operational analysis have taken place, leading to a shortage of public, political and strategic anchoring of decision-making. The Homeland Defence Act serves as an exception, adopted with broad parliamentary support.[20]

Despite the lack of broad agreements, the larger political parties principally agree on the enlargement and modernisation of the Armed Forces.[21] Before the elections in 2023, the opposition declared that it would uphold existing modernisation programmes, though possibly renegotiate some procurement contracts to promote the Polish defence industry.[22] Such an outcome would break with a recurrent trait of Polish defence politics, namely that incoming defence ministers regularly cancel the materiel projects initiated by their predecessor. Statements after the election, however, signal greater changes, adjusting personnel growth towards a substantial increase in reserve forces, rather than the previous government's goal of doubling professional forces.[23] On financing, including the Armed Forces Support Fund and the 3 percent of GDP on military expenditure, the parties principally agree.

9.2 Military expenditures

Since Russia's full-scale invasion of Ukraine, Poland has heavily increased its military spending. In 2023, Poland spent USD 29.1 billion, in current prices, on its Armed Forces. In terms of constant prices, Poland has increased its military spending drastically, with an increase by 323 percent since 2005; see Figure 9.1. Poland allocated 3.9 percent of its GDP to military spending in 2023, a drastic increase from 1.8 percent in 2005 and 2.4 percent in 2022. In 2023, 26.7 percent of Poland's military spending was allocated to personnel, 52.4 percent to equipment, 4.1 percent to infrastructure and 16.8 percent to other types of expenditure.

With the new Homeland Defence Act, Poland instated in law that it will spend no less than 3 percent of GDP on defence every year. Poland's 2023 expenditure was close to 4 percent of GDP. This includes both an increase in regular military spending to 3 percent of GDP, as well as the additional Armed Forces Support Fund, equivalent to 1 percent of GDP.[24]

Even if 2023's ambitious target is met, it is disputed whether Poland can continue its high level of military expenditure in the long term.[25] Previously strong economic growth is expected to have slowed significantly in 2023, along with the record-high inflation measured in early 2023 (17 percent). And while it is expected that the Polish economy will recover somewhat by 2024, the economic outlook remains uncertain.[26]

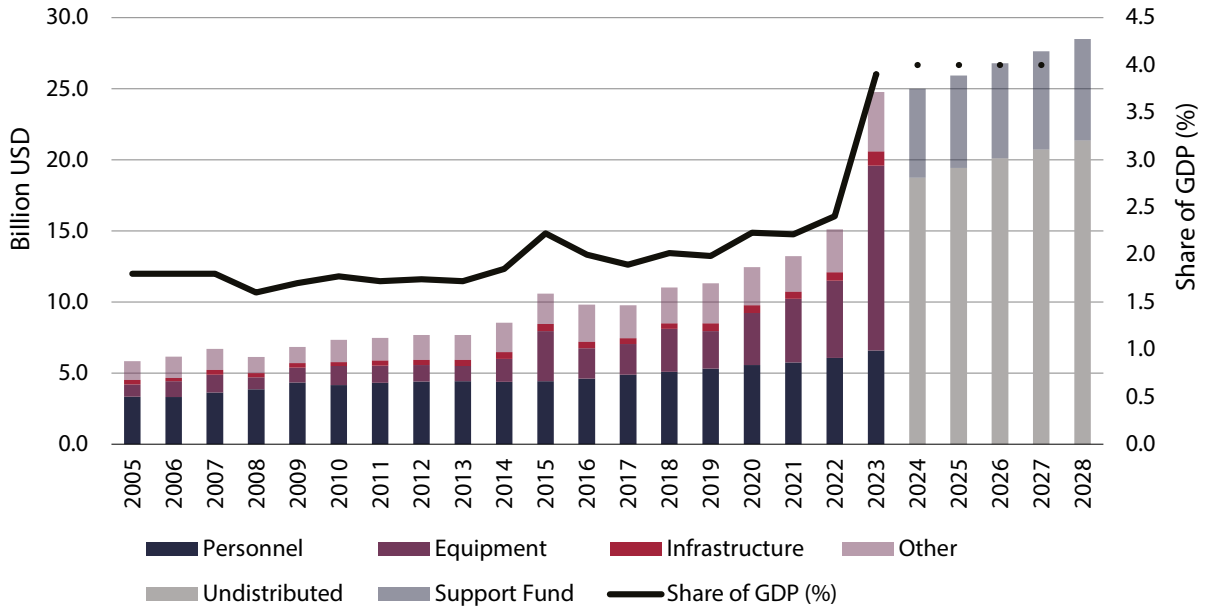


Figure 9.1 Military expenditures of Poland 2005-2028 in 2015 constant prices.

Sources/Remarks: NATO (2010, 2016, 2023). The forecast for 2024–2028 assumes that Poland will reach four percent of GDP by 2024 and maintain that level.

Therefore, achieving the ambitious targets for military expenditure may prove challenging. Nevertheless, if the spending target of 4 percent of GDP is achieved, in 2028 Poland would be spending approximately USD 28.0 billion (2015 prices) on its Armed Forces, as illustrated in Figure 9.1.

9.3 Armed Forces

The Polish Armed Forces has three main tasks. The first is national defence and the fulfilment of alliance obligations under Article 5. The second is to contribute to international security and stabilisation processes, and the third is to support Poland's internal security and assist Polish society in the event of a crisis. The Armed Forces consists of five branches: the Army, Navy, Air Force, Special Forces and the Territorial Defence Forces. The operational headquarters is located in Warsaw. After suspending compulsory military service in 2009, the Armed Forces has been manned by professionals. In total, the five branches number around 115,500 professionals.[27] Poland's current long-term goal, set by the former government, is a force of 250,000 professional soldiers, 300,000 including the Territorial Defence Forces (Wojska Obrony Terytorialnej, WOT).

Army

The Army is the largest military branch, as well as the main recipient of ongoing modernisation programmes. It currently comprises 54,000 soldiers.[28] Its headquarters is located in Warsaw. Until recently, large shares of army infrastructure were concentrated in western Poland, reflecting the threat perception of the second half of the 20th century. The new security environment, however, has meant a shift to the east. Nominally, the land forces consist of four divisions, one armoured and three mechanised. The construction of an additional infantry division stationed in Ciechanów, in northeastern Poland, began in 2022. Long-term plans include a sixth division.[29]

The 11th Armoured Division and the 12th Mechanised Division are located in western Poland, with their respective headquarters in Żagań and Szczeciń. The 11th Division is organised into two armoured brigades and one mechanised, an artillery regiment, an anti-aircraft regiment, and a logistics battalion. The 12th Division is organised into two mechanised brigades, one coastal defence brigade, an artillery regiment, an anti-aircraft regiment, and a logistics battalion. The division is part of Multinational Corps North East (MNC-NE), which is tasked to function as a Land Component Command for NATO's northeastern flank. The Polish division's command in Szczeciń also serves as the HQ for MNC-NE.[30]

The 16th Mechanised Division, headquartered in Olsztyn, south of the Kaliningrad border, is organised into one armoured brigade, two mechanised brigades, an artillery regiment, an anti-aircraft regiment and a logistics regiment. The 15th Mechanised Brigade, which is a part of the 16th Division, is integrated with the enhanced Forward Presence (eFP) Battle Group Poland.[31] It consists of US, British, Romanian and Croatian soldiers, with the US as the framework nation.[32] The eFP, and the NATO Multinational Division Northeast (MND-NE), are located in Elbląg.

The 18th Mechanised Division is under construction and is estimated to reach full operational capability by 2030.[33] It is located in eastern Poland, with headquarters in Siedlce. Currently, it comprises one mechanised brigade, one infantry brigade, and one armoured brigade, as well as a logistics regiment, for a total of 13,000 soldiers in 2023.[34] Its manoeuvre units have largely been transferred from existing structures, including the 21st Rifle Brigade, in Rzeszow, and the 1st Warsaw Brigade, stationed in Warsaw's Wesoła district.[35] Support units, such as reconnaissance, artillery and air defence, are under construction. In the long term, both the 18th Division and the 16th Division are planned to include four brigades, with four battalions each. They will number 21,000 soldiers in peacetime and increase to more than 30,000 in wartime.[36] Ensuring operational capability of the 18th Mechanised Division was a priority for 2023, and hence the focus of Poland's largest military exercise Anakonda 23.[37]

The emerging 1st Infantry Division is planned to be organised into four brigades, with four battalions each; two tank battalions; and two mechanised.[38] Unit formation is under way, with some expected to commence operating in 2023, among them a reconnaissance battalion in Białystok and a motorised battalion in Kolno.[39] The division headquarters in Warsaw is scheduled to move to Ciechanów in 2024.[40] A great challenge for the new 1st Division will be infrastructure, as the division is being built from scratch. Its equipment will primarily be recently acquired South Korean materiel. In addition to strengthening the defence of eastern Poland, the division will be tasked to support critical state functions.

The Army also has a number of independent units: the Airborne Brigade, located in Kraków; the Air Cavalry Brigade, in Tomaszów Mazowiecki; and the Aviation Brigade, which includes three reconnaissance regiments, in Inowrocław.

The Polish Army operates diverse heavy weapon systems. It has five different models of Main Battle Tanks (MBT), more than 600 in total, and a handful

of different artillery systems of both newer and older models. In terms of air-defence capabilities, the Army operates mainly tactical short-range and point-defence systems, in addition to two medium-range missile batteries (Patriot). Their numbers indicate that Poland has insufficient air defences, particularly at the strategic level. Poland's recent materiel acquisitions reveal that it has prioritised a new generation of MBTs and Infantry Fighting Vehicles (IFV), as well as air-defence capabilities.

The Army is currently struggling with multiple challenges. Shortages in personnel and materiel persist, with an alleged inability to achieve 90 percent staff completion in almost all operational brigades.[41] Recent reporting has drawn ominous conclusions regarding unit completion, personnel reserves and materiel stocks.[42] From 2022 onwards, Poland has been launching several reforms to improve the state of the Army, including a personnel reform and a long list of procurement programmes for Army materiel.

In an even longer perspective, Poland's ambitious goal of amassing Europe's largest army by 2030 will mean fundamental changes. The new organisational structure, with three new divisions under construction, and more units per division, constitutes a vast undertaking, even when viewed solely in terms of command structures, training and infrastructure. Add to this the fact that the new units must be assigned personnel and materiel in order to be fully operational, which will take time. Regarding the long-term plans, one estimate finds that in 2023 the Army is short of 100,000 soldiers.[43] Already grappling with challenges in recruiting and retaining personnel, alongside materiel shortages, the Army faces a limitation on short-term net growth, even with the addition of new units. To what degree this will also impact long-term growth is still an open question.

Navy

The Navy is tasked with coastal security, including energy security, due to Poland's increasing dependence on gas deliveries via the Baltic Sea.[44] With nearly 7,000 sailors and soldiers, the Navy is organised into two flotillas, one Naval Aviation Brigade, and one Naval Missile Unit.[45] The maritime command is in Gdynia, co-located with the 3rd Ships Flotilla, which is the Navy's primary tactical unit. The Naval Aviation Brigade, also located in Gdynia, is organised into three air groups, which operate maritime patrol aircraft, as well as anti-submarine and search-and-rescue helicopters.[46] The 8th Coastal Defence Flotilla, stationed in Świnoujście, is responsible for mine-clearance and anti-submarine operations. It operates three minehunters (Kormoran ll) and several smaller vessels and missile ships. In 2023, the maritime command in Gdniya conducted an exercise in command and control, leading the two flotillas and the Aviation Brigade as a part of Anakonda 23.[47]

The Navy is the smallest military branch, and least prioritised in terms of modernisation and operational planning. Despite announcements of several modernisation programmes, it has received only a small portion of the investment in the Armed Forces in recent years. A lack of a long-term strategy, as well as inconsistent views on the Navy's primary operational environment, have haltered the modernisation process.[48]

In 2021, the Ministry of National Defence (MND) recognised that the Navy had sufficient operational capabilities for recognising and combating mine threats, but lacked capabilities for countering surface and underwater targets, as well as for air and missile defence.[49] Hence, recent modernisation programmes imply increased attention towards the maritime domain. Taken together, the projects indicate an aspiration towards a more modernised and better-equipped Navy, rather than expanding the maritime branch.

Air Force

The Air Force has approximately 17,000 airmen, deployed in ten bases in Poland.[50] The main sections of the Air Force are organised into two tactical wings, the 1st Tactical Aviation Wing, located in Świdwin, and the 2nd Tactical Aviation Wing, in Poznan. The service also includes the 3rd Air Defence Missile Brigade, situated in Sochaczew.

Until recently, the Air Force was the most modernised of the Armed Forces' five branches.[51] It operates approximately 90 fighter aircraft, both Soviet MiG-29s and American F-16s. Nevertheless, upgrades will be needed in the coming years. Of the approximately 90 combat aircraft, only half are expected to be maintained after 2025.[52] In addition, political leaders have voiced a need for larger quantities of fighter aircraft, even a doubling, if the Air Force is to operate successfully in wartime.[53]

The numbers will improve slightly as 32 fifth-generation F-35A fighter aircraft arrive, starting in 2024, alongside 12 new Korean FA-50 aircraft. Another two fighter squadrons are planned, though no decisions have been made.[54] While these acquisitions promise greatly improved capability, the full operational capability will not be achieved any earlier than the mid-2030s, leaving the service smaller in the interim. Furthermore, the Air Force lacks key supporting capabilities, primarily reconnaissance and situational awareness. Looking ahead, these materiel shortcomings will be a challenge.

Joint assets

The Polish Armed Forces' significant joint assets include logistics support, Special Forces, Territorial Defence Forces and assets to enhance situational awareness. The Armed Forces Support Inspectorate is tasked with logistics on the strategic level. Two logistics brigades, the 1st and the 10th, and four regional logistics bases, operate under its command.[55] The logistics personnel corps is the largest specialisation in the Armed Forces, constituting 30 percent in 2021. The lingering challenge of high vacancy levels in logistics has somewhat improved in recent years, though the need for specialised, trained personnel is still high. This is especially so as the Armed Forces is in the process of setting up new tactical logistics units, building on existing repair units, with the aim of having one logistics regiment or battalion per division.[56]

Poland's Special Forces (Wojska Specjalne, WS) operate as a military branch separate from the Army and Navy. The Special Forces Component Command is located in Kraków. It has approximately 3,500 soldiers and is organised into six units with designated abilities in all domains; the newest Air Special Operations Unit was established in 2023.[57] The Special Forces operate various vehicles and helicopters, including American multirole helicopters (S-70i Black Hawks). In 2024, Poland will lead the special operations component of the NATO Response Force, putting its Special Forces on high readiness for 12 months.[58]

The Territorial Defence Forces (WOT) are Poland's fifth military branch, established in 2015. Unlike the other branches, it is temporarily operating directly under the MND, not under the Chief of the General Staff. Once fully operational, WOT will be a branch operating under the Armed Forces Command. WOT consists of both reserves and professional soldiers, numbering around 31,000 and 5,000, respectively.[59] The structure of 20 brigades, geographically organised, is now largely established, though staffing fulfilment is incomplete. WOT's main tasks are to conduct defensive and delaying operations, either in cooperation with regular forces or as independent units, and protect and assist municipalities and local communities. The plan is that WOT will be fully manned, with an expected force of 50,000 soldiers, by 2026.

Poland has made an effort to strengthen the Armed Forces' cyber capability, sometimes referring to its new Cyber Forces as the sixth military branch. It currently employs slightly more than 2,000 cyber soldiers and crypto-support personnel.[60] The Cyber Forces' command is in Warsaw. Its tasks in the cyber domain include defence, reconnaissance and active offensive operations.[61]

The absence of key reconnaissance capabilities in the Air Force exemplifies the broader deficiencies in ISTAR (intelligence, surveillance, target acquisition and reconnaissance) capabilities across the Polish Armed Forces. In general, Poland is dependent on cooperation with its allies to maintain situational awareness. Since 2017, Poland has had a national space strategy, which stipulates the need for a satellite infrastructure for security and defence purposes. In 2020, Poland agreed with Italy to obtain data from Italian satellites.

Personnel

Since Poland changed from conscription to voluntary military service in 2009, the Armed Forces has been manned by professionals. In order to complete the long-term plan of establishing two new divisions, making six divisions in total, and adding an armoured brigade in two existing mechanised divisions, it is vital to recruit new personnel.[62] The current force numbers 163,000 soldiers, including reserves and WOT, and has approximately 100 generals, 20,000 higher- and lower-rank officers, and 46,000 non-commissioned officers.[63] The Armed Forces is planned to grow to 250,000 professional soldiers, to a total of 300,000, including WOT, by 2035.

A personnel reform launched in 2022 was motivated by ambitious capacity goals and political reluctance to reinstate conscription. The reform introduced a new system, dividing the reserves into active and passive. Active refers to individuals who undergo military training and want to remain in the Armed Forces, though not professionally. They are assigned to a specific unit and called up for training on a quarterly basis. Passive refers to individuals who register as reserves, though without committing to partake in regular training. Their service only includes time-limited military exercises. With the reform, military service on a contract basis was terminated, automatically converting contract soldiers into professional soldiers, provided they did not resign.[64]

The reform also brought a new form of voluntary military service with salary, specifically aimed at young people.[65] The period of service is 12 months, including one month of basic training and 11 months of specialist training. Those who complete the basic training can serve in the territorial forces or as reserves, while those who complete the full training may apply for the professional forces.[66]

The new personnel structure has resulted in three types of units based on readiness: high-readiness units consist only of professional soldiers; medium-readiness units consist of 50 percent professional soldiers and 50 percent active reserves; and low-readiness units consist of 15 percent professional soldiers and 85 percent active reserves.[67] The low-readiness classification indicates that these units need several months to reach full operational capability.

Table 9.1 Personnel and materiel in the Polish Armed Forces

Personnel/Materiel	Numbers in 2023	Major reforms towards 2030
Personnel		
The Armed Forces	115,500 professionals 163,000 soldiers including reserves and Territorial Defence Forces	250,000 professionals and 50,000 Territorial Defence Forces by 2035, stated in 2022
Materiel[(a)(b)]		
Tanks	647 (10 K2; 108 Leopard 2A4 (being upgraded to 2PL); 105 Leopard 2A5; 34 Leopard 2PL; 28 M1A2 SEPv2 Abrams; 232 PT-91 Twardy; 130 T-72/T-72M1/M1R	250 Abrams (M1A2 SEPv3) delivery 2022–26 116 Abrams (M1A1 FEPs) will be upgraded to SEPv3 standard at later date, delivery in 2022–24 1,000 K2 (180 K2s delivery 2022–25 and 820 K2PLs produced in Poland from 2026)
Armoured combat vehicles	1,567 (1212 BMP-1; 4 Borsuk, 351 Rosomak)	1,400 Borsuk infantry fighting vehicles, produced in Poland, starting 2024 70 KTO Rosomak ZSSW-30s, delivery 2024–27
Heavy artillery pieces	773 Self-propelled: 424 (2S1 Goździk; M-77 Dana, Krab) Multiple rocket launchers: 179 (BM-21, RM-70,WR-40 Langusta)	672 K9 howitzers (48 155mm K9A1 self-propelled artillery, will be upgraded to K9PL (K9A2) at later stage, delivery between 2022–23 and 624 155mm K9PL (K9PL) self-propelled artillery, produced in Poland from 2026) 96 Krab howitzers (155mm AHS Krab self-propelled artillery), delivery 2025-27 64 Rak mortars (120mm M120 Rak self-propelled Mortars) 20 M142 HIMARS, delivery from 2022 onwards 18 M142 HIMARS launchers and 468 launcher module kits 288 Chunmoo MRL (K239 Chunmoo multiple rocket launchers), delivery 2023
Attack helicopters	28 attack helicopters (Mi-24D/V Hind D/E) 4 helicopters (S-70i Black Hawk)	4 attack helicopters (S-70i Black Hawk) for the Special Forces 32 AW149 multirole helicopters for the Army, delivery 2023-29 4 AW101 for the Navy (delivery in 2023)[(c)] 96 combat helicopters (AH-64E Apache[(d)]
Surface combatants	2 frigates (Pulaski class)	3 missile frigates, delivery completed by 2032
Submarines	1 submarine (kilo class)	3 or 4 submarines (planned)
Combat aircraft	94 (28 MiG-29, 48 F-16, 18 Su-22)	32 F35A fighter aircraft, first delivery in 2024 12 fighter aircraft (FA-50) delivery in 2023 36 light combat aircraft (FA-50PL) delivery 2025-28
Transport aircraft	50 (7 C-130H Hercules; 5 C-130E Hercules, 16 C295M, 23 M-28 Bryza, 2 Gulfstream G550, 2 B-737-800)	
Air-defence batteries	Surface-to-air missiles: 23 short-range (CAMM Narew, 2K12 Kub); 143 point-defence (9K33 Osa-AK, GROM, Piorun, Poprad) 2 Patriot batteries	100+ short-range CAMM launchers and 1000+ CAMM missiles 48 Patriot launchers and 644 patriot missiles
UAVs	6 Bayraktar TB2	24 Bayraktar (TB2) delivery completed in 2024

Sources/Remarks: (a) International Institute of Strategic Studies (IISS). 'Poland', in The Military Balance 2022. London: Routledge, 2023, p. 121–123; **(b)** Ministry of National Defence. 'Modernizacja techniczna SZRP'. N.d. https://www.gov.pl/web/obrona-narodowa/modernizacja-techniczna-szrp (Retrieved 7 June 2023); **(c)** Palowski, Jakub, 'Defence24 DAY: New Helicopters for the Polish Air Cavalry', Defence24, 29 May 2023. https://defence24.com/armed-forces/defence24-day-new-helicopters-for-the-polish-air-cavalry (Retrieved 8 November 2023); **(d)** Kancelaria Senatu, Rozbudowa liczebności Sił, p. 25.

Recruitment and retention are additional critical components of the reform. The Armed Forces faces difficulties competing with other sectors in attracting young people.[68] Additionally, in 2022, some branches saw a decrease in personnel. Almost 16,000 professional soldiers and volunteers left the Territorial Defence Forces in 2022, followed by another 4,000 in early 2023.[69] An especially worrisome development within the professional forces is the departure of specialists.[70] Although there is no comprehensive explanation why, some have pointed to the termination of contract service, while others highlight the low salaries and heavy workload.[71]

These numbers indicate that the Armed Forces' greatest challenge is retaining personnel, rather than recruiting it, especially as ongoing recruitment campaigns show good results. 2022 saw the highest number of enlistments since the abolition of conscription.[72] Since voluntary military training was established in 2022, 25,000 soldiers have participated, of which 9,000 have continued to professional military service.[73] In 2022, almost 14,000 persons joined the Armed Forces.[74] Nevertheless, the challenges in reaching a total of 250,000 professional soldiers are significant, and recruitments in 2022 and 2023 are far from what they need to be in order to reach this target.[75]

Materiel

As large shares of the existing equipment are obsolete and need replacement, Poland has made the issue of military materiel a priority.[76] Modernising and replacing materiel serves the dual purpose of enhancing military capability and phasing out old, Soviet-era equipment.[77] Arming Ukraine after Russia's full-scale invasion, a key concern of Poland, has accelerated the process of modernisation.

Poland is thus in the middle of a comprehensive materiel exchange process. A substantial amount of Poland's Soviet-era model MBTs (the T-72 and the upgraded PT-91 Twardy) was delivered to Ukraine in 2022, though approximately a third remain. The Army also operates German MBTs (Leopard). As of 2023, Army units of the 18th Mechanised Division have been operating new South Korean (K2) and American (Abrams) MBTs.[78] The Army is also equipped with approximately 1,500 IFVs.

Poland's artillery consists of a mix of old and new systems. Of the approximately 400 older Soviet-made self-propelled artillery (2S1 Goździk), some have been transferred to Ukraine.[79] Poland also has an older Czechoslovakian self-propelled artillery system (Dana). Among newer systems, the first numbers of a South Korean-British system (Krab) and new South Korean self-propelled artillery (K9A1 howitzers) have been introduced.[80] In addition, the Army has approximately 200 multiple-launch rocket systems (MLRS). In 2023, the first 20 of the new launcher systems (High Mobility Artillery Rocket System, HIMARS) that it ordered from the US have been delivered to the 16th Mechanised Division.[81]

In contrast to the Army, the Navy's materiel modernisation has been lagging. The Navy's larger systems include one tactical submarine (Kilo class), two frigates (Pulaski class), three minehunters (Kormoran ll), and two corvettes – one dedicated to anti-submarine duties and the other serving as a patrol corvette. The Naval Aviation Brigade operates surveillance aircraft and helicopters.[82] Poland withdrew its two Kobben-class submarines from service in 2021.

The Air Force operates approximately 90 fighter aircraft, including three squadrons of multirole fighters (various versions of the F-16), two squadrons of interceptors (MIG-29s) and one squadron of strike aircraft (SU-22s). Following a series of incidents, much of the MiG-29 fleet was grounded in 2019. In 2023, Poland transferred 14 of its MiG-29s to Ukraine.[83]

Poland faces several challenges, many related to maintenance, with its existing materiel. Reports have highlighted the surplus of ageing materiel, and the lack of spare parts.[84] Furthermore, with the Armed Forces planned to grow substantially, the existing materiel will not suffice. Materiel acquisition hence has to serve dual purpose for both renewal and enlargement.

Even before 2022, the modernisation of Polish military materiel prioritised strengthened armour and additional firepower. In addition to these already prioritised areas, the lessons from Russia's war in Ukraine have underscored the need for air defence.[85]

Large quantities of modern equipment will reach the Armed Forces in the coming years. These include approximately 350 Abrams tanks (M1A2 and M1A1) and additional South Korean tanks (K2), which will all have been delivered by 2026. Beginning in 2026, Poland will manufacture another 820 MBTs, the South Korean-model K2PL. Furthermore, from 2024 onwards, 1000 new Polish-made tracked IFVs (Borsuk) and 70 wheeled IFVs, the Polish-Finnish model KTO Rosomak, will reach the Army.

The Army will further receive multiple artillery systems, including 96 Krab self-propelled artillery, with delivery from 2025 to 2027. The initial 48 South Korean self-propelled artillery (K9) delivered in 2023 will be followed by 624 self-propelled artillery manufactured in Poland (K9PL) from 2026 onwards. American High Mobility Artillery Rocket System (HIMARS) will reach Poland in two rounds, the first order by 2023 and the second from 2025 onwards, a total number of 38 rocket launchers and 468 launcher-module kits.[86] Another 288 South Korean rocket-artillery launchers (K239 Chunmoo), ordered in 2022, delivered in 2023.[87] For air defence, Poland signed contracts in 2023 to increase both its short-range (CAMM) and medium-range (Patriot) missile batteries.[88]

The two larger naval modernisation plans entail new combat ships, the "Miecznik Programme", and new submarines, the "Orka Programme".[89] As a result of the Miecznik Programme, three new frigates will reach the Navy in the coming years.[90] In contrast, the status of submarine procurement has been unclear for years, as the MND seemingly prioritised surface-combat ships.[91] In May 2023, however, the MND announced a relaunch

of the Orka Programme.[92] Public information suggests a purchase of three or four submarines, primarily tasked with operating in the Baltic Sea. Poland has received bids from 11 entities, including several European countries and South Korea.[93]

Modernisation of the Air Force started before 2022, in essence with the acquisition of 32 new American fighter aircraft (F-35A), with initial delivery by 2024. Their full operational capability is estimated to be reached in the mid-2030s. In 2022, Poland acquired 12 South Korean light fighter aircraft (FA-50), with delivery in 2023, followed by another 36 fighter aircraft of the Polish updated model FA-50PL, from 2025 and onwards.[94] In 2023, the MND announced plans to purchase early-warning aircraft from Sweden, a purchase that will significantly improve Poland's air picture.[95]

The modernisation processes of all of the Armed Forces' branches face several challenges. First, with many advanced systems arriving, multiple supporting structures, such as training, maintenance, infrastructure, repairs, fuelling, and so on, need to be in place. Some branches, mainly the Army and the Air Force, will operate various models of large systems (fighter jets, MBTs, artillery), and thus need multiple, parallel, supporting structures. This hints at a considerable logistical challenge.[96]

Second, despite political pledges to raise military expenditures in the years to come, questions remain regarding the capacity of Poland's economy to support all materiel-acquisition programmes.[97] This will be even more critical as other expenditures, for example, to retain personnel and maintain existing materiel, need funding.[98]

A key factor, however, referred to as "a sense of urgency", sets Poland's capability development apart from a majority of NATO states. From a Polish perspective, there is a brief timeframe available now, formed by the invasion of Ukraine, when Russia's forces are weakened to the point where it cannot pursue its imperial ambitions.[99] For Poland, therefore, its obtaining military materiel is about securing enough defence capability to be effective when Russia has again attained sufficient strength to invade a neighbour. Hence, the need for immediate or rapid delivery are crucial for recent materiel acquisitions, particularly the contracts signed with South Korea. The explicit aim of current modernisation programmes is to deter an invasion altogether.[100]

In addition to increasing its military capability, several recent materiel procurement contracts also aim at expanding Poland's defence industry. Large shares of the defence industry are state-owned and currently oriented towards domestic demand, producing everything from rifles and ammunition to heavy infantry fighting vehicles.[101] The defence industry, however, lacks a number of high-tech competencies, and the country as a whole relies heavily on import.[102] Contracts recently signed with South Korea for heavy materiel systems include technology-transfer arrangements, as it is expected that large quantities of future military materiel will be manufactured domestically.[103] A growing criticism argues that too many materiel contracts have been signed without securing enough benefits for the Polish defence industry.[104]

Military support to Ukraine

Poland's military support to Ukraine has been substantial. Publicly disclosed assistance adds up to EUR 2.2 billion, and includes Soviet-made MBTs, fighter jets (MiG-29s) and anti-aircraft launchers.[105] The largest quantities delivered are of the nearly 300 MBTs of both older Soviet (T-72) and newer German (Leopard) models and the approximately 300 Soviet-made IFVs (BWP-1).[106] Poland has also transferred self-propelled artillery to Ukraine, both older Soviet-made systems (2S1 Goździk) and newer systems of other origin (Krab). This makes Poland the sixth-largest donor of weapons to Ukraine.[107]

As a neighbour of Ukraine, Poland further operates as a hub for international materiel deliveries, and by offering maintenance and repairs on its territory. It has also hosted NATO training of Ukrainian troops on its territory.

In September 2023, political officials stated that Poland will not send more military equipment to Ukraine. Instead, Poland will focus on strengthening its own defence.[108] Though a contrast to previous steadfast support, the decision indicates that Poland now considers that it has provided all available materiel to Ukraine. In fact, the extensive deliveries so far imply that the impact on Polish capability is already tangible, at least until replacement materiel arrives. Therefore, Polish support will likely continue to be in the areas of maintenance and training.

9.4 Assessment of military capability

Current operational capability[109]

The modernisation of the Polish Armed Forces that already has been carried out during an entire decade intensified considerably after Russia's full-scale invasion of Ukraine. To Poland, the materialisation of Russia's imperial ambitions in the attack on Ukraine means an existential threat to all states on NATO's eastern flank. The ability to defend all of Polish territory, through national capability and together with NATO allies, has become the highest priority, endorsed unanimously by an otherwise polarised political community. Large-scale materiel procurement programmes focus on

strengthening firepower, armour, and air defence, resulting in a general improvement in capability.

The units from the Polish Army that may be ready for major combat operations within three months naturally depend on multiple factors, including the materiel available and the amount of trained personnel. The classification of units by readiness level, whether low, medium, or high, is not disclosed. Considering Poland's threat perception, key units stationed in eastern Poland can be expected to maintain higher readiness levels than units stationed in western Poland. When fully implemented, the new reserve structure of active and passive reserves will result in a sizable contribution of personnel and, simultaneously, have great implications for the levels of readiness. Naturally, a unit with a higher number of reserves will need more time to reach full operational capability.

The 11th and the 12th Divisions constitute the longstanding foundation of the Polish Army. The 12th Division headquarter parallels as a command for multinational forces, suggesting that it maintains command and control at a rather high level of readiness. Several factors, however, indicate that some of their manoeuvre units, six brigades in total, would struggle to reach full operational capability at short notice. Maintenance and materiel shortages impair the Army in general. The major donation to Ukraine of Poland's Leopard and T-72 MBTs, models normally operated by units in the 11th Division, indicates insufficient materiel completion in these units in particular. Also, a staff shortage serves as a challenge for all units. With this in mind, 1–2 mechanised brigades in the 12th Division; 1–2 armoured or mechanised brigades in the 11th Division, including support from artillery and air defence regiments, may be available at three months' notice.

The 16th Division is nearly complete in terms of organisational structure, yet full manning may be a difficulty. The two mechanised brigades normally operate BMP-1 IFVs and PT-91 MBTs, both a substantial part of Poland's aid to Ukraine, suggesting that the materiel level is insufficient. For the mechanised brigade integrated with the NATO eFP Battlegroup Poland, readiness is presumably at high level. From 2023, units in the 16th Division have partly been working with new materiel, including high-mobility artillery. Considering the factors above, the span of outcomes with three months of preparations is considerable. Accordingly, the 16th Division may have somewhere between 1 and 3 amoured or mechanised brigades as well as roughly 1 artillery brigade, and a number of supporting units, available.

It is estimated that the 18th Division will reach full operational capability by 2030. In 2023, staff completion is approximately 50 percent of target level. However, the division is explicitly prioritised in larger exercises and receiving new materiel, including Abrams MBTs, which indicates a rapid improvement in operational capability. Additionally, the two brigades set up so far build on already existing units. If the readiness level does in fact reflect the threat perception, the 18th Division stationed in eastern Poland is a positive factor for readiness. At the same time, supporting units for reconnaissance, logistics and air defence are still under construction. In sum, this indicates that 1–2 armoured or mechanised brigades, and limited supporting structures, could at best be available within three months.

The Navy conducted exercises with most units in the spring of 2023, which indicates a reasonable availability. However, numerous outdated vessels in the fleet still raises concerns about short term readiness and even more regarding operational capability. Notwithstanding that, the two frigates, the Kormoran II minehunters and the land-based Coastal Missile Unit may make useful contributions, even at short notice. Altogether, this suggests that a larger share of the two flotillas, a naval aviation brigade and a naval missile unit can be available within three months. Operational capability, however, has been narrowed to certain tasks, primarily mine countermeasures, as the Navy's combat capability for surface and underwater targets, as well as its air and missile defence, is limited. In addition, the relevance of the Navy's single submarine is very uncertain.

The Air Force also faces strains regarding materiel, as Poland has delivered approximately half of its MiG-29 aircraft to Ukraine, and has yet to receive its new F-35 fleet. Three squadrons of F-16 multirole fighter aircraft and one squadron of SU-22 strike aircraft remain nominally operational. The readiness of the light aircraft (FA-50) arriving in 2023 is uncertain.

The process whereby the Territorial Defence Forces is setting up an organisational structure of 20 regional brigades has been relatively quick, though staff fulfilment is incomplete. The territorial force builds substantially on reserves and has a lower level of readiness, generally, compared to the Armed Forces. However, they are not likely to perform offensive combat tasks.

The Special Forces have a high level of readiness and the capability to act at an early stage. Their readiness was higher than normal in 2023, as Poland prepares to lead the Special Forces' command of NATO Rapid Response in 2024, which suggests that close to all SF units could be ready to deploy at three months' notice.

In sum, this suggests that Poland can mobilise some 4–8 armoured or mechanised brigades, probably less, and a large share of air force capabilities, and limited naval capabilities, within three months. This de facto capability equally depends on supporting units, as well as logistics and protection. The general shortage of military personnel and the high percentage of equipment

that is in need of upgrade are imminent disadvantages for Poland's current operational capability.

Future operational capability

The explicit aim and likely result of the plans for the Polish Armed Forces is a substantial improvement in operational capability in the next couple of years. The changes to the command structure, the increase in personnel, both professionals and reserves, and the renewal and improvement gained through the acquisition of advanced military materiel, are all contributing factors.

The Polish Army aims to have 6 complete ground divisions and 4 of them are expected to be operational by 2030. Poland will then have considerable resources to meet an adversary in the land domain. With several divisions, it is feasible to maintain units at high readiness covering larger shares of Polish territory, increasing Poland's ability to respond rapidly to an act of aggression. However, before it can reach full operational capability, many challenges await, primarily in the areas of financing, infrastructure, logistics, and command and control. The Air Force will face similar challenges if it decides to expand by two new squadrons.

The planned reforms in command and control, including a new Joint Forces Command, will improve the mandates and efficiency of operations. A new Land Forces Corps will mean greater coordination among land units.

This organisational growth is heavily dependent on a rapid increase in personnel. If Poland can achieve its stated goal of standing up 250,000 professional soldiers in the Armed Forces by 2030, the fulfilment of personnel numbers in all units will be significantly improved compared to today. The new reserve structure also means the availability of a wider pool of reserves to complete units in wartime. Reaching the stated goal, however, is uncertain, as both recruiting and retaining personnel at this high level has proved difficult.

Having sufficient personnel available will also be a prerequisite for the ability of the Armed Forces to render its incoming new military materiel fully operational by 2030. Many advanced, heavy materiel systems will reach Poland in the coming years, including MBTs, short- and long-range artillery, air-defence, combat aircraft, attack helicopters and multirole ships. Their impact on operational capability will be substantial.

With new generation MBTs and IFVs, both wheeled and tracked, the Polish Army will have numerous possibilities to carry out both defensive and offensive operations in the land domain. Together with new artillery, both short- and long-range, the Army will strengthen its firepower significantly. Both the Army and the Air Force will see an increase in air defence, compared to today's insufficient levels. With the new-generation fighter-aircraft fleet, the Air Force will also gain greater offensive capabilities. The Navy will also be augmenting its war-fighting capabilities, in addition to its mine countermeasures and sea surveillance duties. In the long term, new submarines will contribute to a substantial improvement in naval capability.

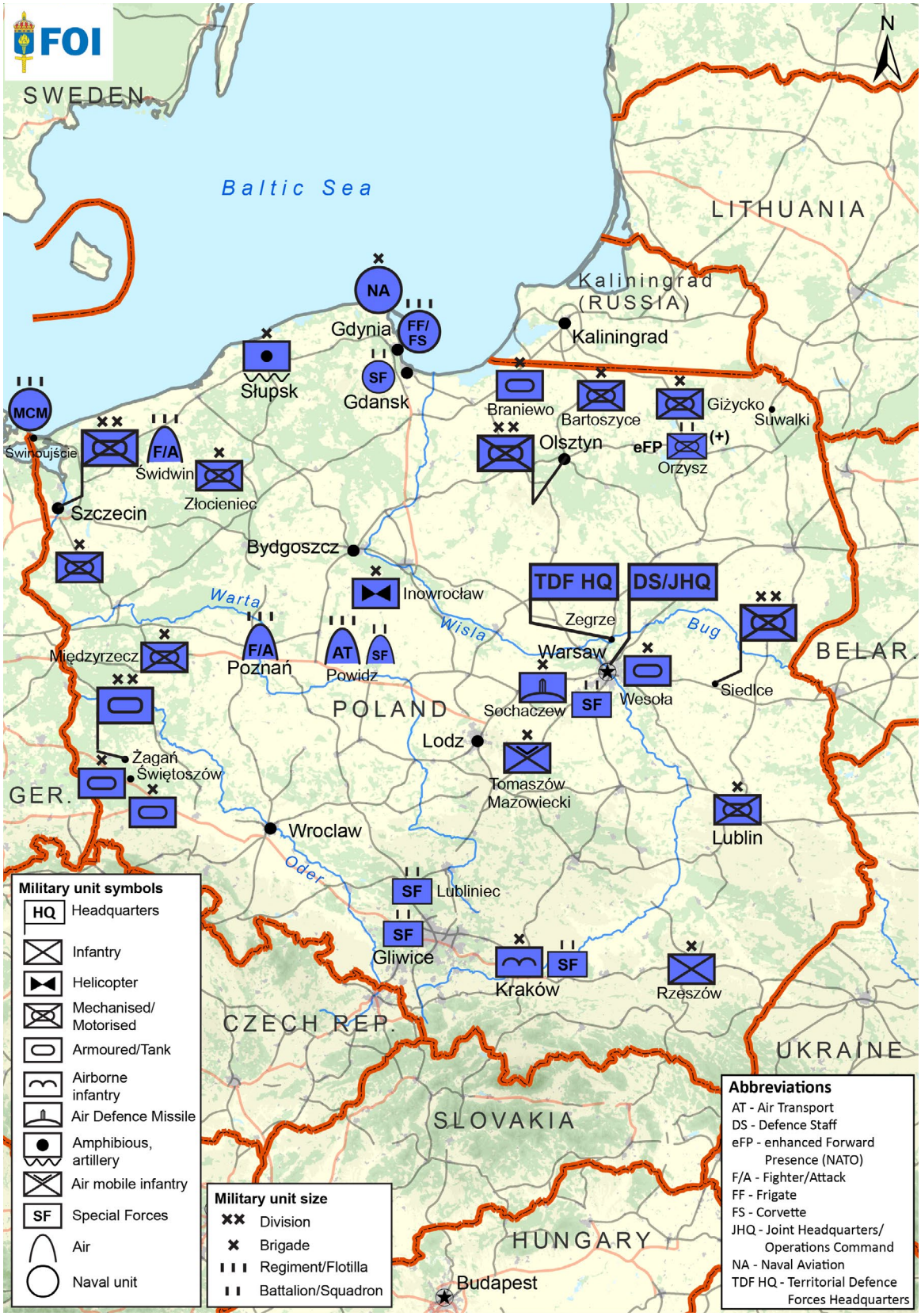
Despite these improvements, the implementation of vast amounts of heavy materiel systems will present a formidable task. First, the number of different advanced systems operated by each branch, particularly the many models of MBTs and fighter aircraft, may prove to be logistically difficult. This will also have consequences for infrastructure and maintenance. Second, to continue military spending at current levels over time may also prove intractable, especially if Poland's economic growth slows. High inflation and the need for urgent investment in other areas may lead to difficult trade-offs in the coming years. Third, as some of the larger orders of materiel will be manufactured domestically, including 800 South Korean-designed tanks, the ability to increase production capacity in Poland's defence industry is vital.

In sum, Poland's future operational capability will improve substantially if the challenges in organisation, personnel and materiel are met. Nevertheless, Russia's war against Ukraine has demonstrated the importance of intangible factors when assessing operational capability, and Poland stands out among NATO states with its "sense of urgency" regarding national defence, in addition to the scale of its relatively sizable Armed Forces. Strengthening the Armed Forces has an existential dimension for Poland. Hence, compared to Poland's allied partners, it has perhaps the best preconditions to succeed in maintaining and continuing its current investment in the Armed Forces. ■

Table 9.2 Force structure of the Polish Armed Forces

Force	Organisation in 2023[a]	Major reforms towards 2030
Joint	Operational Headquarters 1st Logistics Brigade 10th Logistics Brigade 2nd Engineer Regiment 5th Engineer Regiment	There are plans to merge the General Command and the Operational Command, resulting in a Joint Forces Command.
Army	Army Headquarters 11th Armoured Cavalry Division (1 command battalion, 2 armoured cavalry brigades, 1 mechanised brigade, 1 artillery regiment, 1 anti-aircraft regiment, 1 repair battalion) 12th Mechanised Division (1 command battalion, 2 mechanised brigades, 1 coastal defence brigade, 1 artillery regiment, 1 anti-aircraft regiment, 1 repair battalion) 16th Mechanised Division (1 command battalion, 2 mechanised brigades, 1 armoured cavalry brigade, 1 artillery brigade, 1 anti-aircraft regiment, 1 logistics regiment) 18th Mechanised Division (1 command battalion, 1 armoured brigade, 1 mechanised brigade, 1 rifle brigade, 1 logistics regiment) 1st Aviation Brigade 2nd Reconnaissance Regiment 9th Reconnaissance Regiment 18th Reconnaissance Regiment 6th Airborne Brigade 25th Air Cavalry Brigade	A new Land Forces Corps, headquartered in Krakow, will replace the existing Land Component Operational Command. The new Corps will operate from 2023 onwards[b] A fifth division (1st Infantry Division) is to be set up starting in 2023 and will consist of 4 brigades, of 4 battalions each. Restructuring of the 16th and 18th Divisions will result in a four-unit system, organising both divisions in 4 brigades of 4 battalions each. For the 20th Mechanised Brigade, one will be a new tank battalion.[c] Fully operational by 2030. One Logistics Regiment in every Division. A sixth division (8th Infantry Division), organised in 1 command battalion, 2 mechanised brigades, 1 motorised brigade, 1 armoured brigade, 1 artillery brigade, 1 anti-aircraft regiment, 1 reconnaissance battalion, 1 chemical battalion[d]
Navy	Navy Headquarters 3rd Naval Flotilla (1 combat ship squadron, 1 submarine squadron, 1 support ships squadron, 1 hydrographic security squadron, 1 reconnaissance ship group, 1 anti-aircraft squadron, 1 coastal missile unit) 8th Coastal Defence Flotilla (1 transport and mine ship squadron, 2 minesweeper squadrons, 1 anti-aircraft squadron) Naval Aviation Brigade	
Air Force	Air Force Headquarters 1st Tactical Aviation Wing (3 fighter squadrons, 1 unmanned air squadron) 2nd Tactical Aviation Wing (3 fighter squadrons, 1 repair battalion) 3rd Transport Aviation Wing 3rd Radio-technical Brigade 3rd Air Defence Missile Brigade	2 new combat air squadrons
Special Forces	Special Forces Headquarters (the GROM Military Unit, the "Formoza" Military Unit, the JWK Military Unit, the Agat Unit, the Nil Military Unit and the Special Forces Air Unit)	
Territorial Defence Forces	Territorial Defence Forces Headquarters 20 light infantry brigades	

Sources/Remarks: (a) Armed Forces (Wojsko Polskie), 'Jednostki I Instytucje Bezpośrednio Podległe Dowódcy Generalnemu Rodzajów Sił Zbrojnych' N.d. https://www.wojsko-polskie.pl/dgrsz/jednpodlegledgrsz/ (Retrieved 9 June 2023); **(b)** Palowski, Jakub and Wypartowicz, Bartłomiej, 'Polski Korpus Sił Lądowych. Znamy szczegóły', Defence24, 20 July 2023. https://defence24.pl/sily-zbrojne/polski-korpus-sil-ladowych-znamy-szczegoly-defence24-news (Retrieved 15 November 15 2023); **(c)** Kancelaria Senatu. Rozbudowa liczebności Sił Zbrojnych Rzeczypospolitej Polskiej. Możliwości i uwarunkowania. Warszawa, Biuro Analiz, Dokumentacji i Korespondencji, OE-447, 2023, p. 19; **(d)** Ministry of National Defence, 'Rusza budowa kolejnej dywizji - 8. Dywizji Piechoty Armii Krajowej', 3 November 2023. https://www.gov.pl/web/obrona-narodowa/rusza-budowa-kolejnej-dywizji---8-dywizji-piechoty-armii-krajowej (Retrieved 8 November 2023);



Map 9.1 Overview of the Polish Armed Forces and its basing
Remarks: The map covers major operational headquarters and manoeuvre forces.
Source: Design by Per Wikström

Endnotes

1 Ministry of National Defence, National security strategy of the Republic of Poland, 2020.

2 Reeves, Christopher, 'Discerning Poland's contemporary strategic culture: An analysis of the 2020 national security strategy of the Republic of Poland', Politeja, no. 75, 2021, p. 283–305, 292.

3 Kopec, Rafał, 'Can Poland build conventional deterrence capability against Russia?', Obrana A Strategie, vol. 18, no. 2, 15 December 2018, p. 75.

4 International Institute of Strategic Studies – IISS, 'Europe', in The Military Balance 2022 (London: Routledge, 2023), p. 68.

5 Gotkowska, Justyna, 'Poland', in Tardy, Thierry (ed.), The Nations of NATO (Oxford: Oxford University Press, 2022), p. 264.

6 Gotkowska, 'Poland', p. 266.

7 Ministry of National Defence, 'The permanent HQ for US Army's V Corps will be established in Poland', 30 June 2022. *https://www.gov.pl/web/national-defence/the-permanent-hq-for-us-armys-v-corps-will-be-established-in-poland* (Retrieved 10 November 2023).

8 Gotkowska, 'Poland', p. 266.

9 Śliwa, Zdzisław, 'Poland as a front-line nation in the wake of Russian aggression in Ukraine', Sõjateadlane (Estonian Journal of Military Studies), vol. 20, 2022, p. 123–140.

10 Fried, Daniel and Korewa, Aaron, 'Poland makes its case for European leadership', Atlantic Council, 5 May 2023. *https://www.atlanticcouncil.org/blogs/new-atlanticist/poland-makes-its-case-for-european-leadership/* (Retrieved 8 June 2023).

11 Terlikowski, Marcin, 'Poland', in Helmonds, Sören, Mölling, Christian and Winter, Theresa (eds.), European Defense in a New Age (#EDINA): Geostrategic Changes and European Responses Shaping the Defense Ecosystem, p. 49–53 (Berlin: German Council of Foreign Relations, 2023).

12 Reeves, 'Discerning Poland's contemporary strategic culture'.

13 Ministry of National Defence, The Defence Concept of the Republic of Poland, 2017.

14 Kulesa, Łukasz, 'Operationalizing the "Polish fangs": Poland and long-range precision strike', The Nonproliferation Review, vol. 27, issue 1-3, 49–60, 2020, p. 54.

15 Parliament, Ustawa z dnia 11 marca 2022 r. o obronie Ojczyzny, 2022.

16 Ministry of National Defence, 'Ustawa o obronie Ojczyzny przyjęta przez rząd', 22 February 2022. *https://www.gov.pl/web/obrona-narodowa/ustawa-o-obronie-ojczyzny-przyjeta-przez-rzad* (Retrieved 7 June 2023).

17 PolskieRadio, '"Nie dopuścimy, żeby Olecko było nową Buczą", Szef MON o nowej jednostce wojskowej', PolskieRadio, 18 March 2023. *https://polskieradio24.pl/5/1222/artykul/3136659,nie-dopuscimy-zeby-olecko-bylo-nowa-bucza-szef-mon-o-nowej-jednostce-wojskowej* (Retrieved 8 June 2023); Kresy24, 'Ministersto Obrony RP: Nie chcemy, aby wschód kraju podzielił los Buczy czy Chersonia', Kresy24, 3 March 2023. *https://kresy24.pl/ministersto-obrony-rp-nie-chcemy-aby-wschod-kraju-podzielil-los-buczy-czy-chersonia/* (Retrieved 8 June 2023).

18 IISS, 'Europe', p. 66.

19 Kancelaria Senatu, Rozbudowa liczebności Sił Zbrojnych Rzeczypospolitej Polskiej, Możliwości i uwarunkowania (Warszawa, Biuro Analiz, Dokumentacji i Korespondencji, OE-447, 2023), p. 38.

20 Oleksiejuk, Michał, 'Pulaski Commentary: The Key Premises of the Polish Homeland Defence Act (Michał Oleksiejuk). Casimir Pulaski Foundation, 18 March 2022.

21 Michta, Andrew A., 'Poland', in Meijer, Hugo and Wyss, Marco (eds.), The Handbook of European Defence Policies and Armed Forces, p. 125–139 (Oxford: Oxford University Press, 2018).

22 Kozubal, Marek, 'Marek Kozubal: „Bezpieczeństwo i Współpraca". Lewica z programem prawie jak PiS', Wydarzenia, 1 March 2023. *https://www.rp.pl/publicystyka/art38037811-marek-kozubal-bezpieczenstwo-i-wspolpraca-lewica-z-programem-prawie-jak-pis* (Retrieved 7 June 2023).

23 Pogrzebny, Rafał, 'Ilu żołnierzy będzie liczyła polska armia? Wiceszef PO I były szef MON odpowiada', Polska Agencja Prasowa, 20 October 2023. *https://www.pap.pl/aktualnosci/ilu-zolnierzy-bedzie-liczyla-polska-armia-wiceszef-po-i-byly-szef-mon-odpowiada* (Retrieved 30 October 2023).

24 The General Staff of the Polish Armed Forces, Poland's Defence Spendings 2023–2025, 2023.

25 IISS, 'Europe', p. 68.

26 European Commission, Economic forecast for Poland, 11 September 2023.

27 Kancelaria Senatu, Rozbudowa liczebności Sił, p. 14.

28 Ibid.

29 IISS, 'Europe', p. 67.

30 Gotkowska, 'Poland', p. 263.

31 Ibid.

32 Multinational Corps Northeast, 'Allied soldiers earn their spurs at NATO eFP Battlegroup Poland's spur ride', 5 May 2023. *https://mncne.nato.int/newsroom/news/2023/allied-soldiers-earn-their-spurs-at-nato-efp-battlegroup-polands-spur-ride* (Retrieved 24 May 2023).

33 Miernicka, Magdalena, 'Nowa brygada dla 18 Dywizji Zmechanizowanej', Polska Zbrojna, 2 October 2023. *https://www.polska-zbrojna.pl/home/articleshow/40474?t=Nowa-brygada-dla-18-Dywizji-Zmechanizowanej* (Retrieved 25 October 2023).

34 Dziennik Zbrojny, 'Rozpoczęto formowanie 18. Brygady Zmotoryzowanej', Dziennik Zbrojny, 7 October 2023. *https://dziennikzbrojny.pl/aktualnosci/news,1,11923,aktualnosci-z-polski,rozpoczeto-formowanie-18-brygady-zmotoryzowanej* (Retrieved 26 October 2023).

