

Poland's Military Capability 2020

Diana Lepp

Since the Russo-Georgian War in 2008, the possibility of an armed conflict with Russia has been Poland's main security concern. Even though the likelihood of an armed attack on Polish territory is considered low, Polish decision-makers argue that the country would likely become involved in a military conflict arising in Poland's immediate vicinity.¹ Poland is also afraid of the decomposition of the international and regional order, underpinned so far by the US, and the increasing tensions in transatlantic relations. Membership in NATO has since Poland's accession in 1999 been considered the cornerstone of Polish defence policy. Poland has long advocated an increased focus on deterrence and defence within the Alliance, rather than international operations and missions. Poland is one of a few NATO countries that reaches the goal of investing 2 per cent of GDP annually on defence, while the current government intends to further increase the level of defence spending. Additionally, the government is determined to modernise the equipment used by the Polish Armed Forces, as a majority of the materiel is obsolete or inadequate for other reasons. However, despite ambitious plans, modernisation programmes are often delayed.

SECURITY AND DEFENCE POLICY

In May 2020, Poland adopted the *National Security Strategy of the Republic of Poland*, replacing a previous act from 2014. The strategy recognises Russia as Poland's main threat and a long-term challenge, due to the modernisation of Russia's armed forces, the intensive schedule of military exercises, and the Kremlin's foreign policy that undermines the current international order.²

Poland's ruling party, the national-conservative Law and Justice, *Prawo i Sprawiedliwość* (PiS), was elected in the Parliamentary elections in October 2015 and re-elected four years later. Once in power, PiS criticised the former government's defence policy, in particular what it termed overly expensive and inadequate material acquisitions, insufficient prioritisation of the eastern flank, and weakened military ties with the United States. Against this background, PiS have emphasised strengthening and modernising national defence capabilities, collective defence within NATO, and consolidating strong bilateral ties

with the US, in order to improve Poland's deterrence and territorial defence capacity.³

Furthermore, PiS have attached great importance to the procurement of defence equipment from domestic industry. At present, approximately 60 per cent of the budget for procuring and modernising military equipment is allocated to Polish industry.⁴ Although conveying strong messages of change, Poland has problems in pursuing reforms, with frequent delays in the modernisation programmes, in part because of domestic industrial considerations. The PiS government has further been criticised for controversial firings of senior officers within the Armed Forces and accused of attempting to ideologise Poland's Armed Forces and make it party-dependent.⁵

In 2018, the Polish Ministry of National Defence announced the establishment of a fourth division within the Polish land forces, the 18th Mechanised Division. With its command located in Siedlce, the 18th division will strengthen the military presence in eastern Poland.⁶

1 The International Institute of Strategic Studies (IISS), *The military balance 2020* (London: Routledge, 2020), p. 77.

2 Ministry of National Defence, *National security strategy of the Republic of Poland*, 2020, p. 6.

3 Interview, Stockholm, May 2020; Defence24, 'Polish Ministry of Defence: changed priorities', 27 April 2016; Hagström Frisell, Eva and Sundberg, Anna, *Polen – en nyckel i försvaret av NATO:s östra flank*, FOI-R--4310--SE (Stockholm: Swedish Defence Research Agency – FOI), 2016, p. 13–14.

4 Interview, Stockholm, May 2020.

5 Palowski, Jakub, 'Rok połowicznej modernizacji', *Defence24*, 30 December 2019; Wasik, Zosia and Buckley, Neil, 'Poland's military shake-up has critics up in arms', *Financial Times*, 17 May 2017.