35 Interview, Warsaw, May 2023.

36 Dziennik Zbrojny, 'Rozpoczęto formowanie'.

37 Multinational Corps Northeast, 'Polish Armed Forces conclude Anakonda 23 with NATO eFP Battlegroup Poland as one of participants', 18 May 2023. *https://mncne.nato.int/newsroom/news/2023/polish-armed-forces-conclude-anakonda-23-with-nato-efp-battlegroup-poland-as-one-of-participants* (Retrieved 7 June 2023).

38 PolskieRadio, 'Poland creates new army division on eastern border', PolskieRadio, 9 January 2023; Interview, Warsaw, May 2023. *https://www.polskieradio.pl/395/7784/artykul/3100219,poland-creates-new-army-division-on-eastern-border#:~:text=Poland%27s%20defence%20minister%20has%20announced,Russia%27s%20ongoing%20invasion%20of%20Ukraine.&text=At%20a%20ceremony%20on%20Monday,state%20news%20agency%20PAP%20reported* (Retrieved 7 June 2023).

39 Kowalska-Sendek, Magdalena, '1 Dywizja: mobilność i siła ognia', Polska Zbrojna, 23 May 2023. *https://polska-zbrojna.pl/home/articleshow/39635?t=1-Dywizja-mobilnosc-i-sila-ognia* (Retrieved 2 June 2023).

40 Kowalska-Sendek, '1 Dywizja: mobilność'.

41 Świerczyński, Marek, 'Czy polska armia jest w ogóle zdolna do obrony? A MON do rządzenia?' Polityka, 15 February 2022. *https://www.polityka.pl/tygodnikpolityka/kraj/2154595,1,czy-polska-armia-jest-w-ogole-zdolna-do-obrony-a-mon-do-rzadzenia.read* (Retrieved 25 May 2023).

42 Świerczyński, 'Czy polska armia', 2022.

43 Dmitruk, Tomasz. 'Wzrost liczebności Wojska Polskiego nadąży za rozbudową struktur?'. Dziennik Zbrojny. 7 August 2023. *https://dziennikzbrojny.pl/artykuly/art,10,51,11873,komentarze,1,wzrost-liczebnosci-wojska-polskiego-nadazy-za-rozbudowa-struktur* (Retrieved 26 October 2023).

44 Smura, Tomasz and Oleksiejuk, Michał, How to plan the development of the Navy – Polish and British experiences (Warsaw, Fundacja im. Kazimierza Pułaskiego, 2022), p. 13.

45 Kancelaria Senatu, Rozbudowa liczebności Sił, p. 14; Armed Forces (Wojsko Polskie), 'Marynarka Wojenna'. N.d. *https://www.wojsko-polskie.pl/marynarka-wojenna/* (Retrieved 7 June 2023).

46 International Institute of Strategic Studies – IISS, 'Poland', in The Military Balance 2022 (London: Routledge, 2023), p. 122.

47 Kaminski, Rafal, 'Marynarka Wojenna szykuje się na ćwiczenie pk. "Anakonda"', Gospodarkamorska, 20 March 2023. *https://www.gospodarkamorska.pl/marynarka-wojenna-szykuje-siena-cwiczenia-pk-anakonda-69919* (Retrieved 30 May 2023).

48 Smura and Oleksiejuk, How to plan, 23.

49 Ibid., 22.

50 Kancelaria Senatu, Rozbudowa liczebności Sił, p. 14.

51 Smura, Tomasz and Oleksiejuk, Michał, 'Rozwój polskich Sił Powietrznych po zimnej wojnie', in Krystian Zięć (ed.), Polskie Siły Powietrzne w operacjach XXI wieku – spojrzenie w przyszłość i rekomendacje (Warsaw, Fundacja im. Kazimierza Pułaskiego, 2022), p. 38.

52 Smura and Oleksiejuk, 'Rozwój polskich Sił', 38.

53 Ibid.

54 Szopa, Maciej. 'Nowe samoloty bojowe dla Polski: kto faworytem? [ANALIZA]'. Defence24, 18 September 2023. *https://defence24.pl/sily-zbrojne/nowe-samoloty-bojowe-dla-polski-kto-faworytem-analiza* (Retrieved 26 October 2023).

55 Armed Forces (Wojsko Polskie), 'Inspektorat Wsparcia Sił Zbrojnych'. N.d. *https://www.wojsko-polskie.pl/iwsp/onas/* (Retrieved 26 October 2023).

56 Tańska, Joanna, 'Rozwój i wyzwania wojskowej logistyki', Polska Zbrojna, 19 May 2021. *https://polska-zbrojna.pl/home/articleshow/34368* (Retrieved 26 October 2023).

57 Ministry of National Defence, Budget decision of the Ministry of National Defence, year 2023 – Annex to the decision, 2023, p. 88–89; Mil Link, 'Poznaj Wojska Specjalne' N.d. *https://mil.link/wojskaspecjalne/* (Retrieved 6 June 2023); Korsak, Ewa, 'Nowa jednostka przeznaczona do wsparcia wojsk specjalnych', Polska Zbrojna, 27 February 2023. *https://polska-zbrojna.pl/home/articleshow/39143?t=Nowa-jednostka-przeznaczona-do-wsparcia-wojsk-specjalnych* (Retrieved 6 June 2023); Ministry of National Defence, 'Wojska Specjalne' N.d. *https://www.gov.pl/web/obrona-narodowa/wojska-specjalne* (Retrieved 6 June 2023); Jednostka Wojskowa Komandosów, 'Zadania'. N.d. *https://jwk.wp.mil.pl/pl/pages/zadania-2017-01-16-4/* (Retrieved 6 June 2023).

58 Kowalska-Sendek, Magdalena, 'Specjalsi zakończyli dyżur w Siłach Odpowiedzi NATO', Polska Zbrojna, 15 February 2021. *https://polska-zbrojna.pl/home/articleshow/33490?t=Specjalsi-zakonczyli-dyzur-w-Silach-Odpowiedzi-NATO* (Retrieved 6 June 2023).

59 Kancelaria Senatu, Rozbudowa liczebności Sił, p. 14.

60 Ibid.

61 Ministry of National Defence, 'Wojska Obrony Cyberprzestrzeni rozpoczynają działalność', 8 February 2022. *https://www.gov.pl/web/obrona-narodowa/wojska-obrony-cyberprzestrzeni-rozpoczynaja-dzialalnosc* (Retrieved 7 June 2023).

62 IISS, 'Europe', p. 67.

63 Dmitruk, 'Wzrost liczebności Wojska Polskiego'.

64 Kancelaria MDB Maciej Dalka, 'Ustawa o obronie Ojczyzny – zmiany I najważniejsze kwestie'.

65 Ministry of National Defence, 'Ustawa o obronie Ojczyzny przyjęta przez rząd', 22 February 2022. *https://www.gov.pl/web/obrona-narodowa/ustawa-o-obronie-ojczyzny-przyjeta-przez-rzad* (Retrieved 7 June 2023).

66 Glińska, Paulina, 'ABC ustawy o obronie', Polska Zbrojna, 24 April 2023. *https://polska-zbrojna.pl/home/articleshow/39474?t=ABC-ustawy-o-obronie* (Retrieved 2 June 2023).

67 Milosz, Maciej, 'Armia nowej generacji. System powoływania rezerwistów ma się zmienić', Dziennik Gazeta Prawna, 29 May 2023. *https://www.gazetaprawna.pl/wiadomosci/kraj/artykuly/8724248,armia-rezerwistow-nowej-generacji-zmiana-systemu-powolywania.html* (Retrieved 2 June 2023).

68 Interview, Warsaw, May 2023.

69 Kozubal, Marek, 'Marek Kozubal: Żołnierz wymaga szacunku', Wydarzenia, 2 February 2023. *https://www.rp.pl/opinie-polityczno-spoleczne/art37934621-marek-kozubal-zolnierz-wymaga-szacunku* (Retrieved 7 June 2023).

70 Palowski, Jakub, 'Święto Wojska Polskiego: dwa oblicza polskiej armii', Defence24, 15 August 2023. *https://defence24.pl/polityka-obronna/swieto-wojska-polskiego-dwa-oblicza-polskiej-armii* (Retrieved 25 October 2023).

71 Kozubal, 'Marek Kozubal: Żołnierz wymaga', 2023.

72 Milosz, Maciej, '300-tysięczna armia w Polsce? Na razie zawodowi żołnierze odchodzą', Dziennik Gazeta Prawna, 1 September 2022. *https://www.gazetaprawna.pl/wiadomosci/kraj/artykuly/8527750,bezpieczenstwo-liczba-zolnierzy-w-polsce-zwiekszanie-sil-zbrojnych.html* (Retrieved 7 June 2023); Kozubal, Marek, 'Fala odejść z wojska. Największa, odkąd rządzi PiS', Wydarzenia, 29 January 2023. *https://www.rp.pl/wojsko/art37859921-fala-odejsc-z-wojska-najwieksza-odkad-rzadzi-pis* (Retrieved 7 June 2023); Ministry of National Defence, 'Modern Military – Safe Homeland', 3 March 2023. *https://www.gov.pl/web/national-defence/modern-military---safe-homeland* (Retrieved 7 March 2023).

73 Błaszczak, Mariusz, 'Breakthrough for the Polish Armed Forces', Polska Zbrojna, 30 May 2023. *https://polska-zbrojna.pl/home/articleshow/39705?t=Breakthrough-for-the-Polish-Armed-Forces* (Retrieved 2 June 2023).

74 Ministry of National Defence, 'W Sejmie RP o liczebności wojska', 9 February 2023. *https://www.gov.pl/web/obrona-narodowa/wojsko-polskie-coraz-liczniejsze* (Retrieved 7 June 2023).

75 Kancelaria Senatu, Rozbudowa liczebności Sił, p. 35–36.

76 Ibid., p. 30.

77 Ministry of National Defence, 'Wojsko Polskie silne jak nigdy', 30 December 2022. *https://www.gov.pl/web/obrona-narodowa/wojsko-polskie-silne-jak-nigdy* (Retrieved 7 June 2023).

78 Palowski, Jakub. 'Polish-Korean consortium for Main Battle Tanks has emerged', Defence24, 2 February 2023. February 2023. *https://defence24.com/industry/polish-korean-consortium-for-main-battle-tanks-has-emerged* (Retrieved 7 June 2023).

79 Oryx, 'A European powerhouse: Polish military aid to Ukraine', 18 August 2022. *https://www.oryxspioenkop.com/2022/08/a-european-powerhouse-polish-military.html* (Retrieved 7 June 2023).

80 Ministry of National Defence, 'Armatohaubica samobieżna K9'. N.d. *https://www.gov.pl/web/obrona-narodowa/armatohaubica-samobiezna-k9* (Retrieved 25 May 2023).

81 Polish Press Agency, 'First HIMARS launchers arrive in Poland', Polish Press Agency, 15 May 2023. *https://www.pap.pl/en/news/news%2C1572518%2Cfirst-himars-launchers-arrive-poland.html* (Retrieved 30 May 2023).

82 Smura and Oleksiejuk, How to plan', 17.

83 Euronews, 'Poland pledges more MiG-29 fighter jets to Ukraine', Euronews, 6 April 2023. *https://www.euronews.com/2023/04/05/poland-pledges-additional-mig-29-fighter-jets-to-ukraine* (Retrieved 7 June 2023).

84 Świerczyński, 'Czy polska armia'.

85 IISS, 'Europe', p. 66.

86 Tilles, Daniel, 'Poland takes delivery of first HIMARS from US', Notes from Poland, 15 May 2023. *https://notesfrompoland.com/2023/05/15/poland-takes-delivery-of-first-himars-from-us/* (Retrieved 25 May 2023).

87 Kononczuk, Peter, 'Poland to buy 288 rocket artillery launchers from South Korea', Notes from Poland, 20 October 2022. *https://notesfrompoland.com/2022/10/20/poland-to-buy-288-rocket-artillery-launchers-from-south-korea/* (Retrieved 25 May 2023).

88 Tilles, Daniel, 'Poland agrees £4 billion deal with UK for air defence missiles and launchers', Notes from Poland, 8 November 2023. https://notesfrompoland.com/2023/11/08/poland-agrees-4-billion-deal-with-uk-for-air-defence-missiles-and-launchers/ (Retrieved 8 November 2023); The Defense Post, 'Poland to Buy US Patriot Missile Defense Systems Worth $15B', The Defense Post, 29 June 2023. https://www.thedefensepost.com/2023/06/29/poland-us-patriot-systems/?expand_article=1 (Retrieved 26 October 2023).

89 Ministry of National Defence, The Defence Concept, 52.

90 Ministry of National Defence, 'Modernizacja techniczna SZRP, "Miecznik"'. N.d. *https://www.gov.pl/web/obrona-narodowa/miecznik-dla-marynarki-wojennej-rp* (Retrieved 18 April 2023).

91 Szopa, Maciej, 'Polish MoD changes Navy priorities: Miecznik to come before the new submarines', Defence24, 23 February 2021. *https://defence24.com/polish-mod-changes-navy-priorities-miecznik-to-come-before-the-new-submarines* (Retrieved 7 June 2023); Darling, Daniel, 'Poland's Miecznik frigate program launched', Defense & Security Monitor, 4 August 2021. *https://dsm.forecastinternational.com/wordpress/2021/08/04/polands-miecznik-frigate-program-launched/* (Retrieved 7 June 2023).

92 Polskie Radio, 'Poland to buy new submarines for navy: defence minister', Polskie Radio, 24 May 2023. *https://www.polskieradio.pl/395/9766/Artykul/3175146,poland-to-buy-new-submarines-for-navy-defence-minister* (Retrieved 30 May 2023).

93 Adamowski, Jaroslaw, 'Asian, European players compete for Polish submarine order', DefenceNews, 12 September 2023. *https://www.defensenews.com/industry/2023/09/12/asian-european-players-compete-for-polish-submarine-order/* (Retrieved 13 October 2023).

94 Ministry of National Defence. Modernizacja techniczna SZRP, 'Samoloty FA-50'. N.d. *https://www.gov.pl/web/obrona-narodowa/samoloty-fa-50* (Retrieved 19 April 2023); Muczynski, Rafal, 'Pierwszy polski FA-50 oblatany'. *MilMag.* April 2 2023. *https://milmag.pl/pierwszy-polski-fa-50-oblatany/* (Retrieved 7 June 2023).

95 PolskieRadio, 'Northern European defence ministers talk regional security in Poland', PolskieRadio, 22 May 2023. *https://www.polskieradio.pl/395/9766/Artykul/3173985,northern-european-defence-ministers-talk-regional-security-in-poland* (Retrieved 7 June 2023).

96 Interview, Warsaw, May 2023.

97 IISS. 'Europe'.

98 Ibid., p. 54.

99 Interview, Warsaw, May 2023; Śliwa, 'Poland as a front-line nation', p. 136.

100 Ministry of National Defence, 'Razem budujemy silną i liczną armię', 2 June 2023. *https://www.gov.pl/web/obrona-narodowa/razem-budujemy-silna-i-liczna-armie* (Retrieved 7 June 2023).

101 Kowalczyk, Grzegorz, 'Osławione Pioruny, śmigłowce, a już wkrótce czołgi. Oto mapa polskiej zbrojeniówki', Business Insider, 5 March 2023. *https://businessinsider.com.pl/firmy/ten-sprzet-dla-wojska-powstaje-w-polsce-najwazniejsze-miasta-zbrojeniowki/rqm0kk2* (Retrieved 6 June 2023).

102 Olsson, Per, Dalberg, Sanna and Junerfält, Tobias, *Defence Industrial Outlook: A Global Outlook with a Special Focus on the European Defence Fund*, FOI Report FOI-R--5333--SE (Stockholm: Swedish Defence Research Agency – FOI, 2022), p. 92.

103 WNP PL, 'Szef MSZ Z.Rau: Polska bardzo liczy na transfer technologii z Korei Południowej', WNP Poland, 17 March 2023. *https://www.wnp.pl/tech/szef-msz-z-rau-polska-bardzo-liczy-na-transfer-technologii-z-korei-poludniowej,689353.html* (Retrieved 6 June 2023).

104 Sierakowski, Sławomir, 'The Strongest Army in Europe?', Project Syndicate, 24 August 2023. *https://www.project-syndicate.org/commentary/poland-pis-populist-government-military-procurement-by-slawomir-sierakowski-2023-08* (Retrieved 30 October 2023).

105 Małecki, Mikołaj, 'W ciągu roku od napaści Rosji Polska przekazała Ukrainie uzbrojenie o wartości ponad 2,2 mld euro', Dziennik Gazeta Prawna, 24 February 2023. *https://www.gazetaprawna.pl/wiadomosci/kraj/artykuly/8667242,polska-dostawy-broni-dla-ukrainy-o-wartosci-ponad-22-mld-euro.html* (Retrieved 6 June 2023).

106 Pietralunga, Cédric, 'Can Ukraine do without Poland's military aid?', Le Monde, 24 September 2023. *https://www.lemonde.fr/en/international/article/2023/09/24/can-ukraine-do-without-poland-s-military-aid_6138843_4.html* (Retrieved 13 October 2023).

107 Pietralunga, 'Can Ukraine do without'.

108 Ibid.

109 See section 1.6 for the methodology behind the assessment of operational capability.

10. Germany

Alina Engström

Germany, Europe's economic powerhouse, has long had difficulty in assuming increased responsibility for international security. Its political reservations against using military force and changing its Russia policy have endured. As a result, the German Armed Forces have been neglected and underfunded. As the Russian threat increased, the German government continued to deepen the country's economic interdependence with Russia. At the same time, Germany provided forces to NATO's presence on the eastern flank and, within the EU's framework, implemented sanctions against Russia. Russia's full-scale invasion of Ukraine prompted a fundamental shift, a *Zeitenwende*, in previous policies. Germany's outlook on defence is now utterly different, and the country is trying to transition towards a stronger leadership role in European security, an ambition declared since 2014.

10.1 Security and defence policy

The deteriorating international security environment has led to demands on Germany to take on more responsibility for international peace and security. Germany is the largest economic and political power in Europe and has, since the end of the Cold War, increasingly taken on leading roles internationally. However, its willingness to assume leadership in security matters has often been lacking, due to the country's history of two world wars, resulting in a particular outlook on security and defence. This outlook, starting with the rejection of totalitarianism and all military expansionism, has entailed that the use of force must be reserved as a last resort and that it is always embedded in multilateral structures.[1] While Germany has been a steady contributor to various crisis management operations since the 1990s, it is clear that the country's strategy and policies have been challenged by the renewed geopolitical conflict in Europe and elsewhere.

Germany's commitment to assuming leadership in European security has also been hampered by its complex relationship with Russia. For several decades, the German assumption was that security in Europe could only be achieved together with, not against, Russia. Hence, in the tradition that began with the German Ostpolitik, in the late 1960s, the country has followed a policy of "change through rapprochement," or "change through trade." Importantly, this has included political and economic interdependence, for example within energy matters, as a way of ensuring peace.[2]

Russia's illegal annexation of Crimea, in 2014, prompted some adjustments to Germany's Russia policy. Germany took one of the leading roles in providing troops to the eastern flank, while former German chancellor Angela Merkel negotiated sanctions towards Russia within the EU framework and led peace negotiations with Ukraine and Russia within the Normandy format, together with France's president Francois Hollande. However, in parallel, Germany further deepened its energy dependence and continued to emphasise the dialogue track within the NATO policy towards Russia.[3] Conclusively, the foundational aspects of German foreign policy – maintaining ties to Russia while assuming multinational responsibility within NATO – have been contradictory.

The Russian illegal annexation of Crimea also initiated a slow adjustment of German security and defence policy, in general. Defence expenditures began to increase steadily, although far from sufficiently rebuilding the German Armed Forces and dealing with substantial capability gaps. In effect, lack of political interest and consistent underfunding of the Armed Forces has persisted for the past decade.[4]

Russia's full-scale invasion of Ukraine, in 2022, led to a fundamental shift of German policy, described by Chancellor Olaf Scholz as a turning point in time, a *Zeitenwende*. Germany introduced massive sanctions against Russia within the EU framework, approved arms deliveries to Ukraine, decided on a EUR 100 billion special fund for the German Armed Forces, and announced an increase in the defence budget, to two percent of GDP. In addition, Germany began to disentangle its energy relationship with Russia and stopped the opening of the Nord Stream 2 pipeline. Germany is thus undergoing a review of not only its Russia policy but of its entire security and defence policy since the end of the Cold War.

Consequently, Germany adopted its first-ever National Security Strategy (NSS) in June 2023, with the guiding principle of integrated security. It reiterated the goal of assuming greater responsibility for international security. The NSS explicitly recognises Russia

as a direct threat to national and collective security and the most significant threat to peace and security in the Euro-Atlantic area.[5] The German government has, moreover, spelled out its ambition to become the cornerstone of conventional defence in Europe and aims to have the best-equipped armed forces in Europe.[6] The NSS is described as a starting point to further develop Germany's strategic culture. In November 2023, Germany adopted new Defence Policy Guidelines, recognising Germany's responsibility to protect its allies and emphasising the need to ensure the Armed Forces' "warfighting capability" (eine kriegstüchtige Bundeswehr).[7] The provisions of these guidelines will be translated into a new Capability Profile for the Armed Forces and a Military Strategy.

Throughout 2022, Germany has also heightened its ambitions regarding its contributions to NATO's collective defence. It has publicly declared its planned contribution to NATO's new Force Model (NFM). Germany intends to contribute a mechanised division, with two brigades, to the NFM, beginning in 2025, increasing to three brigades in 2027. In 2027, a second mechanised division is to be available.[8] Additionally, it aims to establish a permanent brigade in Lithuania, assume a leading role in the Baltic Sea and enhance its role as a logistical hub (Drehscheibe). Germany has also announced the ambition to further develop the EU Common Security and Defence Policy (CSDP) and implement the EU's Strategic Compass, including taking on a special responsibility for establishing the EU Rapid Deployment Capacity.[9] The German government has also pledged to support Ukraine for as long as it takes and to participate in guaranteeing its security.

Public support for Germany's new policies toward Russia remains mixed. The German population has indeed increased its perception of a Russian threat, including the associated risks, such as the use of nuclear or chemical weapons, since the full-scale invasion of Ukraine.[10] With regard to supporting Ukraine militarily, however, the German population's approval is somewhat divided. In March 2023, a majority of Germans were generally in favour of military support to Ukraine.[11] But with regard to the delivery of certain systems, the population remains divided. This division has been visible in regard to the debate both around Leopard 2 tanks and Taurus missile systems.[12] Meanwhile, in parallel, the far-right party, Alternative for Germany, which advocates for a recommencement of a relationship with Russia and an easing of sanctions, has gained support.[13] Consequently, the German public's support for Ukraine may be fragile in the coming years.

10.2 Military expenditures

Germany has received repeated criticism from NATO and the US for not spending enough on defence, given its political and economic strength. Germany had a somewhat even level of military expenditure in the period from 2005 to 2014. Since reaching a low point in 2014, defence expenditures have steadily increased. In previous years, however, political circumstances had hindered a rise in German defence expenditures to two percent of GDP.[14]

Notwithstanding the above, since 2022 and Russia's full-scale invasion of Ukraine, a political turning point has emerged. In his Zeitenwende speech, the German chancellor, Olaf Scholz, announced that from now on Germany will spend above two percent of its GDP on defence. Moreover, the government announced an off-budget special fund of EUR 100 billion for the Armed Forces; this was later approved by a broad majority in the German parliament. Both the Social Democrats and the Greens now highlight the need to spend sufficient sums to meet NATO capability targets. Nevertheless, uncertainty remains concerning the target of two percent of GDP. In 2023, the increase, compared to 2014, amounted to 44 percent (estimated figure from NATO).

In the 2023 National Security Strategy, Germany states in writing that it "will allocate two percent of our GDP, as an average over a multi-year period, to reaching NATO capability goals, initially in part via the newly created special fund for the Armed Forces."[15] This statement does not explicitly spell out when the share of GDP will reach two percent.

It was expected that, in 2023, Germany would have spent almost USD 56.6 billion, in 2015 prices, on its armed forces, in effect the highest notation since 2005; see Figure 10.1. In current prices, the estimated level amounts to nearly USD 68.1 billion. As a share of GDP, NATO estimated that Germany would have dedicated 1.6 percent of GDP to its military in 2023. Also in 2023, it was estimated that around 36.6 percent would be allocated to personnel, 25.4 percent to equipment, 3.5 percent to infrastructure and a little over 34.5 percent to other expenses. In 2023, Germany allocated EUR 8.4 billion of the special fund to investments in materiel and equipment.[16]

The defence budget, combined with spending from the special fund and a share of approximately ten percent from budgets from other ministries, puts Germany closer to the two percent of GDP target.[17] In 2024, the announced sum allocated from the special fund accounts to EUR 19.2 billion. In addition, the budget

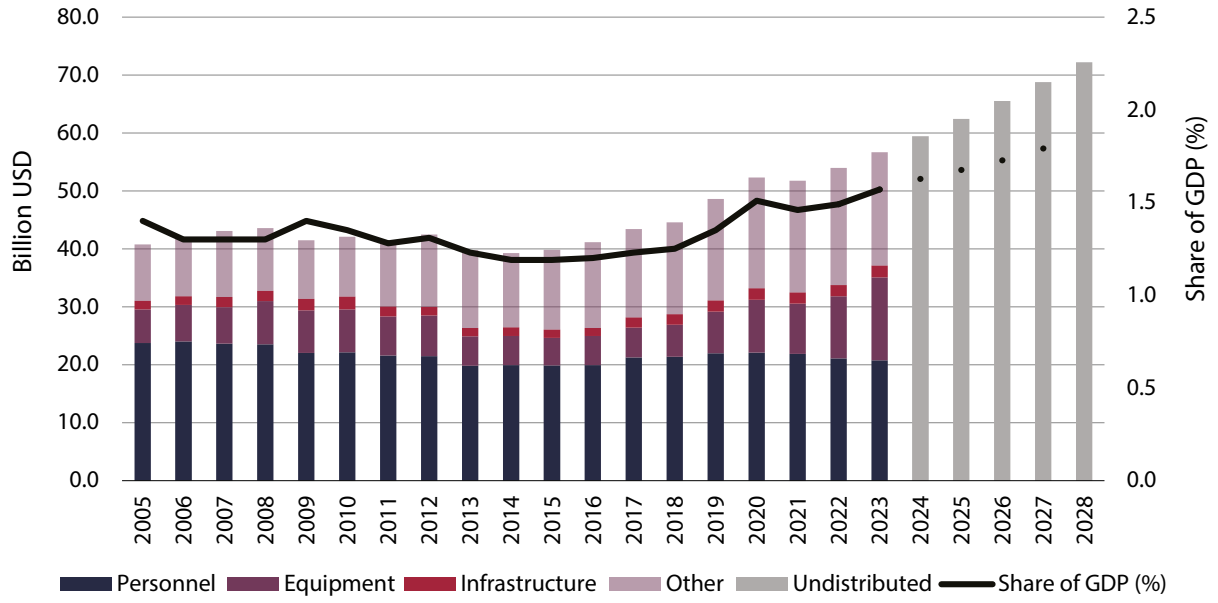


Figure 10.1 Military expenditures of Germany 2005-2028 in 2015 constant prices.

Sources/Remarks: NATO (2010, 2016, 2023). The figure does not include spending from the special fund. The defence budget, combined with spending from the special fund and shares from budgets from other ministries, puts Germany closer to the two percent of GDP target. The forecast is based on the assumption that defence expenditure will increase by the same pace as the average yearly change in 2019–2023.

plan for 2024, as proposed in 2023, foresaw an increase of spending from other ministries to EUR 14.2 billion.[18] With the increases in these three spending elements, Germany intends to reach two percent of GDP in 2024.[19]

The forecast in Figure 1 is based on the assumption that the defence expenditures will have the same yearly increase as the average increase between 2019 and 2023. In this scenario, Germany would not meet the NATO target of two percent before 2028. Against this backdrop, there are huge uncertainties as to whether Germany will have reached the two percent pledge once the special fund has run out. As a result, Germany may face a significant gap in its total defence expenditures in 2028 and, as a result, not reach 2 percent of GDP in defence expenditures.

To address that, both officials and experts point to higher demand to cover the increasing needs of the German Armed Forces. The defence minister has demanded a EUR 10 billion yearly increase in the defence budget.[20] Meanwhile, the purchasing power of the special fund is steadily decreasing, through higher interest rates, inflation, and exchange rates. In 2023, the fund had already shrunk to EUR 87 billion, and assumptions are that it will continue to shrink in the coming years.[21] This suggests that Germany may face a significant shortfall in defence funding in the years to come. Due to the massive need for investment and the special fund's decreasing purchasing power, it is likely that the government will eventually face difficult fiscal questions. While all government parties, including the largest opposition party, the Christian Democrats, now support NATO's 2014 defence investment pledge, friction may emerge among the ruling parties in the near future.[a] These circumstances make it difficult to estimate Germany's future military expenditures.

10.3 Armed Forces

The 2023 National Security Strategy defines territorial and collective defence as the core task of the German Armed Forces.[22] The new 2023 Defence Policy Guidelines reiterate this core task, and also states the need to ensure the Armed Forces "warfighting capability".[23] While the Armed Forces should also be able to undertake the tasks of international crisis management, international cooperation with partners, and humanitarian and disaster relief, territorial and national defence is now clearly prioritised. In comparison to previous

a For example, the Social Democrats (SPD) and the Free Democrats (FDP) argue that defence spending may vary over the years and they therefore push for more flexibility, while the Greens aim at also raising spending for soft-power instruments. Moreover, the government has wide-reaching ambitions in other policy areas, such as fighting climate change and enhancing digitalisation.

strategy documents, crisis management and collective defence are thus no longer of equal significance for the Armed Forces. Against this backdrop, the German Armed Forces is re-establishing territorial and collective defence as its defining task, and now prioritises high-intensity operations for collective defence.

The Joint Forces Operations Command in Berlin-Gatow runs the Armed Force's international missions. Until 2022, the Armed Force's command structure was not tailored for collective and territorial defence, and relied on multinational command structures for these tasks. In the autumn of 2022, Germany established the Homeland Defence Command (Territoriales Führungskommando), in Berlin, not only with responsibility for national defence and the coordination of assistance missions at home, but also for the movement of allied forces through Germany in close coordination with NATO command.

NATO's policy guidance, defence planning and requirements for collective defence form the basis for the capability planning and modernisations efforts of the Bundeswehr, or Armed Forces. The Bundeswehr provides the core to the successive half-year rotations to the eFP (enhanced Forward Presence) battlegroup in Lithuania. In 2023, Germany provided one fully-equipped brigade to the Very High-Readiness Joint Task Force (VJTF) and led the VJTF-designated Special Forces command for the first time. Since 2022, Germany has also kept one mechanised brigade on standby as reinforcements for Lithuania. In June 2023, it also announced that, when the infrastructure is in place, it will establish a permanently present brigade in Lithuania.[24] The first units will start to rotate into Lithuania in 2025. In a timeframe between 2026 and 2028, further units will follow. The German defence minister has announced that the brigade in Lithuania will be fully operational in 2027, at the earliest.[25]

Germany has specified its intended contribution to NATO's NFM. This includes a mechanised division with, two brigades, from 2025, planned to grow to three, in 2027. In 2027, a second mechanised division, with a total of three heavy brigades and two medium-heavy brigades, should be available.[26] The ambition, as stated by the defence minister, is to contribute with more than 35,000 soldiers on high or maximum readiness levels, and up to 200 aircraft, frigates and corvettes and "much more," starting in 2025.[27] Besides the heightened ambitions concerning NATO's posture on the eastern flank, the Armed Forces is henceforth expected to continue with its contributions to international missions and operations, and may also be expected to contribute to setting up the EU Rapid Deployment Capacity.

The force structure of the Armed Forces is divided into three main services – Army, Navy and Air Force – and three joint support services – Joint Support Service, Joint Medical Service and Cyber and Information Domain Service. The Joint Support Service hosts a significant number of soldiers and combat service support capabilities, for example seven logistics battalions, which in other countries are part of the main services.

Army

The personnel strength of the German Army is around 63,000.[28] The main units are one light rapid reaction division and two mechanised divisions, the 1st and the 10th; all three are in part set up in cooperation with the Netherlands and France.

The Rapid Reaction Division consists of two air-mobile brigades from Germany and the Netherlands, respectively, the special operations forces command, the search and rescue command, two transport helicopter regiments and one attack helicopter regiment. Parts of the rapid-reaction division are maintained at high readiness. In 2021, for example, the division provided the leadership and main part of the forces for the deployment contingent of the German evacuation from Kabul, in Afghanistan.

The 1st Mechanised Division draws on units based in northern Germany and the Netherlands. The manoeuvre elements are three German brigades and one Dutch brigade. For support, the division includes one artillery, one combat engineering and one telecommunications battalion. The 10th Mechanised Division consists of units based in southern Germany and France. The division incorporates two armoured brigades, one mountain infantry brigade and the Franco-German infantry brigade. In addition, there are three artillery battalions, as well as one pioneer and one telecommunications battalion.

The two mechanised divisions have in recent years increasingly contributed to NATO's force posture on the eastern flank. In 2023, the 10th Mechanised Division had the responsibility for Germany's contribution of a reduced brigade to the VJTF, including one artillery battalion equipped with self-propelled howitzers (PzH 2000) and one artillery demonstration battalion equipped with MARS II. The Rapid Reaction Division constituted the main part of the VJTF (L) Aviation Task Force. In addition, the Army has provided soldiers, armoured fighting vehicles (Boxer), and air-to-surface missile defence systems (Patriot) to the enhanced Vigilance Activities (eVA) in Slovakia.

The 1st Division has, since 2022, regularly provided rotations of a reduced mechanised battalion deployed to Lithuania, as part of ePF. The contributions were increased and broadened following Russia's

full-scale invasion of Ukraine, in 2022. The 1st Division, moreover, has one armoured infantry brigade on standby, in eastern Germany, as reinforcements for the eFP Lithuania. Since the beginning of autumn 2023, three armoured brigades from the 10th and 1st Divisions have had a rotating responsibility for this task.[29] A forward command element and depots for ammunition and fuel are positioned in Lithuania. The deployment training for this brigade has been run via the Homeland Defence Command, in Berlin, since the summer of 2023.[30]

The German Army's ambition is to operate above brigade and at division level. Beginning in April 2023, the Army initiated a restructuring into the categories of light, medium and heavy forces, intending to fill an operative gap and build structures enabling generation of large-scale units. The medium forces category is new and is meant to be a highly mobile force, with wheeled instead of tracked infantry fighting vehicles (IFVs), self-propelled artillery and engineering vehicles, as well as be able to promptly reinforce lighter forces and engage in combat until heavier forces are available.[31] Germany has initiated procurement of Boxer combat reconnaissance vehicles for the medium forces.[32] In addition, the ongoing restructuring will establish new artillery, reconnaissance, and pioneer units.

The Army suffers readiness problems, due to the low levels of material readiness of its main major weapon systems. This concerns, for instance, the helicopter assets of the Army aviation, and tracked vehicles. Furthermore, for some systems, modernisation measures increase the reduction of the available inventory, for example regarding tanks and armoured fighting vehicles.[33] Against this background, Germany has suffered limitations, both with regard to its armoured combat vehicles, in the run-up to the VJTF, and has faced difficulties in fulfilling the NATO requirement to provide sufficient tanks to its core brigade for VJTF.[34] The German Army also faces the longstanding problem of its outdated radios, which has implications for the common command and control (C2).[35]

Additionally, gaps exist in regard to the various air defence systems used by the Army. This includes insufficient quantities of systems for close and intermediate ranges. As a complication, some of these systems have been delivered to Ukraine.[36] Besides the delivery to Ukraine of various air defence systems, the Army has also provided it with additional key weapon systems, including Marder, Leopard 2, self-propelled howitzers (PzH 2000), long-range multiple-launch rocket systems (MARS II) and large quantities of its stocks of ammunition, artillery rounds and spare parts. Consequently, the Army's materiel situation may be exacerbated in the coming years.

Navy

The German Navy consists of close to 16,000 sailors and airmen and is organised in two flotillas and one maritime air command.[37] The 1st Flotilla has its home ports in Kiel, Eckernförde and Rostock-Warnemünde, on the Baltic Sea coast. The flotilla focuses on naval warfare in marginal seas and coastal waters, including special capabilities for naval mine countermeasures, anti-submarine warfare, support for evacuation operations and the deployment of special operations. It hosts the Navy's smaller ships and submarines that operate in coastal waters, nominally including 5 corvettes, 10 mine countermeasure ships, 6 submarines and 5 support ships. The Navy's special operations forces command and the marine infantry battalion also form part of the flotilla.

The 2nd Flotilla, based in Wilhelmshaven, on the North Sea coast, focuses on long-term worldwide maritime missions and has capabilities for monitoring at sea, submarine hunting, and repelling air attacks. It consists of the Navy's larger vessels, including supposedly 12 frigates and five support ships. The maritime air command is located in Nordholz, and comprises two maritime air squadrons operating maritime patrol aircraft (P-3C Orion), and maritime helicopters for anti-submarine warfare, search and rescue, and transport (Sea King, Sea Lynx and Sea Lion).

In recent years, the two flotillas have contributed to NATO's force posture and regularly participated in NATO's standing maritime groups in the Baltic and Mediterranean Seas, as well as in several UN and EU operations, worldwide. Following Russia's full-scale invasion of Ukraine, the Navy is refocusing on the North Atlantic, the North Sea and the Baltic Sea.[38]

Since the autumn of 2022, units from the 2nd Flotilla have participated in the monitoring of maritime critical infrastructure in the North Sea, off the Norwegian coast, with three frigates and P-3C Orion aircraft.[39] In 2023, both the 1st and 2nd Flotillas provided units for the maritime (M) part of the VJTF (M) in the North and Baltic Seas. In addition, units from the Maritime Aircraft Command provide units to the VJTF (M), equipped with anti-submarine warfare helicopters (Sea Lynx).[40]

The German Navy has suffered from overstretch in recent years, due to increasing operational engagements combined with personnel and materiel shortages. Regarding materiel, the Navy faces problems with the enhanced need for maintenance caused by wide-ranging operational commitments, the problem of supply of spare parts, protracted processes for procurement, and prolonged times in shipyards.[41] The service also lacks trained personnel in certain areas and its ammunition is considered insufficient.[42] This limited material readiness of the Navy's main major weapon systems influences the

service's scope of action. In 2021, the average material readiness for naval combat units was 72 percent, and for helicopters 40 percent.[43] The German Navy henceforth expects a substantial decline in the provision of deployable forces, which in turn could lead to the Ministry of Defence's (MoD) having to prioritise operations in the coming years. [44]

Against the background of the shift in focus toward the North and Baltic Seas, the Navy is planning to acquire systems, including unmanned mine countermeasure systems and underwater vehicles, which will be vital in protecting critical infrastructure. Moreover, the Navy is preparing for increased protection of sea lines of communication (SLOC) and is currently in the process of procuring new surface combatants with air defence capabilities (F127), underwater combatants (F126), corvettes (K-130) and submarines (212CD).[45] Concurrently, older systems, such as the F124-class frigates, will be replaced from 2032.[46]

Air Force

The German Air Force has approximately 27,000 airmen.[47] The Air Force Command, in Berlin-Gatow, is responsible for the training and development of the Air Force's units.[48] The Air Operations Center, in Kalkar-Uadem, exersises operational command of units when they are taking part in exercises or operations. It is co-located with NATO's Combined Air Operations Centre (CAOC).

The Space Command, in Uedem, is responsible for conducting space operations in coordination with other branches of the Armed Forces and provides technical support and space situational data to other commands, such as the Bundeswehr Operations Command and the Homeland Defence Command. The Air Force is organised in six tactical air wings, including four equipped with Eurofighter aircraft and two with Tornado aircraft. Additionally, there are two transport wings, equipped with the Airbus A400M and various transport aircraft, one special operations forces helicopter squadron and one air defence wing, armed with Patriot missile systems.

The Air Force patrols the German air space, undertakes international operations, and contributes to NATO's integrated air and missile defence. Germany is also a framework nation and responsible for the Multinational Air Group (MAG), which is part of NATO's Framework Nations Concept, and for standing up so-called larger formations of allied air forces. Following the Russian invasion of Ukraine in 2022, the Air Force intensified its contribution, which includes A400M for refuelling in NATO air space and Tornado aircraft for reconnaissance flights over the Baltic Sea.

Two of the Air Force's tactical air wings participate annually in the Baltic Air Policing (BAP) in Estonia with Eurofighter combat aircraft. Additional Eurofighter aircraft from the air wings are kept ready for Quick Reaction Alert (QRA). In addition, one tactical air wing participates in the Enhanced Air Policing (eAP) in Romania, while also being held on readiness for eventual participation in the NATO Response Force (NRF). The fourth tactical air wing can undertake QRA support. In addition, one air defence wing has participated in NATO's Air Missile Defence Task Forces in Slovakia and Poland, with Patriot batteries, from early 2022 and early 2023, respectively.[49]

In recent years, the material readiness of the major systems operated by the Air Force varies significantly between systems. The material readiness is influenced by ageing systems, technical deficiencies, outdated technology, prolonged modernisation, and lack of spare parts. While high numbers of readiness are reported for the Eurofighter combat aircraft, and air defence systems Patriot and Mantis, the levels for ageing systems are low.[50] Consequently, the operative readiness and ability to maintain flight operations varies between the Air Forces' systems. Systems of particular concern are the Tornado combat aircraft, CH-53 helicopters, A400M transport aircraft, and P-3C Orion.[51]

There is, moreover, a lack of ground-based air defence systems for adequate air defence protection. Germany previously possessed only two Mantis Air Defence Systems, meaning that only two objects could be protected from rocket, artillery and mortar fire, in chorus. Since October 2023, these systems have been completely lacking, domestically, given that Germany has delivered the two Mantis systems to Slovakia.[52] For longer ranges, Germany relies solely on 12 Patriot systems. There is also a gap in regard to particularly high altitudes. As a result, the German Air Force has only few and partly outdated systems for sufficient protection in regard to air defence.[53]

In the coming years, the German Air Force will be preoccupied with modernizing many of its capabilities. This includes the procurement and introduction of the successor system for the Tornado combat aircraft with 35 F-35 aircraft and 15 Eurofighter ECR. The F-35 will allow for continuing participation in NATO's nuclear sharing and the Eurofighters will take over the role of electronic combat. The first F-35 combat air craft will begin to arrive in 2026, according to current plans.[54]

Joint assets

The Special Operations Forces Command (SOFCOM) encompasses the Army's special operation forces (Kommando Spezialkräfte, KSK). During routine duty, SOFCOM is under the command and control of the Rapid Forces Division of the Army. In certain situations,

SOFCOM personnel operate with the special operation forces of the Air Force. The KSK works closely with one helicopter wing of the Air Force that is equipped with light multirole helicopters (H145M LUH SOF).[55]

The Special Operations Command of the Army is facing pressing challenges in recruiting and retaining personnel. Following incidents related to right-wing extremism and ammunition theft between 2017 and 2020, the MoD has imposed broad reform processes on the command.[56] In 2020, one company was disbanded and its soldiers were transferred to other companies. Despite numerous measures to improve personnel recruitment, the Armed Forces still faces problems attracting personnel to the KSK. In 2022, only 83 percent of the total number of 1,420 military posts of the KSK were manned. The proportion of NCO-rank non-commissioned officers in the Command is even lower, at around 67 percent.[57]

The Navy Special Operations Forces Command (NSOFC) is the maritime component of the Armed Forces special operations forces. The NSOFC is part of the 1st Flotilla. Its main operational areas are the open sea, coastal areas, inland waters and estuaries. The Naval Special Operations Command (Kommando Spezialkräfte Marine, KSM) is being restructured and is growing significantly, with the ambition to almost double its personnel to 600, by 2025. Beginning in April 2023, two new units, a special operations boat company and a support company, and a special forces training centre have been established.[58] The KSM is also going to receive newly procured medium-range boats toward the end of 2023. The KSM's previous boats are no longer operational, which has significantly impacted the command's training and practice.[59]

Germany, due to its central geographic location, is both a transit and a host (receiving) nation. Germany hosts the NATO Joint Support and Enabling Command (JSEC), which coordinates and safeguards the movement of NATO partners' follow-on forces across Europe. JSEC reached full operational capability in 2021.[60] The new Homeland Defence Command, established in 2022, is responsible for the coordination of logistics and the organisation of redeployment of allied forces through Germany, in close cooperation with NATO commands.

The German government aims to enhance the country's role as a turntable. This includes improving military mobility and strengthening JSEC. Its plans encompass personnel increases in the support service, including logistics, nuclear, biological, and chemical (NBC) defence, military police and medical services. Further plans include establishing one additional logistics battalion, two additional companies for NBC defence, one military policy company and four new regiments for home defence.[61]

Germany has another ambition, which is to be a framework nation, focusing on the generation of large formations for use in NATO. This requires Germany to provide not only enablers, such as logistics, but also command and control (C2) and high levels of interoperability for smaller countries, enabling them to plug their resources into the German Armed Forces. Hitherto, Germany's ability to exercise C2 has been flawed, and progress has been slow, particularly due to a lack of digitisation, for instance with regard to tactical data networks and software-defined radios.[62] In some previous NATO exercises, interoperability, or rather the lack thereof, a result of its technically incompatible IT systems, which exacerbate a poor communications capability, has been identified as the most crucial challenge.[63] The special fund includes substantial investments in digitalisation, a move that is likely to accelerate progress in this area.

In addition, Germany has challenges with regard to logistics and mobility. Merely the transport, within four days in 2022, of 350 soldiers and 130 vehicles as reinforcements to the eFP in Lithuania pushed the support services' logistic capabilities to their limits.[64] The German national railway service, Deutsche Bahn, supposedly only has sufficient capacity to transport around one and a half armoured brigades simultaneously.[65] Hence, the Joint Support Service may be in short supply, with limited access to personnel, materiel and infrastructure, when transporting materiel and personnel to the eastern flank.

As regards the cyber domain, Germany has gradually developed its capabilities. The 2016 White Paper and the 2018 Concept of the German Armed Forces included, for the first time, military aspects of cyber security. In 2017, the German MoD established the Cyber and Information Domain Service (Cyber- und Informationsraum, CIR) as the fourth domain of the Armed Forces.[66] In 2021, Germany adopted a National Cyber Security Strategy. In July 2023, the service consisted of approximately 15,500 military and civilian personnel.[67] The service bundles the Armed Forces units for cyber, IT, operational communications, geo-information and military intelligence under one commander.[68] The Armed Forces' Joint Intelligence Centre is subordinate to the CIR. The CIR domain is tasked with preventing and defending against attacks on the Armed Forces' IT systems, and also with providing the reconnaissance and effects in foreign systems. German doctrine and strategy, however, remain noncommittal on specific measures to be deployed in response to cyberattacks.[69]

Similarly, as in the other branches of the German Armed Forces, Russia's war in Ukraine prompted a sharp reaction in the cyber domain. The German government presented a new cyber security agenda that urged updates

across hardware and structures.[70] In addition, EUR 21 billion from the special fund was allocated to communication systems and cyber capabilities. Notwithstanding these measures, the NSS adopted in June 2023 has been criticised for lacking the dimension of security policy in the digital space, including the spelling out of a stance on the issue of active cyber defence, which has been a controversial issue in Germany.[71]

Regarding space, Germany has adopted a more preventive military strategy, opposing the use of offensive capabilities. The previous government, however, had taken various measures to highlight the military importance of space.[72] In 2020, the Armed Forces inaugurated the Air and Space Operations Centre (ASOC), which brings together several capacities in one central facility. In 2021, the Armed Forces opened a separate command dedicated to space, run by the Air Force. The ambition is to double the size of the command to 220 positions by 2027.[73] The Space Situational Awareness Centre has been integrated into the space command.

The Armed Forces has the capability for global imaging reconnaissance and satellite communication. It also examines the possibility of developing satellite-based early warning systems. Still, it has yet to work on developing defence systems for satellites. The Armed Forces currently relies on US assets to gain space situational awareness.[74] Nor does Germany have independent capabilities for space launch or weaponised space vehicles.[75] All in all, the government has rejected, and Germany consequently lacks, offensive means in space.[76]

Personnel

The number of personnel in the Armed Forces has increased slightly since the plans for reversing the trend in the field of personnel were announced in 2016, but have stagnated in recent years. The total number of personnel in the Armed Forces amounted to around 183,000 soldiers in January 2023, which was a slight decrease from 2020. The number of voluntary service members amounted to almost 10,000 soldiers.[77] The number of personnel in the Reserve was 35,000, in 2022.[78]

The ambition of the MoD is to increase the total number of soldiers to 203,000, by 2031.[79] The recruitment of approximately 20,000 soldiers will pose an immense challenge. The Parliamentary Commissioner for the Armed Forces, Eva Högl, has described the ambition of a force of 203,000 as "unreachable."[80]

Germany paused its compulsory military service in 2011. The new German defence minister, Boris Pistorius, has described this phase-out as a mistake. In the spring of 2023, several military representatives, including the chief of the Navy, proposed the reintroduction of mandatory military service.[81]

The Armed Forces has difficulty in retaining and recruiting personnel and faces dropout levels of up to 30 percent. [82] Even now, 21 percent of recruits currently end their service in the Armed Forces after a few months. In the Army, this number is 33 percent. As regards recruitment, the Navy faces particular challenges, particularly with units at sea, with low applicant numbers, especially among soldiers and NCO-rank non-commissioned officers.[83] In 2022, dropout rates remained higher than the recruitment and application numbers.[84] At the same time, the Armed Forces faces the demographic and societal challenges of the German labour market, including that of an ageing population and the growing shortage of specialists and skilled workers.

Although not all parts of the Armed Forces face high vacancy levels, some units are experiencing particularly high levels of vacancies. At the end of 2022, approximately 16 percent of the military posts above the junior ranks were unoccupied.[85] In some areas, for instance the specialist branch of NCO-rank non-commissioned officers, staffing rates of only 60 percent are common.[86] Since 2018, the Armed Forces has only achieved a personnel recruitment coverage of around 74 percent for specialist non-commissioned officers. In the case of officers, however, the Armed Forces is able to meet its needs almost in full.[87]

Materiel

The availability of materiel is a severe problem for the German Armed Forces. Although the reports on the readiness of specific weapon systems are no longer public, the overall level of material readiness was reported to be approximately 75 percent in 2021, which was roughly the same as the year before. Since the number of platforms is lower in the Air Force and Navy, the lack of spare parts and maintenance capability has a more prominent effect on the operational capability of these services compared to the Army.

The German Army suffers readiness problems due to the low levels of material readiness of its main major weapon systems. This concerns the helicopter assets of the Army aviation, with an average material readiness of 40 percent, as well as for tracked vehicles, which have an average material readiness of 65 percent, and at best 75 percent. For some systems, including the Leopard 2 tank and the Boxer armoured fighting vehicle, modernisation measures additionally reduce the available inventory.[88] These limitations were visible in 2023 in Germany's preparations and contributions to the VJTF. For instance, the availability of Leopard 2 tanks in one of the armoured battalions of the core brigade for VJTF did not have sufficient tanks to fulfil

NATO requirements.[89] The Army also suffered limits to its Puma armoured combat vehicles in the runup to the VJTF during an exercise in December of 2022, which led the Armed Forces to revert to the predecessor model, Marder, for the VJTF. The Armed Forces also reverted to Marder for the VJTF in 2019.[90]

The German Army also faces the longstanding problem of outdated radios, which has implications for

Table 10.1 Personnel and materiel in the German Armed Forces

Personnel/Materiel	Numbers in 2023	Major reforms towards 2030
Personnel[(a)]		
Regular force	183,000	
Voluntary force	9,777	
Reserves	32,650[(b)]	
Materiel[(c)]		
Tanks	321 (223 Leopard 2A5/A6, and 98 Leopard 2A7/2A7V) (55 Leopard 2A4 in store)	18 new Leopard 2A8, delivery between 2025–2026, to replace the 18 Leopard 2A6 delivered to Ukraine.[(d)]
Armoured-combat vehicles	680 (258 Marder 1A3/A4, and 72 Marder 1A5; 350 Puma)	Procurement of 50 additional Pumas initiated.[(e)] 154 Pumas to be modernised by 2026, 143 additional Pumas to be modernised by 2029.[(f)] Pumas will eventually replace Marder.
Heavy artillery pieces	147 (109 PzH 2000, and 38 MARS I & II)	10 new PzH 2000, to be delivered 2025 and 2026.[(g)] 12 new PzH 2000, to be delivered 2026.[(h)]
Attack Helicopters	51 Tiger	The Tiger fleet will be slowly reduced from 2031 to 2038.[(i)]
Surface combatants	16 (4 F-123 frigates, 3 F-124, 4 F-125, 5 K-130 corvettes)	Four additional F126 frigates, and six additional K130 corvettes[(j)] F127 anti-air warfare frigates will replace the existing F124-class from 2032.
Submarines	6 (212A)	Procurement of two 212CD, to be delivered in 2032.[(k)]
Combat aircraft	226 (138 Eurofighters, 88 Tornados)	Tornados will be replaced by a total of 35 F-35 combat aircrafts and 15 Eurofighter (ECR). The Eurofighters are to be enabled for electronic warfare by 2030, with Integrated Electronic Warfare Systems, "Arexis."[(l)] The first 8 F-35s are to arrive in 2026, the remaining 27 by 2029. 38 Eurofighters are to arrive between 2025 and 2030.[(m)]
Transport aircraft	58 (38 A400M, 3 C-130 Hercules, 3 A321, 2 A340, 2 A350, 2 A319, 4 Global 5000, 3 Global 6000)	Procurement of 6 C-130J Super Hercules to supplement A400M. First delivery was in February 2022.[(n)]
Air-defence batteries	14 (12 Patriot, 2 Mantis)	Procurement of Arrow 3 initiated; operational in 2025.[(o)]
UAVs	6 Heron 1	

Sources/Remarks: (a) Personnel numbers from January 2023; Bundeswehr, Personalzahlen. **(b)** Reserve personnel numbers are based on numbers from IISS, The Military Balance 2023, Chapter Three: Europe, London/Oxfordshire: International Institute for Strategic Studies/Routledge, 2023, p. 95. **(c)** Materiel numbers are based on numbers from IISS Military Balance 2023 (Chapter Three: Europe) p. 94-97. Note that not all of these systems are at the disposal of the Bundeswehr's units. **(d)** Manthey, Florian, 'Bundeswehr beschafft Kampfpanzer Leopard 2 A8 und Panzerhaubitzen 2000', *Bundesministerium der Verteidigung*, 25 May 2023. **(e)** Manthey, Florian, 'Bundestag genehmigt Beschaffung weiterer Schützenpanzer und neuer Löschfahrzeuge', *Bundesministerium der Verteidigung*, 11 May 2023. **(f)** Heiming, Gerhard, 'Schützenpanzer Puma – Modernisierung auf den Rüststand S1 beauftragt', *Soldat & Technik*, 29 June 2021. **(g)** Manthey, Florian and Vieth, Amina, 'Bundestag genehmigt zehn neue Panzerhaubitzen 2000', *Bundesministerium der Verteidigung*, 29 March 2023. **(h)** 'Bundeswehr beschafft Kampfpanzer Leopard 2 A8 und Panzerhaubitzen 2000', *Bundesministerium der Verteidigung*, 25 May 2023. **(i)** 'Bundeswehr will Tiger-Kampfhubschrauber langfristig ersetzen', Frankfurter Allgemeine, 13 May 2023. **(j)** YB, 'Sondervermögen: Sechs Rüstungsprojekte vorerst gestrichen', Deutscher BundeswehrVerband, 28 October 2022. **(k)** 'Rüstungskooperation zwischen Deutschland und Norwegen Beschaffung zweier U-Boote für die Bundeswehr unter Vertrag', press release 20/2021, Bundesamt für Ausrüstung, Informationstechnik und Nutzung der Bundeswehr, 8 July 2021. **(l)** Frank, Dorothee, 'Decision for the Eurofighter electronic combat', *Berlin Security Conference*, 23 June 2023, https://www.euro-defence.eu/2023/06/22/decision-for-the-eurofighter-electronic-combat/. **(m)** Heimig, Gerhard, 'Startschuss für die Endmontage der 38 Quadriga-Eurofighter in Manching', *Europäische Sicherheit & Technik*, 14 June 2023. **(n)** 'Wie kommt die C-130J Super Hercules in die Bundeswehr?', *Bundeswehr*, 2 February 2022. **(o)** Finke, Lara, 'Beschaffung: IRIS-T SLM, Einstieg in Arrow und weitere Wechselladersysteme', *Bundesministerium der Verteidigung*, 15 June 2023.

command and control.[91] Furthermore, gaps exist with regard to the various air defence systems used by the Army, particularly in the low- and middle-range layers of air defence. For the protection role during land-based operations in the close and intermediate ranges, the Army relies on the Ozelot system, which is outdated and not available in sufficient quantities.[92] The Army is to receive IRIS-T-SLS in the autumn of 2024, while the Eagle and Boxer infantry fighting vehicles are to be armed with launchers for four to six IRIS-SLS missiles. It is also planned that the SLX long-range variant will be developed.[93]

The German Navy's scope of action is affected by the limited material readiness of the service's main major weapon systems. In 2021, the average material readiness for naval combat units was 72 percent, and for helicopters 40 percent. For high-intensity operations with particularly high demands on materiel and personnel, less than 30 percent of the warships were fully operational.[94] The Navy faces problems with regard to the supply of spare parts, protracted processes for procurement, and prolonged periods in shipyards. In addition, the service's wide-ranging operational commitments have led to enhanced maintenance needs.[95] Insufficient ammunition is also a large problem.[96] In 2022, the German government acquired a shipyard in Rostock to cope with the maintenance problems.

The navy is in the process of procuring new surface combatants with air-defence capabilities (F127), underwater combatants (F126), corvettes (K-130) and submarines (212CD). According to a newly published plan for the intended fleet structure in 2035, there are some changes compared to previous plans, regarding prioritised systems. Against the backdrop of refocusing on the North Atlantic and the North and Baltic Seas, the planned fleet structure reveals an increasing focus on unmanned systems, as well as systems with capabilities and tasks for underwater and above-surface warfare and reconnaissance.[97] At the same time, however, the inflow of new systems to the Navy in the coming years will largely be conditioned by financing from the regular defence budget. Following the Federal Court of Justice's critique of the initial procurement plans of the special fund in 2022, the government cancelled some of the planned procurement for the Navy.[98] This included frigates (F126) and additional corvettes (K-130).[99] In the future, uncertainties will thus remain as to how the Navy's new plans will be financed through the regular defence budget.

In the German Air Force, the material readiness of the respective major systems has varied significantly in recent years. It is affected by ageing systems, technical deficiencies, prolonged modernisation, and lack of spare parts. For instance, the operational readiness of the Tornado fighter jet can only be secured with great effort, while less than a third of the available A400Ms are operational.[100] For aging helicopters, including the CH-53, flight operations can only be maintained through substantial efforts, due to age-related susceptibility to faults and missing spare parts. The problem with outdated technology also affects other systems, such as the Tornado and the P-3C Orion.[101]

There is also a lack of ground-based air defence systems for adequate air defence protection. For VJTF, there has been limited low-altitude air defence.[102] Germany has too few and partly outdated air-defence systems. There is also a lack of high-altitude systems; consequently, Germany is procuring Arrow 3 systems.[103] In future, the Air Force and the Army will cooperate regarding low- and middle-range layers of air defence.[104]

The increasing availability of replacement systems is expected, eventually, to improve the situation in the German Air Force.[105] This includes the introduction of replacement systems procured with the special fund: the fighter aircraft Tornado will give way to 35 F-35 fighter aircraft, with expected delivery between 2026 and 2029, as well as an order of 15 Eurofighter ECR; and, by 2030, delivery of the heavy transport helicopter CH-47F Chinook will take the place of the Sikorsky CH-53.[106] The P-3C Orion will be replaced by the Boeing P-8 Poseidon maritime patrol and reconnaissance aircraft, with deliveries beginning in 2024.[107]

The special fund of EUR 100 billion, by financing defence-modernisation needs, will likely close the worst gaps in the Armed Forces.[108] However, since current financial planning does not foresee a long-term increase in the defence budget, it is still unclear how increased maintenance costs, larger tenders and more exercises are to be financed.[109] In addition, the plans for the special fund have changed over time. While initial plans included the financing of significant equipment projects in the land, air and maritime domains, as well as in digitisation, the government has shifted other areas, such as research projects, ammunition, infrastructure projects or logistics, into the fund in the draft budget plan for 2024.[110] This has the advantage of increasing operational readiness in the short term, but has its drawbacks with regard to the eventual lack of funding for the larger long-term projects included in the initial planning.

Uncertainties also remain regarding the procurement reforms, where far-reaching reform steps are still pending.[111] Allocating more funding is only an enabler that does not automatically lead to military capability. Instead, there is an urgent need for reform and streamlining of the defence procurement and acquisition process.[112] In 2022, a new law to accelerate procurement was adopted, but this alone will not lead to substantial

change.[113] In 2023, further measures were taken to modify over-regulated procedures and processes, to avoid excessive demands on systems and overcome unclear responsibilities.[114] The impact of these measures will be visible in a mid- to long-term perspective.

The German defence industry provides a range of domestically developed and produced systems, including submarines, tanks and armoured vehicles. It produces advanced equipment, such as Leopard 2 tanks and self-propelled howitzers (PzH 2000), which is of relevance for high-intensity armoured warfare.[115] Germany also produces combat aircraft (Eurofighter) and attack helicopters (Tiger) in cooperation with other countries. The German defence industry is market-leading in some segments, while Rheinmetall, ThyssenKrupp, Hensholdt and Krauss-Maffei Wegmann are on the list of the world's top-100 defence companies.[116] However, Germany's production is not large enough to cover all market segments. There are several areas where it is not at the top technological level, particularly aerospace and electronics. Germany thus relies on imports and cooperation for some components and defence systems, and frequently participates in co-production within Europe and with the US.[117]

Military support for Ukraine

Germany's decision to provide Ukraine with military equipment constitutes a significant reversal of previous defence policies that ruled out the delivery of offensive weapons to a country at war. Although initially hesitant to provide lethal weaponry, its support for Ukraine has steadily increased, in terms of both quantity and the weaponry delivered. By the end of 2023, Germany's military assistance to Ukraine exceeded EUR 17 billion, making Germany the second largest bilateral donor after the US.[118] In addition, Germany is the largest contributor to the European Peace Facility (EPF) within the EU. Germany has authorised EUR 10.5 billion in future funding, primarily for military assistance to Ukraine, but also to replenish its Armed Forces stocks and cover its contributions to the EPF.[119] In addition, Germany has offered to resupply allied countries with modern tanks after their provision of Soviet-era materiel to Ukraine.

Both the Armed Forces and the defence industry have provided equipment and materiel to Ukraine. The major weapon systems supplied include 18 Leopard 2 tanks; 40 Marder armoured-combat vehicles; one Patriot air-defence system, with missiles; five MARS II long-range multiple-launch rocket systems (MLRSs), with ammunition; and 14 self-propelled howitzers (PzH 2000), with spare parts; as well as two IRIS-T SLM (surface-launched medium-range) air-defence systems and 2 IRIS-T SLS (surface-launched short-range) launchers. In October 2023, Germany was executing several planned deliveries, including supplies of air-defence systems (Patriot and IRIS-T), artillery, and additional Marder armoured-combat vehicles (the latter from industry stocks).[120]

The German Army, in particular, has delivered key weapon systems and large amounts of its stocks of ammunition, artillery rounds, and spare parts. According to media sources, as of June 2023, it only had approximately 20,000 artillery rounds left in its inventory, which must be restored to its nominal 203,000 shells by 2031 to meet NATO's requirement of being able to withstand a month of intensive combat.[121] Additionally, the lack of spare parts due to its prioritising deliveries to Ukraine is a major concern. The availability of spare parts has already had a detrimental impact on the readiness of the Armed Forces' PzH 2000.[122] In the near future, the supply of spare parts for other systems delivered to Ukraine, such as the Marder and Leopard 2, will most likely influence the material readiness of the Army's main systems in the same manner.

In addition, the renewed procurement of the already-delivered systems began as late as 2023. However, the main systems are not expected to arrive in the Armed Forces until at least 2025 (see, for instance, Leopard 2 tanks and the PzH 2000, in Table 10.1). Until then, the Army's land units will probably face even greater difficulties concerning the availability of its equipment and stockpiles than at present. This may, in turn, result in its having to make difficult financial trade-offs, needing to choose between obtaining more personnel, weapons systems, stockpiles and logistics.

The Armed Forces has also provided training for Ukrainian soldiers. Besides creating gaps in the Armed Forces' own capabilities, the decreased access to materiel and training of Ukrainian soldiers have influenced the Armed Forces' possibilities to provide the education and training required for NATO certification.[123] This applies, for example, to the regiment that provided Leopard 2 tanks to Ukraine.[124]

10.4 Assessment of military capability

Current operational capability[125]

The German Army, Navy and Air Force participate in NATO's deterrence and defence posture on the eastern flank and in several international operations. In addition, the German Armed Forces have substantial combat-support capabilities and can assist allies transitioning through Germany. Germany's short-notice operational capability comprises a mix of units that are either already deployed to the Baltics, on standby for NATO

and the EU, or placed on high readiness, nationally. The Armed Forces has enhanced its capability to move forces to the Baltics through the regular eFP rotations, and through participation in major military exercises to prepare for the NRF and VJTF. In addition, since 2022, armoured units from the Army have conducted multiple exercises in providing rapid reinforcement to the eFP battlegroup in Lithuania.

Nevertheless, doubts about Germany's current operational capabilities and its prospects for fulfilling the political ambition of becoming the "cornerstone of conventional defence in Europe" have already been vocalised by both politicians and Armed Forces officials. The new German defence minister claimed that Germany did "not have armed forces that are combat-ready, in the sense of being able to confront an offensive, brutal war of aggression."[126] The Chief of the Army, Lieutenant General Alfons Mais, was quoted in the media as suggesting that the promise of providing a division to reinforce NATO by 2025 would not be fully achieved within the intended timeframe; also, as of late 2022, none of Germany's brigades could be deployed to a sustained combat mission without a longer preparation period.[127] Presently, units receive the required equipment and materiel shortly before deployment.[128]

In a scenario of three months' notice of major combat operations, the German Army could probably mobilise rapid-reaction capabilities, with light airborne and airmobile infantry from the Rapid Response Force Division. This likely includes 2-3 airmobile battalions and 1 reduced battalion of special operation forces, supported by attack and transport helicopters.

The Army's ability to generate heavier ground forces is more limited in relation to the total number of such assets. The 1st Division includes a reduced armoured battalion equipped with Leopard 2 tanks, deployed to Lithuania (eFP), and an armoured infantry brigade held on standby in Neubrandenburg for reinforcements. In 2023, the 10th mechanised Division had one full brigade available for the VJTF. In total, this suggests that perhaps 2-3 armoured battalions (with Leopard 2 tanks) and 3-4 mechanised battalions (with Puma or Marder IFVs) would be available at their home bases and deployable for major combat operations beyond German borders within three months. Some more units may be possible to mobilise in that time frame, by further redistributing and concentrating available materiel and personnel, however unlikely with sufficient capabilities for warfighting and even less likely for deployment abroad. In general and addition, the Army's ability to sustain its forces in prolonged high-intensity operations, both nationally and abroad, is probably inadequate, considering the known deficiencies in logistics, including lack of transport assets and different kinds of supplies.

The German Navy suffers from overstretch, due to increasing operational engagements, combined with shortages in personnel, spare parts and ammunition. Meanwhile, the average materiel readiness for naval combat units is 72 percent; fewer than 30 percent of the warships were deemed fully operational for high-intensity operations in 2021.[129] Taking this into account, less than half, and in some cases more likely one-third, of the total number of ships would perhaps be available in three months. Considering the even lower levels of material readiness of the Navy's helicopter assets, less than one-third, and in some cases more likely one-fourth, of the total number of helicopters would probably be available in three months. This suggests that the Navy, within a timeframe of three months, would perhaps be able to deploy a maximum of 4-5 frigates, 2-3 corvettes, 4-5 mine-hunters, 2-3 submarines, 2-3 maritime patrol aircraft (P-3C Orion) and 11-13 maritime helicopters (Sea Lynx, Sea King and Sea Lion), as well as support ships.

The German Air Force undertakes regular rotations to the Baltics of up to six fighter aircraft and to Romania of up to three fighter aircraft as part of NATO's air-policing mission. In addition, the service contributes to NATO's integrated air defence and takes part in international operations. Although high numbers are reported for the Eurofighter combat aircraft and the air-defence systems, Patriot and Mantis, the levels of material readiness for some systems, such as the Tornado and the CH-53 helicopters, A400M transport aircraft, and P-3C Orion are of concern. In this context, the systems operated by the Air Force vary significantly in their material readiness. Flight operations can only be maintained, in some cases, through great effort, due to age-related susceptibility to faults and unavailability of spare parts. Considering these shortcomings, less than half, and in some cases more likely one-third, of the total number of aircraft would perhaps be available within three months. This suggests that the German Air Force would be able to deploy a maximum of 2-3 fighter squadrons (Eurofighters), 1-2 attack squadrons (Eurofighters and Tornados), half a squadron of reconnaissance aircraft (Tornados), and 2-3 air-transport squadrons (A400Ms, Airbus A330 MRTTs, or multi-role tanker transports, and various other aircraft, for personnel transport). In addition, the limited number of ground-based air-defence systems stretches the Air Force's ability to provide adequate protection against rocket, artillery and mortar fire. The recent delivery of Mantis systems to Slovakia probably limits even further the number of air defence systems that are available within three months.

Moreover, sustaining the aforementioned forces would require significant strain, particularly due to

the general lack of artillery rounds, ammunition and spare parts. Armed Forces officials have warned that the Armed Forces are not able to support combat operations for more than one week.[130] The continuing delivery of ammunition, artillery rounds and spare parts to Ukraine may undermine this ability further.

Considering Germany's role as a NATO logistics hub, rear-area support is probably prioritised and may be satisfactory, nationally. However, the Joint Support Service may be in short supply, with limited access to personnel, materiel and infrastructure, when transporting materiel and personnel to the eastern flank. As an example, Germany's national railway service supposedly only has sufficient capacity to transport around one-and-a-half armoured brigades simultaneously. Moreover, Germany's ambition to generate large formations for use in NATO may be negatively influenced by its limited ability in command and control and interoperability with smaller countries, which is partly caused by an insufficient degree of digitisation.

Future military capability

The MoD has accelerated the process of equipping those elements of the Armed Forces that are tasked with territorial and collective defence. Under the condition that the materiel arrives according to the planned timeframe, the allocation of the Armed Forces special fund towards large-scale armaments programs and major purchases of off-the-shelf weapons systems will have addressed a number of aspects of the Armed Forces' modernisation needs. The effects of these investments, however, will be seen in only five to ten years, while the need for additional significant investment remains.

In a scenario where Germany's defence expenditures will have undergone the same yearly increase as the average increase between 2019 and 2023, Germany would not meet the NATO target of 2 percent before 2028. With this in mind, it is highly uncertain whether Germany will reach the 2 percent pledge once the special fund has run out. This suggests that, as a result of the slow increase in the regular defence budget, Germany is likely to face a significant funding shortfall in the defence policy area in the next few years. Meanwhile, because of high inflation and interest rates, the purchasing power of the special fund is shrinking, creating large uncertainties about the funds that will be available for major procurements during the same years.

Uncertainties thus remain regarding how increased maintenance costs, larger tenders and more exercises are to be financed. Due to the aforementioned issues, the German government may well need to shift additional areas of spending into the special fund. This shift of budget posts to the special fund has already occurred, in part, for example, with ammunition. While this increases the operational capability in the short term, it may decrease the means available for long-term procurement projects.

At the same time, there is a risk that future arms deliveries to Ukraine will not only further exacerbate the already strained material situation of the Armed Forces, but also put severe strain on a similarly limited budget. The regular budget must cover a wide range of budget items: smaller procurements outside the special fund; upgrades of available equipment; spare parts, ammunition and supplies; and maintenance of old and new materiel, as well as training and exercises. These costs may increase further as a result of continuous deliveries of ammunition, spare parts and artillery rounds to Ukraine. As in many countries, an unknown part of the increase in spending will have to be used for filling existing and sometimes forgotten deficiencies in the Armed Forces.

The Army appears to prioritise the maintaining of a breadth of capabilities. Its current restructuring is an effort to use the available resources more effectively in a climate of new requirements. The Army's plans do not require a major deviation from the previous modernisation plan that foresees increasing the numbers of its tanks, armoured vehicles and artillery pieces. Nevertheless, implementing and equipping the new medium forces will require a substantial procurement.[131] The access these units have to ammunition and spare parts will also be pivotal for their operational readiness. An important change regarding Army capabilities within the next few years concerns air defence. The service is to receive IRIS-T-SLS, while the infantry-fighting vehicles are to be armed with launchers for IRIS-SLS missiles. Development of the SLX variant for long ranges is also planned.[132]

The German Navy expects a substantial decline in its deployable forces in the near future.[133] Henceforth, the Navy may have to limit quantities due to a lack of financing, while nevertheless trying to maintain its capabilities.[134] Considering the Navy's rebalanced geographical priority on northern Europe, its coming procurement will likely be directed towards regional purposes. To finance the new plans, however, some platforms may have to be retired, potentially including some of the corvettes and frigates.[135] The northern European context might further lead one to expect that systems otherwise intended for worldwide deployment, such as the frigates (F126), may receive additional systems intended for use in more northerly regions.[136] The replacement of the P-3C Orion with Boeing P-8 Poseidon maritime patrol and reconnaissance aircraft will also likely improve the Navy's operational readiness. In addition, the newly acquired shipyard in Rostock will improve maintenance and likely the operational readiness within the service.

The German Air Force will acquire additional capabilities in the medium and short terms through the introduction of the Eurofighter ECR and F-35 fighters, the Boeing P-8 Poseidon maritime patrol and reconnaissance aircraft and the CH-47 Chinook heavy transport helicopters. These replacements will be preoccupying the Air Force for some years. In addition, with the introduction of Arrow 3 systems, the service will gain high-altitude air-defence capabilities.[137]

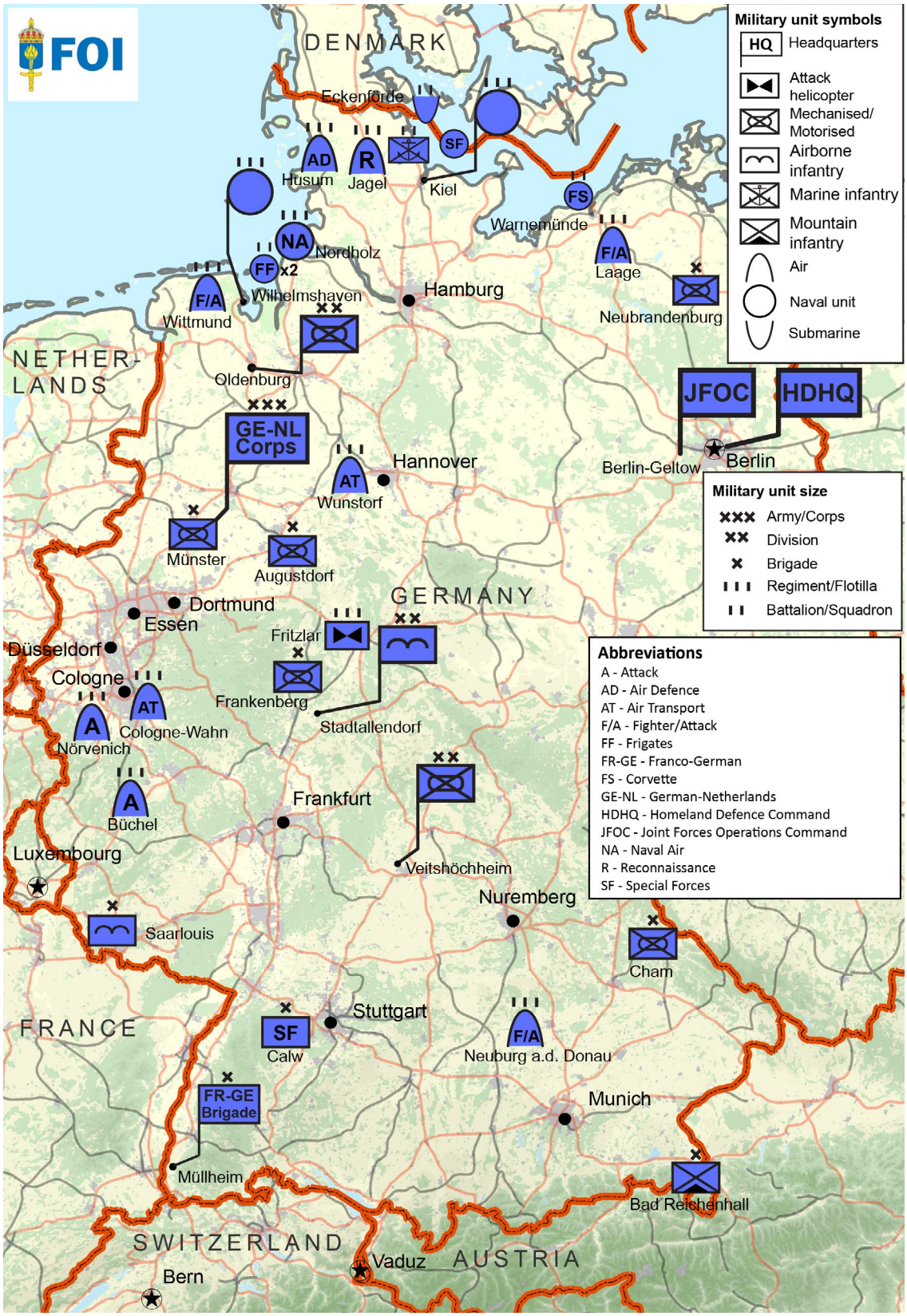
Germany's future military capability will likely depend not only on its ability to absorb the new systems it is acquiring, but also on its capacity and the budget it has available for maintaining both the old and new systems. In addition, the Armed Forces will face the challenge of having to attract 20,000 new personnel and provide enough capacity to educate them.

The political messaging, given its ambition to become the conventional backbone of European territorial defence, is indeed to retain a full-spectrum force and to fulfil NATO capability goals. The German government appears to be on the path of over-planning and underfunding. This may lead to a need for prioritisation within the services in the years to come. ■

Table 10.2 Force structure of the German Armed Forces

Force	Organisation in 2023	Major reforms towards 2030
Joint	Homeland Defence Command Joint Forces Operations Command Joint Support Service (7 logistics battalions, 1 logistics regiment, 1 special engineer regiment, 3 military police regiments, 2 NBC battalions, 1 NBC regiment) Cyber and Information Domain Service (6 IT-battalions, 4 electronic warfare battalions, 1 centre for geo-information, 1 centre for cybersecurity) Joint Medical Command	One additional logistics battalion, two additional companies for NBC-defence, one military policy company, four new regiments for home defence.
Army	Rapid Response Forces Division (1 air-mobile brigade, 1 mountain infantry brigade, 1 special operations forces command, 1 attack helicopter regiment, 2 transport helicopter regiments, 1 search and rescue command) 1st Mechanised Division (3 mechanised brigades, 1 armoured battalion (in the Netherlands), 1 artillery battalion, 1 combat engineering battalion, 1 telecommunications battalion) 10th Mechanised Division (2 mechanised brigades, 1 mountain infantry brigade, 2 infantry battalions (in the French-German Brigade), 3 artillery battalions, 1 telecommunications battalion)	Beginning in April 2023, the Army is reorganising brigades of the divisions to form medium forces. Reports also indicate plans for 4 additional artillery battalions and 2 additional combat engineer battalions[(a)] Establishment of a new brigade permanently stationed in Lithuania, consisting of armoured and mechanised battalions from the 1st Mechanised Division.
Navy	1st Flotilla (1 corvette squadron, 1 special operations forces command, 1 mine counter measures squadron, 1 submarine squadron, 1 marine infantry battalion, 1 support squadron, 1 marine support command) 2nd Flotilla 2 frigate squadrons, 1 support squadron, 1 marine support command) Maritime Aircraft Command (1 maritime patrol squadron, 1 maritime helicopter squadron)	1 additional corvette squadron (K130; according to current procurement plans). New maritime patrol and reconnaissance aircraft Boeing P-8 Poseidon to be introduced from 2024.
Air Force	Air Operations Centre Air Force Command[(b)] 3 fighter air wings (Eurofighter) 2 attack air wings (Tornado) 1 reconnaissance wing 2 air transport wings 1 tanker transport unit 1 special operation forces, helicopter squadron 1 air defence wing (Patriot) 1 air defence group (MANTIS, expands capabilities of air defence command in the Netherlands) Space Command	The Tornado combat aircraft will be replaced by 35 F-35 combat air craft and 15 Eurofighter ECR.

Sources/Remarks: (a) 'Umgliederung des Heeres beginnt ab 1. April', *Europäische Sicherheit & Technik*, 9 March 2023. **(b)** Each of the air wings consists of several squadrons. The number of aircraft in each squadron varies with the type of aircraft. In Germany's case, the fighter, attack and reconnaissance wings include the equivalent of two squadrons of 15–20 aircraft. The air transport wings consist of the equivalent of 1–3 squadrons of 8–12 aircraft each.



Map 10.1 Overview of the German Armed Forces and its basing
Remarks: The map covers major operational headquarters and manoeuvre forces.
Source: Design by Per Wikström

Endnotes

1 Giegerich, Bastian and Terhalle, Maximilian, 'Verteidigung ist Pflicht–Deutschlands außenpolitische Kultur muss strategisch werden–Teil 1', Sirius–Zeitschrift für strategische Analysen, vol. 5, no. 3, 2021: p. 203–226; Krauss, Ellis S. and Maull, Hanns W., 'Germany, Japan and the Fate of International Order', Survival, vol. 62, no. 3, 2020: p. 159–78.

2 Meister, Stefan and Jilge, Wilfried, 'After Ostpolitik: A New Russia and Eastern Europe Policy Based on Lessons from the Past. DGAP Analysis No. 2 (Berlin: German Council on Foreign Relations, April 2023), 23 pp., esp. p. 3, 11–12.

3 Calmels, Christelle, 'NATO's 360-degree approach to security: Alliance cohesion and adaptation after the Crimean crisis', European Security, vol. 29, no. 4, 2020: p. 416–435, esp. 420–22.

4 Hagström Frisell, Eva, 'Germany', in Hagström Frisell, Eva and Krister Pallin (eds.), Western Military Capability in Northern Europe 2020 – Part II: National Capabilities, FOI Reports FOI-R--5013--SE (Stockholm: Swedish Defence Research Agency – FOI, February 2021), p. 97–110, esp. 98–99.

5 Die Bundesregierung, Nationale Sicherheitsstrategie: Wehrhaft. Resilient. Nachhaltig. Integrierte Sicherheit für Deutschland, June 2023, p. 22.

6 Die Bundesregierung, Nationale Sicherheitsstrategie, p. 15, 32–33, 15.

7 Bundesministerium der Verteidigung, Verteidigungspolitische Richtlinien 2023, November 2023, p. 9-10.

8 Barry, Ben, Boyd, Henry, Giegerich, Bastian, Gjerstad, Michael, Hackett, James, Michel, Yohann, Schreer, Ben and Tong, Michael, The Future of NATO's European Land Forces: Plans, Challenges, Prospects, Research Papers (London: International Institute for Strategic Studies, 27th June 2023), p. 32.

9 Die Bundesregierung, Nationale Sicherheitsstrategie, p. 41.

10 Bunde, Tobias, Eisentraut, Sophie, Knapp, Natalie, Schütte, Leonard, Hammelehle, Julia, Kump, Isabell, Mudie-Mantz, Amadée and Pauly, Jintro, Munich Security Report 2023: Re:vision, Munich: Munich Security Conference, February 2023; Krastev, Ivan and Leonard, Mark, Fragile Unity: Why Europeans are Coming Together on Ukraine (and what might drive them apart), Policy Paper (London, European Council on Foreign Relations, March 2023), 25 pp., esp. 6–7.

11 Ehni, Ellen, 'Mehrheit der Deutschen stimmt Waffenlieferungen zu', ARD-DeutschlandTrend, Tagesschau, 2 March 2023, *https://www.tagesschau.de/inland/deutschlandtrend/deutschlandtrend-3313.html*.

12 'Deutsche beim Thema "Leopard" gespalten', ARD-DeutschlandTrend, Tagesschau, 19 January 2023, *https://www.tagesschau.de/inland/deutschlandtrend/deutschlandtrend-3277.html*; Mehrheit gegen "Taurus"-Lieferung an Ukraine', ARD-DeutschlandTrend, Tagesschau, 18 August 2023, *https://www.tagesschau.de/inland/deutschlandtrend/deutschlandtrend-3390.html*.

13 'AfD überholt SPD in Umfrage', ARD-DeutschlandTrend, Tagesschau, 23 June 2023, *https://www.tagesschau.de/inland/deutschlandtrend/deutschlandtrend-3370.html*.

14 Hagström Frisell, 'Germany', p. 98.

15 Die Bundesregierung, Nationale Sicherheitsstrategie, p. 13.

16 Germany, Bunderministerium der Verteidigung, Haushaltsausschuss beschließt Verteidigungsetat und Plan zum Sondervermögen 2023, 11 November 2022 (retrieved 24 October 2023), *https://www.bmvg.de/de/aktuelles/etat-und-sondervermoegen-2023-fuer-gut-ausgestattete-bundeswehr-5523100*.

17 Mölling, Christian, Hellmonds, Sören, and Schütz, Torben, Zeitschleife statt Zeitenwende: Die Bundeswehr bleibt in der strukturellen Unterfinanziering [German Defence Spending: A Repeat of the Past Instead of a New Era], DGAP Policy Brief Nr. 15 (Berlin: German Council on Foreign Relations, June 2023), 10 pp., esp. 3.

18 Gebauer, Matthias, Kormbaki, Marina and Reiermann, Christian, 'Die kreative Buchführung von Verteidigungsminister Pistorius', Der Spiegel, 13 October 2023 (retrieved 24 October 2023), *https://www.spiegel.de/politik/deutschland/nato-wie-die-bundesregierung-beim-zwei-prozent-ziel-trickst-a-8d6c9170-2582-4943-8d35-9266806c013e*.

19 Mölling, Christian and Torben Schütz, Verteidigungshaushalt 2024: Das Budget steigt – und reicht doch nicht aus, DGAP Memo Nr. 2 (Berlin: German Council on Foreign Relations, July 2023), p. 1.

20 Gebauer, Matthias and Reiermann, Christian, 'Pistorius will zehn Milliarden pro Jahr mehr für die Bundeswehr', Der Spiegel, 10 February 2023.

21 Interview, Berlin, 26 May 2023; Hoffmann, Lars, 'Zinsen fressen rund 13 Milliarden Euro des Bundeswehr-Sondervermögens', Europäische Sicherheit & Technik, 31 January 2023.

22 Die Bundesregierung, Nationale Sicherheitsstrategie, p. 32.

23 Bundesministerium der Verteidigung, Verteidigungspolitische Richtlinien 2023, p. 9-10.

24 'Deutschland will 4000 Soldaten dauerhaft in Litauen stationieren', Frankfurter Allgemeine Zeitung, 26 June 2023.

25 Gebauer, Matthias, 'Aufbau von Bundeswehr-Kampfbrigade in Litauen wird Jahre dauern', Der Spiegel, 11 October 2023.

26 '"All in!" – Das Deutsche Heer with konsequent auf Einsatzbereitschaft ausgerichtet', Hardthöhen-Kurier, May 2022, p. 15.

27 'Deutschland sagt Zehntausende Soldaten zu', Tagesschau, 12 October 2023 (retrieved 24 October 2023), *https://www.tagesschau.de/inland/innenpolitik/pistorius-deutschland-soldaten-nato-strategie-100.html*.

28 'Personalzahlen der Bundeswehr', Bundeswehr, 31 January 2023 (retrieved 20 March 2023).

29 '"All in!"', Hardthöhen-Kurier, p. 15.

30 Müller, Björn, 'Die neue Ostflanke', Loyal – das Magazin für Sicherheitspolitik No. 4, 5 April 2023.

31 Barry et al., 'The Future of NATO's European Land Forces', p. 31f.

32 Wiegold, Thomas, 'Mittlere Kräfte: Für den Einsatz (nicht nur) im Baltikum setzt das Heer auf ‚Rad statt Kette'', Augengeradeaus blog, 8 March 2023.

33 Germany, Bundesministerium der Verteidigung, Bericht zur materiellen Einsatzbereitschaft der Hauptwaffensysteme der Bundeswehr II/2021, 25 pp., esp. 5, 11, 13–14.

34 Hoffmann, Lars, 'Trotz Reparatur – Marder soll weiterhin den Puma bei der VJTF ersetzen', Soldat und Technik, 4 January 2023; Metzger, Nils and Thomas Reichart, 'Leopard-Ausfall bei VJTF-Verband: Bundeswehr fehlen Panzer für Nato-Speerspitze', ZDF, 6 March 2023.

35 Germany, Bundestag, Annual Report 2021 – 63rd Annual Report of the Parliamentary Commissioner for the Armed Forces, 15 March 2022, 166 pp., esp. 56, 92.

36 Arnold, Sven and Arnold, Torben, Germany's Fragile Leadership Role in European Air Defence: The need for adjustments at all levels of the European Sky Shield Initiative, SWP Comment No. 6 (Berlin: Stiftung Wissenschaft und Politik, February 2023), 8 pp., esp. 2 *https://www.swp-berlin.org/publications/products/comments/2023C06_EuropeanSkyShieldInitiative.pdf*.

37 'Personalzahlen', Bundeswehr (retrieved 20 March 2023).

38 Gehle, Sarah, 'The German Navy's long-distance vision gains clarity', Military Balance Blog, 21 April 2023, *https://www.iiss.org/en/online-analysis/military-balance/2023/04/the-german-navys-long-distance-vision-gains-clarity/*.

39 'Deutsche Marine beteiligt sich am Schutz der kritischen Infrastruktur Norwegens', Bundeswehr, 4 November 2022.

40 'Deutsche Marine stellt Einheiten für NATO-Speerspitze', Bundeswehrjournal, 6 January 2023.

41 Germany, Bundestag, Bericht zur materiellen, p. 17; 'Bedingt einsatzbereit', Süddeutsche Zeitung, 13 January 2022, *https://www.sueddeutsche.de/politik/bundeswehr-waffensysteme-einsatzbereitschaft-1.5507196*.

42 Weigold, Thomas, 'Neuer Bericht zur „Einsatzbereitschaft der Streitkräfte": Weiterhin nur eingeschränkt bereit', Augengeradeaus blog, 13 December 2022; Germany, Annual Report 2022 – 64th Annual Report of the Parliamentary Commissioner for the Armed Forces, 28 February 2023, 166 pp., esp. 23.

43 Germany, Bericht zur materiellen, p. 4.

44 Ibid, p. 4, 17.

45 'German Navy objectives for 2035 and beyond', Bundeswehr, 20 April 2023 (retrieved 12 October 23), *https://www.bundeswehr.de/en/organization/navy/news/german-navy-objectices-2035-plus-5625058*; Gehle, 'The German Navy's long-distance vision'.

46 Fish, Tim, 'Germany starts analysis of F127 frigate concept', Shephard Media, 18 October 2021, *https://www.shephardmedia.com/news/naval-warfare/analysis-of-german-f127-frigate-concept-underway/*.

47 Personalzahlen', Bundeswehr, 31 January 2023.

48 The Air Force Command has relocated to Berlin-Gatow, with only some elements remaining in Cologne-Wahn.

49 Boyer, Simona, 'Multinational rotection of NATO airspace: Three Eurofighters on the way to Romania', Enhanced Air Policing South: The German Contribution, Bundeswehr, 2023; 'Slowakei – eVA', Enhanced Vigilance Activities, Bundeswehr, 2023, *https://www.bundeswehr.de/de/einsaetze-bundeswehr/anerkannte-missionen/slowakei-enhanced-vigilance-activities*; 'BALTOPS 2022: US- und NATO-Großübung in der Ostsee, Sicherheit für die Nordflanke, Bundeswehr, 7 June 2023.

50 Germany, Bericht zur materiellen, p. 15; KS, 'Einsatzbereitschaft der Systeme sehr unterschiedlich', Flugrevue, 1 June 2021, *https://www.flugrevue.de/neue-zahlen-der-bundeswehr-einsatzbereitschaft-der-systeme-sehr-unterschiedlich/*.

51 Ibid.; KS, 'Einsatzbereitschaft der Systeme'; Weigold, Thomas, 'Materiallage der Bundeswehr: ganz leichte Verbesserung', Augengeradeaus blog, 13 January 2022.

52 'Deutschland übergibt Slowakei Mantis-Luftabwehrsysteme', Deutschlandfunk, 25 October 2023, *https://www.deutschlandfunk.de/deutschland-uebergibt-slowakei-mantis-luftabwehrsysteme-104.html*.

53 Arnold and Arnold, Germany's Fragile Leadership, p. 2.

54 Arnold, Torben, 'Die Entscheidung zum Kauf von F-35-Kampfjets für die Luftwaffe.'

55 'Special operations forces', Bundeswehr (retrieved 29 September 2023), *https://www.bundeswehr.de/en/organization/army/organization/branches/special-operations-forces.*

56 Annual Report 2022 – 64th Annual Report of the Parliamentary Commissioner, pp. 81-82.

57 Falde, Florian, 'KSK hat Personalprobleme', Tagesschau, 20 June 2022.

58 'Aufstellungsappell: Stärkung der Specialkräfte Marine', Bundeswehr, 5 April 2023 (retrieved 26 September 2023), *https://www.bundeswehr.de/de/organisation/marine/aktuelles/aufstellungsappel-staerkung-spezialkraefte-marine-5610156*

59 Germany, Annual Report 2022, p. 38.

60 'Joint Support and Enabling Command declares Full Operational Capability', NATO, 9 September 2021.

61 Sachbestandsbericht zur Bestandsaufnahme (Berlin: Bundesministerium der Verteidigung, 8 July 2022), 9 pp., esp. 5, 7,; Germany, Annual Report 2022, p. 43–44.; 'Reserve: Umfangserhöhung bis 2027 auf 7500 Stellen', Bundeswehr-journal, 22 August 2022; 'Die drei strategischen Nadelöhre der Bundeswehr', Verband der Reservisten der Deutschen Bundeswehr, 13 January 2023.

62 Barry et al., 'The Future of NATO's European Land Forces', p. 31.

63 Germany, Annual Report 2021, p. 92 .

64 'Die drei strategischen Nadelöhre '.

65 '3 – Rethinking Defence. Rethinking Germany', episode 3 in the podcast series, Berlin Inside Out, 3 October 2023, *https://berlinsideout.podigee.io/3-rethinking-defence-rethinking-germany*.

66 The White Paper presented a focus on cyber threats for the German Armed Forces and argued that it had to develop defensive and offensive cyber capabilities. The Concept Paper from 2018 announced the ambition to develop full spectrum offensive and defensive tools; see Cyber capabilities and national power: Volume 2 (London: International Institute for Strategic Studies, September 2023), p. 48–49.

67 Personalzahlen, Bundeswehr, the figures are from July 2023.

68 The Cyber and Information Domain Service is tasked with safeguarding the operation and protection of the Armed Forces communication services, as well as reconnaissance in the cyber and information space.

69 Cyber capabilities, p. 48.

70 'Germany bolsters defences against Russia cyber threat', Deutsche Welle, 7 December 2022.

71 Clasen, Alina, 'German National Security Strategy leaves out cyber counter-attacks', Euractiv, 14 June 2023.

72 Busch, Carolin and Slous, Lorène, 'Germany's reluctant approach to space security policy', War on the Rocks, 26 April 2023.

73 Müller, Björn, 'In der Tiefe des Raums', Loyal das Magazin, 22 December 2022, *https://www.reservistenverband.de/magazin-loyal/in-der-tiefe-des-raums/*

74 Busch and Slous, 'Germany's reluctant approach'.

75 Austin, Greg, Rajagopalan, Rajeswari Pillai and Wright, Timothy, 'Military ambitions and competition in space: The role of alliances', International Institute for Strategic Studies, February 2022.

76 Busch and Slous, 'Germany's reluctant approach'.

77 The numbers concern January 2023; 'Personalzahlen', Bundeswehr.

78 Germany, Bundestag, Antwort der Bundesregierung auf die Kleine Anfrage der Abgeordneten Rüdiger Lucassen, Hannes Gnauck, Jan Ralf Nolte, weiterer Abgeordneter und der Fraktion der AfD– Drucksache 20/5153 Mögliche Auswirkungen der Aussetzung der Wehrpflicht 2011 auf die Einsatzbereitschaft der Bundeswehr, Drucksache 20/5518 (Berlin: Deutscher Bundestag, 6 February 2023), 8 pp., esp. 7.

79 Germany, Annual Report 2022, p. 43.

80 Dörner, Jan, and Gaugele, Jochen, '„Soldaten wünschen sich Rückkehr zur Wehrpflicht" – Interview mit der Wehrbeauftragten, 03.04.2023' (Berlin: Bundestag, 3 April 2023).

81 Oltermann, Philip, 'German politicians and military chiefs suggest return of conscription', The Guardian, 9 February 2023.

82 'German military's mission impossible, attracting recruits', Deutsche Welle, 8 February 2023.

83 Egleder, Julia, 'Personal, wo bist du?' Loyal das Magazin, 3 May 2023.

84 Dörner and Gaugele, '„Soldaten wünschen; 'German military's mission', Deutsche Welle, 8 February 2023.

85 Germany, Annual Report, p. 43.

86 Ibid., p. 46.

87 Ibid., p. 48.

88 Germany, Bericht zur materiellen, p. 5, 11, 13–14.

89 Metzger and Reichart, 'Leopard-Ausfall'.

90 Hoffmann, 'Trotz Reparatur'.

91 Germany, Annual Report 2021, p. 56, 92.

92 Arnold and Arnold, 'Germany's Fragile Leadership', p. 2.

93 Davidson, Alistair, 'Germany's IRIS-T Diplomacy', defence-aerospace.com, 31 May 2023.

94 Germany, Bericht zur materiellen, p. 4, 17.

95 Ibid., p. 17; 'Bedingt einsatzbereit', Süddeutsche Zeitung, 13 January 2022.

96 Weigold, 'Neuer Bericht'; Germany, Annual Report 2022, p. 23.

97 Press and Information Centre German Navy, 'German navy objectives for 2035 and beyond', Bundeswehr, 20 April 2023 (retrieved 12 October 23), *https://www.bundeswehr.de/en/organization/navy/news/german-navy-objectices-2035-plus-5625058*; Gehle, 'The German Navy's long-distance vision'.

98 Germany, Bundesrechnungshof, Bericht nach § 88 Absatz 2 BHO an den Haushaltsausschuss des Deutschen Bundestages. Entwurf des Wirtschaftsplans des „Sondervermögens Bundeswehr" für das Jahr 2023 (Berlin: Bundesrechnungshof, 7 October 2022), 12 pp., esp. 3.

99 Greive, Martin, Murphy, Martin, Specht Frank, 'Verteidigungsministerium streicht Projekte, Handelsblatt, 31 October 2022, *https://www.handelsblatt.com/politik/deutschland/sondervermoegen-bundeswehr-verteidigungsministerium-streicht-projekte/28777098.html*

100 Germany, Bericht zur materiellen, p. 15.; KS, 'Einsatzbereitschaft der Systeme.

101 Weigold, 'Materiallage der Bundeswehr'.

102 Ibid.

103 Arnold and Arnold, Germany's Fragile Leadership, p. 2.

104 Hoffmann, Lars, 'Luftverteidigungsprojekt Nah- und Nächstbereichsschutz – Aufgabenteilung zwischen Luftwaffe und Heer ist jetzt offiziell', Europäische Sicherheit & Technik, 23 March 2023.

105 Germany, Bericht zur materiellen, p. 5.

106 US Embassy and Consulates in Germany, 'Germany to purchase F35s', press release, 14 December 2022; Kather, Timo, 'Bundeswehr setzt künftig auf CH-47F Chinook-Helikopter', Bundesministerium der Verteidigung, 2 June 2022.

107 Greive, Murphy, and Specht, 'Verteidigungsministerium streicht Projekte'; Mergender, Hans Uwe, 'Die Einsatzbereitschaft der Marine – Projekte aus dem Sondervermögen', Europäische Sicherheit und Technik, 13 October 2022 (retrieved 12 October 23), *https://esut.de/2022/10/fachbeitraege/36852/die-einsatzbereitschaft-der-marine-projekte-aus-dem-sondervermoegen/*.

108 Major, Claudia, and Mölling, Christian, 'Zum Zaudern Keine Zeit', Internationale Politik, 16 February 2023, p. 10.

109 Major and Mölling, 'Zum Zaudern Keine Zeit', p. 10.

110 Greive, Martin and Specht, Frank, 'Union kritisiert Pläne, das Sondervermögen anders einzusetzen', Handelsblatt, 18 August 2023 (retrieved 24 October 2023), *https://www.handelsblatt.com/politik/deutschland/bundeswehr-union-kritisiert-plaene-das-sondervermoegen-anders-einzusetzen/29339942.html.*

111 Major and Mölling, 'Zum Zaudern Keine Zeit', p. 10.

112 Giegerich, Bastian and Schreer, Ben, 'Germany's new defence policy: The 100 billion Euro question', Military Balance blog, 1 March 2022, *https://www.iiss.org/online-analysis//military-balance/2022/03/germanys-new-defence-policy-the-100-billion-euro-question*.

113 Matlé, Aylin, 'Making Germany's Military Fit for Purpose', Internationale Politik Quarterly, 27 February 2023.

114 Germany, Bundesministerium der Verteidigung, 'Beschaffung bei der Bundeswehr: Schnelligkeit hat Priorität', 26 April 2023 (retrieved 25 October 2023), *https://www.bmvg.de/de/aktuelles/beschaffung-bundeswehr-schnelligkeit-hat-prioritaet-5615072.*

115 Barry et al., 'The Future of NATO's European Land Forces', p. 32

116 Olsson, Per, Dalberg, Sanna and Junerfält, Tobias, Defence Industrial Outlook: A Global Outlook with a Special Focus on the European Defence Fund, FOI Reports FOI-R--5333--SE (Stockholm: Swedish Defence Research Agency – FOI, October 2022), p. 31.

117 Olsson, Dalberg and Junerfält, Defence Industrial Outlook, p. 31; Brzoska, Michael, 'Debating the future of the German arms industry, again,' WritePeace blog, 7 November 2014, *https://www.sipri.org/commentary/blog/2014/debating-future-german-arms-industry-again*.

118 Ukraine Support Tracker: New aid drops to lowest level since January 2022', Kiel Institute for the World Economy, 7 December 2023, https://www.ifw-kiel.de/publications/news/ukraine-support-tracker-new-aid-drops-to-lowest-level-since-january-2022/

119 Germany, Federal Government, 'Military support for Ukraine', Die Bundesregierung, 20 October 2023 (retrieved 24 October 2023), *https://www.bundesregierung.de/breg-en/news/military-support-ukraine-2054992.*

120 Germany, 'Military Support for Ukraine'.

121 'Germany only has 20,000 high explosive artillery shells left, report says', Reuters, 19 June 2023.

122 'Panzerhaubitzen wegen Ersatzteilmangels außer Gefecht', Der Spiegel, 18 November 2022, *https://www.spiegel.de/politik/deutschland/ukraine-panzerhaubitzen-2000-wegen-ersatzteilmangels-ausser-gefecht-a-a9056b03-3c01-40cb-b495-611817741b21*.

123 Interview, Berlin, 26 May.

124 Wiegand, Kristian and Wiedenhöfer, Leo, 'Leopard-Panzer für die Ukraine: Kommandeur des Panzerbataillon 203 über den Verlust', video (duration 6:28 minutes), includes interview with Oberstleutnant Marco Maulbecker, Phoenix (the event and documentation channel from ARD and ZDF, which are major public-service broadcasters in Germany), 20 March 2023, https://www.youtube.com/watch?v=1A4-Dc5XSlI.

125 See section 1.6 for the methodology behind the assessment of operational capability.

126 Jungbluth, Frank, 'Pistorius: Bundeswehr ist nicht verteidigungsfähig', Deutscher BundeswehrVerband, 1 March 2023.

127 Szymanski, Mike, 'Zu schwach für die Nato?', Süddeutsche Zeitung, 11 April 2023.

128 Szymanski, Mike, 'Bericht offenbart eklatante Schwächen der Bundeswehr', Süddeutsche Zeitung, 13 December 2022.

129 Germany, Bericht zur materiellen, p. 4, 17.

130 'Bundeswehr-General warnt: "Könnten keinen Kampf über Wochen führen"', ProSieben.at, 11 November 2022, https://www.prosieben.de/serien/newstime/videos/bundeswehr-general-warnt-koennten-keinen-kampf-ueber-mehrere-wochen-fuehren.

131 Barry et al., 'The Future of NATO's European Land Forces', p. 32.

132 Davidson, Alistair, 'Germany's IRIS-T Diplomacy', defence-aerospace.com, 31 May 2023.

133 Germany, Bericht zur materiellen, p. 4, 17.

134 Interview, Berlin, 16 May 2023.

135 Gehle, 'The German Navy's long-distance vision'.

136 Interview, Berlin, 15 May 2023.

137 Arnold and Arnold, Germany's Fragile Leadership, p. 2.

11. France

Carina Gunnarson

France is a major European military power that possesses an independent nuclear deterrent, holds a permanent seat in the UN Security Council, and has a global presence on all continents. About 22,000 French soldiers are present on permanent military bases abroad, in national defence forces in overseas territories, and in military operations under EU, UN, or NATO command.[1] French security and defence policy in Europe builds on three pillars: collective self-defence through NATO, cooperation within the EU, and bilateral cooperation with the UK and Germany.

Additionally, strategic autonomy is a central concept for France, including significant national capabilities for assessment, decision-making, and action, which are deemed essential for protecting France's fundamental interests. In light of a deteriorating security situation and Russia's invasion of Ukraine, the priority of the government's new long-term defence plan for 2024–2030 has shifted from counterterrorism to national defence.