6 IISS, *The military balance 2020*, p. 79.

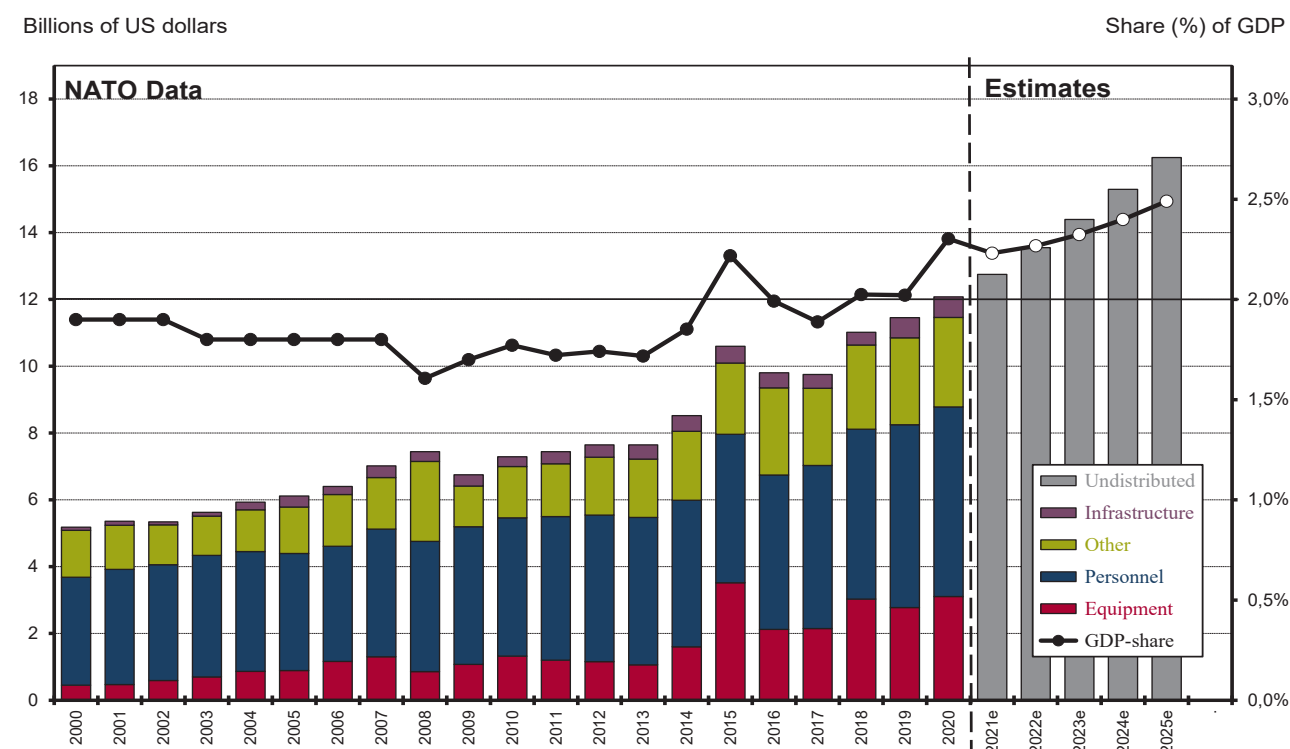


Figure: The military expenditures of Poland 2000–2025: Billions of US dollars/2015 prices (columns) and as share (%) of GDP (curved line)

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

NB: Estimates for 2021 – 2025 based on the assumption that Poland will spend 2.5% of GDP on defence in 2025.

In January 2020, Poland and Lithuania agreed to assign one brigade each to NATO’s Multinational Division North-East in order to enhance the defence of the Suwalki Gap.⁷ Since 2017, Poland has hosted a US mechanised brigade, as well as one multinational battalion-sized battlegroup, within the framework of NATO’s enhanced forward presence (eFP). In 2019, Poland and the US signed a joint declaration to increase US military presence in Poland and in 2020 they reached an agreement on enhanced defence cooperation. The US presence of approximately 4 500 rotational troops in Poland is planned to be strengthened with 1 000 troops dispersed across the country. The Polish military infrastructure will be expanded to accommodate up to 20,000 US troops. The US presence includes

a US Corps HQ (Forward), a US Division Headquarters (Forward), a mechanised brigade, an air force port of debarkation, a remotely piloted aircraft squadron, a combat aviation brigade, a combat sustainment support battalion and Special Forces. The Corps HQ in Poznan will provide command and control for American ground forces on NATO’s eastern flank.⁸

MILITARY EXPENDITURES

Polish military expenditures have more than doubled over the last two decades, from USD 5.2 billion in 2000 to USD 12.1 billion in 2020.⁹ Ruling parties have been obliged to ensure that Poland’s defence spending remains at a consistent level or increases. Through a law passed in 2001,

⁷ Poland’s contribution is the 15th Mechanised Brigade.

⁸ U.S. Embassy and Consulate in Poland, *Joint declaration on defense cooperation regarding United States force posture in the Republic of Poland*, 12 June 2019; Government of Poland, ‘US division headquarters (forward) created in Poznań’, 4 October 2019; Government of Poland, ‘New U.S.-Poland enhanced defense cooperation agreement signed’, 15 August 2020.

⁹ As the graph shows, Polish military expenditure is rising steadily, in an almost linear manner; it may be added that the temporary rise in 2015 was used for paying older purchases not accounted for, thereby also increasing the share for “equipment”. The increases have also been higher in recent years than previously. From 2000–2013, military expenditures increased at an average rate of around 3 per cent, while since 2014 and up to 2020 the annual rate of increase has been more than twice as high, around 7 per cent.

Poland decided to allocate no less than 1.95 per cent of the previous year's GDP to national defence per annum.¹⁰ In 2015, Poland decided to meet NATO's guidelines of investing 2 per cent of GDP on national defence. According to the budgetary deal of 2020, the defence expenditure limit will reach approximately USD 13.07 billion (nearly 50 billion Polish Zloty, PLN). This constitutes an increase of almost 11.5 per cent compared to 2019, and is equivalent to a level of 2.1 per cent of GDP.¹¹

In April 2017, a new bill was adopted, committing Poland to gradually increasing the share of GDP spent on national defence to 2.5 per cent by 2030.¹² According to the new National Security Strategy, Poland will strive to have reached this level of defence spending by 2024. However, the document is not legally binding.¹³ It remains to be seen how the ongoing Covid-19 pandemic will affect Poland's military expenditures – the economic decline meant a temporary rise in the share to 2.3 per cent in 2020 – but it is likely that the Polish government will make the necessary budget corrections without cutting defence spending, as defence is an important political priority. The projections in the graph are based on the assumption that Polish military expenditures will represent 2.5 per cent of GDP not in 2024, but one year later, in 2025, which means that military spending will rise by a third, from USD 12.1 billion in 2020 to USD 16.25 billion in 2025.¹⁴