11.1 Security and defence policy

Social discontent and growing economic and political cleavages between social classes, cities, and regions mark the general political situation in France. These have developed during the past decades but exploded under President Emmanuel Macron. The French electorate is increasingly voting for parties on the extremes, to the Left and the Right, rendering the political landscape less predictable and more fragmented than before. The country's security and defence policies have not yet been subject to the same political and public confrontation. However, there are political tensions, for example, regarding France's role in NATO and its relations to Russia, which may resurface and alter policies after the presidential and legislative elections in 2027, when President Macron ends his second and last mandate. The French President is a key player in French foreign policy and security and the guarantor of national independence, territorial integrity and the respect of treaties. The President is Chief of the armed forces.[2]

French security and defence policy is currently transforming in response to a deteriorating security situation at the global level and in Europe. After assuming office, President Macron initiated a strategic defence and security review in 2017.[3] This was followed by the 2021 strategic update and the National Strategic Review (NSR) in 2022.[4] Russia's invasion of Ukraine has called for an adaptation of France's strategic response in building up French resilience, consolidating its alliances, and modernising its defence capability.[5] In 2022, Macron also introduced the so-called war economy concept, which refers to the importance of the national defence industry and strategic stocks, including equipment, raw material, and other critical components.[6]

In the lead-up to Russia's invasion of Ukraine, France tried to maintain a balance in relation to Russia by emphasising diplomacy and mediation. It pursued dialogue with Russia, while at the same time providing moderate military aid to Ukraine. The French military response has focused on contributions to NATO's deterrence on the Eastern flank. France deployed parts of its high-readiness forces committed to the NATO Response Force (NRF) in Romania.[7] The strategy enjoyed support in French polls: about 70 percent supported a double approach, i.e. both diplomacy and military support to Ukraine.[8]

France perceives itself as global power and the concept of strategic autonomy is central in its security and defence policy.[9] The concept is founded on France's independent nuclear capability, the retaining of its independence within NATO, its capable armed forces and strong national defence industry. This entails an ability to make independent decisions and to act on its own, or in coalition with others. From a French perspective, there is no contradiction between the country's strategic autonomy and cooperation with other states.[10] In light of the increased competition between the United States and China, France has described itself as a balancing power that "refuses to be locked into bloc geopolitics" and that "follows its own specific and independent defence policy".[11]

Nonetheless, France has high ambitions to deepen EU integration in close cooperation with Germany. France perceives the EU as fundamental to its strategic posture and Europe's ability to play an important international role.[12] Relations with NATO strengthened after France's decision in 2009 to return to NATO's integrated military structures after more than 40 years

of absence. France considers NATO and the transatlantic link as essential to the security of the Euro-Atlantic area and, consequently, that of France.[13]

The independent nuclear deterrent is a cornerstone of France's security and defence policy.[14] Its nuclear arsenal, developed in the 1960s and 1970s, is national and independent.[15] NATO's 1974 Ottawa Declaration stated that France and the UK's nuclear forces have a deterrent role of their own, which contributes to NATO's global deterrence.[16] The 2022 NSR describes the nuclear deterrent's essential role in the security of the Euro-Atlantic area and in preventing a major war, guaranteeing France's freedom of action and defending its vital interests, "which have a European dimension".[17] Notwithstanding that, France does not guarantee the safety of others through nuclear deterrence, nor does it participate in NATO's nuclear-weapons planning.

The NSR 2022 describes a world that has moved from strategic competition to open confrontation with Russia and greater competition with China. These changes have implications for Europe. The international order based on multilateral agreements and laws is "crumbling".[18] Competition, dispute and confrontation with Russia and China, according to the NSR, will remain for a long time, in multiple regions and spaces: the Mediterranean and Black Seas, the Baltic Sea area, the Balkans, the North Atlantic, Africa, the Middle East, and the Indo-Pacific. Growing strategic convergence between China and Russia will increase disputes within international bodies, against Western objectives.[19]

The NSR's vision is that France should play a role as a balancing and influential power at the global level, a driving force for European autonomy, and a reliable partner that contributes to the preservation of multilateral institutions.[20] It includes a France that has the ability to defend its mainland and overseas territories with its own military capability. Internationally, it should contribute to the defence of Europe and stability in the Mediterranean, and engage in partnerships in Africa and in the Indo-Pacific area.[21] The ambitions for the coming years include a reinforced deterrence, the capacity to engage in high-intensity operations in all fields, the protection of common spaces, and strengthened partnerships with Europe and NATO.[22]

The major political and economic challenges for the next five years are to restore and maintain social and political cohesion in France. The political landscape is volatile and the results in the next general election, in 2027, when President Macron ends his second and last mandate as President, may also prove to have consequences for French security and defence policy.

11.2 Military expenditures

French military expenditures continued to drop in real terms after the Cold War until 2014, including the exclusion of the National Gendarmerie from the NATO definition of military expenditure from 2009 onwards.[23] Since 2015, France's military spending has

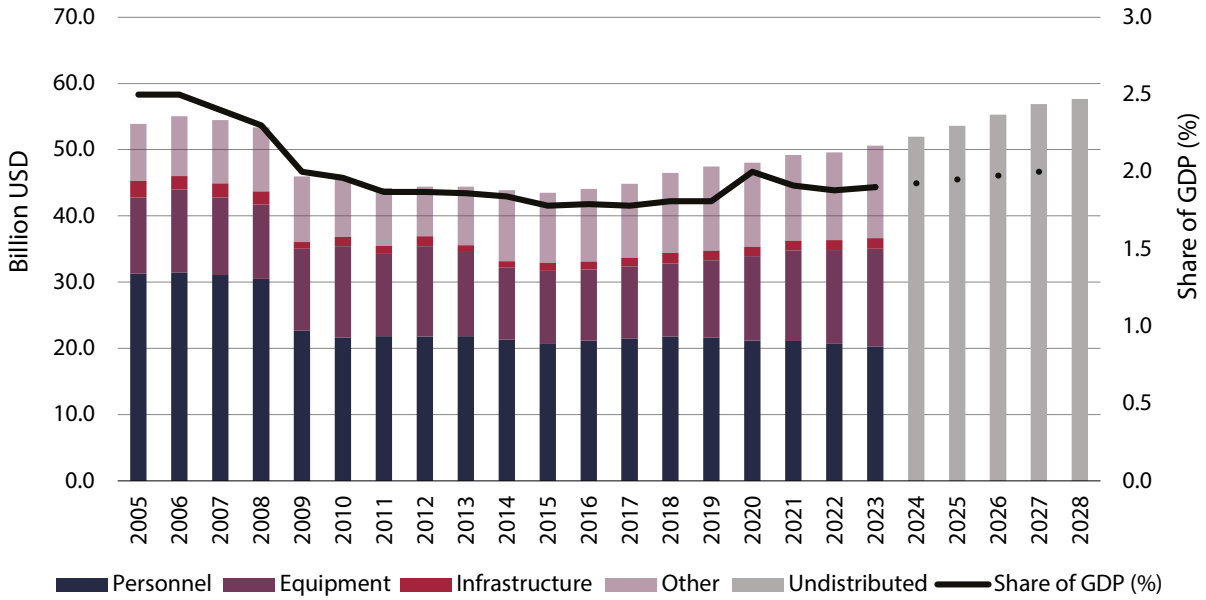


Figure 11.1 Military expenditures of France 2005-2028 in 2015 constant prices.

Sources/Remarks: NATO (2010, 2016, 2023). The forcast of military expenditure 2024–2028 is based on the assumption that France will reach two percent of GDP by 2027 and maintain that level in 2028.

steadily increased and, at present, the expenditures in fixed prices are roughly back at the level of 2008. According to NATO, France is estimated to have spent USD 50.6 billion, in 2015 prices, on its military, i.e., USD 56.6 billion in current prices in 2023. In the same year, France is estimated as having dedicated 1.9 percent of its GDP to its military, of which 40.1 percent of the military expenditure is estimated to have been allocated to personnel, 29.1 percent to equipment, 3.2 percent to infrastructure and 27.7 percent to other purposes. Accordingly, France is well above the NATO target of spending 20 percent of the budget on equipment and close to the Alliance's ambition of 2 percent of GDP; see Figure 11.1.

The government's new long-term defence plan (LPM) 2024–2030 was decided in July 2023. The previous defence plan, for 2019–2024, focussed on reparation and improved financing of the armed forces after years of budget constraints. The next period aims at a modernisation and transformation of the forces, as well as further increases in military expenditures. As a result, the defence budget is expected to reach 2 percent of France's GDP "between 2025 and 2027".[24]

Thus, the defence plan for 2024–2030 is financially important for the armed forces. In total, the entire period is allocated around EUR 413 billion. With the proposed military budget, the military expenditures would increase by a third until 2030.[25] This is, however, according to the French national definition of defence expenditure. Figure 11.1, above, bases the forecast on the assumption that the defence expenditure will reach two percent by 2027.

The new LPM does not entail any major changes of the force structure, and a broad range of capabilities will be retained. Instead, the plan emphasises modernisation and transformation of the armed forces, adapting them to new threats, which also entails more spending on equipment, munitions, maintenance, and human resources, as well as improved structures for the personnel. A priority is the maintenance and modernisation of France's nuclear arsenal, which represents 13 percent of the total military budget.[26] Other important areas for development are intelligence, cyber, drones, surface-to-air defence, and an increase in the number of reserves. Importantly, aid to Ukraine is not financed through the new defence budget, neither are contributions to the European Peace Facility. Nevertheless, replacement of material and additional costs for personnel involved in operations and training will likely impact future expenditures.

The French economy recovered quickly after the COVID-19 pandemic with strong economic growth in 2021.[27] However, the war in Ukraine has had a major impact on the French economy, for example on gas and oil prices, and the government has responded to the energy price shocks by introducing policy measures such as price controls, tax reductions and other measures to support businesses. These measures have stabilised the economy, but hurt France's budget balance.[28] The public debt remains relatively high, which renders France vulnerable to increasing interest rates. It is, however, expected to decrease somewhat as temporary measures implemented during the pandemic are phased out.[29] These factors, in combination with a prolonged economic recession and inflation, risk undermining the military budget.

11.3 Armed Forces

The national tasks of the Armed Forces are to protect French territory, citizens and interests, and respond to missions within the framework of international or regional agreements and treaties. Five major strategic functions, which can be understood as general capabilities in support of the national tasks, are defined in the national defence and security strategy: anticipation, prevention, deterrence, protection and intervention.[30] A new and sixth strategic function, influence, was added in 2023. This relates to measures to counter disinformation in all fields.[31]

The military personnel of the French Armed Forces consists of 207,000 soldiers, including officers, specialists, enlisted military personnel, and volunteers. About 115,000 persons serve in the Army, 35,000 in the Navy, and 40,000 in the Air and Space Force. The total number also encompasses about 2,600 persons employed in the National Gendarmerie and 13,400 persons in various supporting functions. The Armed Forces have a military reserve of about 41,000 persons.[32]

The National Gendarmerie, numbering some 130,000 employees, was under the authority of the Ministry of Defence until 2009, when its domain and financing were transferred to the Ministry of the Interior.[33] Its role is primarily to maintain law and order in France and its overseas territories.[34] Nevertheless, it also has paramilitary roles, including combating terror and cybercrime, as well as providing military policing in the armed forces and protection of vital military installations.

Around 30,000 soldiers are involved in operational deployments in France and abroad, including at four military bases in Africa and one in the Middle East. Nearly half of them, some 13,000 soldiers, are deployed on the French territory, mainly within the counter-terrorism operation, Sentinelle, that amounts to 10,000 soldiers, of which 3,000 are held in strategic reserve.[35]

The French President is Chief of the Armed Forces, but only Parliament declares war.[36] The military command structures are concentrated around the Chief of Staff of the Armed Forces (CEMA) and the Centre for Planning and Execution of Operations (CPCO), which is the joint level above the commands of the army, navy, air and space forces, special forces, cyber defence, and nuclear forces.[37] The headquarters are in Balard, Paris.

Army

The French Army Chief of Staff (CEMAT) leads the French land forces in operations with support of the subordinate Operational Land Forces Command (CFOT). The CFOT commands the Army's two combat divisions, the Land Special Forces Command, the Deep effects and Intelligence Command, the Combat Support and Logistics Command, the Army Digital and Cyber Command, and the Force Training Command.[38] Another main subordinate of CEMAT, distinct from CFOT, is the newly created Future Combat Command, with responsibility for innovation and bringing together development of new army capabilities that are currently scattered across the regiments, for example drones, remotely operated munitions, short-range ground-to-air defence, and anti-drone warfare.[39]

The combat units of the French land forces are organised in the First and Third divisions of about 25,000 soldiers each, headquartered in Besançon and in Marseille, respectively, including their commands.[40]

The First Division includes four brigades: the 7th armoured brigade, the 9th marine infantry brigade, the 27th mountain infantry brigade, and the French-German light armoured brigade. The Third Division consists of three brigades: the 2nd armoured brigade, the 6th light armoured brigade, and the 11th parachute brigade. The brigades are in turn divided into battalion-size regiments, including units for combat support and combat service support.

Altogether, the two divisions have two heavy brigades equipped with battle tanks, infantry fighting vehicles, a combined single and multiple-launch rocket systems (LRU/MLRS), and heavy artillery. The other five brigades are lighter, with armoured vehicles and fire support on wheels.[41] The parachute brigade provides on a permanent basis a battalion-size quick reaction force.[42]

The war in Ukraine will have consequences for the organisation of the French Army and its command structures. An ambition is to render the brigades more autonomous with a more complete set of capabilities and maintaining their interoperability with allies. An explicit ambition is to have the capability to lead multinational forces as a framework nation within NATO.[43]

The capabilities that are in particular need of strengthening are air defence, long-range artillery, drones, information and communication systems, intelligence, and engineering.[44] During the coming years, the land forces will, for example, receive more self-propelled howitzers (CAESAR), new standards for the attack helicopter fleet (Tiger) and, by 2025, 1,200 UAV systems, including more than 3,000 individual drones.[45] The Scorpion programme is currently replacing French frontline fighting vehicles with a new generation of armoured vehicles in the middle segment, including modern combat and reconnaissance armoured vehicles, multirole troop carriers, armoured personnel carriers, and lighter transport vehicles, all with a shared battle-management system.[46]

Equipment and personnel have been under severe strain due to enduring operations in France and in overseas territories, with consequences for training and the availability of equipment. The counterterrorism operation, Sentinelle, has weighed heavily on the infantry and mechanised units.[47] In addition to the yearly recruitment of 15,000 persons, the army envisages recruitment of an additional 10,000 persons and an increased number of reserves.[48]

The synchronisation of actions at the strategic, as well as the operational and tactical levels, is identified as a challenge in all domains, i.e., land, sea, air, cyber, and space. Another difficulty is the balancing between technological modernity and sufficient mass. In addition to the modernisation of equipment, the defence plan 2024–2030 underlines the importance of logistics support, including supplies of ammunition. The plan emphasises human resources, including morale, training, and the recruitment of technical experts and officers in the cyber domain.[49]

Navy

The French Navy Chief of Staff (CEMM) leads the naval forces. The subordinate combat forces are the Naval Action Force (FAN), the Submarine Forces and Strategic Ocean Force (FOST), the maritime force of Navy fusiliers and commandos (FORFUSCO), the Naval Aviation Force (AVIA), and the maritime gendarmerie (GENDMAR).

The Naval Action Force (FAN) consists of a surface fleet of around 100 vessels of various sizes and 10,500 personnel. The forces also include an amphibious flotilla, the aero-naval rapid-reaction force, cyber defence, and mine-clearing units. The force disposes of naval bases overseas and abroad. The headquarters are in Toulon, with branch offices in Brest and Cherbourg.[50]

The Strategic Ocean Forces' (FOST) main assets are 4 nuclear-powered ballistic-missile submarines

(SSBN) and 6 nuclear-powered attack submarines (SSN), with supporting units, including 3,300 personnel. The headquarters and an operational base are at Ile Longue, near Brest, in Brittany on the Atlantic coast, while another base is in Toulon; one base for each squadron of SSBNs and SSNs, respectively.[51]

The maritime force of marines and commandos (FORFUSCO) contains 2,900 personnel based in ten different locations across France. The force has two major elements: the navy fusilier units, for protection and interdiction against threats to naval installations, and 7 marine commando units, including 4 assault commando, 1 underwater action commando, and 2 specialised support commando. The headquarters are in the Lorient region, on the Atlantic coast.[52]

The Naval Aviation Force includes about 4,200 airmen and 160 fixed-wing aircraft and helicopters, with 41 multirole fighter aircraft (Rafale).[53] The force is divided into the embarked air group on the Charles de Gaulle aircraft carrier, maritime patrol and surveillance aircrafts, shipborne and shore-based helicopters, and support aviation. There are four naval aviation bases in France, including three in Brittany, and one on the Mediterranean coast.[54] It also includes the naval nuclear armed aircraft (FANU).

The navy's three major naval bases are – in order of size – Toulon, Brest and Cherbourg. Toulon, on the Mediterranean coast, hosts a majority of France's surface and submarine fleets, including the aircraft carrier, Charles de Gaulle, three-fourths of the frigates and destroyers, three amphibious helicopter carriers, and the six attack submarines (SSN).[55] France also disposes of six naval bases in its overseas territories, as well as three in Senegal, Djibouti, and the United Arab Emirates.

The plans for modernising the French navy include new generations of attack submarines (Barracuda class)[56] and ballistic-missile submarines (SSBN-3G).[57] Also part of the force development are new surface vessels, such as the multimission frigates (FREMM) and patrol boats for overseas territories (POM) and for mainland France.[58] In 2022, six of eight multimission frigates were in service, while the program for patrol vessels was delayed. More supply ships are also needed, which will be delivered between 2023 and 2029.[59]

The availability of major equipment is a recurring problem for the French navy. For example, the figures for important platforms such as frigates and marine helicopters were reported at around 65 percent and 50 percent, respectively, in 2020.[60] In general, the situation in 2023 does not seem to have improved.[61] The limited availability of such platforms negatively affects both operational activities and training. As for the other services, the recruitment, training, and retention of personnel are important challenges.

Air and Space Force

The Chief of Staff of the Air and Space Force (CEMAAE) leads the force with a number of subordinate commands and units. They include the Air Defence and Air Operations Command (CDAOA), Strategic Forces Command (CFAS), Air and Space Force Territorial Command (CTAAE), Fighter Aviation Air Brigade (BAAC), the Air Assault and Projection Brigade (BAAP), the Special Air Forces Brigade (BFSA), and, the Space Command (CDE).[62]

The CDAOA command is situated in Paris, while most of the Headquarter and all the operational facilities are in Lyon. CDAOA is responsible for surveillance of French airspace and all conventional air operations, exercising operational control over forces which are assigned for operations from the BAAC, BAAP, and the CTAAE. The CFAS is in charge of the air force's nuclear strike units and also leads nuclear air operations. Finally, the CDE is responsible for space assets and the conduct of space operations in support of the other services.[63]

The CTAAE, created in 2023 with location in Bordeaux, has operational responsibility in the domain 'protection-defence' with the purpose to provide local support to air bases, their units and personnel. It is responsible for defence, support for air base operations, technical-logistical coordination and territorial outreach.[64]

The BAAC include ten fighter squadrons; half of the fighters are Rafales and the remaining aircraft are different versions of the Mirage (2000-5, 2000D and 2000B). The squadrons are located in 4 air bases: in Saint-Dizier, Nancy, and Luxeuil, all in northeastern France, and in Mont-de-Marsan, in the South-West.[65] An additional Rafale squardron will open in Orange in the South-East in 2024.[66]

The BAAP disposes of transport aircraft of various types, mostly the A400M Atlas, C130H Hercules, C-130J, TBM-700, and Casa CN-235, in about 10 squadrons, as well as one wing of air-refuelling aircraft (A330 Phénix and C-135).[67] The brigade also operate 3 helicopter squadrons of Fennec and 1 squadron of Caracal, the latter for special operations.

There are also assets for airborne surveillance and command, in the Airspace Control Brigade (BACE), including 2 squadrons, one in Évreux, in northeastern France (ALSR)[68], and one in Avord (E-3F), in central France; and four ground-based air defence squadrons (Crotale NG and SAMP Mamba) in Saint-Dizier, Avord, Istres and Mont de Marsan.[69]

The Space Command, established in 2019, includes the Centre for Command and Control of Space Operations (C3OS), in Paris; the Military Centre for Observation by Satellites (CMOS), in Créil, near Paris;

and the Operational Centre for Military Surveillance of Space Objects (COSMOS), in Lyon-Mont-Verdun.[70] France possesses space assets for earth observation, signal intelligence, communication, and space situational awareness.[71] France shares the space base in French Guyana with the European Space Agency (ESA).

The defence plan for 2024–2030 aims at increasing the number of modernised fighter jets. Mirage 2000D will be modernised and the number of modernised Rafales will increase from 96 to 137 units by 2030, according to plans.[72] Type A400M transport aircraft of will increase from 20 to 35 aircraft, replacing the older C-130H Hercules and C-160 Transalls.[73] The Multi-Role Tanker Transport (MRTT) will increase from 12 to 15 aircraft.[74]

With respect to heavy unmanned aerial systems (UAVs), France has four MQ-9 Reaper drone systems, including 12 drones, for reconnaissance and attack duties. By 2030, the four Reaper systems will be complemented with the first of six planned Eurodrone systems (EuroMALE), which are being developed in cooperation with Germany, Spain, and Italy.[75] The armed forces also expect deliveries of a considerable number of small drones for surveillance and reconnaissance.[76]

Theatre missile defence for the protection of the battlefield and sensitive tactical sites, such as airports and seaports, is a weak spot. The forces disposes only 8 SAMP (MAMBA) systems, which represent half of the reported needs.[77] A new version is to arrive by 2030, without increasing the numbers but providing a higher capacity. As of 2024, the French air and space forces will start fielding MICA VL, which is a short-range surface-to-air missile system, to complement the SAMP.[78] As for munitions, the Air Force plans to acquire significant numbers of air-to-air (MICA and Meteor) and surface-to air missiles (Aster) by 2030.[79] In addition, the Rafale combat aircraft will be equipped for Suppression of Air Defence (SEAD) by 2030, which is a capability that France lacks at present.[80]

The Air and Space Force has issues involving the availability of aircraft, particularly for combat helicopters and tactical transport aircraft, which affect operations and training.[81] In addition, its mission has continued to expand, in particular as a result of the rise in space and UAV components.[82] Recruitment and retention measures include attempts to attract more young people, improved working conditions, training through simulation, and agreements with the private sector in order to control exit flows.[83]

Strategic Forces

The Strategic Forces consists of a dyad: the Strategic Oceanic Force (FOST) and the Strategic Air Forces (FAS), which disposes of about 300 nuclear warheads, in total. If required, the Naval Nuclear Aviation Force (FANU) may operate from the aircraft carrier, Charles de Gaulle.[84]

Each of the French Navy's four SSBNs is able to carry 16 missiles (M51), with up to 6 nuclear warheads each. Three submarines are normally operational, with at least one always on patrol at sea, and one undergoing maintenance. The FAS disposes of two squadrons of fighters with about 40 nuclear-capable aircraft (Rafales), each with the capacity to carry air-launched missiles (ASMPA).[85] The FANU has one squadron of 10 aircraft (Rafales) equipped with the same weapons type.

The Strategic Air Forces Command (CFAS) is responsible for the air forces' nuclear-strike units and the tanker and strategic-transport aircraft. In peacetime, the aircraft of the FAS are based in Saint-Dizier, in the North-East. The airbase in Istres, in the Mediterranean, hosts the C-135 and MRTT aircraft, ensuring refuelling and strategic transport. The air base in Avord, in central France, holds specialist resources, particularly in the area of communications for the airborne nuclear component (CAN) and the oceanic nuclear component (CNO).[86]

The naval strategic nuclear deterrence will start developing a third generation of SSBNs, with a first delivery expected in service by 2035, and the development of new standards of the ballistic missiles (M51). The airborne strategic forces are homogenised around the Rafale fighter jets and an expanded airborne tanker fleet. The air component will see the entry into service of an upgraded medium-range air-to-ground missile (ASMPA-R) and the preparation of its successor, the fourth-generation air-to-ground missile (ASN4G).[87]

Since the 1990s, French presidents have included an alliance element in their deterrence doctrine. Joint training has taken place under the airborne drills, Operation Poker, where European partners have played the role of a simulated enemy.[88] However, beyond this and certain cooperation with the United Kingdom through the 2010 Lancaster House treaties, France's nuclear role within NATO remains limited.[89]

Joint assets

The French Special Operations Command (COS) leads the Special Forces of the Army, Navy and Air and Space Force, which are assigned to COS for operations, bringing them under a single command under the Chief of Staff of the Armed Forces (CEMA). The Army Special Forces consist of 2,500 soldiers in two airborne regiments, one helicopter regiment, and a support unit.[90] The Navy Special Forces includes the 700 Navy marines in 7 commando groups: five assault-commando groups and two supporting units.[91] Finally, the Special Forces

of the Air and Space Forces (FSA) consist of two parachute commandos, a transport squadron, and a helicopter squadron. The FSA initiated its transformation in 2020 with the establishment of a Special Forces Brigade (BFSA), bringing together airborne transport units, parachute commando groups, units from the conventional forces (a parachute commando and a defence squadron), and supporting units.[92]

The Cyber Defence Command (COMCYBER) concentrates all the forces related to cyber defence under the Ministry of Defence. Its mission is to defend information systems, including weapons systems, and to design, plan, and conduct military operations in cyberspace, involving about 3,600 civil and military cyber combatants. The COMCYBER consists of two units, a joint headquarters and the Joint Cyber Defence Group (GCA), which in turn consists of four subunits, in Rennes and the Paris region, specialising in different aspects of cyber defence.[93]

The Joint Logistics Support Operations and Movement Center (CSOA) provides logistic support to all branches of the armed forces. Based in Villacoublay, near Paris, the CSOA is responsible for the joint management and coordination of logistical support for deployed forces in external operations, on operational missions outside mainland France, or on domestic missions and for national forces, pre-positioned forces, and major exercises. The CSOA is responsible for transporting the material and human resources by air, sea, land, rail, or river, using French or allied armed forces resources, or those of civilian organisations. The CSOA disposes of two major centres: the surface transport and transit centre (CTTS), in Montlhéry, close to Paris, responsible for road and rail transport, and the 519th Train Regiment, in Toulon, responsible for loading and unloading transport ships. The CSOA also relies on the European Air Transport Centre (EATC), in Eindhoven (Netherlands), for the coordination of air transport missions.[94]

The French intelligence agency, the DGSE (Directorate-General for External Security), has responsibility for national-level SIGINT, intelligence-gathering by interception of signals, from communications intelligence (COMINT) between people, or from electronic signals (ELINT, or electronic intelligence). The long-term defence plan for 2024–2030 has increased the resources for intelligence and counterintelligence by 60 percent, to EUR 5 billion. The Falcon Archange aircraft is under development.[95] By 2030, the Air and Space Forces will have received three of the aircraft, intended for electronic warfare, and equipped with a Universal Electronic Warfare Capability (CUGE). The Land Forces will receive a system of tactical drones with electromagnetic signals (SDT ROEM).[96]

Military support to Ukraine

Immediately after Russia's invasion of Ukraine, France was reluctant to reveal its military support officially. It justified this by expressing the desire not only to avoid exposing security-related information to Russia but also for political reasons, such as retaining possibilities for a diplomatic solution. More information has been publicly disclosed over time, because limiting access weakened France's position in Europe, which was perceived as counterproductive.[97]

France's military support to Ukraine is estimated as totalling EUR 3.2 billion. It is divided between EUR 1.7 billion for the replacement of material transferred to Ukraine, EUR 300 million for training Ukrainian soldiers, EUR 200 million for a special fund for Ukraine, and EUR 1 billion as a contribution to the European Peace Facility. The special fund established for Ukraine in 2022 enables it to make direct military purchases from the French defence industry. French support to Ukraine is not included in the defence plan 2024–2030, but is financed by other means.[98]

Since the start of the war, French military support has focused on the land forces, ground-to-air defences, and munitions. The type of material, equipment, and munitions has evolved over time in response to the needs of the Ukrainian armed forces.[99] During the first phases of the conflict, France delivered anti-tank missiles (Milan), short-range missiles (about 100 Mistral), heavy artillery (30 CAESAR, 6 TRF1), multiple rocket launchers (4 LRU), anti-tank missiles, and intermediate air-defence systems (2 Crotale). The vehicles delivered include an unknown number of battle tanks (AMX10-RC) and about 60 armoured-front vehicles and transport vehicles (VAB). Following Russia's bombings of civilian infrastructure, France delivered surface-to-air medium-range missiles (SAMP Mamba). In 2023, France delivered long-range cruise missiles (Scalp).[100]

The transfer of equipment includes training. By November 2023, France had trained about 7,000 Ukrainian soldiers, of which 3,000 were trained in Poland, where 200 French soldiers are deployed.[101] France also contributes with individual combat equipment, such as helmets, body armour, night-vision binoculars, combat rations, and NBC outfits, as well as medical equipment and supplies.[102] Special types of support include, for example, floating bridges and acoustic technologies to detect drones.[103]

One of the principles of France's provisions for Ukraine is that military support must not damage France's own defence capabilities. France limited stocks means that the material that is in use and meant to be used by its own armed forces has been provided to Ukraine. Therefore, the deliveries to Ukraine represent "a significant reduction" of what is available for use by

French land forces, for example, of its heavy artillery (CAESAR) and surface-to-air defence.[104] The transfer of equipment is linked to the modernisation of the capabilities of the armed forces. Older types of equipment will be replaced by new and modernised equipment of the type already mentioned, for example, heavy artillery and surface-to-air missile systems (CAESAR, Mistral, Crotale and VL MICA). Armoured vehicles will be transferred to Ukraine (VAB and AMX-10RC) as soon as new and modern vehicles have been delivered to the land forces (Griffon, Jaguar).[105]

Personnel

The French Armed Forces have been a professional army since 1996, when general conscription was abolished. The armed forces plans to increase its numbers during the coming five years, reaching 290,000 by 2030. Most of the increase relates to the reserves, with the total including 210,000 active soldiers and 80,000 operational reserves. The expected increase of civilians for the same period is modest, from 60,000 to 65,000. At the same time, the force is already struggling to reach the current targets for training its personnel at different levels in all services. It is particularly difficult to keep personnel in sectors where competition with the private sector is high, for example, aviation.[106]

Despite the shortage of personnel, the defence plan 2024–2030 does not envisage the reintroduction of general conscription. Current plans strongly emphasise the importance of recruiting, training and retaining personnel in all branches of the armed forces. Efforts to attract personnel include increases in salaries, financial compensation to families in the case of injury or death, health care, and improved conditions for soldiers and their families. Special efforts include improved gender equality and possibilities for international mobility, and efforts to attract young people to the armed forces.[107]

The engagement of the French armed forces in a large number of missions and the low availability of equipment had consequences for training, which were below the set targets during the period 2015-2020. The level and ambitions of training has increased since then to improve the forces' operational preparedness. The results are varied. Some improvements are observed for Navy jet fighters and for transport and helicopter pilots in the Air and Space Forces. The availability of jet fighters are affected by two factors: exports of Rafales and the withdrawal of Mirage 2000C.[108] The size of recruitments, mainly in the lower echelons, indicates difficulties in attracting and retaining personnel and skills.[109] The counterterror operation, Sentinelle, has weighed heavily on the land forces. On the other hand, the ending of Operation Barkhane in 2022 improved the availability of personnel.[110]

The Armed Forces are also facing difficulties in reaching a sufficient number of applicants. The average trend covers significant disparities between different expertise areas. There is a need not only for cyber experts, in all branches, but also for experts who require long-term training, for example, air traffic controllers, maintenance personnel in aeronautics and the navy's nuclear deterrence, and in fields where competition with the private sector is high. A major challenge is that the recruitment ground of higher-ranked military personnel and officers is shrinking, due to insufficient recruitment of young professionals.[111]

Materiel

France has engaged in a long-term programme that aims at reparation and modernisation of the armed forces, a process that started with the previous defence plan (2019–2024). While the previous plan, 2019–2024, underscored the necessity of reparation of the armed forces after years of reduced defence budgets, the current plan emphasises the need for modernisation. The demand for warfighting capabilities in a world of renewed geopolitical conflict requires the acquisition of a range of new systems and supplies, as well as improved maintenance of existing materiel, which involves significant increases in the defence budgets in the years to come. In 2023, the military budget allocated more than 30 percent for equipment expenditures.[112] As old equipment is replaced with more modern versions, the major equipment categories will not experience a significant increase in numbers despite important investments.

As for the Army, the most ambitious military programme in the recent history of the French land forces is Scorpion. It aims at replacing French frontline fighting vehicles with a new generation of armoured vehicles in the middle segment, including modern combat and reconnaissance armoured vehicles, multirole troop carriers, armoured personnel carriers and lighter transport vehicles, all with a shared battle management system.[113] A central concept is collaborative combat, which has the purpose of connecting squads, vehicles, and battle groups into a single network.[114] Equipment and personnel have been under severe strain due to enduring operations in France and overseas territories, with consequences for training and the availability of equipment. The counterterrorist operation, Sentinelle, has placed a heavy burden on the infantry and mechanised units.[115] The challenges ahead mainly stem from worn-out armoured vehicles. In 2022, the production of vehicles in the middle segment (Griffon, Jaguar, Serval)

reached 20 percent of the goals set in the French defence plan 2019–2025.[116] In addition, during the coming years, the land forces will receive, for example, more self-propelled howitzers (CAESAR), new standards of attack helicopters (HAD Tiger), and 1,200 UAV systems (by 2025), including more than 3,000 individual drones.[117]

A recurring problem for the French Navy was the limited availability of major equipment, for example, frigates and helicopters. The Navy's fulfilment of the operational contracts have improved since 2021, particularly for Navy jet fighters, and to some extent also for surface vessels, Navy helicopters, and Navy air patrols. The availability of vessels are generally good and will probably increase in the coming years, but old equipment awaits replacement by modern equipment, which is a constraint for some units such as offshore patrol vessels and mine hunters.[118] The plans for modernising the navy include new generations of attack submarines (Barracuda class)[119] and ballistic-missile submarines (SSBN-3G).[120] New surface vessels, such as the multi-mission frigates (FREMM) and patrol boats for overseas territories (POM) and the mainland are also part of the force development.[121] In 2022, six of eight multimission frigates were in service, while the program for patrol vessels was delayed. There is also a need for more transport ships and tankers, which is expected to result in some new assets by 2030.[122] The construction of a new aircraft carrier will start during the coming five-year period.[123]

The Air and Space Forces are reportedly short of major equipment, such as fighter aircraft and advanced mission equipment, and insufficient number of heavy transport capability. For example, the insufficient number of heavy transport aircraft has, occasionally, forced the army to rely on chartered flights or support from partners. The limited availability of aircraft affects the possibilities for training the pilots of fighter jets, transport aircraft, and helicopters. The long-term defence plan for 2024–2030 aims at filling this gap. The number of multimission Rafale jet fighters will not increase in a five year perspective as the additional Rafales, about 40 in numbers, will replace older Mirage airframes. According to the plans, the number of transport aircraft of type A400M will increase from 20 aircraft in 2023 to a minimum of 35 aircraft by 2030, replacing older Hercules transport aircraft. During the same period, the Multi Role Tanker Transport (MRTT) will increase in numbers, from 12 to 15.[124] By 2030, the Air and Space Force will receive the first of six Eurodrone unmanned aerial systems.

The French defence industry has close relations with the state, and is vital to the French economy by providing around 200,000 jobs, and is a condition for the country's strategic autonomy. The industry consists of a dozen global companies and about 4,000 small- and medium-sized enterprises.[125] The major suppliers – Thales, Airbus, Safran, MBDA, Naval, Dassault Aviation, CEA, Ariane, Nexter and Arquus – are heterogeneous in size, personnel, revenues, and activities. Airbus and Safran generate nearly 80 percent of their revenues on the civilian market, while companies such as Nexter and MBDA exclusively focus on arms. The extension of conflicts to new domains, cyber in particular, and the development of information technologies, have also brought new actors to the field.[126]

The introduction, in 2022, of the concept of a war economy highlights the importance of the French defence industry, the necessity of building up a strategic stock, protection of production lines, diversification of supplies, and a speedier production of equipment and munitions.[127]

Traditionally, the armed forces acquire most of its materiel on the domestic market, given its strong industry. For example, France's strategic nuclear deterrence remains entirely made in France. Nevertheless, the 2017 Strategic Review differentiates between different types of equipment: some equipment may be produced in cooperation with partners or purchased from other countries.[128] Costs for new capabilities push France to cooperate with other states, through the EU or other multilateral or bilateral agreements.[129] France has proclaimed a willingness to explore avenues for cooperation with "privileged partners", for example, Italy, Spain, Greece, Germany, and the United Kingdom. Important areas of cooperation include cargo aircraft, UAVs, surface-to-air defence, long-range strike, surface vessels, and space.[130]

11.4 Assessment of military capability

Current operational capability[131]

France has maintained a complete armed forces structure with capabilities across domains, including air, land, sea, and space, as well as an independent nuclear deterrence. The French armed forces have a strong tradition of, and have proved their capability in, conducting small- to medium-sized expeditionary operations.[132] The long-term defence plan 2024–2030 aims at modernising and transforming the armed forces and preparing them for high-intensity conflict, with an ambition to lead or act as a framework nation for allies.[133] The plan also gives priority to nuclear deterrence and adds new domains, such as the deep seas, cyber, and space.[134]

In a scenario time-frame of less than three months, the French Army disposes of several assets for rapid mobilisation of forces. The Rapid Reaction Corps HQ (CRR-FR) can engage in low- to high-intensity conflicts in less than thirty days, with the capability to command a multinational land force of up to 60,000

Table 11.1 Personnel and materiel in the French Armed Forces

Personnel/Materiel	Numbers in 2023	Major reforms towards 2030
Personnel		
Regular force	207,000[(a)]	Slight increase (+3,000)
Reserves	41,000	40,000 additional reserves
Materiel		
Tanks	200 (Leclerc, 19 renovated)	160 renovated Leclercs
Armoured combat vehicles	60 (Jaguar) 575 (Griffon) 189 (Serval) 628 (VBCI)	180 additional Jaguars 860 additional Griffons 1,200 additional Servals 180 (VBAE)
Heavy artillery pieces	58 CAESAR (155 mm self-propelled canon) 33 AUF1 (155 mm self-propelled gun model F1)	50 additional new generation CAESARs
Surface-to-air missile defence	8 MAMBA	New generation of SAMP
Attack helicopters	67 (Tigre)	
Surface combatants	1 aircraft carrier (CDG) 3 helicopter carriers 15 destroyers (8 multimission FREMM, 2 air-defence FDA, 5 La Fayette-class stealth destroyers (FLF) 41 navy fighter jets (Rafale marine)	Renovation of CDG 2 renovated FDA, 3 defence and intervention (FDI), 2 renovated La Fayettes
Submarines	10 (4 SSBNs, 6 SSNs)	Modernisation of both
Combat aircraft	100 Rafales 36 Mirage 2000D (renovated) 20 Mirage 2000D not yet renovated 17 (Mirage 2005-5) + 7 Mirage 2000 B)[(b)]	37 additional Rafales 12 additional renovated Mirages
Transport aircraft	12 MRTTs + 3 A330s 22 A400Ms 4 C-13Js + 14 C-130Hs	3 additional MRTTs At least 13 additional A400Ms 4 fewer C-130Hs

Sources/Remarks: (a) Ministère des armées, *LPM 2024-2030*, p. 12. **(b)** Ministère des armées, *Chiffres clés*, Table 6.3. Loi No. 2023-703 du 1er août 2023 relative à la programmation militaire pour les années 2024 à 2030 et portant diverses dispositions intéressant la défense, section 2.2.2; Ministère des armées, *Statistics for personnel: Defence Key Figures*, 2021 edition.

soldiers.[135] France disposes of a stand-by force (ENU-R), able to mobilise within a few days for up to one or two months of deployment at a distance of up to 3,000 kilometres from French territory. The ENU-R consists of three units that are adaptable in size and quality, depending on the situation. It is comprised of up to roughly a brigade, as well as naval and air assets, including, for example, up to two helicopter carriers, an attack submarine, some frigates, a fighter-jet squadron, and air transport. The first unit (QRF) consists of light inter-army or joint capacities that may be used for evacuations or as support to other forces.[136] A second unit of heavier joint forces (FIRI) with more capabilities may be mobilised within a month, and a third unit (FIA) with equally broad capacities may follow thereafter.[137]

For a mobilisation in the event of a large high-intensity conflict, the latest previous plans were built on the double assumption that there would be time for six months of mobilisation and that conflicts would last six months. There is today an awareness that these assumptions may not be valid.[138] The current defence plan, again, includes detailed plans for command structures and units that could be mobilised in case of a major engagement that develops into a high-intensity conflict. Without being specific about timeframes, this scale of mobilisation probably still requires considerably more than three months' notice.[139]

The described maximum contributions include joint command structures, with a joint headquarters at the strategic level, one headquarters at the operational level, and one joint support unit.

As for the land forces, the deployable forces consist of headquarters and one division, comprising two combined arms brigades, one air-combat brigade and one special-forces group, a total of about 15,000 soldiers. Supporting units include artillery, engineering, transmission, material, and health units.[140]

The deployment of the Navy includes one navy command headquarters, one aircraft carrier with its carrier air wing, including 30 fighter jets and two airborne early-warning aircraft, two amphibious helicopter carriers, eight first-ranked destroyers and frigates, two nuclear-powered attack submarines, up to five patrol

vessels, up to two fleet tankers, one anti-mine group, and one group from the Special Forces.

Air and Space Forces include one joint air component command (JFACC) and one airborne warning and command system (AWACS). A deployable force consists of 40 fighter jets, eight strategic transport and refuelling aircraft, two units for combat rescue, 15 aircraft for tactical transport, two ground-to-air defence systems, including anti-drone capability, and one intelligence capability, consisting of one airborne strategic-intelligence aircraft (Archange) and the two light surveillance and intelligence aircrafts (ALSR), deployed on up to three forward-operating air bases.

Deployable Special Forces units include one headquarters and eight groups with transport assets and other supporting functions. Other likely available assets are cyber defence and space support for military operations.

In sum, France has a good capacity for rapid mobilisation and deployment of military forces for smaller expeditionary operations. Its readiness for a large-scale high-intensity conflict is, as in most European countries, much less clear. At three months' notice, possibly up to two-thirds of the described forces above might be ready to move for operations in their home bases, while probably not more than half of them would be actually deployable and effective in major combat operations outside France within that timeframe. In addition, given the high ambition of retaining and modernising a more or less complete range of capabilities, as well as adding some new ones, there are doubts about the ability of the French armed forces to endure over time in high-intensity conflicts. The capacity to sustain prolonged warfighting has not been required for decades and requires systematic rebuilding and considerable resources.

Future operational capability

During the next five years, France will continue to maintain a broad range of capabilities in the armed forces. A priority is the maintenance and modernisation of its nuclear arsenal, which consumes a significant part of the defence budget. The armed forces will continue to grow, mainly through an increase in number of reserves. France is preparing for different types of conflicts in different domains, seemingly at the cost of mass and conventional forces.

While the previous defence plan aimed at filling gaps in French capabilities after many years of decreased budgets, the new plan strongly emphasises the transformation of the forces, including modernisation of major equipment. In light of Russia's war against Ukraine and a deteriorating security environment in general, the French armed forces is now transforming from a focus on counterterrorism to national defence and preparedness to engage in a high-intensity conflict.[141] The changes include strengthened rapid-reaction forces and modernisation of major equipment, such as ground-to-air defence, artillery, nuclear-powered ballistic-missile submarines and their missiles, fighter jets, space capabilities, and so on.[142] Increased production of ammunition and maintenance of equipment are other priorities.

The army will receive modernised versions of the Leclerc tank and increased numbers of armoured vehicles in the middle segment. The improvement of communication systems aims at increasing the mobility and flexibility of the forces. The forces will receive new helicopters and an increased number of heavy artillery pieces. Still, considering the limited numbers of artillery pieces, and the possibility that they will continue to be delivered to Ukraine, artillery will remain a weak spot in the years to come. France's decision to end Operation Barkhane, withdraw militarily and reduce its military footprint in Africa has, to some extent, freed up personnel and equipment, including vehicles in the middle segment.

The Navy will modernise its vessels but will remain the same size during the coming years. First-ranked frigates, for example, multimission frigates (FREMM), will not increase in number during the coming years, nor will the number of naval fighter jets. Major investments will be made to modernise nuclear-powered attack submarines. A major challenge for the Navy is the coverage of France's extensive maritime areas.[143] Growing tensions in the Indo-Pacific region and an increased number of missions impede the deployment of navy vessels to Europe.

The number of airframes in the Air and Space Forces will remain at the same level as today, totally about 185 aircraft by 2030, as older Mirage are gradually replaced by Rafales. Still, plans to have a Rafale only fighter jet force were postponed. In comparison with the previous defence plan, the number of deployable aircraft in the current plan is slightly reduced, but tactical transport aircraft will increase. The nuclear air component will see the entry into service of an upgraded medium-range air-to-ground missile.[144]

The overall number of the active personnel will remain similar to current levels, or around 200,000, but the number of operative reserves will double, which increases the forces' endurance over time. In the absence of general conscription, it remains to be seen whether the armed forces will be able to attract, recruit, and maintain personnel, not least in competition with the private sector. Despite several on-going programmes to modernise equipment, the armed forces will have fewer units at its disposal during the transformation phase as modernised units replace older equipment.

The transformation emphasises breadth and the capability to engage in conflicts that are multidimensional in character, and where different branches of the armed forces improve their capabilities for collaboration at strategic, operative, and tactical levels.[145]

The limited availability of equipment affects not only readiness but also training levels of the personnel, which have been below set goals in all services for considerable time. With an increased budget for maintenance of equipment, its availability will likely improve in the future. Accordingly, this should improve the conditions for both individual training and force exercises in order to enhance capabilities and maintain readiness.[146]

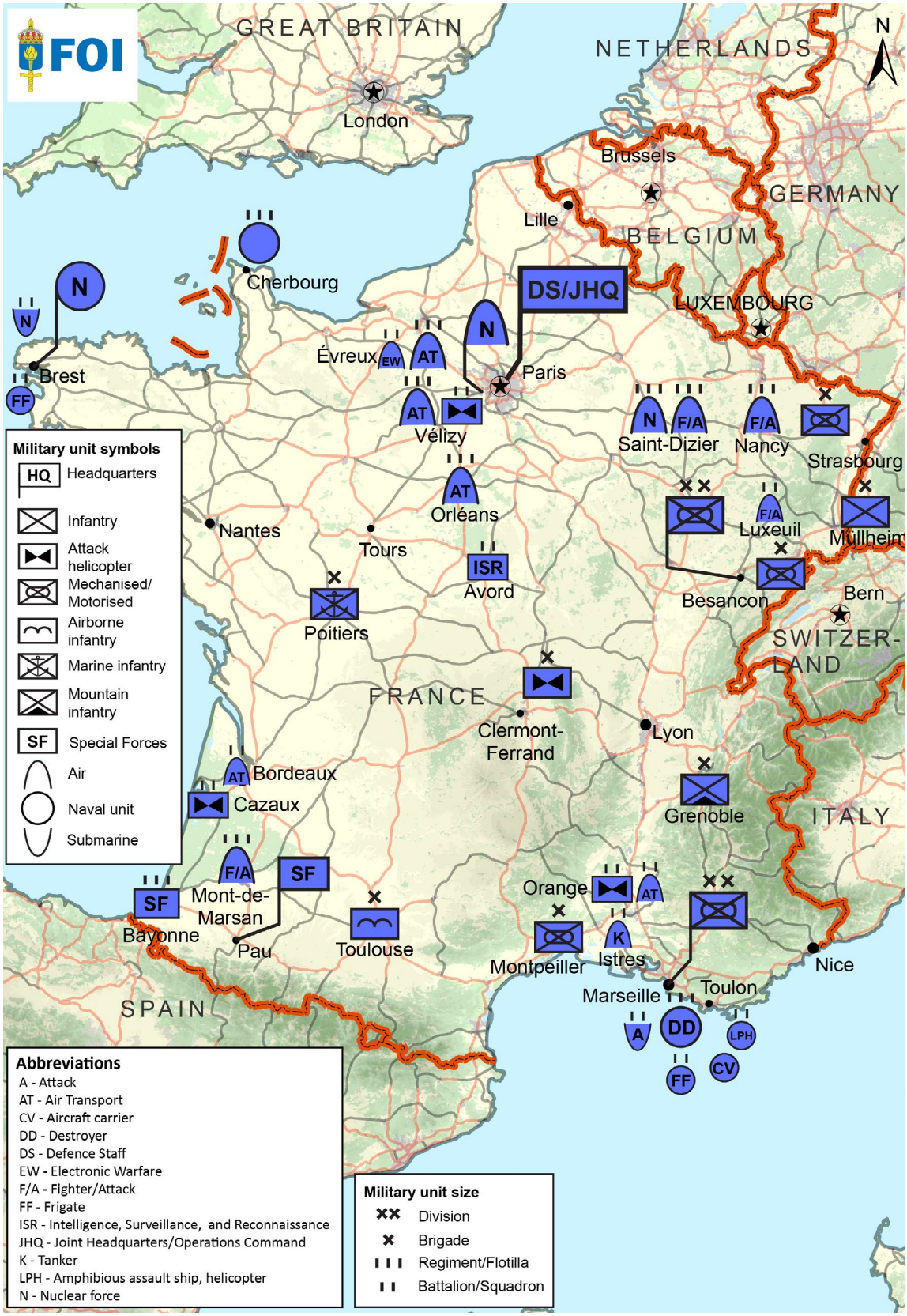
Russia's war against Ukraine has revealed France's limited stocks of munition and certain types of equipment, such as artillery and ground-based air defence. It has also indicated the limitations of the French defence industry to produce the requested materiel for stocks and deliveries to Ukraine.[147] The defence industry is expected to speed up its production capacity eventually, thus improving France's capability and endurance over time.

In sum, France's decision to maintain complete armed forces, including a broad range of capabilities, has consequences for the conventional forces' mass and endurance. The capacity to mobilise forces for high-intensity operations will likely improve in terms of speed but neither the force numbers nor the ability to sustain a long war will improve much in the next couple of years, given current plans. As with all allies, in the event of a major conflict in Europe, France will be greatly dependent on collaboration with other countries. ■

Table 11.2 Force structure of the French Armed Forces

Force	Organisation in 2023	Major reforms towards 2030
Joint	Chief of Staff of the Armed Forces (CEMA) Centre for Planning and Execution of Operations (CPCO) Special Operations Command (COS) (army, navy and air force special forces units) Command Cyber Defence (COMCYBER) Joint Space Command (CDE) (2 intelligence satellites CSO, 1 communication satellite Syracuse IV, 1 space-surveillance system radar GRAVES)	Modernised transport aircraft, drones, vehicles (helicopter NH90), surface vessels Improved air-defence surface-air; modernised missile and antimissile systems; modernised short- and middle-range weapons Anti-drones Light inter-army helicopters (HIL) Improved ammunition stocks (long-distance anti-surface vessels, SEAD, Aster-MICA, Meteor, torpedoes F21; anti-tank (ACCP, MMP). Cyber warfare to detect and counter disinformation (LIO and L21) 1 Céleste (electro-magnetic intelligence) 1 additional Syracuse IV 1 GRAVES, new generation Creation of a command centre for control, communication and operations (C40S)
Army	The Army Chief of Staff (CEMAT) 1st mechanised division (1 mountain infantry brigade, 1 marine infantry light armoured brigade, 1 armoured brigade, 1 French-German light armoured brigade, 1 artillery regiment, 1 engineering regiment) 3rd mechanised division (1 parachute brigade, 1 armoured brigade, 1 light armoured brigade, 1 artillery regiment, 1 engineering regiment), 1 CBRN defence unit)	Creation of a Future Combat Command, reorganization of supporting branches into 3 brigades, creation of a Corps level Land Europe Command Scorpion programme (armoured vehicles; Griffon, Jaguar, Serval, MEPAC, modernised Leclerc) Cyber capability Acquisition of drones (1,200 systems/3,000 individual drones)
Navy	The Chief of Staff of the Navy (CEMM) - Naval Action Force (FAN) - The Submarine Forces and the Strategic Ocean Force (FOST) - The "maritime force of marines and commandos" (FORFUSCO) - The Naval Aviation Force (AVIA) 3 naval bases (1 aircraft carrier, 3 helicopter carriers, 15 destroyers, 6 surveillance frigates, 5 attack submarines, 17 patrol vessels, 13 mine warfare/countermeasures (incl. 1 anti-mine drone) 4 nuclear-powered ballistic-missile submarines 4 naval aviation bases (3 units naval strategic-fighter jets (Rafale Marine) , 3 anti-surface and anti-submarine fleets, 1 surveillance fleet, 1 naval-combat fleet and for combat against illicit activities Marines 7 operational units (five combat units, 2 support units)	Renovation of aircraft carrier Charles de Gaulle; 6 SSNs, Suffren/Barracuda class New missile standards (M51) 12 anti-mine warfare/ countermeasures (incl. drones) 3 frigates (FDI) 3 supply vessels 7 patrol vessels (overseas patrol vessels and offshore patrol vessels) Navy air drone system (SDAM) Improved surveillance through the AVSIMAR programme (12 Falcon 2000 LXS will replace 5 Falcon 200 Guardian and 8 Falcon 50M)
Air/Space Force	The Chief of Staff of the Air and Space Force (CEMAAE) - The Air Defence and Air Operations Command (CDAOA) - The Air and Space Force Territorial command (CTAAE) - The Strategic Air Forces Command (CFAS) - The Space Command (CDE) Fighter aviation air brigade (BAAC) 8 fighter squadrons (Rafale, Mirage 2000D, Mirage 2000F); 2 operational transition squadrons (1 Rafale, 1 Mirage) 4 air bases Air assault and projection brigade (BAAP) 1 air-refuelling and transport squadrons (A330 MRTT, C-135) 10 transport squadrons (CN235, A400M, C-130H, C-130J, KC-130J, C-130H, C160, Transall, Twin Otter) 4 helicopter squadrons (Caracal, Fennec) Airspace Control brigade (BACE) 1 airborne electronic-warfare squadron 1 drone squadron (Reaper) 4 surface-to-air defence squadrons 1 airborne detection and control squadron	Modernized Rafale fighter jets Modernised Mirage 2000D Strategic transport aircraft (MRTT, A400M) Presentation of Eurodrone prototype (1st of 6)

Sources/Remarks: Land Forces: Ministère des armées, Notre organisation. Navy: Ministère des armées, Marine Nationale. Air and Space Force: 'L'armée de l'air et de l'espace en chiffres 2023'. On planned reforms towards 2030, mainly: Hearings in the National Assembly, Defence Committee, with CEMAT, CEMM and CEMAAE; République française, Loi No. 2023-703; Ministère des armées, LPM 2024–2030.



Map 11.1 Overview of the French Armed Forces and its basing
Remarks: The map covers major operational headquarters and manoeuvre forces.
Source: Design by Per Wikström

Endnotes

1 Ministère des armées, LPM 2024-2030. Les grandes orientations, p. 12.

2 Constitution du 4 octobre 1958, article 15.

3 Ministère des Armées, Defence and National Strategic Review, 2017.

4 République française, National Strategic Review 2022 (Paris: Secrétariat général de la défense et de la sécurité nationale, 2022).

5 République française, National Strategic Review 2022, p. 9.

6 République française, National Strategic Review 2022, p. 37–38.

7 Sjökvist, Emma, French Security Policy and the War in Ukraine, FOI Memo 7948 (Stockholm: Swedish Defence Research Agency – FOI, 2018).

8 IFOP/Le Journal du Dimanche, Le regard des Français sur la guerre en Ukraine, December 2022.

9 République française, National Strategic Review 2022, p. 20; Ministère des armées, Defence and National Security Strategic Review, 2017, p. 54; Ministère de la Défense, White Paper: Defence and National Security 2013 – Twelve key points, 2013, p. 4–5.

10 Sundberg, Anna, Frankrikes säkerhetspolitik och militära förmåga, FOI Memo 6605 (Stockholm: Swedish Defence Research Agency – FOI, 2018), p. 12.

11 République française, National Strategic Review 2022, p. 15, 41.

12 Elysée, 'Discours du Président de la République, Emmanuel Macron, à la Pnyx, Athènes, le jeudi 7 septembre 2017'; 'Initiative pour l'Europe – Discours d'Emmanuel Macron pour une Europe souveraine, unie, démocratique', Sorbonne, 26 September 2017. Available at *www.elysee.fr*.

13 République française, National Strategic Review 2022, p. 41.

14 Emmanuel Macron, 'Preface by the President of the Republic', Defence and National Security Strategic Review, 2017, p. 6; République française, National Strategic Review 2022, p. 3.

15 Granholm, Niklas and Rydqvist, John, Nuclear weapons in Europe: British and French deterrence forces, FOI-R--4587--SE (Stockholm: Swedish Defence Research Agency – FOI, 2018).

16 Declaration on Atlantic Relations issued by the North Atlantic Council, "The Ottawa Declaration" (Brussels: NATO, 1974), *http://www.nato.int*.

17 République française, National Strategic Review 2022, p. 33.

18 République française, National Strategic Review 2022, p.9.

19 République française, National Strategic Review 2022, p. 9–10.

20 Ibid., p. 1.

21 Ibid., p. 27.

22 Speech by President Emmanuel Macron, 20 January 2023; République française, National Strategic Review 2022, p. 13–14.

23 Hagström Frisell, Eva and Pallin, Krister (eds.), Western Military Capability in Northern Europe 2020 – Part II: National Capabilities, FOI Reports FOI-R--5013--SE (Stockholm: Swedish Defence Research Agency – FOI, 2018).

24 République française, Loi No. 2023-703 du 1er août 2023 relative à la programmation militaire pour les années 2024 à 2030 et portant diverses dispositions intéressant la défense, Journal officiel, Lois et décrets, p. 10.

25 'Macron announces military spending to increase by a third until 2030', Le Monde/AFP, 20 January 2023 (retrieved 6 November 2023), *https://www.lemonde.fr/en/politics/article/2023/01/20/macron-presents-significant-increase-in-military-spending-until-2030_6012339_5.html*.

26 L.L. and AFP. 'La dissuasion nucléaire, grande gagnante de la loi de programmation militaire', L'Express, 22 May 2023.

27 World Bank. GDP growth (annual %) – France. *GDP growth (annual %) - France | Data (worldbank.org)*. Accessed 6 December 2023.

28 International Monetary Fund, 'France is Building Resilience Through Bold Reforms', IMF Country Focus, 1 February 2023 (retrieved 26 June 2023), *www.imf.org/en/News/Articles/2023/01/27/cf-France-is-building-resilience-through-bold-reforms*

29 European Commission, Economy and Finance, 'Economic Forecast for France', 15 May 2023 (retrieved 16 June 2023), *https://economy-finance.ec.europa.eu/economic-surveillance-eu-economies/france/economic-forecast-france_en*.

30 Ministère des armées, 'Les missions du ministère des Armées' (retrieved 6 March 2023), *https://www.defense.gouv.fr/ministere/missions-du-ministere-armees.* .

31 This relates to measures to counter disinformation in all fields. République française, Revue nationale stratégique 2022, p. 21.

32 Ministère des armées, LPM 2024-2030. Les grandes orientations, p.12; Ministère des armées. Rapport social unique 2022 (Paris: Secrétariat général pour l'administration, 2022), p. 80.

33 Ministère des armées, Chiffres clés, 2021, Table 3.2.

34 Ministère de l'intérieur et des outre-mer, Groupe d'intervention de la gendarmerie nationale (GIGN), 'Les affrontements armés urbains au cœur de la préparation opérationelle du GIGN' (retrieved 26 June 2023), *https://www.gendarmerie.interieur.gouv.fr/gign/actus/les-affrontements-armes-urbains-au-coeeur-de-la-preparation-operationnelle-du-gign*.

35 Ministère des armées, 'Opérations', February 2023 (retrieved 22 January 2024), *https://www.defense.gouv.fr/operations/operations*.

36 Constitution du 4 octobre 1958, article 35, paragraph 1.

37 Ministère des armées, 'The command centre: Behind the scenes at the CPCO' (retrieved 27 April 2023), *https://www.cheminsdememoire.gouv.fr/en/command-centre-behind-scenes-cpco*.

38 Ministère des armées, Armée de Terre, 'Commandement des forces terrestres', (retreived 23 January 2024), *Commandement des forces terrestres | Ministère des Armées (defense.gouv.fr)*.

39 Vincent, Elise and Pietralunga, Cédric. 'L'armée de terre tire les leçons de la guerre en Ukraine', Le Monde, 14 February 2023.

40 Ministère des armées, Armée de Terre, 'Le niveau divisionnaire' (retrieved 8 March 2023), *https://www.defense.gouv.fr/terre/nos-unites/niveau-divisionnaire.*

41 Ministère des armées, Armée de Terre, 'Nos unités' (retrieved 19 April 2023), *https://www.defense.gouv.fr/terre*; Pezard, Stephanie, Shurkin, Michael and Ochmanek, David A., *A* Strong Ally Stretched Thin (Santa Monica, California: RAND Corporation, 2021), p. 28–29.

42 Ministère des armées, Armée de Terre, '3e division' (retrieved 8 March 2023), *https://www.defense.gouv.fr/terre/nos-unites/niveau-divisionnaire/3e-division*.

43 République française, Loi No. 2023-703; Ministère des armées, Armée de Terre, 'Vers une armée de combat' (retreived 23 January 2024), *Vers une armée de Terre de combat | Ministère des Armées (defense.gouv.fr)*. See also Vincent and Pietralunga, 'L'armée de terre tire les leçons'.

44 Assemblée nationale, Compte rendu de réunion No. 8, Commission de la défense nationale et des forces armées, 'Audition, à huis clos, du général d'armée Pierre Schill, chef d'état-major de l'armée de Terre', 20 July 2022 (retrieved 13 March 2023), *www.assemblee-nationale.fr/dyn/16/comptes-rendus/cion_def/l16cion_def2122008_compte-rendu*.

45 Ministère des armées, LPM 2024–2030: Les grandes orientations (retrieved 20 January 2024), *https://www.defense.gouv.fr/ministere/politique-defense/loi-programmation-militaire-2024-2030/loi-programmation-militaire-2024-2030-grandes,* p. 8.

46 Assemblée nationale, Compte rendu de réunion No. 8.

47 Cour des comptes, La loi de programmation militaire (LPM) 2019–2025 et les capacités des armées (Paris: Cour des comptes, 2022), p. 49–50; Mirallès, Patricia and Thiériot, Jean-Louis, Rapport d'information sur la préparation à la haute intensité, No. 5054 (Paris: Assemblée nationale, 2022), p. 76.

48 Assemblée nationale, Compte rendu de réunion No. 8, p.14.

49 Mirallès and Thiériot, Rapport d'information, p. 81–95, 140–145; Assemblée Nationale, Compte rendu de réunion No. 8.

50 Ministère des armées, Marine nationale, 'Notre organisation' (retrieved 26 May 2023), *https://www.defense.gouv.fr/marine/mieux-nous-connaitre/notre-organisation*.

51 Ministère des armées, Marine nationale, 'Notre organisation'.

52 Ibid.

53 Marine nationale, 'Infographies' (retrieved 24 October 2023), *https://www.colsbleus.fr/infographies*; Loi No. 2023-703, Table 2.2.2, p. 51.

54 Ministère des armées, Marine nationale, 'Notre organisation'.

55 Ministère des armées, 'Liste des navires de guerre', 3 May 2022 (retrieved 20 March 2023), *https://www.defense.gouv.fr/marine/liste-navires-guerre*; Marine nationale, Cols bleus, 'La Marine, présente sur toutes les mers du monde' (retrieved 20 March 2023), *https://www.colsbleus.fr/*.

56 Vincent, Elise, 'Le Suffren, premier sous-marin nucléaire d'attaque français de nouvelle génération entre au service actif', Le Monde, 3 June 2022.

57 Ministère des armées, LPM 2024–2030; Ministère des armées, 'Le sous-marin nucléaire lanceur d'engins (SNLE)' (retrieved 23 March 2023), *https://www.defense.gouv.fr/dga/marin-nucleaire-lanceur-dengins-snle*.

58 Assemblée nationale, Compte rendu de réunion No. 10, Commission de la défense nationale et des forces armées, 'Audition, à huis clos, de l'amiral Pierre Vandier, chef d'état-major de la Marine', 27 July 2022 (retrieved 22 March 2022), *https://www.assemblee-nationale.fr/dyn/16/comptes-rendus/cion_def/l16cion_def2122010_compte-rendu*; Barluet, Alain, 'Le successeur du Charles-de-Gaulle est à l'étude', Le Figaro, 23 October 2018; Garnoix, Guillaume, du Chéné, Nicolas, 'Le programme FTI et le renouvellement de la composante frégates à l'ère du numérique', Revue Défense Nationale, vol. 1, No. 806, 2018: p. 13–17.

59 Ministère des armées, 'Mise à l'eau du 1er bâtiment ravitailleur de forces: le Jacques Chevallier', 29 April 2022 (retrieved 16 March 2023), *https://www.defense.gouv.fr/marine/actualites/mise-a-leau-du-1er-batiment-ravitailleur-forces-jacques-chevallier*; Ministère des armées, LPM 2024–2030, p. 8; Assemblée Nationale, Compte rendu de réunion No. 10.

60 Cour des comptes, La loi de programmation militaire (LPM) 2019-2025 et les capacités des armées (Paris: Cour des comptes, 2022) p. 50–53.

61 République française, Budget général, Programme 178. Préparation et emploi des forces (2013), p. 12–13 (retrieved 6 December 2023), *FR_2023_PLF_BG_PGM_178 (2).pdf*.

62 Armée de l'air et de l'espace, 'Organigramme de l'armée de l'air et de l'espace: Situation au 1er juin 2023' (retrieved 24 October 2023), *https://air.defense.gouv.fr;* Ministère des armées, Communiqué de presse du ministère des armées, 22 March 2023.

63 Armée de l'air et de l'espace, 'Organigramme de l'armée de l'air et de l'espace'; Ministère des armées, 'Le CTAAE remplacera le CFA dans le cadre de la reconfiguration de l'AEE', (retreived 19 January 2023), *https://air.defense.gouv.fr*

64 Ministère des armées, 'Le CTAAE remplacera le CFA'*;* Ministère des armées, Communiqué de presse.

65 Ministère des armées, L'armée de l'air et de l'espace, 'L'armée de l'air et de l'espace en chiffres 2023' (retrieved 25 October 2023). *https://air.defense.gouv.fr/fiche/chiffres_cles*

66 Ministère des armées. Secrétariat général pour l'administration. 'Le 5e escadron Rafale s'installe sur la base aérienne d'Orange' (retreived 30 January 2024), Le 5e escadron Rafale s'installe sur la base aérienne d'Orange | Ministère des Armées (defense.gouv.fr).

67 Ministère des armées, 'L'armée de l'air et de l'espace en chiffres 2023'

68 ALSR is a SIGINT version of the Beech 350 that resembles the US Army MC-12.

69 Ministère des armées, L'armée de l'air et de l'espace, 'L'armée de l'air et de l'espace en chiffres 2023' (retrieved 25 October 2023). *https://air.defense.gouv.fr/fiche/chiffres_cles*

70 Ministère des armées, Armée de l'air et de l'espace, 'Les unités du CDE' *(retrieved 25 October 2023), https://air.defense.gouv.fr/cde/article-de-dossier/les-unites-du-cde*

71 Ministère des armées, Stratégie spatiale de défense, (Paris: DICoD, 2019).

72 République française, Loi No. 2023-703, p. 50-52.

73 Direction générale de l'armement, 'L'avion de transport A400M', *https://www.defense.gouv.fr/dga/lavion-transport-a400m*; Cour des comptes, La loi de programmation, p. 55–56.

74 République française, Loi No. 2023-703, p. 51.

75 République française, Loi No. 2023-703, p. 52.

76 Assemblée nationale, Compte rendu No. 56, Commission de la défense nationale et des forces armées, 'Audition du général d'armée aérienne Stéphane Mille', p. 7, 15.

77 Mirallès and Thiériot, Rapport d'information, p. 135.

78 Assemblée nationale, Compte rendu No. 56, p. 17-18.

79 Ibid., p. 7.

80 Ibid., p. 9; Jennings, Garth, 'IFC 2022: France to equip Rafale for SEAD/DEAD mission', Janes, 17 November 2022.

81 Available aircraft in 2021: fighter jets, 81 %; tactical transport (ATT), 60 %; combat helicopters, 72 %; operational support 77 %; see République française, Préparation et emploi des forces, p. 18.

82 Mirallès and Thiériot, Rapport d'information, p. 134.

83 Assemblée nationale, Compte rendu No. 56, p. 8; Armée de l'air et de l'espace, 'Jeunesse' (retrieved 27 October 2023), *https://air.defense.gouv.fr/article-de-dossier/Les_Escadrilles_air_jeunesse*.

84 Assemblée nationale, Compte rendu No. 36, Commission de la défense nationale et des forces armées, 'Audition, à huis clos, du général d'armée aérienne Stéphane Mille, chef d'état-major de l'armée de l'Air et de l'espace, et du général de corps aérien Jérôme Bellanger, commandant des forces aériennes stratégiques, sur la dissuasion nucléaire', 25 January 2023, p. 20–21.

85 Kristensen, Hans M., Korda, Matt and Johns, Eliana, 'Nuclear Notebook: French nuclear weapons, 2023', Bulletin of Atomic Scientists, vol. 79, No. 4, 2023: 272–281; Tertrais, Bruno, 'La politique de dissuasion nucléaire française', (Paris: Vie publique, 2022), *https://www.vie-publique.fr/parole-dexpert/285856-la-politique-de-dissuasion-nucleaire-francaise-defense-budget*.

86 Assemblée nationale, Compte rendu No. 36, p. 8.

87 Ministère des armées, LPM 2024–2030, p. 6; the headquarters will be concentrated to the airbase in Taverny, close to Paris, while a transport wing (Esterel) will transfer from Paris to Istres, on the Mediterranean coast; Assemblée nationale, Compte rendu No. 36, p. 12.

88 Ibid., p. 17.

89 Pannier, Alice and Schmitt, Olivier, French Defence Policy since the End of the Cold War (Abingdon: Routledge, 2021), p. 63–68.

90 Ministère des armées, 'Le commandement des forces spéciales terre' (retrieved 30 June 2023), *www.defense.gouv.fr/terre*.

91 Ministère des armées, 'La Force maritime des fusiliers marins et commandos (FORFUSCO) – 80 ans d'adaptation' (retrieved 30 June 2023), *www.defense.gouv.fr/marine*.

92 Ministère des armées, 'Création de la brigade des forces spéciales air', 29 September 2020 (retrieved 27 October 2023), *https://devenir-aviateur.fr*; Ministère des armées 'Nos commandos parachutistes' (retrieved 27 October 2023), *https://devenir-aviateur.fr*; Ministère des armées, 'Athena 2022: Le rendez-vous des forces spéciales Air', 6 May 2022 (retreived 27 October 2023), *ATHENA 2022 : LE RENDEZ-VOUS DES FORCES SPÉCIALES AIR | Ministère des Armées (defense.gouv.fr)*.

93 Ministère des armées, 'Le commandement de la cyberdéfense (COMCYBER)' (retrieved 30 October 2023), *https://www.defense.gouv.fr/comcyber/nous-connaitre*; Ministère des armées, 'Groupement de la cyberdéfense des armées (GCA)' (retrieved 30 October 2023), *https://www.defense.gouv.fr/comcyber/mieux-nous-connaitre/notre-organisation/GCA*.

94 Ministère des armées, 'Le centre du soutien des opérations et des acheminements (CSOSA)' (retrieved 7 December 2023), *https://www.defense.gouv.fr/ema/centre-du-soutien-operations-acheminements-csoa*.

95 Avion de Renseignement à Charge utile de Nouvelle GEnération, ARCHANGE.

96 République française, Loi No. 2023-703, p. 52; Ministère des armées, LPM 2024–2030, p. 6.

97 Royer-Perreaut, Lionel and Nagelen, Christophe, Rapport d'information sur le bilan du soutien militaire à l'Ukraine, No. 1840 (Paris: Assemblé nationale, 2023), p. 25.

98 Royer-Perraut and Nagelen, Rapport d'information.

99 Ibid., p. 19-20.

100 Ibid., p. 18–20; Présidence de la République, 'Bilan de l'aide apporté par la France à l'Ukraine – fèvrier 2023' (retrieved 31 October 2023), *https://ue.delegfrance.org/bilan-de-l-aide-apportee-par-la*.

101 Royer-Perreaut and Nagelen, Rapport d'information, p. 23.

102 Présidence de la République, 'Bilan de l'aide'.

103 Ministére des armées, 'En visite à Kiev, Sébastien Lecornu réaffirme le soutien de la France à l'Ukraine', 30 December 2022, *https://www.defense.gouv.fr/actualites/visite-a-kiev-sebastien-lecornu-reaffirme-soutien-france-a-lukraine*.

104 Royer-Perreaut and Nagelen, Rapport d'information, p. 32.

105 Ibid., p. 32–34.

106 République française, Loi No. 2023-703.

107 Ibid.

108 Liso, Brigitte and Pic, Anna, Rapport d'information sur la préparation opérationnelle, No. 822, (Paris: Assemblée nationale, 2023), p. 8-15.

109 Cour des comptes, La loi de programmation militaire (LPM) 2019-2025, (Paris: Cour des comptes, 2022), p. 51-52.

110 Liso and Pic, Rapport d'information, p. 20.

111 Cour des comptes, La loi de programmation militaire, p. 51–52.

112 Ministère des armées, LPM 2024–2030, p. 12.

113 Assemblée nationale, Compte rendu No. 8, p. 5.

114 Ministère des armées, 'The Scorpion Programme' (retrieved 11 December 2023), *https://www.defense.gouv.fr/eurosatory/the-scorpion-programme*

115 Cour des comptes, La loi de programmation militaire, p. 49–50; Mirallès and Thiériot, Rapport d'information, p. 76.

116 Assemblée nationale, Compte rendu No. 8, p. 5.

117 Ministère des armées, LPM 2024–2030, p. 8.

118 République française, Programme 178. Préparation et emploi des forces, p. 10–17; Liso and Pic, Rapport d'information, p. 10, 17.

119 Vincent, 'Le Suffren'.

120 Ministère des armées, LPM 2024–2030; Ministère des armées, 'Le sous-marin nucléaire'.

121 Assemblée nationale, Compte rendu de réunion no. 10; Barluet, 'Le successeur du Charles-de-Gaulle', p. 13–17.

122 Ministère des armées, 'Mise à l'eau'; Ministère des armées, LPM 2024–2030, p. 8; Assemblée Nationale, Compte rendu de réunion No. 10.

123 Delivery of the new aircraft carrier is expected by 2038.

124 République française, Loi No. 2023-703, p. 51.

125 Ministère des armées. Direction générale de l'armement. 'Développer la BITD française et européenne.'

126 Rademacher, Benoit, 'Les industries françaises de défense' (République française: Vie publique, 2022) (retrieved 13 April 2023), *https://www.vie-publique.fr/parole-dexpert/286199-les-industries-francaises-de-defense-par-benoit-rademacher*.

127 Mirallès and Thiériot, Rapport d'information, p. 101, 130–131.

128 République française, Revue stratégique de défense et de sécurité nationale, 2017, p. 68.

129 Rademacher, 'Les industries françaises'.

130 Ministère des armées, 'CaMo: Une coopération européenne inédite entre la France et la Belgique', *https://www.defense.gouv.fr/eurosatory/actualites/camo-cooperation-europeenne-inedite-entre-france-belgique*; République française, Loi No. 2023-703, p. 56.

131 See section 1.6 for the methodology behind the assessment of operational capability.

132 Assemblée nationale, Compte rendu de réunion No.8.

133 Ministère des armées, LPM 2024–2030, p. 101.

134 Mirallès and Thiériot, Rapport d'information.

135 Ministères des armées, Armée de Terre, 'Quartier général du corps de réaction rapide' (retrieved 31 October 2023), *https://www.defense.gouv.fr/terre/divisions/quartier-general-du-corps-reaction-rapide-france*.

136 Ministère des armées, LPM 2024-2030, p. 6; Ministère des armées, 'ORION – Les armées françaises démontrent leur capacité d'entrée en premier', 28 February 2023 (retrieved 19 December 2023), *https://www.defense.gouv.fr/operations/actualites/orion-armees-francaises-demontrent-leur-capacite-dentree-premier*.

137 République française, Loi No. 2023-703, p. 47.

138 Mirallès and Thiériot, Rapport d'information, p. 33.

139 République française, Loi No. 2023-703; Republique française, Programme 178. Préparation et emploi des forces, p. 12.

140 Tenenbaum, Élie, 'High-Intensity Warfare: What Challenges for the French Armed Forces?' Notes de l'IFRI, (Paris: IFRI, 2023).

141 Mirallès and Thiériot, Rapport d'information, p. 32-33.

142 Jacques, Jean-Michel, Rapport relatif à la programmation pour les années 2024 à 2030 et portant diverses dispositions intéressant la défense, No. 1234 (Paris : Assemblée nationale, 2023), p. 23.

143 France's Exclusive Economic Zone (EEZ) is the largest exclusive economic zone in the world; see 'Countries with the largest exclusive economic zones' (retrieved 13 December 2023), *https://www.worldatlas.com/articles/countries-with-the-largest-exclusive-economic-zones.html*.

144 Ministère des armées, LPM 2024-2030, p. 6.

145 Jacques, Rapport relatif à la programmation, p. 19.

146 Mirallès and Thiériot, Rapport d'information, p. 76; Jacques, Rapport relatif à la programmation, p. 86-87.

147 Assemblée nationale, Projet de loi relatif à la programmation militaire pour les années 2024 à 2030 et portant diverses dispositions intéressant la défense, No. 1033, p. 216–217.

12. The United Kingdom

Albin Aronsson

The United Kingdom is an island. This is often an underappreciated starting point for analysing the country's foreign, security and defence policy. For centuries, the primary aim of the UK's grand strategy has been to ensure that no single actor dominates the European continent.[1] This, taken together with its geographical position, contextualises many of the country's choices.

The UK is a major power in Europe and holds a permanent seat on the UN Security Council. Much of the country's strength and influence is rooted in playing a leading role in the creation of the existing international system and fostering an assertive strategic culture.

The country values having a nuclear deterrent, a modicum of readily available and competent conventional forces, and a consistent and respectable level of defence spending at two percent of GDP. It has long been accused, however, of displaying a significant gap between rhetoric and actual capabilities.[2] This is also the case in 2023: ambitions may outstrip capability. Nevertheless, it appears the UK is now more deliberately moving towards a force structure that reflects the country's strategic priorities.

12.1 Security and defence policy

The governing Conservative Party has attempted to define a new role for Britain since departing the EU, and in 2017 declared a new strategy of "Global Britain".[3] The slogan was buried in 2023, but the main ideas persist: the vision is of an essentially more actively engaged Britain that is more assertive in pursuing its interests, across the globe.[4] The Indo-Pacific tilt, a new policy announced in the 2021 strategy document, The Integrated Review (IR21), invited doubt from many allied European states. Allies questioned whether the UK could balance its constrained resources between the different theatres. In response, the government, in its 2023 strategy review (IR23), stressed that the UK considers Europe its 'core priority'. Furthermore, the government underlined that the Indo-Pacific move had been more of a foreign-policy focus and was less about defence.[5]

The Labour Party, which is ahead in the polls by the Autumn of 2023 and may win the next election, in 2025, believes the UK should focus even more of its attention on Europe. However, there is little evidence to suggest that the party would choose a drastically different route on security and defence, as the party has worked hard in recent years to strengthen its reputation in the policy area. Continuity on security and defence appears more likely than drastic change in the coming years.[6]

The US-UK relationship, the first pillar of UK policy, has been revitalised by the Russo-Ukraine war. London and Washington took the lead in revealing Russia's intent, delivering weapons to Kiev early on and providing extensive political support, and are likely to continue this. The 2021 AUKUS (Australia, UK and US) agreement, with submarine and other high-end technology-sharing, has also bolstered the 'special relationship'.

NATO is the second pillar of the UK's security policy, and the country needs NATO and other allies for deterrence and defence. In addition, any alternative would threaten to isolate the country from Europe in general and European security in particular. The UK wants to increase its commitment to NATO in the 2020s, especially through the alliance's new NATO Force Model (NFM), but it may be strained doing so, considering its many tasks and relatively limited resources. Relatedly, the relationship with France has improved, through the Lancaster House agreements updated in 2023, covering for example increased coordination of aircraft-carrier deployments and deepened armaments cooperation.[7]

The government views global security as dominated by "systemic competition between states" and believes this will define the 2020s. Russia is an "acute threat" and the UK has declared that Europe, particularly northern Europe, is the country's main priority in security and defence.[8] Previously, some observers identified Russian investments in London as impediments to stronger British action. This view has dissipated. Furthermore, due to its dialogue with Washington, the UK may try to claim more responsibility for European security in the years to come, as a way to relieve the US of its commitments in Europe so as to be able to focus on the Indo-Pacific.[9]

London's view of China has also become more hawkish. Although economic priorities have long dominated, the "securocrats"[10] have recently gained ground, while the government now views China as an 'epoch-defining

challenge.[11] The UK is nonetheless likely to continue to attempt a balancing act, as the government's view is that economic decoupling from China would be disastrous. [12]

The UK's strategic culture can be characterised as assertive. The country's political elite believes in a type of early-mover advantage, with its attendant need to assert one's strength at the outset of a confrontation.[13] The UK has historically been comfortable employing military force to achieve its political objectives, but Iraq, Afghanistan and Libya significantly soured this willingness.[14] However, a longer historical perspective reveals that many in the country's current political generation remember the Falklands War, from which the successful British response to the Argentine invasion provided a key lesson.[15] Moreover, the UK's history of prominence, its remembrance of the Second World War, and the country's support of Ukraine in 2022 serve to cement the existing assertive culture.

Britain in 2023 maintains armed forces designed for, and capable of, limited expeditionary missions, alongside the US. Few in Britain believe that the country is threatened with invasion, but, as a safeguard, for the defence of NATO, and for symbolic reasons, the government ensures that the UK's nuclear deterrent is modernised and effective. The development and state of the rest of the armed forces is mixed; in part, the forces have begun preparing for conventional high-intensity and existential Article 5 operations, in part less so. However, when contemplating a war scenario directly affecting NATO, one should not underestimate Britain's resolve nor will to act. The country's strategic culture compensates to a degree for a relative lack of military readiness and resources, a situation shared by all allies except, perhaps, the US.

In 2023, the armed forces were implementing the 2021 and 2023 defence reviews, called the Defence Command Papers (DCP21 and DCP23). In short, the DCP21 was meant to redesign the armed forces to operate better in so-called sub-threshold environments, by becoming lighter and more deployable. The forces were also meant to focus more on high-end technology and reduce force size, i.e., prioritise technical modernisation. The DCP23 had the opportunity to draw lessons from the attrition of the 2022 Russo-Ukrainian war, with its implications for mass in the British armed forces. However, the review essentially maintained its focus on modernisation, making no new promises on force construct. Moreover, the reforms announced in the DCP21 are well under way, while acquisition of major platforms is far along.[16]

The major security and defence challenge in the coming years is the economy, to ensure that sufficient funding can flow to the armed forces. A majority of the population, 66 percent, supports either maintaining defence spending at two percent of GDP, or increasing it. The public also has strong confidence in the armed forces and continues to support sending arms to Ukraine.[17] However, many questions revolve around whether the UK can adjust politically and economically to a reality outside the EU. The country's ability to ensure armed forces funding hinges on the country's ability to rectify the present challenging situation. Without improvement in the economy, and the implementation of some acquisition reform, the armed forces may continue to be hollowed out.

12.2 Military expenditures

The UK has long been in the top ten of defence spenders in the world. The political establishment values NATO's defence-spending target of 2 percent of GDP; there is no indication that this will change in the foreseeable future. The primary reason is the symbolic value that the target has for the US and NATO. Were the UK to drop below that level, many in government fear that the UK's international defence reputation would be damaged beyond repair. The UK is therefore likely to maintain spending at a level of at least 2 percent of GDP for the duration of the period covered by this report.

In current prices, the UK is expected to spend approximately USD 65 billion, or some 2.1 percent of GDP, on its armed forces in 2023. The same year, 30.7 percent was allocated to personnel, 28.6 percent to equipment, 2.5 percent to infrastructure and 38.2 percent to other expenses. The modest changes in the allocation of these sums over time can be followed in the Figure 2. The forecast for 2024–2028 is based on the assumption that the defence expenditure as share of GDP will remain at 2.1 percent. Hence, the changes in expenditure over the years reflect the GDP growth forecast.

Nonetheless, the armed forces have struggled to spend wisely. Its plans and ambitions have been too optimistic and plagued by mismanagement.[18] Critics both from within and outside the government have pointed to affordability gaps and systemically insufficient funding.[19] The government has acknowledged this and injected some extra cash in recent years, but it is difficult to predict the purchasing power of the additional funds.

The debate in 2023 revolves around how much the government should, and could, increase spending in the coming years, if only to afford the current force. The previous Prime Ministers, Boris Johnson and Liz Truss, announced a spending goal of 3 percent of GDP, but took no steps to implement it. The current government aspires to reach 2.5 percent, but has not provided a timeline. Out of the announced cash injection of 5

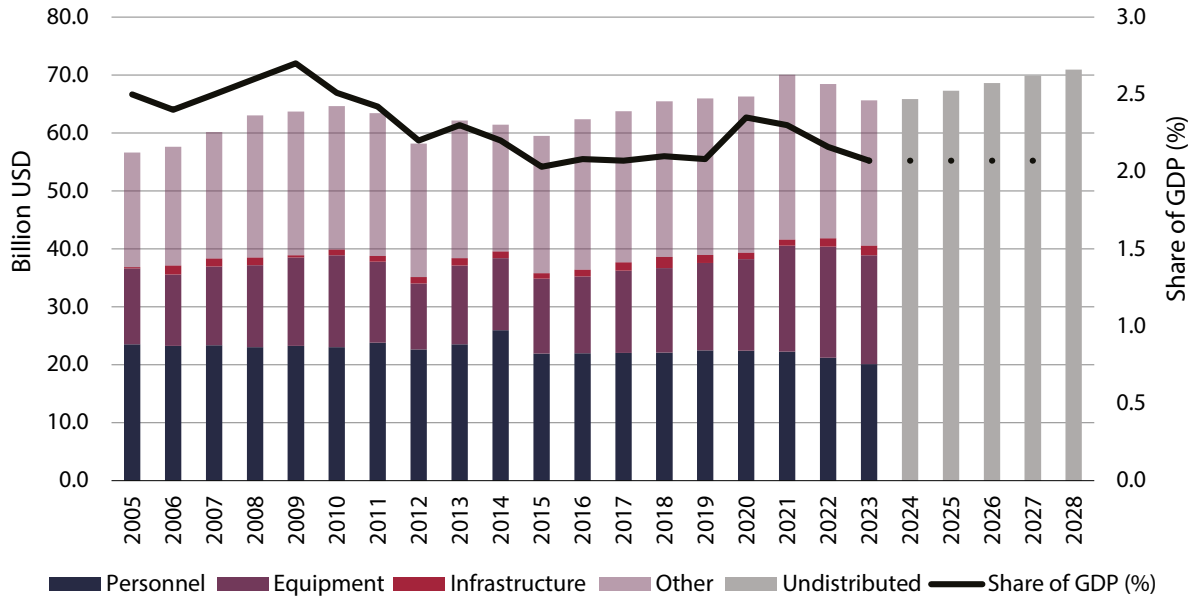


Figure 12.1 Military expenditures of the UK 2005-2028 in 2015 constant prices.
Sources/Remarks: NATO (2010, 2016, 2023). The forecast is based on the assumption that the share of GDP will remain the same as in 2023.

billion GBP, the rough equivalent of USD 6 billion, over two years, announced in March 2023, 3 billion GBP will be devoted to defence's nuclear enterprise, including AUKUS, and 2 billion GBP will be devoted to replenishing ammunition stocks sent to Ukraine.[20] There may be increased allocations to the rest of the armed forces in the next spending review, which is scheduled for 2025.[21]

The likelihood of the UK's reaching 2.5 percent of GDP mainly depends on two things: the country's threat assessment and its finances. If Russia were to gain ground in Ukraine, reconstitute its forces and increase its perceived threat potential to NATO, London would likely increase spending. Still, the country faces difficult economic challenges in the form of high inflation, unemployment and low growth. If the UK's economic situation does not improve, and barring an increase in the threat perception, the nominal spending ambition appears aspirational, at best. Notably, the goal of spending a given share of GDP could still be reached via low rates of economic growth, an achievement that could be politically important, but militarily insufficient.

12.3 Armed Forces

The armed forces' core missions are to protect the British people, the UK homeland and its overseas territories, and provide forces for NATO defence.[22] The armed forces employ around 135,000 full-time personnel in the regular forces, and some 38,000 in the reserves. All personnel are recruited on a voluntary basis. The force consists of three armed services, the Air Force, Navy and Army; each service has its own headquarters. The Chief of the Defence Staff (CDS) is the head of the armed forces and the government's main military advisor. As a strategic commander of operations, the CDS is supported by Strategic Command (StratCom), located in Northwood, close to London.

StratCom houses several subordinate commands, including the Permanent Joint Headquarters (PJHQ). PJHQ is responsible for joint military operations, both those that are UK-led and those where UK forces participate in multinational force contingents. PJHQ would command UK forces in a potential conflict situation in northern Europe. PJHQ also houses the standing Joint Force HQ, a deployable high readiness asset, and the Standing Joint Force Logistics Command.[23]

Army

The British Army employs approximately 76,000 full-time personnel, and is aiming to reduce force strength to 72,500, with reserves presently numbering some 30,000. The Army HQ is located in Andover, in south-west England; the Chief of the General Staff (CGS) leads the organisation. The Army is divided into the Field Army, responsible for generating and preparing forces for operations, and the Home Command, a support and enablement command.[24]

The Army's combat organisation is the Field Army, consisting of three divisions and one organisational unit, called the Field Army Troops, which includes the rapid response forces.

The 3rd division is an armoured division meant to be the primary formation for high-intensity combat. It is headquartered in Bulford, in Salisbury Plains.[25] It is the only UK division in 'continual operational readiness', which reflects the ambition that its components are generally complete, with respect to personnel and materiel; reasonably well-trained for its main tasks; and with mainly active duty personnel.[26] However, the UK has pushed back the date on which the division is meant to be available to NATO from 2025 to 2030, meaning the division is not at full operational readiness.[27] Nevertheless, the division's main manoeuvre units are two armoured brigade combat teams (ABCT) and one deep-reconnaissance strike-brigade combat team. The ABCTs include a regular mix of armoured and mechanised infantry battalions, as well as signals, artillery, engineering, medical, and logistics units. The recce strike-brigade combat team (BCT) is under development and is unlikely to be operational before 2028.

The 1st Division is a light and only partly mechanised division, with its headquarters in York. It consists of approximately 50 percent active duty and 50 percent reserve forces. The division is designed for crisis management and stabilisation operations outside the Euro-Atlantic area.[28] It is normally not held at operational readiness, as a whole.[29] The primary manoeuvre units are a light mechanised BCT and an infantry BCT. In addition, there are various specialist and support units, including a security-force assistance brigade.

The 6th division is described as a land special-operations force, primarily for use in so-called subthreshold conditions. It is headquartered in Upavon, in South West England, and consists mainly of two brigades: one Army special-operations brigade (ASOB) and one information-operations brigade (77th). The division also has its own integral intelligence capability, which is provided by an Intelligence Battalion. One of its purposes is to solve tasks previously assigned to Special Forces (SF), but also better integrate special operations and information operations capabilities.[30]

The 16th Air Assault Brigade Combat Team (16BCT) is based in Colchester, in South East England. The brigade headquarters is formed from both Army and RAF personnel, enabling it to integrate air and land operations. The 16BCT is the principal ingredient of the Army's newly formed Global Response Force. Its mission is crisis response, and the Army claims it is held at very high readiness.[31] The 1st Combat Aviation Brigade (1CAB) was formed in 2020 to support the Army, particularly the 16BCT, with aviation assets, with full operational capability expected by 2023.[32]

With respect to major equipment, the Army's main battle tank (MBT), the Challenger 2, has not received a significant upgrade since 1998. Of 213 tanks, the Army is upgrading 148 and will keep the rest as reserves. The upgraded tanks are scheduled for delivery to the Army by 2027.

The armoured infantry fighting vehicle, Warrior, a mainstay of the Army since the 1980s, will be replaced by the new wheeled Boxer vehicle, but full operating capability of the fleet is unlikely before 2030.[33] The Army is also procuring a new family of tracked armoured vehicles, called Ajax. However, Ajax has been beset by serious issues, and is delayed by over a decade.[34] At present, full operating capability is expected by the late 2020s.[35]

The Army has little heavy artillery, as the majority of its functioning AS90 self-propelled artillery pieces have been sent to Ukraine.[36] The MoD has procured 14 modern Archer pieces and plans to have them operational by April 2024. They will serve as a transition capability until the project on a Mobile Fires Platform comes into service, by the late 2020s or early 2030s.[37] The Army has approximately 30 units of the M270B1 MLRS system. It plans to upgrade it, double its inventory number, and acquire a new extended-range missile and the US's precision-strike missile.[38]

The largest capability gap may be the absence of a long-range air-defence system. The Army plans to acquire a new system of ground-based air defence, but a tender was released only in late 2022, and it is unclear which solution will be chosen. The UK also participates in the European Sky Shield Initiative, which is intended to improve air defence in Europe.[39]

Overall, recruitment does not appear to be a problem, but retention and morale may be larger issues.[40] The transitory phase the Army is currently in likely contributes to the generally low level of reported personnel satisfaction. Personnel appear unconvinced by both the substance of the changes and the communication surrounding them. Poor accommodation quality is also an issue.[41]

The Army is undergoing a significant transformation that will continue until at least 2028.[42] Generally, the Army aims to reduce force size, in order to prioritise modernisation. The reduction has been criticised, but some observers have also defended the decision on the grounds that having a larger but less capable Army, within the current budget, is not a good option.[43] The government's line is that it is readying the Army for the future.[44] Nevertheless, the process will inevitably divert focus from the present, which in turn negatively affects capability for 'tonight's fight'.[45]

Navy

The Royal Navy (RN) employs around 33,000 full-time personnel, and some 3600 in the reserve. The Navy Command HQ is located in Portsmouth; the First Sea Lord and Chief of the Naval Staff leads the organisation.

The Fleet Commander commands the five service arms, i.e., the Surface Fleet, Submarine Service, Fleet Air Arm, Royal Marines and Royal Fleet Auxiliary. The Navy Command includes a maritime operations centre within PJHQ, in Northwood.

The Navy has three main naval bases: Clyde, Devonport and Portsmouth. The home port for the submarines is Clyde; for the aircraft carriers, Portsmouth; while the rest of the Surface Fleet is divided between Portsmouth and Devonport. The Surface Fleet has around 60 vessels; the major surface combatants are aircraft carriers, destroyers, frigates and amphibious landing ships.

The two Queen Elizabeth-class aircraft carriers have both reached initial operational capability (IOC) in 2023. They are designed for global power projection and as an asset in the UK's role as a 'convening power'; for example, other countries can contribute forces to form a Carrier Strike group, to mutual advantage.[46] Questions remain over the carriers' capabilities, most prominently the number of available aircraft (F-35B). With a two-year delay at present, the Navy now plans to declare that the carriers have achieved full operational capability (FOC) by 2025.[47]

The Navy has six Type 45 destroyers, primarily intended for defending the fleet from aerial and surface attack.[48] In its current configuration, the class lacks land-attack capability, but the Navy has announced that it is purchasing the Naval Strike Missile (NSM), which can also be used on land targets. Reaching full operational capability on all destroyers, including a much-needed update of their propulsion systems, will require a few more years.[49]

The Type 23 frigate fleet is the Navy's workhorse. The now 12 vessels, down from the original 16 that were built, have served well beyond their original due date. Larger and more flexible frigates are entering service from 2027–28, with eight new ships of Type 26 and five of Type 31. They will have room for more weaponry and supplies and be appropriate for a broader range of missions than the Type 23. New armaments include an anti-air missile system, vertical launch systems, cruise missiles/anti-ship missiles, several guns, and advanced ASW-systems.

The Fleet also includes two amphibious assault ships that can carry up to 400 marines with their heavy equipment.[50] Both ships were commissioned in the early 2000s, have completed their refits and are scheduled to remain in service until 2033.

The Submarine Service operates six nuclear-powered attack submarines (SSN), including one old Trafalgar-class, and five Astute-class boats. Two new boats of the latter class are under construction and planned to become operational in the next 3–4 years.[51] Apart from torpedoes, the Astute class also carries land-attack cruise missiles. There have been reports that submarines have had limited availability, but little public information can be found.[52] The first Astute-class submarines will either require a life extension or be replaced in 2035. The SSN Replacement Project (SSN R) will become SSN-AUKUS, as the UK and Australia will cooperate to deliver a new class of SSNs to both navies in the late 2030s or early 2040s.

The Royal Marines (RM) has approximately 6,000 full-time personnel.[53] The 3rd Commando Brigade HQ, in Plymouth, is the force's umbrella command organisation; the main assets are three regular marine-infantry battalions, i.e., the 40, 42, and 45 Commando. One additional unit, 43 Commando, specialises in littoral and nuclear security. There are smaller and specialised units for raiding, ISR, artillery, logistics and engineering.[54] The Marines are reforming in order to operate in the additional role of a special operations-capable force (SOF).[55]

The Fleet Air Arm (FAA) operates the Navy's aircraft and employs approximately 5,000 personnel in two naval air stations, in Somerset and Cornwall. Its missions include anti-submarine warfare and transport for the fleet. The Merlin HC4 and the Wildcat AH1 helicopters are the workhorses of the rotary-wing fleet.

The Royal Fleet Auxiliary (RFA) provides naval support to military operations. Its assets include three Bay-Class amphibious landings ships, six tankers (three are currently available), a solid-support ship, and a casualty ship. The age and low availability of the single solid-support ship is a significant issue, and may prove a hindering factor in large-scale and long-range deployments.[56] The Navy has ordered three new ships in 2023, but they will not become operational until the early 2030s.[57]

As for personnel, the size of the regular force has been relatively stable for the last ten years, at 32,000 to 34,000. Overall, recruitment and retention of personnel have improved in recent years. It appears easier for the Navy to recruit and retain personnel, compared to the Army. This may be due to the priority given to the service, now that the wars in Iraq and Afghanistan are over for the British Army.

The Navy has been the greatest beneficiary of the defence reviews in recent years. However, a significant challenge in the near term is the situation before old major surface combatants are refitted and new ones become operational. The constant demand for a Navy at sea has to be balanced with the actual availability of vessels, particularly considering the government's goal of having a more deployed fleet.

In the years to 2030, the UK's shipbuilding enterprise, responsible for maintenance, modernisation and construction, may become increasingly stable, due to

the MoD's placement of several long-term contracts. Nevertheless, in the UK, ambition has often obscured the underlying problems and delays in final deliveries.

Air Force

The Royal Air Force (RAF) employs approximately 29,500 full-time personnel, and some 3,000 in the reserve. Air Command is placed at High Wycombe, west-northwest of London; the Chief of the Air Staff leads the organisation. The Air and Space Commander (ASC) is responsible for the conduct of air operations at home and overseas. The Air Command includes a national air and space operations centre as well as a deployable air component command.

The Royal Air Force is organised into five groups, Numbers (Nos.) 1, 2, 11, 22, and 83, which cover front-line operations, logistics and protection, command and control of air operations, training, and an expeditionary air headquarters. The service has 33 air stations of various sizes across the UK, including a few main operating bases and one ballistic-missile early-warning facility. The service also has four air stations overseas, in Cyprus, Gibraltar, and the Ascension and Falkland Islands.

The No. 1 Group is responsible for the vast majority of the RAF's front-line force elements, including the Combat Air Force; the Intelligence Surveillance, Targeting and Reconnaissance (ISTAR) Force; and the Air Mobility Force.

The Combat Air Force has 168 multirole combat aircraft, which includes 31 F-35B Lightnings, in two squadrons in East England (RAF Marham), as well as 137 Eurofighter Typhoon FGR4s, in two squadrons in East Midlands (RAF Conningsby), while four are in northern Scotland (RAF Lossiemouth). Both RAF Coningsby and RAF Lossiemouth are the UK's Quick Reaction Alert (QRA) stations, which protect its airspace.

In reality, the RAF only has around 100 Typhoons in active service; the platform's lifespan extends to 2040.[58] The MoD has so far ordered a total of 48 F-35Bs, which should all be delivered by 2025. The government had previously said it would order 138 of the new aircraft, but has since not committed to a number, stating only that it would buy more aircraft.[59]

The ISTAR Force presents the RAF with a modern fleet of relevant airborne capabilities. These assets include three modern RC-135W Rivet Joints and the additional ISTAR capability provided by both the UAV Reaper, which from 2024 is to be replaced by the Protector, and the Shadow R-1. In late 2022, the UK received the ninth and last of its new multirole maritime patrol aircraft, the P-8 Poseidon, while the fleet is currently working towards full operational capability. A significant gap is that the UK currently lacks its own Airborne Command and Control platform (AWACS), having retired its fleet of five E-3 Sentry aircraft in 2021.[60] Their replacement is now scheduled to arrive from late 2024, in the form of three new E-7A Wedgetail aircraft.[61] RAF Waddington, in East Midlands, is the main operating base for airborne intelligence aircraft and systems.

The Air Mobility Force operates approximately 30 heavy transport aircraft. The shifting quantity, mainly comprised of 21 Atlas C1 (A-400M) and 8 Globemaster C-17s, is due to the ability to rely on a fleet of 10 air-to-air refuelling (AAR) Voyager tankers that can occasionally also be used in a strategic air-transport role. The last of a previously large fleet of medium-transport C-130 Hercules aircraft was retired in June 2023. RAF Brize Norton, in South West England, is the home of the Air Mobility Force.

The RAF's operational tempo is high, but the combination of declining numbers of airframes with the many missions required have negatively affected the platform's availability. Reportedly, low levels of spare parts are worsening the situation. An important consequence is that fewer training hours are available; this especially affects the number of hours that need to be dedicated to realistic scenarios that are relevant to high-intensity warfare. Compared to other major European air forces, the RAF has a capable fleet of combat, ISTAR, and transport aircraft. However, the service struggles with overstretch, and the decline in aircraft numbers seems likely to continue in the coming years.

Another issue is the inadequate ammunition stocks for high-intensity warfare missions. This is particularly problematic in the event that the RAF were tasked to conduct SEAD/DEAD missions, as the little public information available suggests that there are low inventories of suitable weapons.[62] Additionally, the UK has gifted Storm Shadow cruise missiles to Ukraine, while the full operational capability of the SPEAR 3 cruise missile for the F-35s has been delayed to 2028.[63]

Regarding the number of regular personnel, there has also been a decline, around 20 percent during the last ten years.[64] The high operational tempo also strains the workforce. Partly as a result of this, retention and morale have suffered, and indications are that more aircrew, maintenance staff and especially experienced instructors are leaving than entering the service, even though public figures are not available for each of the specialised roles.[65] Morale even appears low among new pilots, as the RAF seems unable to provide them with adequate training.[66] Training relies heavily on flight simulators, due to limited airframe availability and budget constraints, which have also negatively affected the training of maintenance and logistics personnel.[67]

In sum, the RAF has several challenges it needs to handle. The most important is to define what role it wishes to play in the defence of Europe. To play a front-line role, for example to carry out SEAD/DEAD, it appears to need to focus more on high-intensity warfare. As a part of this, the service likely has not only to improve force availability and rectify some capability gaps, but also to adapt training, increase its efforts in retaining personnel for specialised roles, stock up on ammunition, and improve force protection.

Strategic Forces

The UK highly values its nuclear deterrent and has kept it at continuous readiness since the 1960s. The UK allocates its deterrent to NATO and participates actively in the Nuclear Planning Group.

The Defence Nuclear Organisation (DNO) is responsible for the nuclear deterrent, the large so-called Defence Nuclear Enterprise, including its facilities, and advises the government on nuclear policy. The DNO was created in 2016 and exists separately from the armed services and the Strategic Command. The UK's nuclear deterrence is a sovereign capability and the Prime Minister is the only person authorised to order a launch.

Since the late 1990s, the UK has only had a strategic nuclear deterrent and a single delivery system, the four Vanguard-class submarines (SSBNs), armed with Trident nuclear ballistic missiles, which the Navy manages. According to the Navy, one submarine is always on deterrence patrol, one is on standby, and another is engaged in training, while the remaining boat is undergoing maintenance.

The current SSBN class has been in service for over thirty years; there are reports that the current boats are strained.[68] The UK is replacing the current class with the new Dreadnought-class SSBN. The MoD plans to build four new submarines. Construction of the first three boats had begun by 2023.[69] However, the new SSBNs are not scheduled to enter service until the early 2030s. The UK and US are also collaborating on the design of an updated Trident submarine-launched ballistic missile (SLBM) and a new warhead.

The UK has drawn attention in recent years to its nuclear deterrent, and in 2021 announced an increase in its maximum number of warheads, from 225 to 260.[70] The reason for this increase is not public, but is likely driven by a need to increase the deterrent's overall credibility. The MoD's regular equipment budget carries the SSBN programme's cost, so that given that several reports indicate that the Defence Nuclear Organisation is under strain, it is unclear how much the current deterrent budget will need to be topped up over time.[71]

Joint assets

Strategic Command (StratCom) is the centralised command for the MoD's joint assets, and, apart from PJHQ, also houses the Directorate Special Forces, Defence Intelligence, Medical Services, the National Cyber Force and the Joint Force Development. Although space assets are located within RAF space command, StratCom is a joint asset.

The government considers that space is vital and it has high ambitions in this domain. In 2021, the MoD established UK Space Command, at RAF High Wycombe. The MoD has operated its own satellites for decades, but by 2025 the government aims to establish initial operating capability on an independent space-based ISR capability, for Space Domain Awareness, primarily through a low-earth-orbit constellation of satellites and ground-based installations.[72] Historically, the UK has overpromised and underdelivered in this domain, but with the decreasing costs of access to space, the government might be more successful this time.[73]

The Directorate Special Forces commands forces numbering approximately 2,000 personnel. The regular forces include one Special Air Service (SAS) regiment and the Special Boat Service (SBS), as well as supporting assets, such as signals and aviation. The British SF is considered highly capable, and has been noticeably expanded, as opposed to the rest of the armed forces, in recent years. In 2023, the force is believed to be adjusting to state threats and may have adopted a new concept that focuses on counterintelligence and counter-subversion, especially towards Russia.[74]

Defence Intelligence, within StratCom, employs approximately 4,000 people and cooperates closely with the other intelligence services (IS), i.e., the civilian intelligence agencies organised under the Foreign Office and the Home Office. The civilian agencies include the Secret Intelligence Service (SiS/MI6), Government Communications Headquarters (GCHQ), and the Security Service (MI5). Together with the Five Eyes countries, and especially the US, the UK enjoyed notoriety in predicting and warning the West of the Russian attack on Ukraine in 2022.[75]

The government has invested in its cyber capabilities in recent years. StratCom houses two elements of this. The Defence Digital unit runs defensive cyber operations for the UK and coordinates the domain within the MoD.[76] The National Cyber Force (NCF), a partnership between the MoD, SIS, GCHQ and Defence Science and Technology Laboratory (DSTL), runs cyber operations to counter hostile actors in various ways.