A *Technical Modernisation Plan* concerning procurement and modernisation programmes for Poland's Armed Forces was first launched in 2012, and has been gradually revised since. In October 2019, the Polish Ministry for National Defence released a plan for 2021–2035, with a budget of USD 133 billion (PLN 524 billion).¹⁵ In order to realise this objective, Poland would need to allocate an increasing part of the total defence budget for modernisation, from the current level of approximately 29 per cent

to 40 per cent in 2035.¹⁶ Additionally, this would require a constant GDP growth over the coming years. Consequently, there are challenges that may impede planned modernisation projects. The financial consequences brought on by the Covid-19 pandemic could force the Ministry for National Defence to postpone some modernisation programmes. The current *Technical Modernisation Plan* includes approximately 15 programmes, covering all defence branches. A priority within the modernisation plan is the "Harpia Programme", the procurement of fifth-generation fighter aircraft. Other important objects in the plan are new air-and-missile defence, submarines and attack helicopters.¹⁷

ARMED FORCES

The Polish Armed Forces have 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. The third is to support Poland's internal security and assist the Polish society in the event of a crisis.¹⁸

In 2009, Poland suspended compulsory military service and the Armed Forces are henceforth manned by professionals. Poland's military personnel number 155,500. This includes all five defence branches, that is, the Army, Navy, Air Force, Special Forces and the Territorial Defence Force, as well as the national reserve force, with 3000 part-time volunteers within the branches, 8000 cadets undergoing training, and 4000 within preparatory service.¹⁹

Army

The Army is described as the core of Poland's Armed Forces, numbering approximately 50,700 soldiers.²⁰ When the newly established 18th Mechanised Division is operational in a few years, the land forces will consist of four

10 Government of Poland, *Law of 25 May 2001 on the restructuring, technical modernization and financing of the Polish Armed Forces in the years 2001–2006*, 25 July 2001.

11 Szopa, Maciej, 'Poland increases defence expenditure by over 11% in 2020', *Defence24*, 20 January 2020; Palowski, Jakub, 'Prawie 50 mld na obronę w 2020 roku, Wzrost o ponad 11,5 proc', *Defence24*, 20 August 2019.

12 Defence24, 'Poland about to increase its defence expenditure up to the level of 2.5% of GDP: A new bill introduced', 24 April 2017.

13 Ministry of National Defence, *National security strategy*, p. 18.

14 Such a rise in 2020–2025 suggests that Polish military expenditures will increase at a rate around 6.1 per cent annually, or at a lower pace than in 2014–2020.

15 Wilk, Remigiusz, 'Poland unveils Technical Modernization Plan for 2021–35', *Jane's Defence Weekly*, 14 October 2019.

16 Dmitruk, Tomasz, 'Modernizacja Techniczna Sił Zbrojnych RP w 2019 roku', *Nowa Technika Wojskowa*; Republic of Poland, Ministry of National Defence, 'Key figures on the Polish MoND budget for 2020'.

17 Lesiecki, Rafał, 'Harpia, Kruk and Narew – PLN 185 billion to cover the modernization of the Polish military', *Defence24*, 1 March 2019; Ministerstwo Obrony Narodowej, 524 miliardy złotych na modernizację Wojska Polskiego do 2035 roku, 10 October 2019; Bergstrand, Bengt-Göran, *NATO Military Expenditures*, Working Document (Stockholm: Swedish Defence Research Agency – FOI, October 2020).

18 Republic of Poland, 'Polish Armed Forces'.

19 Republic of Poland, Ministry of National Defence, 'Key figures on the Polish MoND budget for 2020'.

20 Ibid.

divisions, three mechanised and one armoured. Two of the divisions, the 11th and 12th, are situated in western Poland, in former Soviet/German bases. The third division, the 16th, is located in Elbląg, south of the Kaliningrad border, with additional heavy forces deployed near Warsaw. The 18th Division is located even further east, in Siedlce. The divisions are in general organised in three mechanised or armoured brigades, consisting of inter alia three armoured/mechanised/motorised battalions, one self-propelled artillery group, one anti-aircraft group and one logistics battalion. At division level, there are also units for extra combat support, such as one air defence regiment and one artillery regiment. In addition to these heavy formations, there are various independent units in other parts of Poland, such as one airborne brigade and one air cavalry brigade.

Garrisoning units where there is existing infrastructure can have operational drawbacks. To date, Poland's eastern regions have had the lowest concentration of military presence, and the creation of the 18th Division is a direct consequence of the altered threat perception with respect to Russia. The 18th Division is planned to reach full combat readiness in 2026. It will consist of three brigades: the 1st Armoured Brigade, the 21st Podhale Rifles Brigade and one new brigade, the 19th Mechanised Brigade.²¹

The Polish Army possesses a large amount of heavy equipment, including approximately 600 main battle tanks (MBT), making the Polish tank fleet one of the most numerous in Europe, and 1600 infantry fighting vehicles. A majority of the equipment used by the Army is upgraded Soviet-era equipment, which results in reduced combat capability and interoperability problems with NATO forces operating other and more modern systems. Poland's most modern MBTs, which make up about 40 per cent of the stock, are the Leopard 2A4/5 tanks. There have been plans since 2015 to modernise the Leopard 2A4 tanks, but the measures have repeatedly been delayed. As for other modern armoured combat vehicles, Poland has about 350 KTO Rosomak infantry fighting vehicles.²²

Poland's artillery is being modernised by the acquisition

of 120 self-propelled, tracked-gun howitzers (AHS Krab), and 20 rocket launchers (High Mobility Artillery Rocket System, HIMARS) with up to 1650 Guided Multiple Launch Rocket Systems (GMLRS), with a 70-kilometre range. The order also includes 30 MGM-140 Army Tactical Missile System (ATACMS) missiles, with a 300-kilometre range, which would be a significant addition to the Polish arsenal.²³

Within the framework of Poland's Technical Modernisation Plan, a further priority is the improvement of Poland's medium- and short-range air-and-missile defence assets under the Wisła (medium-range) and Narew (short-range) Programmes. Within the Wisła Programme's first phase, Poland signed a USD 4.75 billion contract (PLN 16.1 billion) for the Patriot air-and-missile defence system, in March 2018. The contract comprises two batteries of the PAC-3 Patriot system, including 16 missile launchers, 208 PAC-3 MSE missiles and additional equipment. The deliveries are scheduled for 2022. The second phase includes an additional six Patriot batteries, as well as short-range SkyCeptor anti-missile rockets, which are part of the Narew Programme. However, current funding does not seem to cover the second phase: procurements that are crucial for the effectiveness of the future Polish air-and-missile defence.²⁴

In January 2020, the Polish Army took over the lead of NATO's Very High Readiness Joint Task Force (VJTF). The main contributing unit is the 21st Podhale Rifles Brigade, supported by units from Poland's 12th Mechanised Division, the 3rd Transport Aviation Wing, Special Forces, logistics experts, and counter chemical, biological, radiological and nuclear threats (C-CBRN) specialists. The VJTF is supposed to be ready to respond and start deployment within days, with a ground element of around 6000 soldiers, 3000 being from Poland.²⁵ In October 2020, parts of the VJTF deployed to Lithuania as a part of NATO exercise Brilliant Jump 2020.²⁶ Additionally, in 2020 Poland contributes to NATO's enhanced Forward Presence (eFP) battlegroup in Latvia by providing one armoured company equipped with inter alia PT-91 Twardy battle tanks.²⁷

21 Republic of Poland, 'Defence Minister Błaszczak decided to create a new mechanized division', 9 September 2018; Republic of Poland, 'Nowa dywizja Wojska Polskiego'.

22 IISS, *The military balance 2020*, p. 80; Palowski, Jakub, 'Polish Leopard 2PL upgrade delayed, costs on the rise', *Defence24*, 19 February 2020.

23 SIPRI Arms Transfers Database, information generated 9 November 2020; Lentowicz, Zbigniew, 'Dalekosiężne kraby zajmują pozycję', *Rzeczpospolita*, 29 October 2019; Lesiecki, Rafał, 'Pierwszy dywizjon HIMARS za 414 mln dolarów. Umowa w śróde', *Defence24*, 10 February 2019.

24 Judson, Jen, 'Former Polish defense minister presses for answers on fate of US Patriot buy', *Defence News*, 20 May 2019; Zięba, Ryszard, *Poland's Foreign and Security Policy*, 2020, p. 20.

25 NATO, 'Poland takes charge of NATO high readiness force', 30 December 2019.

26 SHAPE, 'NATO exercise brilliant jump II 2020 gets underway', 28 September 2020.

27 Republic of Poland, 'Polski kontyngent na Łotwie'.

Navy

The Polish Navy numbers approximately 7000 active sailors, and an additional 1300 within the naval aviation, organised into two separate flotillas.²⁸ The 3rd Ships Flotilla, in Gdynia, is the Navy's primary tactical unit. The unit's main assets are two tactical submarines, two *Pulaski*-class (ex-*Oliver Hazard Perry*) frigates, and a smaller number of patrol ships, coastal combatants and reconnaissance vessels. The 8th Coastal Defence Flotilla, stationed in Swinoujście, is responsible for mine clearance and anti-submarine operations, with approximately 35 vessels at its disposal.²⁹

The Polish Navy has for many years suffered from underinvestment and slow procurement processes. Of all the defence branches, the Navy has the lowest percentage of modern equipment, and the average age of many ships exceeds 30 years.³⁰ The Navy's most modern combat vessel is a Kormoran II minehunter, operated by the 8th Coastal Defence Flotilla. Currently, the Navy has two operational tactical submarines (*Kobben*-class) from the 1960s; these will be removed from service in the next couple of years. The acquisition of new-generation submarines has been discussed within the Ministry of National Defence for years, and is included in the *Technical Modernisation Plan* under the 'Orka Programme'. However, as procurement of the next generation of submarines is not likely in the near future, Poland will probably acquire a number of second-hand submarines as an interim solution. In late 2019, the Polish Ministry of National Defence announced plans to purchase these submarines from Sweden. The submarines in question are two A17 Södermanland-class boats from 1987 and 1990, and modernised in 2003 and 2004.³¹ Due to the capability gaps of the Polish Navy, it is the land-based Coastal Missile Unit, operating two batteries of Kongsberg's Naval Strike Missile, that is responsible for most coastal defence tasks.³²

Air Force

The Polish Air Force numbers 16,800 airmen deployed in approximately ten bases in Poland.³³ The main parts of the Polish Air Force are organised in two tactical wings, the 1st Tactical Aviation Wing, located in Świdwin, and the 2nd Tactical Aviation Wing, in Poznań. The Air Force has approximately 100 fighter aircraft, including three squadrons of multi-role fighters (various versions of F-16), two squadrons of interceptors (MiG-29) and one squadron of strike aircraft (Su-22). Since 2017, the Air Force has acquired some 70 Joint Air-to-Surface Standoff Missiles (JASSM) stealthy cruise missiles, and another 70 JASSMs with extended range.³⁴