The UK possesses substantial offensive cyber capability, and has provided successful and appreciated cyber support to Ukraine during the war against Russia.[77]

Given the priorities of the DCP 2021, the evidence suggests that more investment and attention be given to cyber capability in the coming years, especially since the UK believes that it is a usable asymmetric advantage.

Military support to Ukraine

The UK supported training of the Ukrainian Armed Forces well before the war in 2022; it also began delivering weapons to Ukraine early, in the autumn of 2021, and has since attempted to maintain its momentum. London wishes to be first, or at least second behind the US, in taking the next step in the type of arms transferred, and has several times been the first to provide heavier weapons. As of October 2023, the financial value of its military assistance to Ukraine amounted to circa GBP 6 billion, and financed through the Treasury, not the regular MoD budget. The UK's commitment ranks third behind the US and Germany.[78] The arms involved have been a combination of British stocks and those bought by the UK from other countries and on the open market. Significant parts of the support have not been made public.

In the land domain, the UK has most prominently donated 14 main battle tanks (Challenger 2s), and at least 150 other armoured or protected patrol and reconnaissance vehicles.[79] On artillery, the UK has provided at least 30 155mm mobile howitzers, 14 MLRS, 20 self-propelled artillery systems, and 54 105mm light guns. On missiles and air defence, the UK has provided cruise missiles, anti-ship missiles, anti-tank missiles, AMRAAM rockets, and MANPADs. Other equipment includes several types of drones, small-arms munitions, helmets, body armour, night-vision devices, electronic-warfare equipment, counterbattery radar systems, GPS-jamming equipment, and loitering munitions.

London also initiated and assembled a coalition of countries to train Ukrainian forces in the UK and mainland Europe. The training, as of summer 2023, included tactical manoeuvres, basic firearms training, artillery, and tank training.

The UK lacks major quantities of many of the systems that it has sent to Ukraine, however, and it is unclear how much strain the training programme has placed on British forces. The Army has stated publicly that the provisions have temporarily made the service weaker.[80] With much of the support classified, it is difficult to produce a comprehensive assessment. Notwithstanding that, it is obvious that some assets that would be important in an Article 5 scenario, for example comprised of artillery and long-range precision engagement, will need time to replace. Also, it is indicative of the fact that, of the extra infusion of cash announced in the spring of 2023, 40 percent went to replenishing ammunition.

The trend, so far, of Ukraine's receiving arms provided by the British points to increased ambition, but the reality of dwindling supplies is a problem. The UK has dispatched an abundance of old equipment and supplies and will be receiving new systems in the years ahead. Despite this, it is unclear what capacity the UK has to replace the equipment sent, and to restock its own forces.

Personnel

The armed forces employ around 135,000 active-duty soldiers, sailors and airmen, and has reserves of approximately 38,000. The forces are generally regarded as well-trained and recruitment is on a voluntary basis.

The services face different situations with respect to personnel. The Army's ongoing reduction in force size, in conjunction with significant restructuring and the continued use of old equipment, have negatively affected morale. Recruitment has not been a problem in recent years, but it has to compensate for the retention issues and, in a challenging fiscal environment, the Army may not be able to increase salaries or other perks to convince people to stay.

The Navy is again in a better position. Outflow and inflow of personnel have improved and manning levels are thus stable. The cultural aspect, the perceived assurance of adventure in the Navy, will likely continue to play a positive role in the future.

The Air Force may be in the trickiest position. The service's numbers have declined considerably, and it is experiencing significant shortages of qualified and experienced instructors and specialists. The new pilot recruits are not trained on time, and morale appears low.[81]

The MoD is aware of its complicated personnel situation, and made the issue one of the 2023 defence review's priorities. The ministry is focusing its attention on three fronts: making careers more flexible, through horizontal recruitment and offering more mobility in portfolios and military specialities; reviewing the total compensation offered to people; and simplifying the internal personnel management system.[82]

Materiel

The three armed services differ also with respect to materiel. The Army largely has old, original equipment that has not been updated; their maintenance costs will continue to pressure the service, whilst its soldiers face continued risks, as their vehicles may not provide the needed protection and firepower. At the same time, the Army is transitioning to a vast array of new equipment, although

Table 12.1 Personnel and materiel in the UK Armed Forces

Personnel/Materiel	Numbers in 2023	Major reforms towards 2030
Personnel [(a)]		
Regular force (total)	134,900	
Army	75,900	Army to be reduced to 72,500 Full-Time Trained Strength.
Navy (incl. marines)	29,500	
Air Force	29,500	
Reserves	38,300	
Materiel [(b)]		
Tanks	213 Challenger 2	Ongoing upgrade of 148 tanks to Challenger 3 – planned Initial Operating Capability 2027.
Armoured combat/Fighting vehicles	669 (44 Ajax, 625 Warrior)	Warrior being replaced by Boxer mechanised infantry vehicle – IOC before 2030. 589 Ajax family of armoured infantry vehicles ordered, FOC by 2029.
Heavy artillery pieces	86 (57 AS90, 29 M270B1 MLRS)	14 Archer 155mm pieces acquired – planned IOC April 2024.
Air Defence	60+ (60 FV4333 w. Starstreak, CAMM/Land Ceptor)	CAMM/Land Ceptor/Sky Sabre – delivered 2021. Unclear number of units.
Attack Helicopters	47 (16 AH-64D, 31 AH-64E Apache)	AH-64D retiring, new AH-64Es entering service from 2022. Unclear FOC, but 50 have been purchased.
Surface combatants [(c)]	20 (2 aircraft carriers, 6 destroyers, 12 frigates)	Destroyers undergoing propulsion update (PIP). 8 new Type-26 frigates to enter service from 2028. 5 Type 31-frigates to enter service from 2027.
Amphibious assault ships	2	
Submarines	10 (6 SSN, 4 SSBN)	2 Astute-class SSN being built, will enter service continually to 2026. Trafalgar boat will be retired. End force goal: 7 SSN. New SSBN Dreadnought class being built, to enter service by 2030.
Combat aircraft	168 (31 F-35B, 137 Eurofighter Typhoon)	UK has committed to buying 48 F-35B – planned delivery by 2025. Committed to more aircraft, but no specific number.
Transport aircraft	29 (21 A400M, 8 C-17 Globemaster)	
Tanker/Airlift	10 Multi-role Tanker transport (MRTT, Airbus A-330)	The RAF can draw on four more A-330s from the 'surge-fleet'.

Sources/Remarks: (a) All personnel numbers are Full-Time Trade Trained Strength (FTTTS), unless otherwise stated, from Ministry of Defence, 'UK Armed Forces: Quarterly Service Personnel Statistics', 14 September 2023. **(b)** Materiel numbers are based on numbers from Ministry of Defence, 'UK Armed Forces: Equipment and Formations 2023', 21 September 2023. **(c)** Mine countermeasures vessels and support vessels are not included.

it will not become fully operational until 2027-2028 at the earliest.

The Navy's materiel base may become more stable in the coming years, as indicated by the several projects described in this study's naval section. However, the Navy's procurement process has been criticised, especially for producing an insufficient number of vessels in relation to the allocated resources and time. The Navy and MoD have produced new strategies and public announcements, but unless acted and followed through on, inefficiencies will continue to plague the material base.

The Air Force appears to be in a good position, in terms of quality. It has a modern and advanced fleet of aircraft, including fifth-generation fighter aircraft. However, the RAF continues to have rather few and exquisite aircraft, with little to no room for redundancy or attrition in a war scenario, while some significant capability gaps persist that would have to be filled by other actors.

The UK has a large, advanced and diversified defence industry. Eight of the world's top 100 arms-producing companies, such as BAE Systems, Rolls Royce, and Babcock International, are based in the country.[83] They produce equipment for both the domestic and international markets, helping to make the UK the world's seventh-largest arms exporter.[84] The companies produce systems for air, land and sea, including aircraft, main battle tanks, surface combatants, and submarines. The government published an ambitious new defence industrial strategy in 2021 and has increased its engagement with industry.

Nonetheless, the UK's defence industrial base has atrophied in the decades since the Cold War's end. Both government and industry have overly relied on lean production, just-in-time delivery, and a misplaced belief that industry could easily ramp up production in case of war. Moreover, the industry has a history of insecure funding, inefficiency, and workforce shortages. Taken together, these factors make a significant increase in production difficult.[85]

This situation has resulted in significant delays in large equipment programs and also low inventories of ammunition, across the board, from advanced precision-guided munitions to bullets.[86] In late 2020, the government had already signed a major contract with BAE Systems, the UK's largest ammunition-production company, to produce 39 types of ammunition.[87] More money has been allocated in order to replenish ammunition stocks, but the projected time needed to fulfil this seems to be longer than a decade.[88]

The MoD has formulated a plan to improve the situation. Overall, it intends to engage more and earlier with the defence industry in the acquisition process. The ministry also plans to implement acquisition reform through development and procurement of so-called modular platforms, which through an iterative process (or "spiral" development) would adapt the requirements and capabilities over time. Relatedly, it plans to set commitments to individual programmes at a maximum of five-years. Lastly, the MoD is identifying "sovereign requirements" for critical areas, such as munitions, and will try to secure stocks through multiyear commitments. Whether these steps will be successful, only future reports will be able to evaluate.[89]

12.4 Assessment of military capability

Current operational capability[90]

Britain is a major military power in Europe and prioritises the continent. The country possesses a wide range of capabilities, including aircraft carriers, fifth-generation fighters, ISTAR capabilities, and some capable land forces. However, the forces are partly hollow, spread thin across theatres, and have little redundancy, with serious questions surrounding the force's sustainability.

The country has attempted in recent years to create force multipliers through new concepts, leading formations, such as the Joint Expeditionary Force (JEF), and an emphasis on technology. The initiatives have also served somewhat to evade issues of mass and sustainability. Until seriously tested however, it is impossible to know whether these innovations can compensate for the lack of force size, timely modernisation, sufficient supplies and other time-tested military principles.

In a war in Europe affecting NATO, Britain would exert itself, however, to mobilise its forces to defend the alliance. In a scenario with three months' warning before major combat operations, the Army could likely mobilise forces as follows. The 3rd Division could likely muster at least one armoured brigade combat team (ABCT) and, at maximum, two such brigades, including supporting arms and services. The eFP contingent in Estonia would be part of this contribution. The 1st Division would complement the 3rd Division with personnel, lighter equipment and supplies. The ABCTs would likely be supported with 1-2 squadrons of attack helicopters, 1-2 air-assault battalions, from the 16th Air Assault brigade, and perhaps 1-2 Ranger battalions, from the 6th Division. Without more air defence, however, the Army would be vulnerable. In sum, the forces that could deploy for high-intensity operations within a three-month timeframe are probably less than half and possibly closer to a third of the Army's manoeuvre forces, with even more uncertainty with respect to combat support and combat-service support.

The Navy's contribution would depend on the mission. A force could be centred, for example, on a Carrier Strike group, a littoral response group (LRG), or some kind of JEF constellation. With three months' notice, the Navy could likely mobilise 1 aircraft carrier with 1 squadron of F-35Bs on board, perhaps complemented by 1 United States Marine Corps F-35B squadron. Uncertainties surround the destroyers, but a contribution would likely include 1–3 Type-45 ships. The Navy could likely only provide 3–5 frigates, based on low availability. The submarine service could likely gather 2 or 3 attack boats. The Royal Marines could likely contribute 1 or 2 battalions, including support assets, and could be moved on an amphibious assault ship. However, to support a deployment, the Navy would have serious issues. It could perhaps provide one solid-support ship, 1 or 2 tankers, and one casualty-evacuation ship. In sum, the Navy could probably make between one-third and half of its surface combatants and submarines available, complemented by some support vessels, within a period of three months.

As for the Air Force, the combat aircraft are estimated to have a relatively high availability. The F-35 fleet, however, is assessed as having few available and qualified pilots. A contribution within three months could include some 4-5 squadrons of Typhoons, and possibly one additional squadron of F-35Bs. On ISR, the service could likely contribute 1-2 squadrons of ASW/MPA aircraft (P-8, 4–6 aircraft), and one squadron of ELINT planes (RC-135, 1–3 planes). The transport-aircraft fleet's availability rates have varied, but the fleet is new and, given three months, the RAF could probably provide 1 squadron of the A400M (8–10 aircraft), 1 squadron of tanker/transport aircraft (A-330, 4–6 aircraft), and draw a few aircraft from the tanker surge fleet. In sum, the Air Force could probably have around half, possibly a bit more, of its combat and ISTAR aircraft available for high-intensity operations within three months. With respect to transport or tanker aircraft the availability seems lower at present.

On a joint level, the UK has niche capabilities. The PJHQ could probably command both UK and other forces, and the JEF headquarters could probably direct a JEF mission. The Allied Rapid Reaction Corps (ARRC) could contribute to commanding a NATO force constellation. The Special Forces could gather a few companies, including aviation, signals and logistics. StratCom would have at least one ballistic-missile submarine available. The UK could likely provide one defensive cyber unit, run by the National Cyber Force, and one offensive cyber unit, run by GCHQ.

The overall operational assessment is that the UK could provide a limited expeditionary force, consisting of a smaller land contribution, slightly more substantial air and naval forces, and niche joint capabilities. Similarly to most allied forces, except perhaps the US, UK forces would have serious issues with sustainability in a high-end conflict, however, and it would also have problems operating independently, without the support of partners, especially for certain capabilities, for any prolonged time.

Future operational capability

The armed forces have ambitious plans for the coming years, with the Russo-Ukraine war seeming to have rekindled the forces' sense of purpose and meaning, at least in the short term. However, future operational capability depends on the success of the coming years' implementation.

The Army is the most uncertain force. Its ongoing reorganisation and modernisation are negatively affecting its availability. For example, during the next decade, the service is replacing 35 of the current 38 platforms.[91] The 3rd Division's availability to NATO has also been pushed back to 2030, which is indicative of its state. In an optimistic scenario where the Army's reforms succeed, it might become smaller, modernised, and more capable. If the plans falter, the government might further lose faith in the service, and redirect even more funding towards the other services. The most likely scenario, and if recent history is any guide, is that in 2030 the Army will have some combination of highly modern equipment, but much of it will still be in the pipeline, having been delayed for various reasons. The force size is likely to be roughly equivalent to its current numbers.

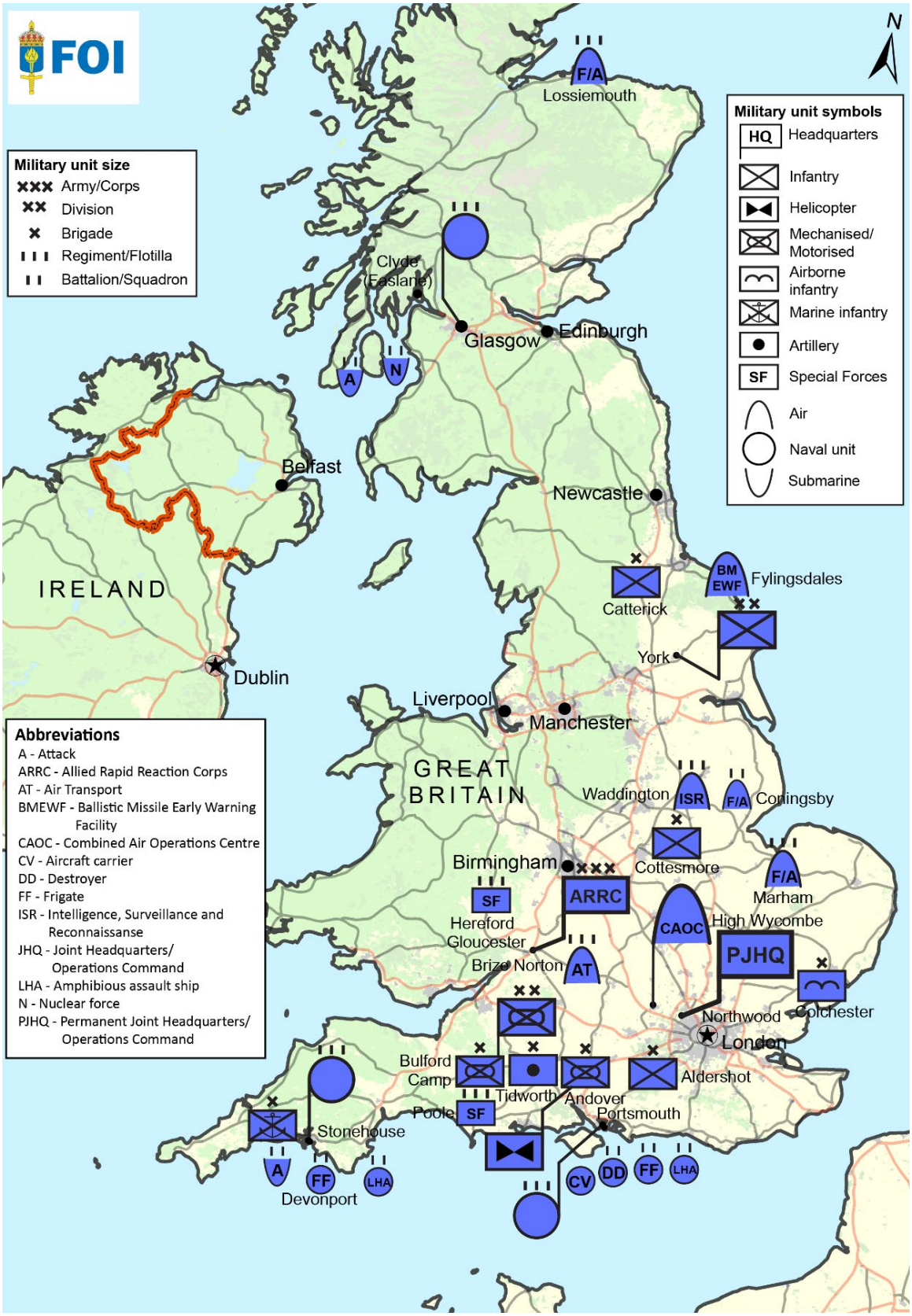
The Navy aappears to be making progress, but it also has challenges ahead. The 2023 force is unbalanced, with a few highly advanced ships, but significant maintenance shortfalls, coupled with the continued presence of many old vessels and weak logistical support. In the next five years, the government needs to assure the Navy that it will possess a sufficient number of F-35Bs to fulfil Carrier Strike missions. British shipbuilding needs to build the new frigates efficiently. Subsurface, the Navy will strengthen its attack-submarine capability with the finalisation of the two remaining Astute boats. Logistical support continues to be the most serious concern. The timely delivery of the new solid-support ships will be critical. The biggest risk for the Navy is that the money allocated proves insufficient to maintain the current platforms, at the same time as the even more advanced ships and boats are being built.

The RAF is on track to receive a number of more advanced planes, but will likely continue to suffer, with respect to retention of key specialist personnel roles, and it lags on training new recruits. In the next five years, it is particularly important for the service to plug the current capability shortfalls, cement its trajectory to redirect the service to high-intensity warfighting, and avoid overextending itself. More generally, the RAF needs to clarify its role in a potential conflict in northern Europe, and prepare accordingly. Unless it performs on these challenges, in the next five years the RAF risks becoming further stretched, with few but advanced aircraft, and little to no redundancy in materiel and personnel.

This chapter's final assessment is that the UK is moving towards a strategy, for a European context, of having substantial air and naval forces, complemented by niche joint capabilities, but with a smaller land force. Thus, in a future war in Europe, this is how the UK envisions its contribution, important but still with clear limitations and, like other European countries, dependent on close multilateral cooperation. ■

Table 12.2 Force structure of the UK Armed Forces

Force	Organisation in 2023	Major reforms towards 2030
Joint	Strategic Command (including Permanent Joint Headquarters, PJHQ) Allied Rapid Reaction Corps (ARRC) Special Forces (1 SAS regiment, 1 SBS regiment, 1 special recon. regiment, 1 helicopter wing, 1 signals regiment) Space Command (within RAF) (6 satellites: 2 Skynet-4; 4 Skynet-5) Joint Helicopter Command (Army: 2 regiments of 4 squadrons of Apache attack helicopters; 1 regiment for combat support. Navy: 1 attack squadron, 2 transport squadrons. Air Force: 5 transport squadrons)	Establishment of an independent space-based ISR-capability.
Army	1st infantry division (1 light mechanised infantry brigade, 2 infantry brigades, 1 engineering brigade, 1 logistics brigade, 1 military police brigade) 3rd mechanized division (3 mechanised brigades, 1 signals brigade, 1 logistics/sustainment brigade, 1 air-defence group) 6th combat support division (1 special operations brigade: 4 ranger battalions, 1 signals squadron, 1 info-operations brigade) 16th air assault brigade (2 parachute battalions, 1 air-assault battalion, support)	Integrated Force 2030, no figures provided by government, except that the Army will shrink to 72,500. 3rd Division to become a 'modernized warfighting division' by 2030. 16th Air assault brigade is forming the Global Response Force, together with the 1st combat aviation brigade.
Navy	3 naval bases (Surface fleet: 2 aircraft carriers, 6 destroyers, 12 frigates, 2 Landing Platform Docks. Submarine service: 6 SSN, 4 SSBN) Fleet auxiliary (4 tankers, 1 fleet replenishment ship, 3 landing-ship docks, 1 primary-casualty ship) Naval aviation (2 air stations, 20 squadrons in total) Marine infantry 3rd Commando brigade (3 battalions of light infantry)	Integrated Force 2030, no new figures provided by the government.
Air Force	Air Command (37 air stations: 33 in UK, 4 overseas) 8 fighter ground attack (FGA) squadrons (7 Typhoon, 1 F-35B) 2 squadrons ASW/MPA 2 squadrons tanker/transport 3 squadrons heavy transport 1 squadrons combat/ISR UAV (Reaper)	Integrated Force 2030, no new figures provided by the government.



Map 12.1 Overview of the UK Armed Forces and its basing.
Remarks: The map covers major operational headquarters and manoeuvre forces.
Source: Design by Per Wikström

Endnotes

1 Tombs, Thomas, This sovereign isle: Britain in and out of Europe (London: Allen Lane, 2021).

2 Self, Robert, Making British defence policy: Continuity and change (London: Routledge, 2002), p. 24–25.

3 Aronsson, Albin, Global Britain: Navigating between Europe and Indo-Pacific? FOI Memo 7710 (Stockholm: Swedish Defence Research Agency – FOI, 2021); Robinson, Timothy, Brooke-Holland, Louisa and Fella, Stefano, Global Britain, Commons Library Research Briefing (London: House of Commons, Library, 6 January 2021).

4 HM Government, Global Britain in a competitive age, March 2021; HM Government, Integrated review of security: Responding to a more contested and volatile world, 2023.

5 HM Government, Integrated review refresh 2023: Responding to a more contested and volatile world, p. 3, 7.

6 Interviews, London, June 2023.

7 Mills, Claire and Brooke-Holland, Louisa, UK-French Defence Cooperation: A Decade on from the Lancaster House Treaties, Commons Library Research Briefing (London: House of Commons Library, 15 March 2023), p. 21; Rickets, Peter, Hard Choices: What Britain Does Next (London: Atlantic Books, 2021), p. 217–222.

8 HM Government, Integrated Review Refresh, p. 40.

9 JEF activity may be indicative. Government Offices of Sweden, 'Joint Statement by JEF leaders'. Statement by Swedish Prime Minister, Ulf Kristersson, 13 October 2023.

10 For the division between economists and securocrats, see Rickets, Hard Choices, p. 170.

11 HM Government, Integrated Review Refresh, p. 3.

12 'Rishi Sunak's government quietly revives plan for China trade talks'. Politico, 16 October 2023.

13 Arnold, Ed, 'Global Britain Strikes Back', RUSI, 27 January 2022.

14 See, for example: Rickets, Hard Choices; Barry, Ben, Blood, Metal and Dust: How Victory Turned Into Defeat in Afghanistan and Iraq (London: Osprey Publishing, 2020); Report of a Committee of Privy Counsellors, The Report of the Iraq Inquiry, Executive Summary, 2016.

15 Garnett, Mark, Mabon, Simon and Smith, Robert, British Foreign Policy Since 1945 (London: Routledge, 2018), p. 199–204.

16 Interviews, London, June 2023.

17 Ipsos, 'Opinion split as to whether government spending on defence and the Armed Forces should be increased, decreased or stay the same', 7 October 2022; Smith, Matthew, 'One year on, how high is support for Ukraine in Britain?', YouGov, 24 February 2023.

18 A prominent example is the Ajax programme.

19 For more on the history of UK spending, see Aronsson, Albin, 'The United Kingdom,' in Hagström Frisell, Eva and Pallin, Krister (eds.), Western Military Capability in Northern Europe 2020 – Part II: National Capabilities, FOI Report, FOI-R--5013--SE (Stockholm: Swedish Defence Research Agency, February 2021).

20 HM Government, Integrated Review Refresh, p. 3.

21 To ensure continuity of funding, the UK has spending reviews every few years.

22 HM Government, Integrated Review Refresh, p. 33.

23 HM Government, Permanent Joint Headquarters, accessed: 28 April 2023.

24 Ministry of Defence, 'Who We Are: Command Structure, What We Do', accessed: 17 May 2023.

25 British Army, 'What We Do', accessed: 17 May 2023.

26 British Army, '3rd (United Kingdom) Division', accessed: 17 May 2023.

27 British Army, Future Soldier Guide, 2021, p.14.

28 British Army, Future Soldier Guide, p. 37.

29 Ministry of Defence, Defence in a Competitive Age, March 2021, p. 68.

30 British Army, '6th (United Kingdom) Division', accessed: 2 October 2023; British Army, Future Soldier Guide, p. 69–73.

31 British Army, Future Soldier Guide, p. 76.

32 British Army, '1st Aviation Brigade Combat Team', accessed: 21 April 2023.

33 HM Government, '100 extra Boxer vehicles for the British Army', 8 April 2022; House of Commons, Defence Committee, Obsolescent and Outgunned: The British Army's Armoured Vehicle Capability, 9 March 2021.

34 Brooke-Holland, Louisa, Ajax: The British Army's troubled armoured vehicle programme, House of Commons Library, 31 March 2023.

35 UK Parliament, 'Ajax Payments Update', 20 March 2023.

36 Arkin, William M., 'Read the Leaked Secret Intelligence Documents on Ukraine and Vladimir Putin', Newsweek, 16 April 2023.

37 HM Government, 'British Army announces new artillery deal with Sweden', 16 March 2023.

38 British Army, 'Upgrades to Multiple Launch Rocket Systems Strengthen Deep Fires Capability', accessed: 2 October 2023.

39 NATO, '14 NATO Allies and Finland agree to boost European air defence capabilities', 13 October 2022.

40 Ministry of Defence, 'UK Regular Armed Forces Continues Attitude Survey Results', 2022.

41 Brooke-Holland, Louisa, Armed forces family housing: Maintenance issues, House of Commons Library, 2 February 2023.

42 Ministry of Defence, Defence in a Competitive Age, March 2021; British Army, Future Soldier Guide, 2021.

43 House of Lords, International Relations and Defence Committee, UK defence policy: From aspiration to reality?, 1st Report of Session 2022–2023, p. 41–42.

44 Hicks, Kathleen H. 'Defence Strategy and the Iron Triangle of Painful Trade-offs', Center for Strategic and International Studies, 22 June 2017.

45 Posen, Barry R., The Sources of Military Doctrine: France, Britain, and Germany between the World Wars (London: Cornell University Press, 1984), p. 30–31.

46 Ministry of Defence, 'UK and France commit to greater defence cooperation at Paris summit', 10 March 2023.

47 'Building up the Lightning Force – When will the UK get its F-35 jets?', Navy Lookout, 14 September 2022.

48 Royal Navy, 'Sea Viper's added bite in £300m upgrade for RN destroyers' main weapon,' 24 May 2022.

49 Ozberk, Tayfun, 'Royal Navy begins NSM Anti-ship Missile Upgrade On Type 23 Frigate', Naval News, 31 January 2023; Martin, Tim, 'UK Navy selects Naval Strike Missile for much needed surface fleet protection', Breaking Defense, 28 November 2022; 'The Royal Navy's type 45 destroyers – Status report', Navy Lookout, 13 February 2022.

50 Royal Navy, 'Albion Class', accessed: 26 April 2023.

51 'In focus: Royal Navy submarine special forces delivery systems', Navy Lookout, 23 April 2019.

52 House of Commons, Defence Committee, "We're going to need a bigger navy", Third Report of Session 2021–2022, 7 December 2021, p. 42.

53 FTTS (Full-Time Trained Strength), Ministry of Defence, Armed Forces Quarterly Personnel Statistics, 1 October 2022; additionally, the service is estimated to have approximately 1,000 untrained personnel, but the MoD does not release these figures publicly; 'Marines: UK vs US – Bootnecks versus leathernecks', Forces.Net, 9 November 2021.

54 Royal Navy, 'Royal Marines', accessed: 26 April 2023.

55 'Watch: What is the Future Commando Force?', Forces.net, 23 March 2021.

56 'Navy struggling to keep RFA Fort Victoria operational', Navy Lookout, 19 May 2023.

57 Royal Navy, 'RFA to get three new replacements for Fort Victoria as £1.6bn deal signed', 18 January 2023, accessed: 2 October 2023.

58 Ministry of Defence, UK Armed Forces Equipment and Formations 2023, Table 7 (Excel file). 'In service' is interpreted as the aircraft are in any state of readiness.

59 Interviews, London, June 2023.

60 Ministry of Defence, 'UK Armed Forces Equipment and Formations 2023, Table 9 (Excel file).

61 Barrie, Douglas and Childs, Nick, 'UK Airborne Early Warning Little to Crow About', IISS, 16 December 2022; Thomas, Richard, 'UK airborne early warning capability gap widens', Airforce Technology, 29 November 2022.

62 Bronk, Justin, 'Getting Serious About SEAD: European Air Forces Must Learn from the Failure of the Russian Air Force over Ukraine', RUSI, 6 April 2022.

63 Royal Navy, 'Royal Navy rows back on plans to acquire new anti-ship missiles before 2030s', 4 November 2021.

64 Ministry of Defence, UK Armed Forces Quarterly Service Personnel Statistics, 1 October 2022.

65 The last major report on this issue was published in 2018. See National Audit Office, Ensuring sufficient skilled military personnel, 18 April 2018, p. 18–25; Bronk, Justin, Regenerating Warfighting Capability for European Air Forces, Whitehall Reports London: RUSI, 22 February 2023.

66 Richard, Thomas, 'UK military pilot training in limbo for beleaguered RAF,' AirForce Technology, 7 November 2022; Salisbury, Emma, 'Flying desks, not planes: the backlog in British Fast Jet Pilot Training', War on the Rocks, 7 June 2023.

67 Bronk, Regenerating Warfighting Capability.

68 Grylls, George, 'Ageing nuclear submarine breaks record for longest patrol', The Times, 12 September 2023.

69 Saballa, Joe, 'UK begins construction of Dreadnought ballistic missile submarine', The Defense Post, 10 February 2023.

70 HM Government, Global Britain.

71 Mills, Claire, Replacing the UK's Strategic Nuclear Deterrent: Progress of the Dreadnought Class, House of Commons Library, 22 September 2022.

72 Ministry of Defence, Defence Space Strategy: Operationalising the Space Domain, Policy Paper, 1 February 2022, p. 31–33; Barrie, Douglas, 'UK Defence Space Strategy's orbital ambitions', IISS, 11 February 2022.

73 Barrie, 'UK Defence Space'.

74 Anglim, Simon. 'British Special Forces in the 2020s: Still A National Asset'. Military Strategy Magazine, vol. 7, issue 1, Spring 2020, p. 43–51.

75 Five Eyes is an intelligence-cooperation agreement between the US, UK, Australia, Canada, and New Zeeland.

76 HM Government, 'Defence Digital', accessed: 28 April 2023.

77 Haynes, Deborah, 'Ukraine war: British spies playing key role in defending Kyiv from Russian cyber attacks', Sky News, 1 November 2022.

78 Trebesch et al.'The Ukraine Support Tracker', Kiel Institute, accessed: 25 October 2025.

79 The patrol and reconnaissance vehicles include at least 20 CVR(T) Scimitar, 47 Mastiff 6-wheeled mine-resistant patrol vehicles, 12 Wolfhound MRAPs, and Bulldog APCs.

80 'Ukraine: Military hardware donations weaken Army – UK chief', BBC, 16 January 2023.

81 Salisbury, Emma, 'Flying desks, not planes: The backlog in British fast jet pilot training', War on the Rocks, 7 June 2023.

82 Ministry of Defence, Defence's response to a more contested and volatile world, July 2023; Haythornthwaite, Rick, Agency and Agility: Incentivising people in a new era – A review of UK Armed Forces incentivisation, Ministry of Defence, June 2023.

83 Olsson, Per, Dalberg, Sanna and Junerfält, Tobias, Defence Industrial Outlook: A Global Outlook with a Special Focus on the European Defence Fund, FOI-R report, FOI-R--5333--SE (Stockholm: Swedish Defence Research Agency, October 2022).

84 Wezeman, Pieter D., Gadon, Justine and Wezeman, Siemon T. 'Trends in International Arms Transfers, 2022', SIPRI Fact Sheet, SIPRI, p. 2.

85 Taylor, Trevor, 'Implications of the Ukraine War for UK Munitions Supply Arrangements,' RUSI, 19 April 2023.

86 House of Commons, Defence Committee, Special Relationships? US, UK and NATO, Sixth Report of Session 2022–2023, 28 February 2023, p.28–31;

87 HM Government, '£2.4-billion munitions deal secures thousands of UK jobs', 30 November 2020.

88 House of Commons, Special Relationships?, p. 28, para. 86.

89 Ministry of Defence, Defence's response to a more contested and volatile world, July 2023, p. 37–43.

90 See section 1.6 for the methodology behind the assessment of operational capability.

13. United States

Björn Ottosson

The US, as the world's sole superpower, maintains global interests and possesses the most capable military force, with unmatched power projection. Nevertheless, among US policymakers, there is a growing acknowledgment that US primacy is being increasingly challenged, especially by China as the long-term geopolitical challenge and with Russia perceived as an acute near-term threat. The US has shown robust support for Ukraine and reinforced NATO's eastern flank. However, from the US standpoint, the war in Ukraine has exposed Russia's strategic limitations. The geopolitical rivalry is expediting the Joint Force's shift from counterinsurgency to addressing near-peer threats. The strategic allocation of the US's vast yet finite resources between the European and Indo-Pacific theatres is pivotal for future European security.

13.1 Security and defence policy

Domestically, the intense party polarisation that accompanied the Trump Presidency persists under President Biden, impacting public discourse and policy. Trust in US institutions among the American people is at record lows, and confidence in the US Armed Forces, also referred to as the Joint Force, has dropped precipitously in recent years. The Joint Force is facing significant challenges, including an unprecedented recruitment crisis, marked by record-low figures. Concurrently, several aging legacy systems are operating beyond their service lives, necessitating replacement. The Department of Defense (DOD) prioritises modernisation over capacity, focusing on next-generation systems, including the nuclear triad. The combination of these factors has led to a situation where the Joint Force is shrinking.

The 2022 National Security Strategy (NSS) of the Biden Administration exhibits significant similarities to its predecessor from the Trump administration. Both acknowledge a return to geopolitical rivalry, where strategic competition, not terrorism, is the primary concern. China is identified as the only competitor with the intent and economic, diplomatic, military, and technological power to reshape the international order and is singled out as the pacing threat in strategic guidance documents. Additionally, it is recognised that US domestic and foreign policies are interconnected and should be addressed through an integrated approach.

Nonetheless, distinctions from the previous strategy exist, and akin to those of past Democratic administrations, Biden's broadens the definition of US national interest, prominently incorporating climate change. US strategies usually put forth highly ambitious and idealistic goals, and the Biden Administration´s goal of a "secure" world order free from "aggression, coercion, and intimidation" aligns with that tradition.[1]

This idealistic rhetoric, an element deeply ingrained in modern American political culture, complicates the reduction of commitments and creates an uneasy tension between ambitious goals and available means. When forced to scale back, Presidents often emphasise arguments about non-entanglement and the limits of US power, another element of American political culture. Together, this creates a familiar ebb and flow, and numerous scholars regard the dualities between idealism and power politics and isolationism and globalism as fundamental categories in understanding US behaviour.[2]

The Biden Administration acknowledges the multidimensional competition with China and Russia, individually and combined. Recognising that US adversaries use whole-of-government approaches and are comfortable operating below the threshold of armed conflict to advance their interests, the administration's 2022 National Defense Strategy (NDS) introduced three means (or "ways," as it calls them) for advancing its goals, Integrated Deterrence, Campaigning, and Building Enduring Advantages.[3] "Integrated deterrence" is intended as a strategic approach that aims to generate advantages by synchronising operations across warfighting domains, theatres, the spectrum of conflict, instruments of national power, agencies, the private sector, and allies and partners.

With its notion of "campaigning," the NDS indicates that this is a way to advance US priorities through sequencing of defence initiatives, creating conditions to deter conflict and, if necessary, prevail across the spectrum of conflict. Additionally, its third imperative, "building enduring advantages," was advanced as a means to shore up integrated deterrence and campaigning and further the strategy's overarching goals. It emphasises the modernisation of the systems comprising the Joint

Force, with a focus on innovation, rapid adjustment to new demands, deliberative investments in technology and people, and the strengthening of the defence ecosystem, including the defence industrial base.

The US leads in supporting Ukraine and is by far the largest provider of security assistance. With over 20,000 additional troops positioned to reinforce NATO's eastern flank and deter Russia, the total number of US servicemen deployed or permanently stationed in Europe by late 2023 surpassed 100,000. While there is strong political support for US assistance, public backing has been waning as the war drags on, particularly among Republican-leaning voters. This decline has translated into sliding Republican support in the House of Representatives. The US commitment to Ukraine is also driven, in part, by the goal of deterring China and serves as a demonstration of integrated deterrence.

The ideas behind integrated deterrence and campaigning are not novel; the Joint Force has been reorienting towards great-power competition for years. In 2015, the policy of being prepared to fight and win two major regional wars was abandoned for a "one major conflict 'plus'" construct. According to NDS 2018, the fully mobilised Joint Force should be capable of "defeating aggression by a major power; deterring opportunistic aggression elsewhere; and disrupting imminent terrorist and WMD threats."[4]

The NDS of 2018 introduced Dynamic Force Employment (DFE) and the Global Operating Model (GOM), which are important foundations for the use of the Joint Force as well as force development. The DFE aims at proactively shaping the security environment through identifying strategic opportunities and more flexible and operationally unpredictable force deployment, while at the same time maintaining capacity to respond to contingencies and ensure long-term warfighting capability.[5] The GOM is structured around four functional and mutually reinforcing layers, providing a framework for posturing and employing forces across the conflict spectrum. The four layers – Contact, Blunt, Surge, and Homeland Defence – outline the roles for the Joint Force and, respectively, how to compete effectively below the level of armed conflict: delay, degrade, or deny adversary aggression; surge war-winning forces and manage conflict escalation; and defend the US homeland.[6] The GOM significantly shapes Joint Force capability development by generating substantial demand signals. In recent years, the Joint Chiefs of Staff have laid the intellectual foundation for the Joint Force's transition to address great-power competition across the conflict spectrum consistent with national and defence-level strategic guidance.[7] Following the NSS and NDS, in 2022, a new National Military Strategy (NMS) was signed, emphasising the imperative to 'Adapt now, or lose later' and elaborating on the idea of integrated deterrence.[8] The continually updated Joint Warfighting Concept (JWC) outlines a new American way of war – "All Domain Operations": its four tenets are joint fires, Joint All Domain Command and Control (JADC2), contested logistics, and information advantage.[9] In the fall of 2023, the JWC 3.0 was converted into approved doctrine for Joint Warfighting, initiating implementation across the Joint Force.[10] Several other concepts, including the Joint Concept for Competing, released in 2023, will provide further guidance for near-term changes to joint doctrine and force development.[11]

The shift towards great-power conflict and strategic competition is underway, but structural uncertainties stemming from party polarisation cast doubt on the prospects for a stable long-term foreign and security policy. The president-centric nature of the US foreign policy system, coupled with the upcoming 2024 presidential elections, add to the uncertainties about the US's future role in the world. Despite these challenges, shared threat perceptions and strong bipartisan and institutional support for high levels of defence spending, the nuclear deterrent, and primacy all serve as stabilising factors for US security and defence policy.

13.2 Military expenditures

The US maintains its position, globally, as the country that spends most on its armed forces, accounting for nearly 40 percent of worldwide expenditures. US spending levels exceed the alliance's guidelines, roughly double the combined expenditures of all the other member states. While military expenditures decreased during President Obama's tenure, largely due to the Budget Control Act of 2011, which imposed statutory limits on discretionary spending from FY2012 to FY2021, including separate annual limits for defence, under President Trump spending increased and has continued to rise under President Biden.

Adjusting for inflation, expenditures projected for US national defence in FY2024 are higher than the Cold War-era military buildup under President Reagan and slightly lower than during the height of post-9/11 operations in Iraq and Afghanistan.[12] It is estimated that in 2023, the US allocated USD 743.3 billion for defense, in fixed 2015 prices, or USD 860 billion at current prices.[13] As a share of GDP, the level amounts to 3.5 percent. The estimated allocation entails that about 28 percent went to personnel expenses, 29 percent to equipment, 1.5 percent to infrastructure and 41.5 percent to other.[14] The forecast for 2024 to 2028 assumes that military expenditure will have the same share in terms of GDP

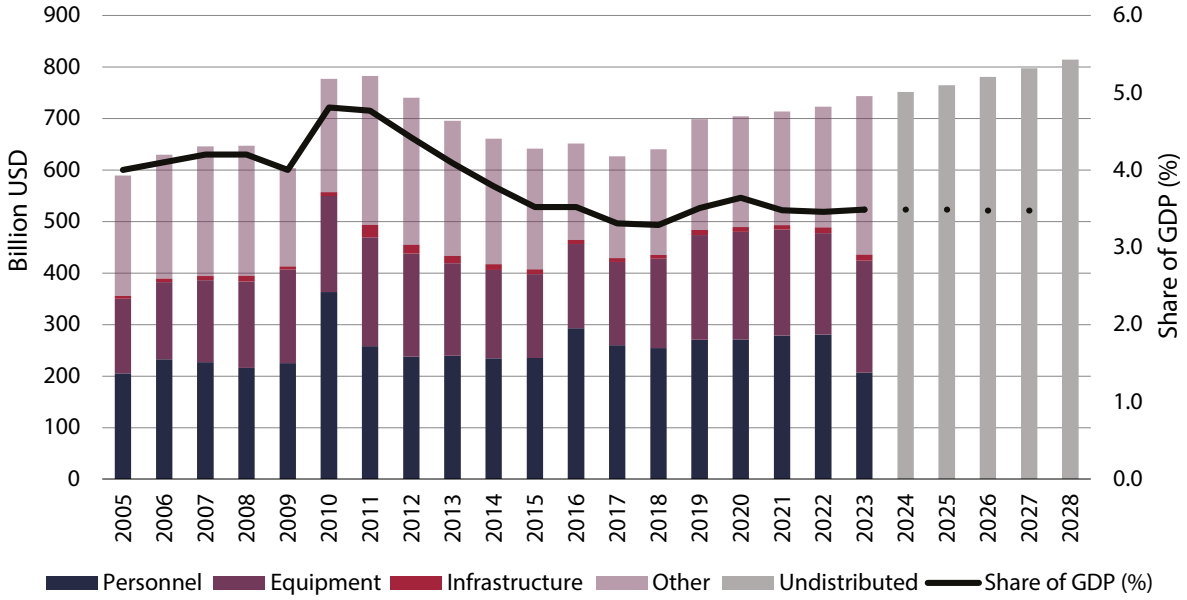


Figure 13.1 Military expenditures of the US 2005-2028 in 2015 constant prices
Sources/Remarks: NATO (2010, 2016 and 2023). The forecast assumes that the share of GDP will remain the same as in 2023.

as in 2023. Therefore, the increase shown in the graph is the real GDP growth rate, as estimated by the IMF.

The DOD FY24 Budget Request is USD 842 billion. Disaggregated, the Army requested 165.6 billion, or almost 20 percent; the Air Force about 171 billion, or 20.4 percent; the Navy almost 203 billion, or about 24 percent; the USMC about 53 billion, or 6.3 percent; the Space Force, about 30 billion; USSOCOM, 14 billion; the Army and Air National Guard, 33 billion; the Missile Defense Agency, 11 billion; the Defense Health Program about 39 billion; and about 78 billion for defence-wide spending.[15]

The reorientation towards great-power conflict is evident in recent defence budgets, and lessons from the war in Ukraine and wargames involving a potential Taiwan contingency are noticeable. For instance, the FY24 budget requested a 24 percent funding increase, or USD 30.6 billion, for the acquisition of missiles and other precision-guided munitions, and authority for using multiyear procurement contracts (MYP) and initiating a pilot programme (Large Lot Procurement, LLP) for their procurement.[16]

The Congressional Budget Office (CBO) projects that federal spending will continue to exceed revenues. To what extent pressures to reduce the federal deficit will affect future defence-budget plans is an open question. There is strong bipartisan support for a high level of defence spending, but during previous periods of widening gaps between expenditures and revenues, Congress has occasionally enacted legislation to reduce the deficit by limiting it.

13.3 Armed Forces

The US Armed Forces consists of the Army, Navy, Air Force, Marine Corps (USMC), Space Force, and Coast Guard.[17] The Army, Navy, and Air Force are separate military departments. The USMC falls under the Department of the Navy, while the Space Force is under the Department of the Air Force. Each service has a unique mission within the broader goal of US security.[18]

The operational chain of command extends from the President to the Secretary of Defence to commanders of combatant commands. The Chairman of the Joint Chiefs of Staff advises the President and Secretary of Defence on potential courses of action. There are currently 11 joint or unified combatant commands, responsible for command and control of US military forces during operations, organised based on either geographical areas, referred to as Area of Responsibility (AOR), or functions such as special operations, strategic deterrence, transport, and cyber operations. The Unified Command Plan provides basic guidance to all unified combatant commanders, including missions, responsibilities, and force structure. It designates AORs for the seven geographical commands, and outlines responsibilities for the four functional commands.[19]

The US military presence in Europe is substantial, fielding two primary types of forces: permanent and rotational. The former refers to the approximately 74,000 US personnel who live in Europe and are assigned to the combatant command for Europe, the US European Command (EUCOM), headquartered in Stuttgart, Germany.[20] These forces include 34,000 Army personnel; 27,000 Air Force personnel; 10,000 Navy personnel; 3,000 Marine Corps personnel, and a small number of Special Operations Forces (SOF).[21] As a response to Russia's invasion of Ukraine in 2022, the rotational forces were combined with the additional deployments intended to augment deterrence and defence, raising the total US force posture in Europe to approximately 100,000.[22]

Army

The US Army consists of two distinct components: the active and the reserve. The latter includes the Army Reserve and the Army National Guard. The Army's active end strength is undergoing a dramatic decline due to substantial recruiting challenges, reaching around 465,000 in FY22 against the authorised 485,000.[23] The FY24 budget request aims for 452,000 in the active component, 325,000 in the Army National Guard, and 175,000 in the Army Reserve.[24] In 2023, the active component had 31 Brigade Combat Teams (BCTs) and 11 Combat Aviation Brigades (CABs), while the Army National Guard maintains 27 BCTs and 10 CABs. The Army Reserve, primarily composed of support units, retains two CABs.[25]

US Army Europe and Africa (USAREUR-AF), headquartered in Wiesbaden, Germany, has numerous bases and subordinate headquarters throughout Europe. The most important permanent commands are the newly established V Corps, the 56th Artillery Command, the 10th Army Air & and Missile Defense Command (10th AAMDC), the 7th Army Training Command (7th ATC), and the 21st Theater Sustainment Command (21st TSC).

The US V Corps, with its main HQ in Fort Knox, Kentucky, has deployed a Forward Command Post (FCP) in Poznan, Poland; these are the first permanent US forces on NATO's eastern flank.[26] The FCP has provided command and control for both US and allied land formations in Eastern Europe since late 2021. Subordinate units include the 2nd Cavalry Regiment, which is a mechanised brigade or Stryker BCT based in Vilseck, Germany; the recently reactivated 41st Field Artillery Brigade, equipped with Multiple Launch Rocket Systems, based in Grafenwöhr, Germany; and the 12th Combat Aviation Brigade (AH-64D-E attack helicopters), based in Ansbach, Germany. The V Corps also leads NATO's enhanced Forward Presence Battle Group Poland.

The 56th Artillery Command, or Theater Fires Command, headquartered in Wiesbaden, Germany, serves as the Force Field Artillery Headquarters. It coordinates the employment of joint, multinational, and multidomain fires and effects in support of the Land Component Commander. Wiesbaden is also home to the newly established 2nd Multi-Domain Task Force, designed to integrate US capabilities, and comprising a headquarters element; an intelligence, cyberspace, electronic warfare, and space detachment; and a brigade support company.[27]

The 10th Army Air & and Missile Defense Command, based in Kaiserslautern, Germany, is USAREUR's command for all theatre air and missile defence operations and force management. In October 2022, the Army activated the 52nd Air Defense Artillery Brigade under the 10th AAMDC, enhancing tactical command and control for all Army air and missile defence forces in the EUCOM AOR, including coordination with allies. Subordinate units include the 5th Battalion, 4th Air Defense Artillery (M-SHORAD on Stryker); the 5th Battalion, 7th Air Defense Artillery (Patriot PAC-3); the 11th Missile Defense Battery (THAAD); and the 13th Missile Defense Battery (THAAD).

The 7th Army Training Command, based in Grafenwöhr, Germany, ensures the training and readiness of all USAREUR-AF assigned and allocated forces across EUCOM's AOR. Additionally, it supervises the EUCOM-directed Combat Training Center development efforts with partner nations.[28]

The 21st Theater Sustainment Command, overseeing various subordinate units, commands sustainment operations across the European theatre for EUCOM and NATO.[29] Supporting organisations within USAREUR-AF include the 2nd Theater Signal Brigade, 66th Military Intelligence Brigade, 598th Transportation Brigade, and the US Army Corps of Engineers.

The 173rd Airborne Brigade, in Vicenza, Italy, serves as the US Army's Contingency Response Force in Europe.[30] Army Special Operations Forces (SOF) are also permanently assigned to EUCOM, with the 10th Special Forces Group's 1st battalion based in Stuttgart, Germany. The unit operates within Special Operations Command Europe (SOCEUR), alongside air, navy, and signals units. The Commander of EUCOM exercises operational control over SOCEUR and all special operations in the AOR.

Since Russia's annexation of Crimea in 2014, the DOD increased rotations of temporary forces in and out of EUCOM's AOR, including nine-month "heel-to-toe" rotations, as part of Operation Atlantic Resolve (OAR). The European Deterrence Initiative (EDI) organises

and funds these activities. Until Russia's full-scale invasion in 2022, Army rotations included one Armored Combat Brigade Team (ABCT), with around 85 tanks (M1A2 Abrams) and over 100 Bradleys, either infantry fighting vehicles or the cavalry variant; one CAB with 24 Apache AH64D/E attack helicopters; and one Sustainment Task Force of about 900 personnel. Post-invasion, US Army rotations have significantly expanded. A detailed exploration of this development is provided in the Reinforcement Capacity section.

Significantly for northern Europe, the Army has revived the 11th Airborne Division to reinforce its commitment to the National Strategy for the Arctic Region, released in late 2022. This division will serve as the Army's Arctic operational headquarters in Alaska, and is slated to include around 12,000 soldiers trained and equipped for operations in Arctic conditions.[31]

Overall, the Army is gearing up for high-intensity combat, involving major operations and campaigns with corps- and division-sized formations pitted against near-peer competitors. The development of the army towards 2030 will also focus on Joint All Domain Operations, integrating advancements in data analytics to enhance decision-making speed and accuracy.[32] Changes ahead will encompass organisational structures, doctrine, training, and equipment, including setting up new types of divisions – Standard Light, Standard Heavy, Penetration, Joint Force Entry Air Assault, and Joint Force Entry Airborne – and the establishment of five Multi-Domain Task Forces (MDTF).[33] The MDTFs are planned to include a headquarters and headquarters battalion, a multi domain effects battalion, a long-range fires battalion, an indirect fire protection capability (IFPC) battalion, and a brigade support battalion. Investments at the corps and division level also include four additional IFPC battalions providing short to medium-range air defense, nine counter-small UAS batteries embedded within IFPC and division air defense battalions and four additional M-Shorad battalions.

To address capability gaps, the relatively newly established US Army Futures Command that unifies the service´s modernisation efforts is transitioning from being an organisation that controls investments to an advisory body that concentrates on emerging technology.[34] In October 2022, the Army introduced Field Manual 3-0, aligning practices with the strategic focus on deterrence and defence by denial, while officially designating Multi-Domain Operations (MDO) as its capstone doctrine.[35]

The Army's "big six" modernisation priorities, which account for 82 percent of the Science and Technology funding (RDT&E) in FY24, encompass long-range precision fires; next-generation combat vehicles; future vertical lift; networks and communications/ intelligence, surveillance and reconnaissance; air and missile defence; and soldier lethality.[36] Despite strategic efforts and reorganisation for modernisation, the future is uncertain. Most equipment programmes remain in the development phase, with only a handful having active procurement status. One can anticipate tough decisions between acquiring new items and maintaining end strength.