The MiG-29 fleet was grounded from March to November 2019, following a series of incidents in the last couple of years. Both the MiG-29 and the even older Su-22 have limited combat capability, and will likely be removed from service.³⁵ In February 2020, Poland signed a USD 4.6 billion contract (PLN 17.9 billion) to acquire 32 F-35A fighter aircraft from the US, with deliveries scheduled to begin in 2024. However, the purchase has been criticised for draining resources from other modernisation projects, such as the Wisła and Narew Programmes.³⁶ The Polish Air Force periodically leads NATO's Baltic Air Policing (BAP), and between January and May 2020, 150 airmen and four F-16 fighter aircraft were deployed at the Ämari air base, in Estonia.³⁷

Special Forces

Poland's Special Forces consist of five units and numbers 3500 soldiers. The Special Forces have a variety of typical skills for these units and probably a high readiness to operate, whether in peace, crisis, or war. One of the units (Grom) received four S-70i Black Hawk helicopters from Lockheed Martin's offshoot, Sikorsky, in December 2019.³⁸

28 Republic of Poland, 'Key figures'.

29 IISS, *The military balance 2020*, p. 135; Wojsko Polskie, '3. Flotylla Okrętów'; Wojsko Polskie, '8 Flotylla Obrony Wybrzeża'.

30 Biedroń, Robert, 'Stanowisko kandydatów na urząd Prezydenta RP w sprawie Marynarki Wojennej', *Portal Stocznioowy*, 5 May 2020.

31 Jarocki, Michał, 'Poland sets out new modernisation priorities', *European Security and Defence*, 19 November 2019.

32 IISS, *The military balance 2020*, p. 80.

33 Republic of Poland, 'Key figures'.

34 IISS, *The military balance 2020*, p. 135; Michta, A., Andrew. 'Poland', in *The handbook of European defence policies and armed forces*. Meijer, Hugo (ed.). Oxford: Oxford University Press, 2018, 135; SIPRI Arms Transfers Database, information generated 9 November 2020.

35 IISS, *The military balance 2020*, p. 80; Jarocki, Michał, 'Poland sets out new modernisation priorities', *European Security and Defence*, 19 November 2019; *Defence24*, 'Polish MiG-29 crashed. Pilot successfully ejected', 4 March 2019.

36 Palowski, Jakub, 'Polskie F-35: skok jakościowy czy kosztowna wyspa nowoczesności?' *Defence24*. January 29, 2020.

37 The Republic of Poland. 'Misja Baltic Air Policing', 3 January 2020.

38 Wilk, Remigiusz, 'Poland's GROM special forces unit receives Black Hawk helicopters', *Jane's Defence Weekly*, 20 December 2019.

Table: Personnel and materiel in the Polish Armed Forces

Personnel/Materiel	Numbers in 2020	Planned reforms towards 2025
Personnel		
Regular force	126,500	200,000 by 2026 (including TDF)
Territorial Defence Forces	29,000	53,000 soldiers between 2021–2026
Reserves	3000	
Materiel		
Tanks	606 (142 Leopard 2A4, 105 Leopard 2A5, 232 PT-91 <i>Twardy</i> , 127 T-72)	Leopard 2A4, upgraded to 2PLN standard by 2023 ^a
Armoured combat vehicles	1 611 (1 252 BMP-1, 359 KTO Rosomak)	
Heavy artillery pieces	Self-propelled: 419 (2S1 <i>Gvozдика</i> , M-77 <i>Dana</i> , <i>Krab</i>). Multiple rocket launcher: 197 (M-21, RM-70, WR-40 <i>Langusta</i>)	A squadron of HIMARS will be delivered by 2023 ^b
Attack helicopters	28 (Mi-24D/V Hind D/E)	
Surface combatants	2 (<i>Pulaski</i> , ex-US <i>Oliver Hazard Perry</i>)	
Submarines	2 <i>Sokol</i> , ex-NOR Type 207,	
Combat aircraft	95 (29 MiG-29, 18 Su-22, 48 F-16)	32 F-35A, deliveries will begin in 2024
Transport aircraft	46 (5 C-130E Hercules, 16 C295M, 23 M-28 Bryza TD, 1 Gulfstream G550, 1 737-800)	
Air defence batteries	Long-range: (fixed) 1 S-200C Vega (SA-5 Gammon) Short-range: (self-propelled) 17 S-125 Neva SC (SA-3 Goa)	Two batteries of the PAC-3 Patriot system, delivered in 2022

NB: **a.** Palowski, Jakub, 'Polish Leopard 2PL upgrade delayed, costs on the rise', *Defence24*, 19 February 2020, **b.** Lesiecki, Rafał, 'Pierwszy dywizjon HIMARS za 414 mln dolarów, Umowa w śróde', *Defence24*, 10 February 2019.

Territorial defence forces

In 2015, the newly elected PiS government established the Territorial Defence Forces (Wojska Obrony Terytorialnej, WOT) as a fifth branch of the Polish Armed Forces. Unlike the other defence branches, the WOT is being directly led, during its build-up, by the Ministry for National Defence, and not by the Chief of the General Staff of the Polish Armed Forces. The WOT consists of both volunteers, without previous experience in the Armed Forces, and professional soldiers. Its main tasks are to conduct defensive and delaying operations in cooperation with regular forces or as independent units, protect local communities during crisis or war, and promote patriotic values to increase the population's resilience.³⁹ During the ongoing Covid-19 pandemic, the WOT have assisted the Polish Border Guard and the police, verifying quarantines and contributing to ensure border control.