The Army has prioritised readiness, and since 2017, the status of BCTs has improved significantly.[37] In late 2020, the Army introduced a new force generation process, the Regionally Aligned Readiness and Modernization Model (ReARMM), expected to reach full operational capability (FOC) in 2023, to balance operational tempo with dedicated periods for missions, training, and modernisation.[38] However, it will still be challenging for a shrinking Army, facing budget cuts and a recruitment crisis, to meet both global presence requirements and warfighting capability needs. Without reduced demand or budget increases, the operational tempo may rise for units, threatening long-term readiness and development.

Navy

In FY22, the Navy's active component had an end strength of around 344,000, while the Navy Reserve comprised some 55,000 sailors. The FY24 budget aims for 347,000 in the active component and 57,200 in the reserve. The number of Battle Force ships is decreasing, with a budget request for FY24 of 293 ships, down from the FY2022 end strength of 301. The Navy plans to sustain ten Carrier Strike Groups (CSGs).[39]

Nine Navy component commands operate within their designated AOR, exercising operational control over the Navy's seven numbered fleets. Fleets are organised based on a scalable scheme to meet operational requirements, deploying major units such as Carrier Strike Groups (CSG), Amphibious Ready Groups (ARG)/Marine Expeditionary Units (MEU), Surface Strike Groups, and Naval Fleet Auxiliary Forces.

The Navy maintains approximately 10,000 personnel permanently assigned to EUCOM. US Naval Forces Europe and Africa (USNAVEUR-AF), headquartered in Naples, Italy, directs all naval operations through the US 6th Fleet commander, in Gaeta, Italy, which is also the home port for the command ship, *Mount Whitney*. USNAVEUR-AF includes task forces with various components and functions. The Navy has only a few ships permanently homeported in Europe. Task Force 65/ Destroyer Squadron 60, based in Naval Station Rota, Spain, features four Arleigh Burke-class guided-missile destroyers (DDG), with plans to increase to six under the Biden Administration.[40] Task Force 67 commands

maritime patrol and reconnaissance aircraft (MPRA) in the European and African theatres, including two squadrons of P-8As, one based in Sigonella, Italy and one in Keflavik, Iceland; one Electronic Attack squadron of EA-18Gs, based in Spangdahlem, Germany, and one Fleet Air Reconnaissance Squadron, equipped with EP-3s, based in Souda Bay, Greece.[41] These assets form the core of the permanent US naval forces in Europe.

The Navy´s surface capabilities are concentrated in a small number of Carrier Strike Groups (CSGs), formed on an as-needed basis. Typically, a CSG consists of one aircraft carrier; a counter air-capable cruiser; five to seven surface combatants for anti-ship missile and anti-air warfare defence; at least three surface combatants for cruise missile land attack; at least three cruise-missile-capable surface combatants for surface warfare; an attack submarine; and one fast combat support ship, or equivalent pair of combat logistics ships.[42]

A Carrier Air Wing typically comprises three to four strike fighter squadrons of F/A-18E/F Super Hornets or F/A-18C Hornets, or F-35C Joint Strike Fighters. It also includes one electronic attack squadron, equipped with EA-18G Growlers, one carrier early-warning squadron with either E-2C Hawkeyes or E-2D Advanced Hawkeyes, one helicopter sea-combat squadron with MH-60R Seahawks, one helicopter maritime-strike squadron with MH-60R Seahawks, and a fleet logistics-support squadron detachment featuring C-2A Greyhounds.[43]

Embracing Dynamic Force Employment, the Navy's tri-service naval strategy, Advantage at Sea, released in December 2020, emphasises assertive forward presence operations to counter China and Russia.[44]Aligned with integrated deterrence and campaigning, the Navy prioritises strategic nuclear deterrence, forward-deployed combat-credible forces, and collaboration with allies.

In response to heightened maritime challenges, the Navy is adapting its priorities and posture. The Navy has re-established the 2nd Fleet, headquartered in Norfolk, Virginia, serving as the manoeuvre arm for Northern Command's naval forces in the Atlantic and Arctic, as well as EUCOM's in the Eastern and Northern Atlantic. Additionally, Submarine Group 2 has been re-established in Norfolk. The adaptation also involves substantial fleet growth, increased readiness, the development of new capabilities, and a fundamental long-term shift in warfighting strategies. Shifting away from power projection toward sea control, the Navy is focused on dispersing offensive capabilities and connecting them through a network, leveraging Joint All Domain Command and Control capabilities.[45] This departure from the traditional concentration of capabilities in a small number of Carrier Strike Groups (CSGs) will be gradual and unfold over decades. The Navy's foundational concept, Distributed Maritime Operations, encapsulates this transformation, and the Chief of Naval Operations' Navigation Plan 2022 (NAVPLAN 2022) outlines a number of force-design imperatives that support the evolving concept.[46]

The Navy is facing critical challenges, with a documented decade-long series of issues and a gradual loss in the credibility of one of its primary goals, achieving a 355-ship fleet by 2042. Strains on force structure, including submarines and aircraft carriers, coupled with an aging fleet, pose significant concerns.[47] The goal of a 355-ship fleet by 2042 is the most ambitious of three options beyond the half-decade of the Future Years Defense Program (FYDP) outlined in the Navy's 2024 long-range shipbuilding plan, which is congressionally mandated.[48] The other two options arrive at 331 ships by 2040, then decline. All three options assume that "industry eliminates excess construction backlog and produces future ships on time and within budget," which seems implausible, given the shortfall in shipyard capacity and the history of persistent and substantial delays.[49] After all, budget overruns are common, and shipyards are in need of modernisation and expansion, including increases in the workforce, especially as the fleet grows.[50] The Columbia-class SSBN remains the service's top acquisition priority and will command a large portion of the Navy's budget. Additionally, the AUKUS partnership will increase the burden on the Navy's limited nuclear shipbuilding capacity. The FY23 National Defence Authorization Act has established a National Commission on the Future of the Navy, which is expected to provide new numbers for the size and mix of ships. In the near term, funding projections indicate that the Navy will shrink to 280 manned ships by FY2027.[51]

The Navy, including its aviation arm, faces a severe readiness challenge, which it is working to remedy.[52] However, the commitment to sustained forward presence, driven by Combatant Commanders' demands, leads to extended and more frequent deployments. The intensity, in terms of days of operations per unit and year, is exceptionally demanding, about double that of the Cold War era, resulting in crew shortages, widespread fatigue, and challenges in implementation of training.[53] The ongoing recruitment crisis may further compound the readiness issues.

Marine Corps

The USMC is organised into three groups: the headquarters; the operating forces, including those on active duty and reserve; and the supporting establishment.[54] Recent years have seen the USMC downsizing to divest and invest in future capabilities. The active component,

as projected in the FY23 budget request, comprises 172,100 marines, with the Reserve projected at 33,100. The active component includes 21 infantry battalions, while the Reserve has eight.[55] Approximately 3,000 personnel are permanently assigned to EUCOM.[56] US Marine Corps Forces Europe and Africa (MARFOREUR/AF), headquartered in Stuttgart, Germany, is a component command for both EUCOM and AFRICOM.

The USMC's operational forces are principally organised into Marine Air-Ground Task Forces (MAGTFs), a modular organisation that can be tailored for different missions. The largest type of MAGTF is the Marine Corps' principal warfighting organisation, the Marine Expeditionary Force (MEF). It is a combined-arms force, which typically includes a marine division, a marine aircraft wing, and a marine logistics group; it is capable of projecting power ashore while sustaining itself for 60 days without external assistance. The USMC has three MEFs, two located in the continental US (CONUS), on the west and east coasts, and one in the Pacific.[57] The USMC reduced its rotational deployment to Norway in 2020; however, the Norway relationship has led to the expansion of the Marine Rotational Force–Europe (MRF-E), which deploys small units of marines from the 2nd MEF throughout Europe, including Northern Europe, for training and participation in multilateral exercises.[58]

The USMC's Aviation Force comprises three active Marine Aircraft Wings (MAW) and one reserve air wing, totalling 18 active fixed-wing squadrons. One-third of these squadrons operate the F-35 Joint Strike Fighter, including both the F-35B and the F-35C variants.[59] The Marine Corps is transitioning to an all F-35 force, phasing out F/A-18 Hornets and AV-8B Harriers by FY27 and 2030, respectively. Rotary-wing squadrons, particularly of the MV-22B Osprey, are also being reduced, while unmanned-aircraft squadrons equipped with MQ-9 Reapers are set to increase to six.[60]

The US Navy operates 31 large amphibious-warfare ships, including nine landing helicopter dock/assault ships. These comprise seven Wasp-class (LHD) and two America-class (LHA) vessels, the latter newer and larger.[61] LHAs and LHDs, resembling small aircraft carriers, support vertical/short take-off and landing, tilt-rotor, and rotary-wing aircraft operations. Four LHDs are based in Norfolk, Virginia, with the rest stationed in San Diego, California, or Sasebo, Japan.[62]

In March 2023, the US Sixth Fleet and the 2nd MEF established Task Force 61.2 (TF-61/2) to provide command and control for naval forces supporting contingencies across Europe and Africa. TF-61/2 conducts exercises in tactical control over amphibious forces (ARG/MEU) in the theatre, the Marine Rotational Force – Europe, and a task-organised reconnaissance/counter-reconnaissance force.[63] The TF-61/2 commander is dual-hatted, as the TF 61 Commander and the Commander of the 2nd Marine Expeditionary Brigade (MEB), centred around a Marine infantry regiment.[64]

The USMC, having focused on sustained land operations in the past two decades, is now reorganising to re-emphasise conventional amphibious operations, particularly in the Indo-Pacific theatre. This involves closer integration with the Navy and a return to the USMC's traditional roots. Consequently, the USMC introduced Force Design 2030 (FD30), in 2020, a controversial force-design initiative that is planned to proceed over the next ten years.[65] It aligns with the NDS and previously published concepts, such as Expeditionary Advance Base Operations (EABO) and Littoral Operations in a Contested Environment (LOCE), envisioning a shift to distributed operations, including support of naval sea-control campaigns through forward-deployed aircraft and shore-based missiles, by smaller and more mobile forces.[66] The 2021 publication of A Concept for Stand-in Forces further outlines small, mobile, low-signature, forward-postured, and steady-state forces operating with allies and partners in contested areas across the spectrum of conflict, capable of rapidly transitioning from competition to crisis and conflict. As part of FD30, the USMC has so far re-designated one infantry regiment (3rd Marines) and one artillery regiment (12th Marines) as Marine Littoral Regiments (MLR), the 3rd MLR and 12th MLR, respectively, with plans for at least one more MLR.[67]

To enhance its expeditionary capabilities, the USMC is shedding assets that do not align with its new design, thus accepting near-term risks.[68] This involves reducing end strength, restructuring assets, and making strategic cuts, which are to be achieved through the reduction of a number of aircraft, and of infantry battalions, from 24 to 21; eliminating tanks and heavy bridging; replacing most conventional tube artillery with mobile rocket artillery; and reallocating resources to prioritise modernisation efforts, such as the acquisition of the F-35B and C, Light Amphibious Warships, and various unmanned systems.[69]

The USMC, as the nation's expeditionary crisis-response force, has traditionally prioritised immediate and near-term readiness over capacity and modernisation. The impact of recent restructuring on operational readiness remains uncertain, given the service's reduced transparency and evolving definition of readiness. However, it is evident that the USMC faces readiness challenges, marked by a chronic shortage of amphibious ships, due to maintenance issues, and a severe shortage of pilots of fixed-wing aircraft, including F-35s.[70] Notably, the inability that the USMC demonstrated to be able to meet

requests for a surge to Europe during the early stages of the conflict in Ukraine underscores the limitations imposed by the condition of its amphibious fleet.[71]

Air Force

In FY2022, the USAF active component had an end strength of around 324,000, with the FY2024 budget authorising 324,700. The Air Force Reserve aims for 69,000 in FY2023, and the Air National Guard, 105,000. The FY2024 Air Force active-component budget requests 43 combat-coded squadrons, with the Reserve and National Guard maintaining 3 and 21 combat-coded squadrons, respectively.[72] Combat-coded aircraft and related squadrons are aircraft and units with an assigned wartime mission.[73]

The USAF operates under eleven Major Commands (MAJCOM), reporting directly to the Air Force HQ, in the Pentagon. These commands can be organised either by mission or by region outside CONUS. Numbered Air Forces, typically designated for geographical purposes, are subordinate to the MAJCOMs, with wings, groups, and squadrons often falling under a numbered air force.[74]

The USAF has approximately 32,000 personnel permanently stationed in Europe. US Air Forces in Europe and Air Forces in Africa (USAFE-AFAFRICA) is a MAJCOM and also serves the air component command for both EUCOM and AFRICOM headquartered at Ramstein Air Base, Germany. This includes directing air operations as well as maintaining combat-ready forces pledged to NATO. The Third Air Force is assigned to USAFE-AFAFRICA; its primary operating bases are Royal Air Force Base Lakenheath and Royal Air Force Base Mildenhall, in the UK; Ramstein Air Base and Spangdahlem Air Base, in Germany; Aviano Air Base, in Italy; Lajes Air Base, in the Azores (Portugal); and Incirlik Air Base, in Turkey.

Notable units of the Third Air Force are the 52nd Fighter Wing, based in Spangdahlem, comprising one squadron of F-16C/Ds with Suppression of Enemy Air Defence (SEAD) capability; the 31st Fighter Wing, in Aviano, with two squadrons of F-16C/D capable of carrying nuclear warheads (DCA); the 48th Fighter Wing, in Lakenheath, with two squadrons of F15C/F15Es and one squadron of F-35As; the 86th Airlift Wing, in Ramstein, including one squadron of C-130J Super Hercules; and the 100th Air Refueling Wing, in Mildenhall, with a squadron of KC-135 Stratotankers. Mildenhall is also the home base for the 488th Intelligence Squadron, with RC-135V/W Rivet Joint, and the 352nd Special Operations Wing, which is an operational unit of USAF Special Operations Command, with two squadrons of CV-22B Ospreys and MC-130J Commando IIs, respectively. Additionally, the 7th Reconnaissance Squadron supports RQ-4B Global Hawk operations, from Sigonella, Italy.

As part of the European Deterrence Initiative (EDI), the Air Force has heightened its rotational presence in Europe through Theater Security Packages (TSP). Typically, these rotations last a few months and usually involve a reduced fighter squadron. Since 2015, aircraft from various fighter wings, including F-35As and F-22s, have consistently deployed in Europe. The USAF rotations expanded considerably shortly before and after Russia's invasion of Ukraine.

The USAF has developed seven operational imperatives to guide its modernisation efforts and meet the demands of the NDS. The first is a resilient and effective space order of battle, including integrating military, allied, partner, interagency, and commercial capabilities. The second is an advanced battle management system, which is the USAF's contribution to Joint All Domain Command and Control. The third is the development of technologies for large-scale engagement of moving targets. The fourth is a next-generation family of air systems, including development of a combination of uncrewed and crewed Next Generation Air Dominance (NGAD) platforms, sensors, command and control, and weapons. The fifth is resilient forward-basing, which concentrates on improving the survivability and sustainability of forces and bases. The sixth is the family of long-range strike systems, integrating the B-21 bomber with communications, sensors and weapons. The seventh is a readiness to transition rapidly to a wartime posture against a peer competitor.[75] Additionally, the Air Force has introduced a new deployment concept, Agile Combat Employment (ACE), which aims to disperse aircraft from large and vulnerable fixed bases, incorporating prepositioning of equipment, including Deployable Airbase Systems (DABS).[76]

The USAF's force structure has been declining for decades, and this trend is set to intensify. In 2018, the Air Force proposed increasing its number of squadrons from 312 to 386 to effectively combat a peer competitor, as outlined in the USAF study, The Air Force We Need.[77] However, the Air Force has recently abandoned this goal in favour of a strategy of capability-over-capacity. This shift involves reducing the fighter force by nearly 20 percent over the next five years and shedding aging ISTAR aircraft, a way of aiming to divest in order to invest.[78] The Air Force's fleet is old, and it is essential to retire aircraft.

The Air Force's primary acquisition focus is the F-35A Joint Strike Fighter, slated to replace legacy multirole and close air-support aircraft. Following closely in funding priority is the B-21 Raider Strategic Bomber, with the KC-46A Aerial Refueling Aircraft ranking third.[79] However, the production of new assets is slow,

and the capacity to surge production in a peer-level crisis is limited.[80] The question of how the Air Force will manage high operational demands with a diminishing fleet is unresolved, with uncertainties surrounding the adequacy of the inventory for precision-guided munitions in a conflict with a peer competitor, and of ISTAR capacity for multiple contingencies.[81] The growing demand for nuclear forces is also claiming a growing portion of the USAF budget, as the service life of Reagan-era systems expires.

Additionally, the Air Force is grappling with severe and worsening readiness issues, marked by challenges in maintenance, including spare-parts shortages, pilot deficits, and insufficient flying hours.[82] In 2017, the Secretary of the Air Force and the Air Force Chief of Staff testified before the Senate that readiness was increasing from the "lowest state of full-spectrum readiness in our history," where "only 50 percent" of squadrons were prepared for all of the missions assigned to them.[83] The USAF aimed to elevate readiness to an average of 80 percent in its 204 pacing squadrons, which are squadrons that should be qualified and ready to execute primary wartime missions. In 2020, the focus on this target waned, and since then the USAF set new goals only to abandon them shortly thereafter. The USAF has also changed its force-generation model several times within a short period, and appears to be redefining the readiness concept.[84]

In September 2023, the US Government Accountability Office (GAO) found that the F-35 fleet mission-capability rate – the percentage of the time it can perform one of its tasked missions – was about 55 percent, which is far below the goal of 85-90 percent.[85] The slow resolution of air-refuelling asset shortages compounds the readiness problem. The Air Force's reluctance to provide transparency and its tendency to shift the conversation raises concerns that its readiness levels may be at a low point in the service's history.[86]

Space Force

In December 2019, the US Space Force (USSF) was created as the sixth uniformed service within the DOD, and the second service within the Department of the Air Force. This also meant a reestablishment of US Space Command as the 11th Combatant Command within DOD. The USSF's active component end strength in FY 2022 was 8,100, while the budget request for FY24 authorised an end strength of 9,400.[87] The bulk of the USSF's manpower consists of reassigned former Air Force Space Command personnel. In parallel to other services, the USSF is responsible for organizing, training, and equipping the majority of space-related assets, whereas SPACECOM, as a combatant command, is responsible for the global direction of operations.[88] SPACECOM is supported by a number of service-specific component and functional commands. The capabilities include command and control of space operations; intelligence, surveillance, and reconnaissance; space domain awareness (military, civil, and commercial); space electronic warfare, missile warning; cyber operations; satellite communications and navigation; and offensive and defensive space operations (orbital warfare).[89] The missions are conducted with a network of satellites in various types of orbits, ground-based radar sensors, ground stations, and situational-awareness nodes.

The USSF supervises the Global Positioning System (GPS), with its 31 operational satellites, delivering global position, navigation, and timing services. The recent upgrade, GPS III, improves anti-jamming capabilities.[90] Additionally, the USSF manages the Defense Meteorological Satellite Program (DMSP). For global communications, it controls systems such as the Military Strategic and Tactical Relay (Milstar – 5 satellites), Defense Satellite Communications System (DSCS – 7 satellites), and Advanced Extremely High-Frequency System (AEHF – 6 satellites). Interservice communication is facilitated through the Wideband Global SATCOM (WGS – 10 satellites), Fleet Satellite Communications System (FLTSATCOM – 6 satellites), and Ultra-High Frequency Follow-On (UFO – 10 satellites). For tactical use in contested environments, the USSF operates the Mobile User-Objective System (MOUS – 5 satellites).

The USSF manages constellations for early missile warning, integrating the older Defense Support Program (DSP – 5 satellites) with the newer Space-Based Infrared System (SBIRS – 12 satellites).[91] It also operates space situational-awareness systems, including the Geosynchronous Awareness Program (GSSAP – 6 satellites), which is a classified constellation for tracking space objects. The Space Tracking and Surveillance System (STSS – 2 satellites) detects and tracks ballistic missiles throughout their trajectory.[92] Additionally, the USSF employs ground-based sensors for diverse purposes, including tracking satellites, ICBMs, and SLBMs. The service also possesses an unknown number of reconnaissance and imaging satellites, including some with synthetic-aperture radar for high-resolution cloud-penetrating capabilities.[93]

While US capability is unparalleled in various domains, there is a significant gap in meeting the increasing demand for real-time satellite intelligence at the operational and tactical levels. To address this shortfall, the services turn to commercial organisations for on-demand imagery. As part of Project Convergence, the US Army utilises a substantial number of SpaceX Starlink satellites in exercises. The rapid growth of the

Starlink constellation, in conjunction with other satellites, plays a crucial role in the Army's strategy to transform into a Multi-Domain Operations-Ready Force by 2035.

The USSF faces redundancy challenges, leaving some systems vulnerable. To address this, the service is expanding its satellite count, but the proliferation of satellites by both allies and adversaries complicates detection and tracking. Concerns have also been raised about the susceptibility of US space assets to cyberattacks.[94] The service is working to bolster resilience in various ways, including asset diversification and deployment of satellites in different orbits. Besides detecting enemy anti-satellite attacks, the USSF utilises ground-based systems, such as the Bounty Hunter system, which detects, and minimises the interference from, attempts to disrupt satellite communication; and the Meadowland system, an offensive mobile counter communications system capable of thwarting enemy satellite communications (SATCOM) in a specified area.

Strategic Forces

Nuclear deterrence continues to stand as the top US national security mission, affirmed by the Biden Administration's 2022 Nuclear Posture Review (NPR). The NPR identifies the following roles for nuclear weapons: deter strategic attack; assure allies and partners; and achieve US objectives if deterrence fails.[95] The US strategic deterrence relies on a triad of nuclear delivery vehicles with complementary strengths: long-range land-based intercontinental ballistic missiles (ICBMs), long-range submarine-launched ballistic missiles (SLBMs), and heavy bombers capable of carrying nuclear-armed cruise missiles and gravity bombs. Each element is crucial for maintaining strategic stability, and the US is investing heavily in recapitalizing all three, including refurbishing the associated warheads.

United States Strategic Command (USSTRATCOM), headquartered at Offutt AFB, Nebraska, is a unified combatant command for US strategic operations. As such, it enables Joint Force operations and is directly responsible for strategic deterrence, nuclear operations, joint electromagnetic-spectrum operations, global-strike operations, and missile threat assessment.[96] Day-to-day planning and execution of STRATCOM mission areas are carried out by the Joint Force Air Component Command, based at Barksdale AFB, Louisiana, and the Joint Force Maritime Component Command, at Naval Station Norfolk, Virginia. The US adheres to the New START Treaty, which limits the number of deployed warheads to 1,550 and of deployed and non-deployed ICBM and SLBM launchers, including nuclear-capable heavy bombers, to 800.

Currently, the US Ground-Based Deterrent consists of 400 single-warhead Minuteman III ICBMs deployed among 450 silos located at three different Air Force Bases: F.F. Warren AFB, Wyoming; Malmstrom AFB, Montana; and Minot AFB, North Dakota.[97] The USAF is developing a new ICBM, the Ground-Based Strategic Deterrent (LGM-35 Sentinel), which is planned to replace all missiles and ground-launch control facilities. The programme is scheduled to reach initial operational capacity by 2029 and complete deployment, with 400 missiles, in 2036.

The US Sea-Based Strategic Deterrent comprises 14 Ohio-class ballistic-missile submarines (SSBN), with 12 in the operational fleet and two in overhaul. That allows the Navy to maintain 4 or 5 SSBNs deployed, positioned, and ready to launch at any time after receiving a presidential order. Each SSBN carries 20 D-5 missiles that each, on average, carry only four warheads, due to treaty limitations.[98] The SSBNs operate from two bases: Bangor, Washington, and Kings Bay, Georgia. The Navy plans to begin retiring the Ohio-class in 2027. Notably, the deployment of the new Columbia-class SSBNs has been delayed until 2031, which affects the Navy's ability to meet STRATCOM's force-generation operational requirement and may result in gaps in the Sea-Based Deterrent.

The US Air-Based Strategic Deterrent includes 20 B-2 bombers, based at Whiteman AFB, Missouri, and capable of carrying B61 and B83 nuclear bombs.[99] The USAF also operates 72 B-52H bombers that are equipped to carry nuclear or conventional air-launched cruise missiles, and stationed at Barksdale AFB, Louisiana, and Minot AFB, North Dakota. The planned acquisition of 80–100 new B-21 bombers, intended for both nuclear and conventional use, is underway. The first is expected to enter service no earlier than 2025. The F-35 is on track to replace the existing F-15E Dual Capable Aircraft.

The US maintains approximately 200 B61 gravity bombs, undergoing updates, with about half stationed in Europe, including 60 allocated for use by NATO aircraft. These are believed to be deployed at six bases in five European countries: Aviano and Ghedi in Italy; Büchel in Germany; Incirlik in Turkey; Kleine Brogel in Belgium; and Volkel in the Netherlands. The US also plans to deploy gravity bombs to RAF Lakenheath in the UK.[100]

The only significant change in the US nuclear arsenal in recent years was the 2020 decision to deploy W76-2 low-yield warheads for the submarine-launched ballistic missiles (SLBM). Overall, the 2022 NPR signals continuity, but it introduces some new concepts by calling for "tailored deterrence approaches" and "country-specific approaches."[101] The specifics of these concepts are not detailed in the NPR.

Assessing the capability and readiness of US nuclear forces poses a challenge due to limited publicly available data. The current state of the US nuclear enterprise appears to be at a critical juncture. The NPR emphasises that most nuclear deterrent systems are "operating beyond the original design life," and the National Nuclear Security Administration's infrastructure is aged and in poor condition.[102] The US has not designed or built a nuclear warhead since the end of the Cold War, and most of the scientists and engineers with practical experience in design and testing are retired. Moreover, the US cannot produce plutonium pits in quantity.

The NPR affirms a "full-scope" replacement of the triad, encompassing nuclear command, control, and communications systems. The modernisation initiative that began under President Obama was based on an arsenal designed to deter a single nuclear peer. However, with China's 2021 strategic breakout, the US faces the challenge of deterring two peer competitors simultaneously. The 2022 NPR does not address this qualitatively and quantitatively new challenge.

The NPR recognises the urgency in replacing current capabilities to prevent gaps in the credible deterrent and calls for the NNSA to develop "full-scope" production capabilities, with emphasis on "flexibility, supply chain security and resilience, production capacity margin, and elimination of single point failures."[103] The effort to refurbish and replace the triad enjoys strong bipartisan support for modernisation programs. However, without increased spending, the DOD may need to make cuts elsewhere to fund these costly and critical initiatives.[104]

Missile Defence

US missile defence is centred at the Joint Functional Component Command for Integrated Missile Defense, at Schriever AFB, Colorado. This hub operates alongside the Missile Defense Agency's Integration and Operation Center. The US has deployed a global array of networked ground, sea, and space-based sensors for target detection and tracking, along with various ground and sea-based interceptors. These components are interconnected through a global C2 network. For protection against limited ICBM attacks targeting the continental US, 44 ground-based interceptors are deployed at Fort Greely, Alaska, and Vandenberg AFB, California.[105]

The European Phased Adaptive Approach (EPAA) represents the US contribution to NATO's missile defence capability. This includes the deployment of the Terminal High Altitude Area Defense (THAAD) system in Turkey, designed for mobile and rapid deployment to eliminate short- and medium-range missiles in their terminal phase (11th Air Defense Battery).[106] The US Navy contributes through an expanding number of Aegis cruisers and destroyers, with four permanently based in Europe for regional defence against ballistic missile threats. The US also has land-based capabilities in Europe, including Aegis Ashore systems in Romania and Poland, along with Patriot systems.

The US currently has limited capability to intercept hypersonic missiles; the Missile Defense Agency is in the early stages of developing the Glide Phase Interceptor for regional hypersonic missile defence.[107] Space-based sensors are crucial for tracking hypersonic vehicles, and the Missile Defense Agency works in conjunction with the Space Force and the Space Development Agency to control the space missile defence sensor system, including the development of a space tracking layer of satellites. The DOD's Joint All Domain C2 system seeks to integrate non-compatible sensors across all domains into a single network to address the global missile threat that has evolved to include cruise and hypersonic missiles. The Army is also developing an integrated air and missile defence command system to link sensors and shooters in a single region.

Cyber

US Cyber Command (USCYBERCOM) is a Unified Combatant Command; its primary role is to ensure the Department of Defense's ability to function by directing the operation and defence of the DOD Information Networks (DODIN), defeating strategic threats, and assisting the other combatant commanders. USCYBERCOM is the primary organisation for both offensive and defensive cyber operations and has historically maintained close cooperation with the National Security Agency (NSA), with both entities always being led by the same officer.

The Cyber Mission Force (CMF) is the operational arm of USCYBERCOM, consisting of 133 functional teams with over 6200 individuals. These teams are distributed across functional areas: 13 National Mission Teams observe adversaries and defend against cyberattacks, 68 Cyber Protection Teams defend DODIN and critical infrastructure, 27 Combat Mission Teams (CMT) conduct military cyber operations in support of the combatant commands, and 25 Support Teams provide assistance to the other teams.[108] In FY22, 14 new CMTs were established to support combatant commanders in space operations and counter cyber influence. The CFM teams are supported by the military services, which are responsible for recruiting and training service members assigned to USCYBERCOM. Army Cyber Command, Air Force Cyber Command, Navy Fleet Cyber Command, and Marine Corps Forces

Cyberspace Command were established concurrently with USCYBERCOM to fulfil this role.[109]

Assessing the US cyber capability and readiness is challenging due to the secretive nature of cyber operations. However, open sources suggest they are world-class, if not the best.[110] In cyber operations, time and space are extremely compressed, prompting recent strategies to prioritise a whole-of-society approach and a forward-leaning posture.[111] Since 2018, key elements of the DOD Cyber Strategies focus on "defending forward," operating close to the source of cyber threats, engaging adversaries in their networks, and disrupting attacks in the early stages.[112]

The strategies also advocate for integrated deterrence in line with the NDS, emphasising collaboration with the private sector and allies. Notably, USCYBERCOM conducts defensive so-called Hunt Forward Operations at the request of partner nations, deploying teams to protect host-nation networks. Significantly, Hunt Forward Teams operated extensively in Ukraine before the 2022 Russian invasion, and the DOD's classified Cyber Strategy, released in May 2023, is informed by that war. Acknowledging the increasing significance of the cyber domain, the Assistant Secretary of Defense for Cyber Policy position was created in 2023 to implement the new strategy.[113] While the recruitment crisis has not impacted USCYBERCOM, retaining personnel remains a persistent challenge.

Special Operations Forces

US Special Operations Forces (SOF) comprise approximately 70,000 active duty and reserve component forces of the military services that conduct special operations.[114] US Special Operations Command (USSOCOM) is a functional combatant command responsible for organising, training, and equipping all SOF. It oversees the services' special-operations component commands, the Army Special Operations Command (USASOC), the Naval Special Warfare Command (NSWC), the Air Force Special Operations Command (AFSOC), the Marine Corps Forces Special Operations Command (MARSOC), and eight sub-unified commands, including the US Joint Special Operation Command (JSOC) and seven Theater Special Operations Commands (TSOC). The geographic combat commander has operational control over the TSOCs and all special operations in their AOR.

Army Special Operations Command has an allocated strength of approximately 35,000, comprising Special Forces (Green Berets), Rangers, special-operations aviation units, military-information units, civilian-affairs units, and support units.[115] It has five active Special Forces Groups, each consisting of about 1,400 soldiers, and two National Guard Special Forces Groups. The 75th Ranger Regiment, the Army's premier light-infantry unit, comprises three battalions of about 800 soldiers each, along with the Regimental Special Troops Battalion. The 160th Special Operations Aviation Regiment, equipped with rotary-wing aircraft, supports all USSOCOM components. USASOC also includes two active-duty psychological-operations groups, stationed at Fort Bragg, and the highly secretive 1st Special Forces Operational Detachment – Delta (1st SFOD-D).[116]

Naval Special Warfare Command comprises approximately 10,500 active, reserve, and civilian personnel, including Special Warfare Operators, known as SEALs, and Special Warfare Boat Operators. NSWC is organised in Naval Special Warfare Groups, stationed in San Diego, California, Virginia Beach, Virginia, and Joint Base Pearl Harbor-Hickam, Hawaii, and is responsible for organising, training and equipping eight active and two reserve SEAL Teams, each comprising eight platoons, two SEAL Delivery Vehicle Teams, three Special Boat Teams, and two Special Reconnaissance Teams.[117]

Marine Corps Forces Special Operations Command, with nearly 3,500 personnel, includes the Marine Raider Regiment, comprising three Marine Raider battalions, the Marine Raider Support Group (three support battalions), and the Marine Special Operations School. MARSOC has recently consolidated its units at Camp Lejeune, North Carolina. Although FD30 provides limited information on Marine Special Operations Forces, the conceptual basis outlined in MARSOF 2030, released in 2018, aligns significantly with the vision presented in FD30.[118]

Air Force Special Operations Command is an Air Force Major Command comprising approximately 16,800 active, reserve, and civilian personnel operating out of six locations: four in CONUS, as well as Kadena AFB, Japan, and Mildenhall AFB, UK. AFSOC activities are categorised into four groups: Special Operations Aviators, Special Tactics, Combat Aviation Advisors, and Support Air Commandos.

Personnel

The Joint Force is contracting. The FY24 DOD budget requested a military end-strength of 2,074,000 personnel, including 1,305,400 in the active components and 768,600 in the reserve components. Modernisation is prioritised over capacity, and the Joint Force is grappling with a recruitment crisis that poses a threat to the all-volunteer force. The three major services, particularly the Army, are struggling to meet recruitment goals, resulting in a significant shortfall in FY22 and a likely repeat in FY23. The Army's active component

Table 13.1 Personnel and materiel in the US Armed Forces in Europe

Personnel/Materiel	Numbers in 2023	Major Reforms towards 2030
Personnel		
Regular force	74,000	
Army	34,000	Reorganisation of divisions and MDO integration.
Navy	10,000	Possibly 2 additional Destroyers (DDG) to Rota, Spain.
Air Force	27,000	Implementation of Agile Combat Employment (ACE) and prepositioning of additional equipment, including DABS.
Marines	3,000	Implementation of FD30, including deeper integration with the Navy.
Materiel		
Armoured combat vehicles	340+ Stryker Combat Vehicle	The Army will continue to upgrade the Stryker vehicles. [(a)]
Heavy artillery pieces	16 M270-A1 Multiple Launch Rocket Systems 18 155mm Howitzer	MLRS upgrades and the Long-Range Hypersonic Weapon (Dark Eagle) will enter service. [(b)]
Air defence	4 Patriot PAC-3 40 M-SHORAD +12 THAAD	Further MDO integration and M-SHORAD increment 2-3, including Direct Energy (50 KW Laser) and the Next-Generation Short-Range Interceptor.
Attack helicopters	24 AH-64D/E Apache (US Combat Aviation Brigades also include 12 MQ-1C UAVs	24 new AH-64E Version 6 Apache Guardians will replace the older helicopters. New iterations of UAVs (MQ-1C-25M Gray Eagle).
Surface combatants	4 DDG, Arleigh Burke-class guided missile destroyers	Possibly 2 additional destroyers (DDG) and upgraded weapons systems for maritime patrol aircraft (P-8A).[(c)]
Combat aircraft	120+ Fighter Aircraft (F15C/ F15E, F16C/D and F-35)	Replacement of most legacy fighters with F35s. 2 Additional F-35 squadrons (DCA) will be forward stationed in the UK.
Transport aircraft and tanker platforms	15 KC-135 Stratotanker 14 C-130J-30 Hercules 1 Gulfstream V (C-37A) 5 Learjet 35A (C-21A)	The KC-135s may be replaced by new KC-46As
OAR Rotational Forces and Reinforcements		
Additional Forces	20,000+	
Tanks	170 M1A2 Main Battle Tank	Multiple upgrades.
Heavy artillery pieces	8+ High Mobility Artillery Rocket Systems (Himars) 32 155mm Howitzer	The Long-Range Hypersonic Weapon (Dark Eagle) will enter service
Infantry fighting vehicles	300 Bradley Fighting Vehicles	Possible introduction of Optionally Manned Fighting Vehicle (OMFV) in 2029.
Attack helicopters	24 AH-64D Apache (OAR Aviation Rotation)	24 new AH-64E Version 6 Apache Guardians will replace the older helicopters.
Combat aircraft	Bomber Task Force rotations: 4 B-1B Strategic Bombers/ 4 B-52H Stratofortress Numerous short term fighter squadron rotations, including F-22s F-35s, F-15s	B-21s will enter service in the mid-2020s.
Carrier Strike Group	1	Additional Ford-Class Aircraft Carriers will enter service
Amphibious Ready Group and Marine Expeditionary Unit	1	Additional America-class Amphibious Assault Ships will enter service

Sources/Remarks: (a) Upgrades include Stryker Medium Caliber Weapon System (MCWS), Common Remote Operated Weapons Station-Javelin (CROWS-J) on the Double V-Hull platforms, and the MAPS Gen-1 GPS system. **(b)** Upgrades include new engines, new improved armoured cabs, and a new common fire control system. **(c)** Upgrades include AGM-158C Long Range Anti-Ship Missile (LRASM). Other upgrades considered are JDAM variants, Mk 62/63/65 Quickstrike mines, the Small Diameter Bomb (SDB II), and Miniature Air-Launched Decoy (MALD).

may drop below 445,000 in 2023. A convergence of trends is creating the most challenging recruiting environment in the 50-year history of the all-volunteer force, with potential implications for retention in the coming years.

First, US unemployment is low, forcing civilian employers to increase wages and offer compelling incentives, making it harder for the military to attract talent. Second, the pool of young people eligible for military service has shrunk drastically in recent years. Only around one-fourth of Americans aged 17–24 meet the eligibility criteria, with factors such as poor physical health, dramatically rising obesity rates, and increased mental-health issues contributing to the decline.[119] Criminality and drug abuse further compound the challenge. Third, confidence in the US military has significantly declined, dropping from around 70 percent in 2018 to 50 percent in 2022. Polls also indicate a decrease in the numbers of military and veteran families who recommend military life, falling from nearly 75 percent in 2019 to 60 percent in 2021.[120] This trend is concerning, particularly as recruits often come from military backgrounds. The shift in global military engagements, including the chaotic withdrawal from Afghanistan, likely contributed to this decline in public confidence. Fourth, there is a growing perception of politicisation within the US military, stemming from the broader political polarisation in the country. Republicans argue that the civil and military leadership is prioritising ideological goals over effectiveness and readiness, while Democrats counter by highlighting issues such as extremism, racism, and sexism as potential deterrents to military service.[121]

These and other factors have led to only about 10 percent of individuals having the propensity to serve in the military, which is the lowest rate on record.[122] In response, reforms in recruiting practices are underway, with some initiatives showing promise, but the challenge is enormous.[123] Without significant increases in defence spending, incentive programs aimed at recruitment and retention will vie with other DOD priorities.[124] Should these trends persist, there is a significant risk of declining military readiness and capacity in the years ahead.

Materiel

The US arsenal comprises a mix of new and old material. The Joint Force operates many of the world's most capable systems, but the backbone still consists of legacy platforms from the Reagan-era military buildup, now approaching the end of their service lives. The DOD prioritises modernisation, but the effort has been slow, and costs are staggering. The wars in Ukraine and Gaza and wargames simulating a potential Taiwan contingency have raised attention about the US's limited stockpiles and insufficient surge capacity.

US military capability relies on a diverse defence industrial base (DIB), which encompasses organisations and facilities providing materials, products, and services to the DOD. The DIB includes everything from small businesses to university laboratories and large multinational corporations. Analysts distinguish between the domestic DIB, with almost 60,000 US-based companies employing over 1 million individuals, and the global DIB.[125] The US boasts nearly 50 of the world's 100 largest defence companies, with Lockheed Martin, Raytheon Technologies (RTX), General Dynamics, Boeing, and Northrop Grumman ranking among the top five contractors supporting the DOD.[126]

The DIB, including the munitions industrial base, faces challenges impacting short- and long-term US military capability. In the last decades, the defence industry has consolidated dramatically and the reduction in prime defence contractors has diminished production capacity, competition, and supply-chain resilience, while many key components and subcomponents only have single sources.[127] Measures to diversify supplies have time-consuming and complex legal and economic ramifications, and the effort to collaborate with allies and partners to mitigate problems and share costs is stymied by US laws and regulations. For instance, the International Traffic in Arms Regulations (ITAR), which control the manufacture, sale, and distribution of defence- and space-related articles and services, slows the process of sharing technical data, even with close allies such as the UK and Australia.[128]

In the short term, the DIB is not equipped to support and sustain a protracted conventional war, due to the services' underinvestment in weapons systems and munitions and the DOD's acquisition process, which lacks incentives for industry to build stockpiles. US assistance to Ukraine is depleting certain stockpiles, and the US has been slow to replenish its arsenal, partly as a result of inconsistent demand signals from the DOD.[129] New contracts constitute only a fraction of what it has sent to Ukraine. This situation further underscores a critical issue: the lack of surge capacity.

Awareness of the problems, including their impact on US deterrence, prompted the DOD to release its inaugural National Defense Industrial Strategy in January 2024.[130] While signaling a sense of urgency, proposed remedies will require years to implement. For instance, several missile systems take about two years to produce, and it will take somewhere between 18–24 months to enhance factory capacity to meet surging demand.[131] Compounding the challenge is the aging and deteriorating state of the Organic Industrial

Base, encompassing government-owned, government-operated, and government-owned contractor-operated facilities, including shipyards, depots, and ammunition-production facilities.[132]

US defence supply chains also face vulnerabilities due to insufficient manufacturing capacity, misaligned incentives, global-sourcing concentration, and limited international coordination, according to the White House's own estimate.[133] Dependency on China, particularly for the rare earth metals crucial in manufacturing specific missiles and munitions, poses a significant risk.[134]

Considerable multiyear investments are required for rebuilding the DIB, including sufficient stockpiles for supporting a protracted conventional war. The US effort to strengthen the DIB and reduce dependencies will be characterised by trade-offs and inconsistencies, and its balancing act between economic nationalism and free trade and collaboration with allies and partners will be of significant strategic importance in the years ahead, impacting the transatlantic relationship.

Military support for Ukraine

US security assistance to Ukraine is substantial; since 2014, it has used a variety of programmes and authorities to bolster the Ukrainian Armed Forces. In June 2020, the Ukraine Security Assistance Initiative was created and, since 2021, the US has been providing defence items via the Presidential Drawdown Authority (PDA), Foreign Military Financing (FMF) and DOD Security Cooperation Authorities, notably Building Partner Capacity, Defense Institution Building, and International Military Education and Training, to support Ukraine.[135] As of December 2023, the US has provided approximately USD 44 billion in security assistance since February 2022, when Russia launched its full-scale invasion of Ukraine, and, since Russia's invasion of Crimea, in 2014, more than USD 47 billion.[136]

Before the full-scale invasion, Ukraine received training, doctrinal assistance and weapons packages, including sniper rifles, rocket-propelled grenade launchers, counter-artillery radars, Mark VI patrol boats, electronic-warfare detection and secure communications, satellite imagery and analysis capability, counter-unmanned aerial systems (UAS), air surveillance systems, and night-vision devices, among other things. Ukraine also used FMF to procure US equipment, such as Javelins.

After the full-scale invasion, the US gradually provided more advanced equipment, as well as greater amounts of previously provided equipment. As of December 2023, US assistance has included: 39 high mobility artillery rocket systems (HIMARS) and ammunition; 12 national advanced surface-to-air missile systems (NASAMS); about 20 Army tactical missile systems (ATACMS); 1 Patriot air defence battery; and other air defence systems; 31 Abrams tanks, 45 T-72B tanks and 180+ Bradley infantry fighting vehicles and 4 Bradley fire-support Team vehicles; 300 M113 and 189 Stryker Armored Personnel Carriers; 2 Harpoon coastal defence systems and anti-ship missiles; 62 coastal and riverine patrol boats; 2,000+ Stinger anti-aircraft systems; 10,000+ Javelins and 90,000+ other anti-armour systems and munitions; Phoenix Ghost, Switchblade, and other UAS; 198+ 155 mm and 72 105 mm Howitzers and artillery; 200+ mortar systems; remote anti-armor mine (RAAM) systems; 8,000+ tube-launched, optically-tracked, wire-guided missiles, high-speed anti-radiation missiles (HARMs), and laser-guided rocket systems; cluster munitions; 35,000+ grenade launchers and small arms; and communications, radar, and intelligence equipment.[137]

The US has also authorised third-party transfers of US defence articles and equipment to Ukraine, including F-16 fighters. Besides equipment, the US has provided extensive advice, training, maintenance, and sustainment. The Army's Security Force Assistance Brigades (SFAB) have trained Ukrainian soldiers since the conflict's inception. Furthermore, US assistance in the information domain, notably in areas such as ISR, cyber, and signalling, has been substantial.[138] The US has primarily provided Ukraine with aging equipment, thereby insignificantly affecting the capacity and capability of US forces. Nonetheless, this assistance has led to the depletion of specific stockpiles, including Javelin's command launch unit, Stingers, and 155 mm howitzers. Alongside security assistance, the US has put sweeping sanctions on Russia and provided humanitarian, economic, and other assistance.[139]

Reinforcement capacity

The US has a substantial capacity to send reinforcements to Europe. The Immediate Response Force (IRF) is the pool of US-based military assets that can rapidly reinforce the Combatant Commands in response to emergent threats. The IRF is maintained by the Air Force and the Army and is built around a BCT of the 82nd Airborne Division, which is part of the XVIII Airborne Corps, also known as America's Contingency Corps, headquartered at Fort Bragg, North Carolina. Air Force Mobility Command and a rotating battalion of the ready brigade are kept on alert to deploy worldwide within 18 hours. This initial entry force is designed to be followed by additional battalions within days.[140]

The Army's active component comprises 31 BCTs, divided into 13 IBCT, 11 ABCT, 7 MBCT, and 11 CABs. Of these, 25 are assigned to US Army Forces

Command, 4 to Indo-Pacific Command, and 2 to EUCOM. Typically, 5 or 6 BCTs, including ABCTs, are rotationally deployed outside the US.[141] With a focus on readiness, the Army has achieved its goal of having 66 percent of the active component BCTs at the highest level of readiness.[142] That leaves about 8 to 9 BCTs at the highest level of readiness in the US, excluding BCTs deployed outside the US. A number of these can be deployed to reinforce Europe, as demonstrated by US deployments after Russia's full-scale invasion of Ukraine.

The US reinforcement capacity is hampered by the decline in overall sealift capacity since the Cold War's end. This is critical for the Army, as about 90 percent of Army and USMC combat equipment relies on sea transport during surge deployments.[143] Military Sealift Command (MSC), a component of US Transportation Command, and the Maritime Administration (MARAD) handle sealift responsibilities, using afloat prepositioning, commercial sustainment, and surge sealift.[144] The latter is called into action during emergencies and consists of ships from the MSC Surge Sealift and the MARAD Ready Reserve Force. US surge sealift is hampered by underfunding, aging ships, poor maintenance, low readiness, and an insufficient number of vessels. These limitations, including capacity issues, are especially problematic in time-sensitive large-scale operations.[145] Additionally, Reception, Staging, and Onward Movement (RSOM) limitations in Europe compound these challenges. There is awareness of the many challenges, and the US has recently begun diversifying the number and location of ports able to support the RSOM of US forces.[146]

The sealift problems are mitigated to some extent by expanding Army Prepositioning Programs (APS). Equipment for an Armored Brigade Combat Team (ABCT) and an artillery brigade is prepositioned in Europe (APS-2). Expansion plans encompass a division-sized set of equipment for 2 ABCTs, including one modernised ABCT, in Powidz, Poland, and 2 Fires Brigades as well as air defence, engineer, movement control, sustainment, and medical units.[147] APS accelerates deployment, as units can be transported by air. Following Russia's invasion of Ukraine in February 2022, APS-2 stocks were activated for the first time, and the 405th Army Field Support Brigade equipped the 1st ACBT, 3rd Infantry, which deployed from Georgia within a week after receiving orders. Overall, the mission was successful despite some maintenance and coordination shortfalls. The Fully Mission Capable rates are classified, but the bulk of the ABCT was up and running within a few weeks.

The US Navy maintains an enduring forward presence, with about a third of the fleet globally deployed. In response to a crisis in Northern Europe, naval capabilities in the region would likely surge. This has been signalled by increased aircraft carrier deployments, more frequent submarine operations, and the reconstitution of the 2nd Fleet. The Navy, unlike other services that require fixed bases and host nation consent to operate, can manoeuvre freely across seas and is often the first to respond to crises. The forward presence needed, as determined by the Combatant Commanders and the Secretary of Defense, is specified in the Global Force Management Allocation Plan (GFMAP). The Navy's FY 2019 budget request declared that to meet the objectives of the NSS, NDS and GFMAP, the Navy and Marine Corps aim to have "two Carrier Strike Groups (CSG) and two Amphibious Ready Groups (ARG) forward at all times, and keeping three additional CSGs and ARGs in a ready use or surge status (2+3) to deploy within 30 days".[148] The Navy's budget request for FY2024 has fewer details but underscores forward presence and gives no indications that this aim has substantially changed.[149]

The USMC, as the expeditionary force in readiness, can swiftly respond to a European crisis, especially with forward-deployed Amphibious Ready Groups and Marine Expeditionary Units. The 2nd Marine Expeditionary Force (MEF) would be the primary provider of fighting formations to EUCOM. When directed, the 2nd MEF's over 47,000 marines and sailors could potentially deploy to Europe.[150] In a Northern European conflict, parts of the force could deploy to Norway using equipment from the Marine Corps Prepositioning Program Norway (MCPP–N), including supplies to support an MEB for up to 30 days and equipment for a task force built around an infantry battalion, a combat-logistics battalion, and a composite aviation squadron.[151] However, due to poor Amphibious Fleet readiness, the USMC faced challenges meeting surge requests as Russia prepared to invade Ukraine and in responding to the earthquake that hit Turkey in February 2023.[152]

Considerable air assets are assigned to USAFE and the Third Air Force. In a conflict in Europe, a substantial influx of US airpower assets, including bombers, fighter aircraft, transports, tankers, and other enablers, is anticipated. The Air Force's Air Expeditionary Force (AEF) process facilitates the creation of tailored force packages by combining personnel and equipment from multiple units.[153] The USAF has analysed the pacing squadrons required in the initial days of a peer campaign, developing lead packages to halt enemy activity while follow-on joint and allied partner forces deploy.

The number of mission-capable pacing squadrons available for conflict in Northern Europe, accounting for other demands and priorities, remains undisclosed.

It is likely that only portions of combat-coded squadrons are presently qualified for their primary wartime mission.[154] When estimating reinforcements, factors such as refuelling capacity and basing become crucial. Notably, the concentration of wing-sized units at main operating bases represents a significant vulnerability in a conflict with a near-peer competitor. This will most certainly affect the bed-down of USAF units. The emerging doctrine for Agile Combat Employment (ACE) could help to mitigate this in future by dispersing operations from large bases to networks of smaller locations, and the European theatre offers numerous bases from which to choose.[155] However, the USAF faces significant readiness problems, impacting the scope and timelines of US reinforcements to Europe.[156] Importantly, initial deployments in response to Russia's invasion of Ukraine consisted of squadrons with only 12 jets, possibly reflecting planned lead packages or lower readiness levels.[157]

US reinforcements to Europe would also encompass cyber, space, missile defence, ISTAR assets, and SOF. In a European conflict, SOF units would be assigned to Special Operations Command Europe, under EUCOM's operational control. Potential reinforcements from Army Special Operations Command include the 75th Ranger Regiment, the 160th Special Operations Aviation Regiment, and Delta Force; Air Force Special Operations Command could contribute special-purpose aircraft and control teams; Naval Special Warfare Command might deploy SEALs Teams, and Marine Corps Forces Special Operations Command could send units from the Marine Raider Regiment.[158]

13.4 Assessment of military capability

Current operational capability[159]

Readiness remains a significant concern for the Joint Force, particularly the Air Force. Despite persistent challenges, the US is poised to make substantial contributions to the defence of Northern Europe.[160] Assessing potential US reinforcements involves considering the number of available military units abut also strategic factors, including other military responsibilities and potential contingencies elsewhere.

Within three months, all or nearly all permanently stationed forces in Europe should be ready for major combat operations. This includes the 173rd Airborne Brigade, 2nd Cavalry Regiment, 41st Field Artillery Brigade, 12th Combat Aviation Brigade, two Air Defense Artillery Battalions and two Missile Defense Batteries of the 10th AAMDC, 10th Special Forces Group 1st battalion, one F-16C/D squadron of the 52nd Fighter Wing, two squadrons of F-16C/Ds of the 31st Fighter Wing, two F15C/F15E squadrons and the F-35 squadron of the 48th Fighter Wing, ISTAR assets, UAVs, and the four Arleigh Burke-class Guided Missile Destroyers.[161] All rotational forces deployed in Europe would also be available well within the timeframe.

During Russia's military build-up near the Ukrainian border, the US initiated reinforcement of Europe. Post-invasion, significant reinforcements were sent, and the rotational presence expanded. Current US Army rotations include 2 ABCTs, 2 CABs, 1 IBCT, 2 Sustainment Brigades, 1 Expeditionary Intelligence Brigade, and 1 Artillery Battalion, along with 2 Division HQs and 2 Artillery Division HQs. For a few months, the US Army had 3 ABCTs in Europe, as the unit scheduled to rotate home prolonged its stay. The Army could likely reinforce Europe with at least one more division-sized formation in case of war, including around 2 ABCT/IBCTs, 1 CAB, 1 Artillery Brigade, and 1 Air Defense Battalion within three months, adding to the forces already deployed in Europe.