In early 2020, the reported strength of the WOT amounted to approximately 29,000 soldiers, of which 4000 are professionals.⁴⁰ The WOT is planned to be fully staffed by 2026, with an expected force of 53,000 soldiers. The forces will be organised in 17 light infantry brigades, one in each of Poland's provinces, with the exception of two in Poland's largest province, Masovia.⁴¹

Despite the WOT's contributing to the creation of a larger Armed Forces, critics have expressed that only a professional army can ensure Poland's security. They argue that soldiers in the WOT do not possess real combat power nor heavy equipment, and that in the event of an armed conflict there will be many unnecessary physical losses among volunteer soldiers. Critics have also highlighted that the WOT are overly costly and may drain the command and expert personnel of the regular armed forces, which is already facing personnel shortages.⁴²

39 Goniewicz, Krzysztof, Goniewicz, Mariusz and M. Burkle, Frederick, 'The Territorial Defence Force in disaster response in Poland: Civil-military collaboration during a state of emergency', *Sustainability*, 2019, p. 2; IISS, *The military balance*, p. 79; Sliwa, Zdzisław, 'Poland NATO's East European frontline nation', in Vanaga, Nora and Rostoks, Toms (eds.), *Deterring Russia in Europe: Defence strategies for neighbouring states*, (London: Routledge, Taylor & Francis Group, 2019) p. 217–235.

40 Republic of Poland, 'Key figures'.

41 Wojska Obrony Terytorialnej. 'FAQ'; IISS, *The military balance 2020*, p. 79.

42 Dojwa-Turczynska, Katarzyna, 'The territorial defence forces as the fifth type of the armed forces of the Republic of Poland', *Science & Military Journal*, Vol. 13, No 2, 2018.

Personnel and materiel

In general, the Polish Armed Forces suffer from a shortage of military personnel. A Polish Army division should consist of 15,000 soldiers, but the units now only have two-thirds of the required personnel, that is, around 10,000 soldiers.⁴³ The Navy and Air Force are in a somewhat better condition, but overall, they also lack personnel. The ambition is to increase the Armed Forces' active personnel strength to 200,000, by 2026.⁴⁴ However, taking into consideration the current shortages, this ambition will likely be difficult to achieve within this time frame.

Overall, the Polish Armed Forces have large amounts of equipment of generally inferior status and about 75 per cent of the basic equipment is estimated to be obsolete. Consequently, it is expensive to maintain the equipment, and many equipment types have a lack of spare parts.⁴⁵ Although the Polish Ministry for National Defence is dedicated to modernising the equipment of Poland's Armed Forces, there seems to be a lack of planning regarding the integration of the new systems, making it difficult to ensure a balanced development.

ASSESSMENT OF MILITARY CAPABILITY

With approximately 105,000 regular soldiers within the Armed Forces, and an additional 29,000 within the Territorial Defence Forces, Poland has a relatively large number of military personnel compared to other NATO countries. Approximately 30,000 of the Armed Forces personnel have real field experience, due to Poland's participation in NATO out-of-area missions. However, territorial and collective defence in Europe would mean another type of mission, strategic environment and opponent.

Poland's geostrategic position implies that in the event of a conflict in Poland's immediate vicinity, a majority of the Polish Armed Forces will remain within Polish territory. In the northeast, Poland borders the Russian enclave of Kaliningrad, home of Russia's Baltic fleet and multiple Russian anti-access and area denial (A2/AD) capabilities. East of Kaliningrad is the "Suwalki Gap", a 115-kilometre-long land border between Poland and Lithuania. The Suwalki Gap is NATO's only ground access to the Baltic region and the shortest route between Kaliningrad and Belarus, and consequently of strategic importance for both NATO and Russia.

The core of Poland's Armed Forces is the Army, whose armoured and mechanised units can be used to deter advances by Russian mechanised forces in Poland or the

region. In addition, Polish forces can tie down Russian forces based in Kaliningrad, preventing them from contributing to a Russian campaign elsewhere. However, the Polish Army suffers from problems with the modernity and availability of many of its units. Units operating Cold War-era equipment are at best suited for static defensive tasks. The units equipped with Leopard 2 tanks and KTO Rosomak IFVs/APCs may at least in part be capable of mobile and offensive operations, depending on combat support and training level.

Our assessment is that 1–2 mechanised battalions per division, from the now three operational divisions, may be ready to deploy and respond within a week. In 2020, the Polish readiness is at better than normal, due to the brigade-sized contribution to the VJTF. Consequently, the short-notice contribution in 2020 could consist of 6–9 armoured or mechanised battalions. In addition, 1–2 airborne/ air assault battalions should be available. Poland's Special Forces have a higher level of readiness and the capacity to carry out various operations in the early stage of a conflict, and 2–4 companies could be ready to deploy and respond at short notice.

The Navy and Air Force have more limited roles within the Armed Forces. Especially the Navy has been neglected for many years and operates numerous outdated vessels, raising the issue of how many of them would be available and useful in an armed conflict. However, the Kormoran II minehunters and the land-based Coastal Missile Unit may make useful contributions, even at short notice.

The Polish Air Force is in somewhat better shape, and the F-16 fighter aircraft, equipped with JASSMs and other precision-guided munitions, have expanded Poland's air-to-ground strike capabilities. Our assessment is that one to two squadrons of F-16 fighter aircraft would be available within a week. The remaining Soviet-era fighter aircraft (MiG-29s and Su-22s) are not in optimal condition, and their short-term contribution might at most be a half a squadron of each type.

The newest defence branch, the Territorial Defence Force, has only been operational for a brief period and is not fully manned. As of this year, it can at best only organise some local resistance and assist local communities in the event of an armed conflict. The overall assessment is that within three months, Poland should be able to activate approximately half of its Armed Forces. The Armed Forces only have a small reserve pool, and no conscripts. In addition, there are several issues concerning

⁴³ Interview, Stockholm, May 2020.

⁴⁴ Ministry of National Defence, *The defence concept of the Republic of Poland*, 2017, p. 53.

⁴⁵ Biedroń, Robert, 'Stanowisko kandydatów'.

equipment that cannot be solved within three months. The general shortage of military personnel and the high percentage of outdated equipment are imminent disadvantages for Poland's current military capability.

There are ambitious plans for the development of Poland's Armed Forces in the next five years. The 18th Division is scheduled to reach combat readiness by 2026. Its establishment, together with Poland's bilateral cooperation with Lithuania and increased US presence in Poland, would boost deterrence and the defensive capacity on the eastern flank. However, the greatest potential for Poland's contribution to NATO collective defence probably lies in raising the modernity

and readiness of existing units. The *Technical Modernisation Plan* will, if realised, enhance Poland's deterrence and capacity to conduct major combat operations.

The big uncertainties are funding and the general process of modernisation, in particular with respect to procurement of equipment. One example is the next generation submarines, another is the expected delay of the second phase of the Wisla and Narew programmes, due to the purchase of the F-35A fighter aircraft. Even though the fifth-generation fighter aircraft will improve the Polish Air Force's capability to handle Russian A2/AD capabilities, a complete missile defence is required to defend the fighter aircraft and the air bases from which they operate. ■

This memo is an extract from FOI's report *Western Military Capability in Northern Europe 2020 – Part II: National Capabilities*, FOI-R--5013--SE

Table: Force structure of the Polish Armed Forces

Organisation 2020	Organisation 2020	Planned reforms towards 2025	Assessment of forces available at short notice
Joint	Operational HQ		3000 soldiers VJTF
Army	Operational HQ 11th Armoured Division (2 armoured brigades, 1 mechanised brigade, 1 anti-aircraft regiment, 1 artillery regiment, 1 logistics regiment) 12th Mechanised Division (3 mechanised brigades, 1 artillery regiment, 1 air-defence regiment, 1 logistics regiment) 16th Mechanised Division (2 mechanised brigades, 1 armoured brigade, 1 artillery regiment, 1 air-defence regiment, 1 logistics regiment) 18th Mechanised Division (1 mechanised brigade, 1 armoured brigade – previously part of the 16th division, 1 infantry brigade, 1 logistics regiment) 1 airborne brigade 1 air cavalry brigade 1 aviation brigade	Establishment of a third mechanised division (the 18th) in 2018–2026. Two phases of formation 1) 2018–2021: organisation of a division staff and a command battalion. 2) 2021–2026: creation of support units, including a reconnaissance battalion, artillery regiments, anti-aircraft and logistics regiments.	1 armoured company in eFP (Latvia) 6–9 armoured/ mechanised battalions, including VJTF in 2020. 1–2 airborne/ air assault battalions Up to half an attack helicopter battalion
Navy	Operational HQ 1 naval flotilla (1 warship squadron, 1 submarine squadron, 1 support ships squadron, 1 coastal missile unit) 1 coastal defence flotilla (1 transport and mine ship squadron, 2 minesweeper squadrons, 1 anti-aircraft squadron)		Half a naval flotilla Half a coastal defence flotilla 1 surface combatant 1 mine-hunter ship 1 submarine
Air Force	Operational HQ 2 tactical aviation wings (6 fighter squadrons) 1 transport aviation wing 1 radio-technical (radar) brigade 1 air defence missile brigade		1–2 fighter squadrons (F-16) 1 fighter squadron (MiG-29, Su-22)
Special Forces	Operational HQ 5 units (Grom, Nil, Formoza, Agat, Kommandos)		2–4 companies
Territorial Defence Forces	5 established brigades	17 light infantry brigades, by 2021 ^a	6 companies

NB: a. Ministerstwo Obrony Narodowej, 'Struktura i zadania'.



Map: Overview of Polish armed forces and their basing

NB: Design by Per Wikström. The map covers mainly operational headquarters and manoeuvre forces.