The US naval presence in EUCOM's AOR has significantly expanded since Russia invaded Ukraine. This includes deploying a Carrier Strike Group, several larger surface combatants, an EA-18 Growler Squadron to Spangdahlem, Germany, and, in all likelihood, submarines. Additionally, an Amphibious Ready Group/Marine Expeditionary Unit, normally the size of marine regiment, is being rotated to Europe (TF 61/2). In a crisis in Northern Europe, forward-deployed naval vessels, including submarines, can arrive quickly, depending on their location. On average, it takes eight days to sail to the Greenland-Iceland-United Kingdom (GIUK) Gap from Norfolk and nine to Gibraltar. A CSG deployed in the Atlantic Ocean or the Mediterranean Sea could provide rapid assistance. Within three months, at least 2 CSGs would be available, bringing about 8 fighter squadrons to the theatre. One ARG/MEU could also be available unless engaged elsewhere. Further reinforcements may include approximately 10 attack submarines, at least 10 additional larger surface combatants, and a squadron of P-8s.

The USMC maintains a limited permanent presence in Europe, currently rotating an MEU equipped with HIMARS as part of TF 61/2. In a crisis in Northern Europe, reinforcements would arrive swiftly. Within about a week, initial units from the 2nd MEF could land and start retrieving pre-positioned equipment in Norway. Additional units would likely follow, forming up to a division-sized marine task force within three months.

Due to the ongoing war, Air Force rotations in Europe have intensified, featuring Bomber Task Forces

with B1-B Strategic Bombers and B-52Hs, alongside various short-term fighter-squadron deployments, including F-15s, F-35s, and F-22s. The USAF has the capability to rapidly send substantial reinforcements in a serious crisis, given three months' notice, likely the equivalent of at least 2 wings equivalent to 1–2 wings, each comprising 3–4 squadrons of fighter aircraft (F-15Cs, F-22s, and F-35s) and a tanker wing. This may also involve 2–3 strategic-bomber squadrons, primarily B-52s and B-1Bs. Within three months, additional fighter squadrons, ISTAR assets, and enablers could be deployed.

In addition to permanent SOF units, more assets were likely deployed to Europe ahead of Russia's invasion of Ukraine. In general, reinforcements can be expected to be drawn from the three battalions of 75th Ranger Regiment and several smaller SOF units within a very short time frame.[162] Given three months' notice, significant SOF assets would be prepared for deployment.

The US possesses substantial command and control capacities in the European Theatre. In addition to the numerous permanent NATO/US headquarters, the V-Corps FCP has been reinforced, and multiple additional headquarters are in rotation as part of Operation Atlantic Resolve, including two divisional headquarters. However, full operational capability for the command and control of major combat operations with corps-sized formations may not be achievable within a 3 month-notice, primarily due to a remaining lack of training and realistic large-scale exercises within the European theatre and NATO.

The US has enhanced sustainment by deploying significant assets, including two sustainment brigades, on a rotational basis. Nonetheless, apprehensions endure regarding the US capacity for operational movement and sustainment within the European theatre, particularly during or near a high-intensity conflict. The lack of prepositioned supplies for prolonged warfighting exacerbates the challenge, placing a high demand on both transport capacity and its protection, especially against various forms of air attacks.

In conclusion, the US has significant assets to deter aggression and defend Europe, with the ability to deploy additional reinforcements. Yet, in a wider European conflict, this capacity may diminish as communication lines and staging areas become vulnerable to attack, with limited means for protection. Furthermore, the US ability to reinforce Europe and its overall capability in the region would be notably compromised in the event of another regional contingency, such as a major conflict in the Middle East or the Indo-Pacific region, necessitating the relocation of certain assets out of Europe, for example ISTAR capabilities.

Future operational capability

The DOD prioritises modernisation over capacity, emphasising next-generation systems, including the nuclear triad and JADC2. In 2030, the Navy will have fewer ships, the Air Force fewer fighters, and the Army may also be smaller. Unless the recruitment crisis is addressed, the Joint Force may significantly contract as a whole towards 2030.

For the foreseeable future, the US will probably perceive China as its pacing threat, with direct and indirect consequences for Europe. If trade-offs are necessary, the Indo-Pacific will be prioritised over Europe in defence budgets, favouring the Air Force and Navy, which are critical for Indo-Pacific contingencies, over the Europe-focused Army.

In 2030, the Joint Force will have improved its warfighting capability against a peer competitor. Doctrinal changes and investments in Joint All Domain Command and Control will improve joint operations, increase the speed and accuracy of decision-making, and bolster the kill chain with advanced sensors, electromagnetic spectrum control, and more effective shooters, including air and missile defence.

By 2030, the Army is projected to be smaller but more capable, aligning with its transformation into an MDO Ready-Force. Key advancements include the establishment of additional Multi-Domain Task Forces, enhancements in long-range precision fires and air and missile defence, and the addition of the 11th Airborne Division to bolster operations in Arctic conditions. Additionally, the Army will have built a division-sized stockpile of pre-positioned equipment in Europe, including munitions.[163]

In the near term, the Navy will contract, with manned-ship inventory dropping to approximately 280, while unmanned vessels will increase. By 2030, the USS *Gerald Ford* aircraft carrier (CVN) will achieve full operational capability, and two additional Ford-class carriers will have been delivered. The capability of the Carrier Air Wings will improve as more F-35s are introduced. The numbers of CVNs and amphibious assault ships will remain steady as older counterparts are replaced by the Ford and America classes. However, the inventory of attack submarines will decrease, as the Virginia-class will not replace the Los Angeles-class on a one-for-one basis. Readiness challenges are expected to persist due to maintenance issues, the high operational tempo, and the recruitment crisis.

Having shed capabilities incompatible with FD30, the USMC of 2030 will be a smaller, lighter force more integrated with the Navy and increasingly reliant on long-range fires, aviation, and diverse unmanned systems. However, challenges in readiness are anticipated, mainly

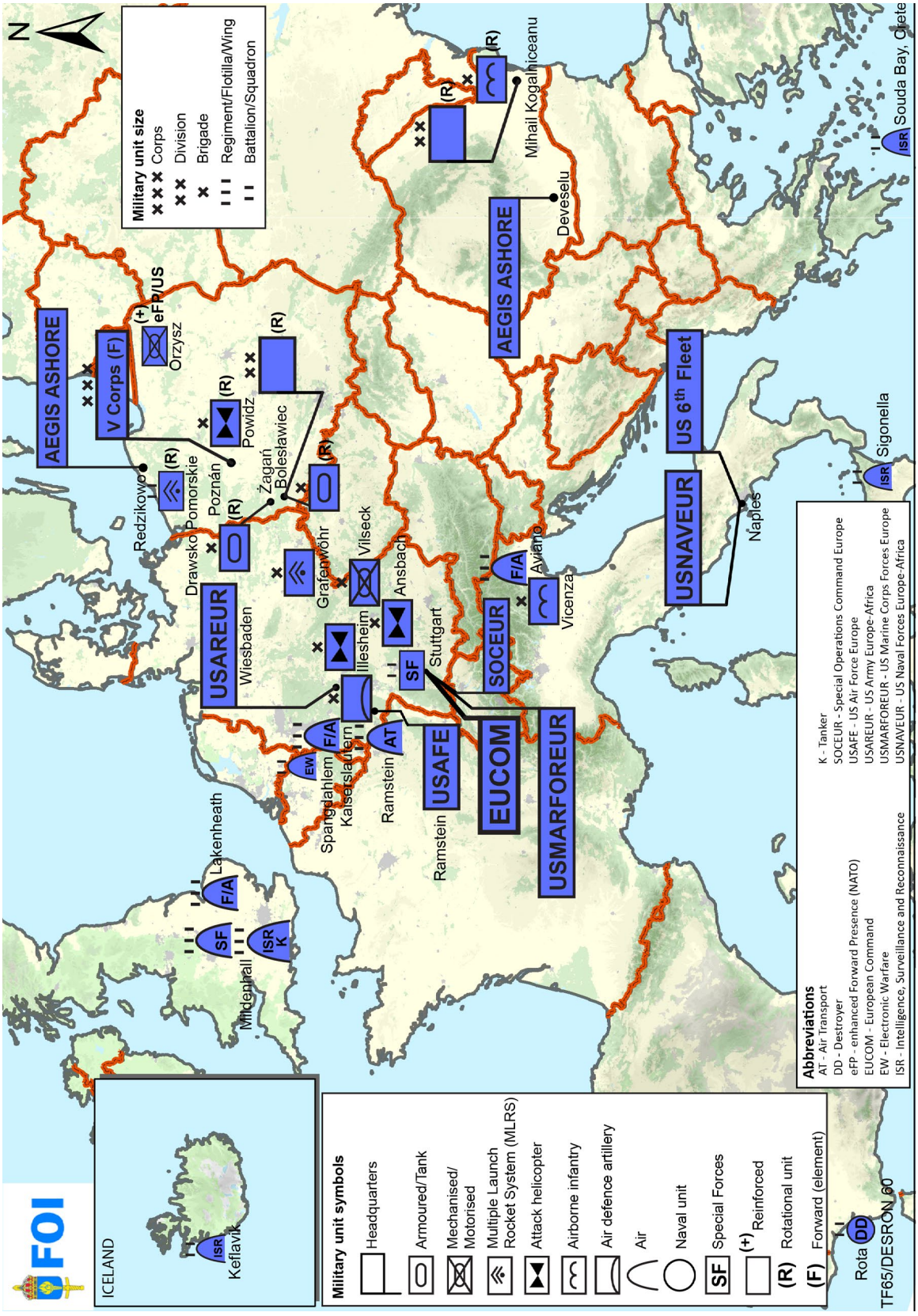
stemming from the shortage of amphibious ships and the low mission-capability rate of the F-35s. Additionally, USMC capabilities and capacities may become less relevant for the defence of Europe as a result of changed force design.

In 2030, the Air Force's capabilities will have been enhanced with increased F-35 deployment, gradually replacing legacy multirole and close air-support aircraft, along with the introduction of the B-21 strategic bomber, replacing B-1Bs and parts of the B-52 fleets. The Air Force will exhibit improvements in engaging moving targets, command and control, and platform integration. New basing and deployment concepts may also have reduce vulnerability and increase resilience. However, a decrease in overall capacity is anticipated as the Air Force divests, impacting the number of squadrons available for crisis response in Europe, especially if the Indo-Pacific region remains the priority theatre. If the readiness and mission-capability rates of the F-35 fleet have not improved, US capacity will suffer further. The future Air Refueling Fleet also raises concern, given that the KC-46 acquisition plans cover less than half of the aging KC-135s.

By 2030, the Space Force will be more resilient and enhance the Joint Force's situational awareness and kill-chain, bolstering for example air and missile defence. Progress in modernising the US strategic deterrent will be evident with the Ground-Based Strategic Deterrent reaching initial operational capacity and B-21 bombers entering service. However, potential delays in the Columbia-class SSBN programme may create gaps in the Sea-Based Deterrent. Amid the shift from counter-insurgency to near-peer threats, US Special Operations Forces will be highly capable but reduced in numbers. ■

Table 13.2 Force structure of the US Armed Forces in Europe

Force	Organisation in 2023	Major reforms towards 2030
Joint	Joint Operations Command (EUCOM) Special Operations Command (SOCEUR) Theater Sustainment Command (TSR) 1 Signals Brigade 1 Military Intelligence Brigade 1 Transportation Brigade	
Army	Army Component Command (USAREUR) 1 Corps Headquarters Artillery Command 1 Artillery Brigade Air and Missile Defense Command Air Defense Artillery Brigade 1 Multi Domain Task Force (MDTF) 1 Mechanised Infantry brigade 1 Airborne Infantry Brigade 1 Special Operations Forces Battalion	Reorganisation of divisions and MDO integration. Increased pre-position of equipment, including munitions. Introduction of Long Range Hypersonic Weapon (Dark Eagle). The MDTF is planned to include a headquarters and headquarters battalion, a multi domain effects battalion, a long-range fires battalion, an indirect fire protection capability (IFPC) battalion, and a brigade support battalion.
Navy	Navy Component Command (USNAVEUR-NAVAF) 1 Amphibious Command Ship (LCC) 1 Taskforce (TF 56/DESRON 60, 4 Destroyers) 2 Maritime Patrol Squadrons 1 Electronic Attack Squadron 1 Fleet Air Reconnaissance Squadron	Possibly 2 additional Destroyers (DDG) to Rota, Spain.
Air Force	Air Force Component Command (USAFE) 6 Fighter/Attack Squadrons (F-15, F-16, F-35) 1 Intelligence Squadron 1 Tanker Wing 1 Transport Wing 1 Combat Search and Rescue Squadron 1 Special Operations Group	Implementation of Agile Combat Employment (ACE). 2 additional F-35 squadrons will be with DCA forward stationed in the UK. The KC-135 Stratotankers may be replaced by new KC-46As
Marine Corps	Marine Corps Component Command (USMARFOREUR)	Implementation of FD30, including deeper integration with the Navy.
Operation Atlantic Resolve Rotational Forces and Reinforcements		
Army	2 Division Headquarters 2 Division Artillery Headquarters 1 Infantry Brigade 2 Armoured Brigades 1 Combat Aviation Brigade 1 Artillery Battalion 2 Sustainment Brigades 1 Expeditionary Military Intelligence Brigade	
Navy/ Marine Corps	1 Carrier Strike Group Task Force 61.2 with 1 Amphibious Ready Group and 1 Marine Expeditionary Unit	
Air Force	2 Fighter/Attack Squadrons 1-2 Strategic Bomber Task Force Tanker Units	



Map 13.1 Overview of the US Armed Forces and its basing in Europe

Remarks: The map covers major operational headquarters and manoeuvre forces. Note that significant segments of the US forces, including both rotational and permanently deployed units, are currently engaged in operations across NATO's Eastern Flank. Additionally, the map does not show the heightened deployment of Air Force, Navy, and Marine Corps forces, which has surged significantly due to the ongoing conflict in Ukraine, nor does it depict the presence of US forces in Türkiye..

Source: Design by Per Wikström

Endnotes

1 White House, National Security Strategy, October 2022.

2 See, for instance, Schlesinger, Arthur M. Jr., The Cycles of American History (Boston: Houghton Mifflin, 1986); Kissinger, Henry, Diplomacy (New York: Simon and Schuster, 1994).

3 U.S. Department of Defense, 2022 National Defense Strategy of the United States of America: Including the 2022 Nuclear Posture Review and the 2022 Missile Defense Review, 2022.

4 U.S. Department of Defense, Summary of the 2018 National Defense Strategy of the United States of America, 2018.

5 U.S. Department of Defense, Summary of the 2018 National Defense Strategy; U.S. Joint Chiefs of Staff, Description of the National Military Strategy 2018, 2018.

6 U.S. Department of Defense, Office of the Undersecretary of Defense, (Comptroller) Chief Financial Officer, Defense Budget Overview: United States Department of Defense FY2019 Budget Request, 2018; Colby, Elbridge, Testimony before the Senate Armed Services Committee Hearing on Implementation of the National Defense Strategy, 29 January 2019; Lyons, Paul and Solomon, Jon, "The Global Operating Model's Contact and Blunt Layers: Cornerstones for U.S. Naval Strategy, Pt. 1," CIMSEC, 6 January 2022.

7 Joint Chiefs of Staff, Joint Concept of Integrated Campaigning, 2018; Joint Concept for Operating in the Information Environment, 2018; Joint Warfighting Concept, 2021; and Joint Concept for Contested Logistics, 2021.

8 Joint Chiefs of Staff, National Military Strategy, 2022.

9 Joint All Domain Command and Control is the DoD's overarching concept for the battle network of the future. Battle networks are sometimes simply referred to as "the sensor-to-shooter kill chain" or just simply the "kill chain." There are numerous overlapping and sometimes contradictory efforts and initiatives within the JADC2 concept. For instance, the Air Force is pursuing the Advanced Battle Management Systems (ABMS), the Navy is expanding its Naval Integrated Fire Control-Counter Air architecture, and is exploring its own future network through Project Overmatch, while the Army is working incrementally through its Project Convergence; see Hitchens, Theresa, "SecDef OKs Joint Warfighting Concept; Joint Requirements Due Soon," Breaking Defense, 16 June 2021; Harrison, Todd, "Battle Networks and the Future Force, Part 1: A Framework for Debate," CSIS Briefs, August 2021.

10 Defense Scoop, "US military publishes new joint warfighting doctrine," 13 September 2023 (retrieved 8 December 2023), *https://defensescoop.com/2023/09/13/us-military-publishes-new-joint-warfighting-doctrine/*.

11 Joint Chiefs of Staff, Joint Concept for Competing, 2023.

12 Congressional Research Service, FY2024 Defense Budget Request: Context and Selected Issues for Congress, May 31, 2023.

13 There are multiple definitions of defense expenditures in the U.S. The first encompasses the Department of Defense's spending. The second, termed "National Defense," includes DOD expenses and those of other agencies safeguarding the nation, such as the Department of Homeland Security and the National Nuclear Security Administration. Notably, several US defence programmes and expenses are recorded in supplementary budgets, which may or may not be included in NATO's data.

14 Notably, the personnel category has decreased by roughly 11 percentage points, whereas others increased by about 9 percentage points between 2022 and 2023.

15 U.S. Department of Defense, Office of the Under Secretary of Defense, (Comptroller)/Chief Financial Officer, Defense Budget Overview, United States Department of Defense Fiscal Year 2024 Budget Request, March 2023.

16 U.S. Department of Defense, Office of the Under Secretary of Defense, (Comptroller)/Chief Financial Officer, Program Acquisition Cost by Weapon System, United States Department of Defense Fiscal Year 2024 Budget Request, March 2023.

17 The Air National Guard and the Army National Guard are reserve components of their services and operating partially under state authority.

18 Congressional Research Service, Defense Primer: The Military Departments, 2018.

19 The seven geographical commands are Africa Command, Central Command, European Command, Indo-Pacific Command, Northern Command, Southern Command, and Space Command, and the four functional commands are Cyber Command, Special Operations Command, Strategic Command, and Transportation Command.

20 Congressional Research Service, United States European Command: Overview and Key Issues, March 2022.

21 An additional 20,000 permanent DOD civilians are also authorised for EUCOM, including its supporting commands. Congressional Research Service, United States European Command: Overview and key issues, 2020.

22 Details about these additional deployments are provided in the section about US reinforcement capacity.

23 U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Defense budget overview (FY22), 2021,

24 U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Defense budget overview (FY24), 2023; U.S. Army, Assistant Secretary of the Army (Financial Management and Comptroller), FY 2024 President's Budget Highlights, 2023.

25 U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Defense Budget Overview (FY24), 2023. When the planned drawdown of Army end strength was reversed by the Trump administration, the Army did not seek to increase the number of BCTs. Instead, it chose to raise the manning levels within individual operational BCTs to 105 percent of their authorised levels to increase readiness. However, the shrinking end strength reverses this effort.

26 In March 2022, the V Corps main HQ (approximately 300 soldiers) also deployed to Germany and Poland to build readiness, improve interoperability, reinforce allies and deter Russian aggression.

27 The 1st Multi-Domain Task Force deployed the Army's first Long-Range Hypersonic Weapon system in February 2023.

28 These efforts were previously conducted at the Joint Multinational Training Group Ukraine and the Georgian Defense Readiness Program-Training.

29 The 21st TSC also supports the US Africa Command and US Central Command.

30 In October 2023, C Battery of the recently activated 1st Battalion, 57th Air Defense Artillery Regiment, will directly support the 173rd Airborne Brigade.

31 The Army has redesignated the 1st Stryker BCT and the 4th Infantry BCT of the 25th Infantry Division as the 1st and 2nd Infantry BCT of the 11th Airborne, respectively. Lacdan, Joe, "Army re-activates historic airborne unit, reaffirms commitment to Arctic Strategy," Army News Service, 8 June 2022.

32 Initiatives such as Project Convergence seek to transform the Army into a data-centric force.

33 Feickert, Andrew, "The Army's AimPoint and Army 2030 Force Structure Initiatives," Congressional Research Service In Focus No. IF11542, 31 January 2022.

34 The creation of the Army Futures Command is arguably the most significant reorganisation of the Army since the 1970s and the creation of Training and Doctrine Command (TRADOC); Judson, Jen, "Futures Command Faces identity crisis as Army shifts mission," Defense News, 6 September 2022.

35 This manual delves into MDO operational concepts in greater detail than previous doctrines and will guide Army practices into the 2030s. See, also, U.S. Army, Multi-domain Battle: Evolution of Combined Arms for the 21st Century: 2025–2040, 2017.

36 U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Defense Budget Overview (FY24), 2023, Chapter 6.

37 U.S. Department of Defense, Office of Inspector General, Audit of Brigade Combat Team Readiness, 2019.

38 Feickert, Andrew, "The Army's New Regionally Aligned Readiness and Modernization Model," Congressional Research Service In Focus No. 11670, updated 9 March 2021.

39 U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Defense Budget Review, United States Department of Defense Fiscal Year 2024 Budget Request, March 2023.

40 No timetables for this increase have been announced. Shelbourne, Mallory, "Biden Administration Basing Two More Destroyers in Rota, Spain," USNI News, 28 June 2022.

41 Task Force 67 also commands Triton UAVs (MQ-4), a Helicopter Sea Combat Squadron based in Sigonella, and a Helicopter Maritime Strike Squadron based in Rota.

42 U.S. Department of the Navy, Office of the Chief of Naval Operations, Force Composition of Afloat Navy and Naval Groups, 2017; U.S. Department of the Navy, The Carrier Strike Group, 2020.

43 U.S. Navy, Carrier Air Wing, 2019.

44 U.S. Department of the Navy, U.S. Marine Corps, and U.S. Coast Guard, Advantage at Sea: Prevailing with Integrated All-Domain Naval Power, December 2020.

45 Memorandum from M. M. Gilday, Chief of Naval Operations, to Rear Admiral Douglas Small, "Subj: Project Overmatch," 1 October 2020; Memorandum from M. M. Gilday, Chief of Naval Operations, to Vice Admiral James Kilby, "Subj: A Novel Force," 1 October 2020; Eckstein, Megan, "Navy Focuses on Strengthening Networks to Support Unmanned Operations," USNI News, 27 October 2020.

46 The six force-design imperatives are Expand Distance, Leverage Deception, Harden Defense, Increase Distribution, Ensure Delivery, and Generate Decision Advantage Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Defense Budget Overview (FY24), 2023, Chapter 6; Gilday, Admiral M. M., Chief of Naval Operations, Chief of Naval Operations Navigation Plan 2022, 22 July 2022.

47 Maintaining the U.S. Strategic Command's requirement for a minimum of 10 operational ballistic missile submarines (SSBN) and increasing the number of aircraft carriers from 11 to 12, as requested by the 2018 National Defense Authorization Act (NDAA), will consume a significant portion of the Navy's shipbuilding budget.

48 The Future Years Defense Program is a plan that reflects the DOD's expectations about its programmes and costs over the next five years and is a part of the President's annual budget request. See Section 1025, "Policy of the United States on Minimum Number of Battle Force Ships," in H.R. 2810, National Defense Authorization Act for Fiscal Year 2018, Public Law 115-91, 115th Cong., 12 December 2017.

49 The Secretary of the Navy, Department of the Navy's 30-year Shipbuilding Plan for the Fiscal Year (FY) 2024 President's Budget, March 30, 2023; Hipple, Matthew, "20 Years of Naval Trends Guarantee a Fy23 Shipbuilding Plan Failure," CIMSEC, 9 May 2022; Eckstein, Megan, "NAVSEA: Navy Could Accelerate Some Public, Private Shipyard Upgrades If Money Were Available," USNI News, 7 May 2021; Maurer, Diana C., Director, Defense Capabilities and Management, U.S. Government Accountability Office, "Naval Shipyards: Ongoing Challenges Could Jeopardize Navy's Ability to Improve Shipyards," testimony before the Subcommittees on Readiness and Management Support and Seapower, Committee on Armed Services, U.S. Senate, GAO-22-105993, 10 May 2022; U.S. Government and Accountability Office, Navy Maintenance, Testimony before the Subcommittees on Seapower and Readiness and Management Support, Committee on Armed Services, U.S. Senate, 4 December 2019.

50 Thomas B. Modly, Acting Secretary of the Navy; Admiral Michael M. Gilday, Chief of Naval Operations; and General David H. Berger, Commandant of the U.S. Marine Corps, statement "On Fiscal Year 2021 Department of the Navy Budget," before the Committee on Armed Services, U.S. Senate, 5 March 2020; Government Accountability Office, Navy and Marine Corps: Services Continue Efforts to Rebuild Readiness, but Recovery Will Take Years and Sustained Management Attention, Statement for the Record to the Subcommittee on readiness and management Support, Committee on Armed Services, U.S. Senate, 2 December 2020.

51 U.S. Navy, Office of the Chief of Naval Operations, Deputy Chief of Naval Operations for Warfighting Requirements and Capabilities–OPNAV N9, Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year 2023, April 2022, p. 8.

52 Commander, Naval Surface Forces, Surface Warfare: The Competitive Edge, U.S. Navy, December 2021; Eckstein, Megan, "Surface warfare boss unveils strategy to create 'more ready ships, better trained sailors,'" Defense News, 11 January 2022.

53 Government Accountability Office, Navy Readiness: Additional Efforts are Needed to Manage Fatigue, Reduce Crewing Shortfalls, and Implement Training, Report to the Committee on Armed Services, House of Representatives, May 2021; Government Accountability Office, Air Force and Navy Aviation: Actions Needed to Address Persistent Sustainment Risks, Report to the Committee on Armed Services, House of Representatives, June 2022; Ekstein, Megan, "No Margin Left: Overworked Carrier Force Struggles to Maintain Deployments After Decades of Overuse," USNI News, 12 November 2020.

54 U.S. Marine Corps, Marine Corps Operations, MCDP 1-0 w/ change 1, 2, 3 (Washington, DC: Headquarters Marine Corps, 2017), 1–18.

55 Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Defense Budget Overview (FY21).

56 This includes Marine guards stationed at US embassies throughout Europe, and Task Force 61/2 (TF 61/2), a forward-deployed command element supporting U.S. Sixth Fleet operations in the U.S. European Command (EUCOM) and U.S. Africa Command (AFRICOM) area of responsibility.

57 The 1st MEF is based primarily at Camp Pendelton, California, and provides forces for U.S. Indo-Pacific Command and U.S. Central Command. The 2nd MEF is based primarily at Camp Lejune, in North Carolina, and focuses on operations in the North Atlantic, including Europe and Africa. The 3rd MEF is based at Camp Courtney, in Okinawa, Japan, and focuses on operations in the Pacific.

58 Cargill, Zachary, "2nd Marine Expeditionary Brigade Deploys as Task Force 61/2," *https://www.2ndmeb.marines.mil/News-Releases/Article/3445259/*; the MRF-E facilitates military exercises in the Nordic regions, increases interoperability with allies and partners, improves Marine Corps cold-weather and mountain expertise, and supports NATO and EUCOM operational plans.

59 The USMC also has squadrons of C-130 cargo aircraft and intends to increase this number to four, according to Force Design 2030.

60 The updated goal is to have 16 MV-22 Squadrons in 2030, and the number of aircraft per squadron will be reduced from12 to 10. U.S. Marine Corps, 2022 Marine Corps aviation plan, 2022.

61 U.S. Navy, Naval Vessel Register, Fleet Size, 2020. Due to a fire aboard LHD Bonhomme Richard, in 2020, while in her homeport in San Diego, the ship suffered such extensive damage that the Navy decided to scrap the vessel.

62 The number of amphibious ships will decline in the coming years and the future amphibious fleet will have fewer larger ships and more light amphibious warships (LAW). U.S. Department of the Navy, Amphibious Assault Ships – LHD/LHA(R), 2020; Congressional Research Service, Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress, RL32665, April 2023.

63 The Task Force also supports the 2nd MEF's experimentation with multidomain reconnaissance constructs and has become a success story. Berger, David H., Statement of David H. Berger Commandant of the Marine Corps on the Posture of the United States Marine Corps before the Senate Committee on Armed Services, April 2023.

64 A Marine Expeditionary Brigade is smaller than a Marine Expeditionary Force and is centred around a Marine infantry regiment.

65 The restructuring will have a cultural impact on the USMC. Infantry and close combat have been the centrepieces of the Marine Corps. With the new design, the Marine Corps is intended to win battles using long-range fires and aviation. Moreover, the proposed new formation has not been proven at scale in operational employment. General David H. Berger, Commandant of the Marine Corps, Force Design 2030, U.S. Department of the Navy, U.S. Marine Corps, March 2020.

66 U.S. Marine Corps, Littoral Operations in a Contested Environment, 2017; U.S. Marine Corps, Expeditionary Advance Base Operations, 2018. The USMC has also developed a doctrinal base with its Tentative Manual for Expeditionary Advance Base Operations; Marine Corps Doctrinal Publication 1-4, Competing; and Marine Corps Doctrinal Publication 7, Learning.

67 All MLRs are planned to be based in the Indo-Pacific.

68 The USMC is willing, for instance, to take near-term capacity risks by reducing the number of Amphibious Assault Vehicles faster than it acquires new Amphibious Combat Vehicles.

69 Berger statement, 11 May 2022, p. 10; the service is also investing in areas such as Marine Special Operations Command and individual warfighting prowess; Berger, Force Design 2030.

70 For fixed-wing aircraft, in general, the USMC has only 66 percent of the pilots it needs and, specifically, only 40 percent of those it needs for its F-35s.

71 It has also been reported that the shortage of ships prevented the USMC from assisting the relief effort after the earthquake in Turkey and Syria in early February 2023. Kenney, Caitlin M. "'We should have been there': Marine General laments the State of the Amphib Navy," Defense One, 29 April 2022; Shelbourne, Mallory, "Marines Couldn't Meet Request to Surge to Europe due to Strain on Amphibious Fleet," USNI News, 26 April 2022; Kenney, Caitlin M., "'We didn't have the ships' to send 'best option' to help Earthquake Victims, Commandant Says," Defense One, 15 February 2023.

72 Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Defense Budget Overview (FY24). The USAF is moving towards a new force-sizing metric – operational squadrons – which includes airlift, bombers, command and control, fighters, intelligence/surveillance/reconnaissance, special operations, space, cyber, missile, and recovery squadrons. Using this metric, the USAF has 312 squadrons in total.

73 Units and aircraft assigned to training, operational test and evaluation, and other missions are thus excluded. This distinction is important, since noncombat-coded units' software, munitions carrying, and delivery capability are incompatible with combat-coded versions of the same aircraft.

74 In Air Force policy, Air Force Expeditionary Wings are generally the echelon with all of the capabilities needed to employ, sustain, and protect fighter forces at expeditionary bases. Collectively, these capabilities are called expeditionary combat support (ECS) and are a subset of the Agile Combat Support capabilities needed to operate from expeditionary sites.

75 Several of these imperatives also relate directly to Global Strike and US strategic deterrence.

76 U.S. Air Force, Agile Combat Employment, Air Force Doctrine Note 1-21, August 2023.

77 U.S. Air Force, "The Air Force We Need: 386 Operational Squadrons," 17 September 2018.

78 In FY24, for instance, the Air Force is retiring 2 E-3 AWACS, 3 E-8 JSTARS, 48 MQ-9s and 1 RQ-4. Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Defense Budget Overview (FY24), 2023; Hadley, Greg, "Air Force Leaders Explain 5-Year Divestment Plan and Smaller F-15EX Fleet," Air Force Magazine, 27 April 2022.

79 The B-21 Raider is scheduled to begin replacing the B-1B and portions of the B-52 fleets by the mid-2020s. The Air Force plans to acquire 15 KC-46s yearly through 2028, at which time it will have 179. These will replace less than half of the current tanker fleet of aging KC-135s. However, the KC-46 has experienced several delays and problems, including difficulties refuelling fighters in an operational environment; this particular problem will probably be unsolved until late 2025. Gordon, Chris, "Update to KC-46's Troubled Refueling System Delayed Until 2025," Air & Space Forces Magazine, 7 October 2022.

80 Air Force aircraft have an average age of almost 30 years. Even the unmanned ISR aircraft is becoming old.

81 The exact numbers in the US munitions inventory are classified. Increasing the stockpile has been a priority in the last few years. However, the baseline for the stockpile does not seem to have been updated to deal with a conflict with a peer competitor. How long the stockpile would last in such a conflict is probably calculated in weeks, not months.

82 More than a few pilots have never experienced acceptable levels of flying hours; a significant amount of robust training will be required to overcome the almost two-decades-long drought in training for combat with a near-peer competitor. For an experienced pilot, it will take at least a year to master the skills required to dominate the air against a near-peer competitor. For a squadron, which usually has a mix of experienced and less-experienced pilots, it will be years before it is fully ready to take on near-peer competitors. Pawlyk, Oriana, "Cuts to Flight Hours Necessary as Aircraft Sustainment Costs Surge, Air Force General Says," Military.com, 23 June 2021; Venable, John, "U.S. Air Force," in An Assessment of U.S. Military Power (Washington, D.C: Heritage Foundation, October 2022).

83 The 2013 sequester was a major setback to Air Force readiness. U.S. Department of the Air Force, Air Force Budget Posture, Testimony before the Committee on Armed Services, U.S. Senate, 6 June 2017.

84 The newest model, the Air Force Force Generation (AFFORGEN), divides the deployable Air Force into four six-month phases: "Ready, Available to Commit, Reset, and Prepare"; Secretary of the Air Force, Public Affairs, "New Force Generation Model Builds High-End Readiness, Sustainability for Joint Force," 5 August 2021; General Charles Q. Brown, Jr., and General David H. Berger, "Redefine Readiness or Lose," War on the Rocks, 15 March 2021.

85 The mission-capable rate goal for the F-35A is 90 percent, while the goal for the F-35B and F-35C is 85 percent. US Government Accountability Office, F-35 Aircraft: DOD and the Military Services Need to Reassess the Future Sustainment Strategy, September 2023.

86 Venable, John, "U.S. Air Force."

87 Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Defense Budget Overview (FY24).

88 Department of the Air Force, Comprehensive Strategy for the Space Force, Report to Congressional Committees, August 2023; https://www.spaceforce.mil/About-Us/FAQs/Whats-the-Space-Force/.

89 SPACECOM has responsibility for the missile defence mission and will take over STRATCOM's missile defence component, the Joint Functional Component Command for Integrated Missile Defense. STRATCOM and NORAD will retain responsibility for Integrated Threat Warning and Attack Assessment missions. The USAF also manages the National Security Space Launch acquisition programme, which procures launch services for the military services, the National Reconnaissance Office, Space Development Agencies, and other government agencies, from private companies. The demand for launch services has increased dramatically in recent years and this trend seems to be accelerating.

90 Seamless global coverage requires 24 satellites. The USSF has an additional six decommissioned satellites, which function as on-orbit spares.

91 This will be followed by the Next Generation Overhead Persistent Infrared System, with a launch start in 2025 (Next-Gen OPIR, 5 satellites), and the Future Operationally Resilient Ground Evolution (FORGE) system. FORGE is a ground-based, modular, open-architecture mission-data processing framework that will control and process data from SBIRS, as well as Next Gen OPIR, thus providing resiliency to the missile-warning space architecture.

92 The older Space-Based Surveillance System-1 (SBSS, 1 satellite) also detects and tracks space objects.

93 John Venable, "U.S. Space Force," in 2023 Index of U.S. Military Strength, Heritage Foundation, 2023.

94 Unal, Beyza, "Cybersecurity of NATO's Space-Based Strategic Assets," Chatham House: The Royal Institute of International Affairs Research Paper, July 2019 (retrieved December 2023), https://www.chathamhouse.org/sites/default/files/2019-06-27-Space-Cybersecurity-2.pdf.

95 U.S. Department of Defense, 2022 Nuclear Posture Review, 2022.

96 The July 2021, classified, Electromagnetic Spectrum Superiority Strategy Implementation Plan designates USSTRATCOM as the lead for Joint Electromagnetic Spectrum Operations (JEMSO). The Global Operations Directorate, USSTRATCOM/J3E, oversees two centers: the Joint Electromagnetic Warfare Center, in Joint Base San Antonio, Texas, and the Joint Center for Electromagnetic Readiness, in Nellis AFB, Nevada.

97 The Minuteman III missile was originally constructed to carry three warheads.

98 The D-5 missile can be loaded with up to 8 MK-5RV warheads and up to 14 MK-4 warheads.

99 The B2s are not equipped to carry cruise missiles.

100 The other half is stored in the US as backup and for contingency missions in the Indo-Pacific region. Kristensen, Hans M., and Korda, Matt, "United States Nuclear Weapons, 2022," Bulletin of the Atomic Scientists, vol. 78, no. 3, 9 May 2022: p. 163, (retrieved 22 June 2022), https://www.tandfonline.com/doi/pdf/10.1080/00963402.2022.2062943.

101 U.S. Department of Defence, 2022 Nuclear Posture Review.

102 The NNSA is a separately organised agency within the Department of Energy. In recent years, there have been incidents that have provoked speculation about the integrity and reliability of the U.S. nuclear deterrent.

103 U.S. Department of Defence, 2022 Nuclear Posture Review.

104 This effort will also be financed by the Department of Energy.

105 This number is planned to expand to 64 due to the advancing ballistic-missile threat.

106 The 13th Missile Defense Battery is deployed in Israel.

107 Upgraded versions of the SM-6 are the only US system capable of intercepting hypersonic missiles.

108 In December 2022, the Cyber National Mission Force (CNMF) was elevated to a Subordinate Unified Command. The National Mission teams are aligned with the CNMF, which synchronises full-spectrum cyber operations in defence of the US.

109 Congressional Research Service, Defense Primer: Cyber Operations, 9 December 2022.

110 Di Pane, James, "Cyber Warfare and U.S. Cyber Command," in 2023 Index of U.S. Military Strength, Heritage Foundation, 2023.

111 The publication of the National Cyber Strategy, in 2018, was the first cyber strategy released in 15 years. White House, The Cyber Strategy of the United States of America, 2018; The Department of Defense, Summary of the Department of Defense Cyber Strategy, 2018.

112 This is the opposite of passive defence, which focuses on monitoring for intrusions within US networks.

113 US Department of Defense, DOD Cyber Strategy Fact Sheet, 26 May 2023; Pomerleau, Mark, "DOD sends new cyber strategy to Congress, releases unclassified fact sheet," Defensescoop, 26 May 2023.

114 SOF core activities are Direct Action, Special Reconnaissance, Counterterrorism, Unconventional Warfare, Foreign Internal Defense, Security Force Assistance, Hostage Rescue, Counterinsurgency, Foreign Humanitarian Assistance, Military Information Support Operations (also known as psychological operations), and Civil Affairs Operations.

115 As part of the transition from COIN to fighting near-peer threats, the Army is expected to cut about 10 percent of USASOC personnel. As of October 2023, no final decision has been made.

116 The 1st SFOD-D, known variously as Delta Force, Combat Applications Group (CAG), Army Compartmented Elements (ACE), or Task Force Green, is subordinate to JSOC.

117 The highly secretive Naval Special Warfare Development Group (DEVGRU), also known as SEAL TEAM 6, is an exception. It does not have the same structure as the SEAL Teams and is subordinate to JSOC.

118 U.S. Marine Corps, MARSOF 2030, March 2018.

119 Mental health is on the decline and the levels of depression, anxiety, and other mental conditions have increased dramatically. Social isolation and school closures due to the COVID 19 pandemic are also to some extent responsible for the rapid decline in test scores in the military´s standardised tests for potential recruits.

120 Military Family Advisory Network, Military Family Support Programming Survey: 2021 Results, 14 July 2022.

121 Republicans are particularly concerned with the DOD's embrace of Diversity, Equity and Inclusion ideology, the lowering of various standards in the pursuit of a level playing field, and the prioritisation of non-warfighting issues.

122 According to an extensive DOD survey of young Americans' disinterest in service, the top three reasons cited by the respondents were fear of death or injury, worries about PTSD, and separation from friends and family.

123 For instance, the Army's Future Soldier Prep Course, aimed at helping interested youths meet accession standards, seems promising. The service also plans to consolidate the recruitment effort and elevate the Army Recruiting Command from a two-star HQ to a three-star Command.

124 There have been instances of lowering standards, especially in the Navy. This route was also tried in the late 1970s and led to morale, discipline, and readiness problems.

125 The global DIB includes organisations and facilities located outside the US and certain facilities operated by other governments that are formal defence corporation partners with the US. This is not to be confused with the National Technology and Industrial Base, which encompasses the domestic DIB and "any persons or organisations that are engaged in research, development, production, integration, services, or information technology activities conducted within the United States, the United Kingdom of Great Britain and Northern Ireland, Australia, New Zealand, and Canada."

126 During the COVID-19 pandemic, Pfizer received multibillion-dollar contracts from the DOD.

127 To what extent the industry consolidation is the result of defence spending patterns or the complexity of modern systems is an open question. There are numerous examples of single sources for key components. For instance, the Javelin relies on Aerojet Rocketdyne's advanced solid-propellant motor, and most cruise missiles, such as JASSM, JASSM-ER, and LRASM, rely on the turbofan engine produced by Williams International. Jones, Seth G., Empty Bins in a Wartime Environment: The Challenge to the U.S. Defense Industrial Base, CSIS, January 2023.

128 The US regulatory regime is already complicating both pillars of the AUKUS partnership.

129 The US is ramping up munitions production, including Javelins and ammunition for HIMARS, and the discontinued production of Stingers has been restarted.

130 U.S. Department of Defense, National Defense Industrial Base Strategy, 2023.

131 For example, missile systems such as the PAC-2/PAC-3 air and missile defence system, Tomahawk Block V, JASSM, and the PrSM long-range precision-strike missile.

132 The US has only a few munitions assembly plants, such as those in Camden, Arkansas; Huntsville, Alabama; Rocket Center, West Virginia; and Elkton, Maryland.

133 The White House, Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth, 100-Day Reviews under Executive Order 14017, June 2021.

134 Congressional Research Service, Defense Primer: U.S. Defense Industrial Base, 17 April 2023.

135 The Presidential Drawdown Authority allows the President to authorise the immediate transfer of articles and services from US stocks up to a funding cap regulated in law.

136 US State Department, U.S. Security Cooperation with Ukraine – fact sheet, December 2023.

137 US State Department, U.S. Security Cooperation with Ukraine; Congressional Research Service, U.S. Assistance to Ukraine, 5 October 2023

138 Open sources indicate that the US has shared intelligence at a level comparable to its sharing with the Five Eyes countries and Israel. Murauskaite, Egle E., U.S. Assistance to Ukraine in the Information Space: Intelligence, Cyber, and Signaling, Asymmetric Threats Analysis Center, February 2023.

139 US assistance to Ukraine between 24 January 2022 and 31 October 2023 amounts to roughly USD 75 billion: 47 billion in security assistance, 26 billion in budgetary aid through the Economic Support Fund, loans and other support, and about 3 billion in humanitarian aid. US assistance has primarily been provided through appropriations bills covering the US response to the war. These figures cover aid and assistance to Ukraine and do not include the total spending related to the war.

140 The IRF's first deployment occurred in January 2020.

141 This number has increased since Russia invaded Ukraine in 2022.

142 The DOD measures readiness using the Defense Readiness Reporting System (DRRS). Under DRRS, all military units report periodically in four categories: personnel, equipment on hand, supply/maintenance, and training. These categories produce an overall unit grade ranging from one to four, with one being the highest and four being unready. There is also a fifth category for "out of service." U.S. Department of Defense, Office of Inspector General, Audit of Brigade Combat Team Readiness.

143 U.S. Navy, Deputy Chief of Naval Operations for Fleet Readiness and Logistics, Sealift that the nation needs, 2018.

144 U.S. Department of Defense, Office of Inspector General, Audit of Surge Sealift Readiness Reporting, 2020; Smith, Colin and Townsend, Jim, Not Enough Maritime Capability: The Challenge of Reinforcing Europe, Center for a New American Security, 2019.

145 U.S. Transportation Command, Comprehensive Report for Turbo Activation 19-Plus, 2019; Martin, Bradley and Yardley, Roland J., Approaches to strategic sealift readiness, RAND, 2019

146 In recent years, the US Army has conducted RSOM operations in ports in Gdansk, Poland; Gdynia, Poland; Klaipeda, Lithuania; and Alexandroupoli, Greece.

147 U.S. Army Europe, Fact sheet: Army prepositioned stock, 2022; Office of the Under Secretary of Defense (Comptroller)/ Chief Financial Officer, European Deterrence Initiative, U.S. Department of Defense Fiscal Year 2024 Budget Request, March 2023; U.S. Government Accountability Office, Prepositioned Stocks: DOD Needs Joint Oversight of the Military Services' Programs, 2019; U.S. Department of Defense, Inspector General, Evaluation of Army Pre-Positioned Equipment Issued in Response to Ukraine and the NATO Defense Forces, February 2023.

148 U.S. Department of the Navy, Highlights of the Department of the Navy FY 2019 budget.

149 U.S. Department of the Navy, Highlights of the Department of the Navy FY 2024 budget.

150 The basic structure of a MAGTF consists of a Command Element, a Ground Combat Element, an Aviation Element, and a Logistics Combat Element. The 2nd Marine Expeditionary Brigade was re-established in 2012 to improve expeditionary readiness. It provides a scalable, standing, joint-capable, deployment-ready headquarters element that can enable follow-on forces. It is organised to meet the requirements of a specific situation and can function alone or as the lead echelon of the MEF. The 2nd MEB draws its aviation, ground, and logistics elements from the 2nd MEF and can range in size from 14–18,000 marines

151 See the official site of the US Marine Corps, Marine Corps Pre-Positioning Program – Norway (MCPP-N).

152 Kenney. "'We should have been there,'"; Shelbourne, "Marines Couldn't Meet Request"; Kenney, "'We didn't have the ships' to send."

153 The Air Force may try to keep its permanent wings intact, at least to the extent feasible, in a major conflict against a peer competitor, as was the plan for defending NATO during the Cold War. In that case, the intact fighter wings would have additional aircraft, such as KC-135s, attached. Priebe, Miranda, et al., Distributed Operations.

154 Wood, Dakota L. (ed.), The 2021 Index of U.S. Military Strength (Washington, D.C.: Heritage Foundation, 2020), p. 421; Wood, Dakota L. (ed.), The 2023 Index of U.S. military strength (Washington D.C.: Heritage Foundation, 2023).

155 The prepositioning of numerous Deployable Air Base System (DABS) kits will facilitate a less vulnerable distribution of air assets.

156 U.S. Department of the Air Force, FY24 Department of Air Force Posture Statement, Presentation to the Committees and Subcommittees of the United States Senate and the House of Representatives 1st Session, 118th Congress.

157 Most US fighter squadrons contain around 20 aircraft.

158 The 75th Ranger Regiment, headquartered at Fort Benning, Georgia, comprises four geographically dispersed battalions. It is the Army's premier light-infantry unit; the Regiment can deploy one Ranger battalion and a Regimental C2 element within 18 hours of notification. Two additional battalions can follow on within 72 hours.

159 See section 1.6 for the methodology behind the assessment of operational capability.

160 The availability and readiness of US forces are increasingly sensitive information, and the DOD has recently moved to keep force readiness further out of the public domain.

161 Note also that Africa is part of the Sixth Fleet's area of operations.

162 The 75th Ranger Regiment is tasked to be able to deploy one Ranger battalion and a Regimental C2 element within 18 hours of notification and follow on with two additional battalions within 72 hours.

163 Through EUCOM Munitions Starter Stocks, EUCOM prepositions key munitions in the event of a contingency.

Contributors

Björn Ottosson, Ph.D., is a Senior Researcher in FOI's Department for Security Policy and Strategic Studies, with a primary focus on U.S. foreign, security, and defence policy, as well as transatlantic relations. His expertise extends to international relations theory, foreign policy analysis, and methodology. In recent years, Björn has published studies on US-China relations and US strategy. Björn's doctorate, in political science, is from Stockholm University, and he has previously held positions at Stockholm University, Södertörn University, and the Swedish Defence University.

Krister Pallin is a Deputy Research Director in FOI's Department for Strategy and Policy, with military doctrine, defence planning and command & control as his foremost areas of expertise. He has among other things long experience as an operations analyst within the Armed Forces and the Ministry of Defence. Krister has led several major projects within his areas of expertise and held various management positions within FOI. He is an active reserve officer in the Swedish Armed Forces.

Albin Aronsson is a Researcher in FOI's Department for Security Policy and Strategic Studies, focusing on politico-military issues in the United States, United Kingdom and NATO. He has recently written about NATO and nuclear weapons, the US focus on Asia, and NATO military exercises. Albin has previously served as an analyst at the Swedish Foreign Ministry's Department for European Security Policy. He has worked at the Swedish Defence University, the UK Ministry of Defence, and the Atlantic Council, in Washington, D.C. Albin holds a bachelor's degree in political science from Uppsala University, and a master's degree in war studies from King's College London.

Maria Engqvist is an Analyst in FOI's Department for Security Policy and Strategic Studies, primarily in the Russia and Eurasia Studies Programme, where she focuses on Russian and Eastern European security-policy issues. She holds an M.A. from Stockholm University, and has previously worked at the University of Tartu, in Estonia.

Alina Engström is a Researcher in FOI's Department for Security Policy and Strategic Studies, focusing on Germany, Western Europe, and European security. She has recently written about Germany's *Zeitenwende* and EU's security and defence policy. Alina has previously worked at the Swedish Institute of International Affairs (UI) and the Swedish Ministry for Foreign Affairs. She holds a bachelor's degree in political science from the University of Hamburg and a double master's degree in European governance from the University of Konstanz and the Utrecht University School of Governance.

Carina Gunnarson, Ph.D., is a Senior Researcher in FOI's Department for Security Policy and Strategic Studies. Her work focuses on France and French foreign and security policy in Europe, Africa, and the Indo-Pacific. She has published several reports on French Africa policy, with a particular focus on Francophone states. She is also an expert on organised crime. Carina is an Associate Professor and has a doctorate in political science. She has previously worked at Uppsala University, the Institute for Futures Studies, Ritsumeikan University (in Japan), Linnaeus University, the Swedish Security Service, and the Ministry for Foreign Affairs.

Jakob Gustafsson is an Analyst in FOI's Department for Strategy and Policy. His main research areas are Northern European and transatlantic security and defence policy, with a particular focus on NATO and Norway. In recent years, he has analysed NATO's ongoing transformation and published reports on how the countries of the Baltic Sea region reacted to the Donald Trump presidency and NATO's capability for reinforcement operations. He has also contributed to the Swedish Armed Forces' work on strategic foresight.

Robin Häggblom is a Finnish independent analyst working under the Corporal Frisk brand. His main areas of expertise deal with national security in the Baltic Sea-region, as well as questions regarding the air and maritime domains. He has recently published a number of texts on the changes brought about by Finnish and Swedish NATO membership, as well as a chapter on Russian military vulnerabilities in the maritime domain as part of the war in Ukraine. He holds a M.Sc. in engineering, and has work experience from the maritime industry as well as from the field of geospatial intelligence, or GEOINT.

Michael Jonsson, Ph.D., is a Senior Researcher in FOI's Department for Strategy and Policy. He has published extensively on Central and Eastern Europe, including studies on Russian military capabilities, the war in Ukraine and, most recently, the implications of Finland and Sweden's joining NATO. Michael's doctorate is in political science and he has previously served as a consultant for the International Monetary Fund (IMF) and as an operations analyst at the Swedish Defence Headquarters.

Anna Lövström Svedin is a Junior Analyst in FOI's Department for Operations and Command. Her research areas include international military operations, NATO, civil defence, and wargaming. She holds a master's degree in peace and conflict studies from Uppsala University. She has previously worked at the Folke Bernadotte Academy and at Uppsala University.

Emelie Thorburn is a Junior Researcher in FOI's Department for Security Politics and Strategic Studies. Her main research area is European security and defence policy, with a focus on Central Europe. Emelie has recently written about the security and defence policies of the Visegrad states, Nordic defence cooperation and EU's security and defence policy. She holds a master's degree in politics and war from the Swedish Defence University.

The Swedish Defence Research Agency (FOI) conducts research for the Swedish Government, particularly the Ministry of Defence and the Swedish Armed Forces. The Northern European and Transatlantic Security Programme follows security and defence policy developments in Western countries and organisations that influence Swedish security. Every three years since 2017, the program conducts a comprehensive analysis of the military strategic situation in Northern Europe. Building on the experience from previous efforts, this third iteration of Western Military Capability in Northern Europe represents our most ambitious undertaking yet.

This multi-part study unfolds in two phases. The first phase establishes the empirical and analytical foundation necessary for net assessment through three separate reports. In the second phase, the results and insights will be amalgamated and leveraged for assessment purposes. This phase will culminate in a so called net assessment of Western military capability in Northern Europe.

Acknowledging the intrinsic connection between the effectiveness of collective deterrence and defence in Northern Europe and the military capabilities of the Northern European states and key NATO members, Part I of Western Military Capability in Northern Europe 2023 is dedicated to examining the national capabilities of twelve key Western nations. The analysis spans dimensions of security and defence policy, military expenditures, armed forces structure, and current operational military capability and expected developments up to 2030, including military assistance to Ukraine.

The twelve countries examined are Denmark, Norway, Sweden, Finland, Estonia, Latvia, Lithuania, Poland, Germany, France, the United Kingdom, and the United States.

For more information about the Northern European and Transatlantic Security Programme, including our newsletter and publications, please visit www.foi.se/en/foi/research/security-policy/northern-european-and-transatlantic-security.

FOI

ISSN 1650-1942

www.foi.se