References

- Bergstrand, Bengt-Göran. *NATO military expenditures*. Working Document. Stockholm: Swedish Defence Research Agency (FOI), October 2020.
- Biedroń, Robert. 'Stanowisko kandydatów na urząd Prezydenta RP w sprawie Marynarki Wojennej', *Portal Stocznioowy*, 5 May 2020. <https://portalstocznioowy.pl/wiadomosci/stanowisko-kandydatow-na-urzed-prezyden-ta-rp-w-sprawie-marynarki-wojennej/>. Accessed: 1 November 2020.
- Defence24. 'Poland about to increase its defence expenditure up to the level of 2.5% of GDP: A new bill introduced', 24 April 2017. <https://www.defence24.com/poland-about-to-increase-its-defence-expenditure-up-to-the-level-of-2.5-of-gdp-a-new-bill-introduced>. Accessed: 2 April 2020.
- Defence24. 'Polish MiG-29 Crashed. Pilot Successfully Ejected', 4 March 2019. <https://www.defence24.com/polish-mig-29-crashed-pilot-successfully-ejected>. Accessed: 3 April 2020.
- Defence24. 'Polish Ministry of Defence: Changed Priorities', 27 April 2016. <https://www.defence24.com/polish-ministry-of-defence-changed-priorities>. Accessed: 1 April 2020.
- Dmitruk, Tomasz. 'Modernizacja Techniczna Sił Zbrojnych RP w 2019 roku'. *Nowa Technika Wojskowa*. <http://www.magnum-x.pl/artykul/modernizacja-techniczna-sil-zbrojnych-rp-w-2019-roku>. Accessed: 29 May 2020.
- Dojwa-Turczynska, Katarzyna. 'The territorial defence forces as the fifth type of the armed forces of the Republic of Poland.' *Science & Military Journal* Vol.13, No 2, 2018.
- Goniewicz, Krzysztof, Goniewicz, Mariusz and M. Burkle, Frederick. 'The Territorial Defence Force in disaster response in Poland: Civil-military collaboration during a state of emergency'. *Sustainability*, 2019.
- Government of Poland. *Law of 25 May 2001 on the restructuring, technical modernization and financing of the Polish Armed Forces in the years 2001–2006*, 25 July 2001.
- Government of Poland. 'New U.S.-Poland enhanced defense cooperation agreement signed', 15 August 2020. <https://www.gov.pl/web/national-defence/new-us-poland-enhanced-defense-cooperation-agreement-signed>. Accessed: 2 April 2020.
- Government of Poland. 'US division headquarters (forward) created in Poznań', 4 October 2019. <https://www.gov.pl/web/national-defence/us-division-headquarters-forward-created-in-poznan>. Accessed: 2 April 2020.
- Hagström Frisell, Eva and Sundberg, Anna. *Polen – en nyckel i försvaret av NATO:s östra flank*. FOI-R--4310--SE, Stockholm: Swedish Defence Research Agency (FOI), 2016.
- The International Institute of Strategic Studies (IISS). *The military balance 2020*. London: Routledge, 2020.
- Interview, Stockholm, May 2020.
- Jarocki, Michał. 'Poland sets out new modernisation priorities'. *European Security and Defence*, 19 November 2019. <https://euro-sd.com/2019/11/news/15328/poland-sets-out-new-modernisation-priorities/>. Accessed: 3 April 2020.
- Judson, Jen. 'Former Polish defense minister presses for answers on fate of US Patriot buy'. *Defence News*. 20 May 2019. <https://www.defensenews.com/land/2019/05/20/former-polish-defense-minister-presses-for-answers-on-fate-of-us-patriot-buy/>. Accessed: 2 April 2020.
- Lentowicz, Zbigniew. 'Dalekosiężne kraby zajmują pozycję'. *Rzeczpospolita*, 29 October 2019. <https://radar.rp.pl/modernizacja-sil-zbrojnych/15115-dalekosiężne-kraby-zajmują-pozycję>. Accessed: 29 May 2020.
- Lesiecki, Rafał. 'Harpia, Kruk and Narew – PLN 185 Billion to Cover the Modernization of the Polish Military'. *Defence24*, 1 March 2019. <https://www.defence24.com/harpia-kruk-and-narew-pln-185-billion-to-cover-the-modernization-of-the-polish-military>. Accessed: 2 April 2020.
- Lesiecki, Rafał. 'Pierwszy dywizjon HIMARS za 414 mln dolarów. Umowa w drodze'. *Defence24*, 10 February 2019. <https://www.defence24.pl/pierwszy-dywizjon-himars-za-414-mln-dolarow-umowa-w-srode>. Accessed: 29 May 2020.
- Micha, A., Andrew. 'Poland', in *The handbook of European defence policies and armed forces*. Meijer, Hugo (ed.), Oxford: Oxford University Press, 2018, 125–139.
- Ministerstwo Obrony Narodowej. '524 miliardy złotych na modernizację Wojska Polskiego do 2035 roku'. 10 October 2019. <https://www.gov.pl/web/obrona-narodowa/524-miliardy-zlotych-na-modernizacje-wojska-polskiego-do-2035-roku>. Accessed: 2 April 2020.
- Ministry of National Defence. *The defence concept of the Republic of Poland*, 2017.
- Ministry of National Defence. *National security strategy of the Republic of Poland*, 2020.
- NATO. 'Poland takes charge of NATO high readiness force'. 30 December 2019. https://www.nato.int/cps/en/natohq/news_172334.htm. Accessed: 3 April 2020.
- Palowski, Jakub. 'Polish Leopard 2PL upgrade delayed, costs on the rise'. *Defence24*, 19 February 2020. <https://defence24.com/polish-leopard-2pl-upgrade-delayed-costs-on-the-rise>. Accessed: 2 April 2020.
- Palowski, Jakub. 'Prawie 50 mld na obronę w 2020 roku, Wzrost o ponad 11,5 proc'. *Defence24*, 20 August 2019. <https://www.defence24.pl/prawie-50-mld-na-obrone-w-2020-roku-wzrost-o-ponad-11.5-proc>. Accessed: 2 April 2020.
- Palowski, Jakub. 'Rok połowicznej modernizacji'. *Defence24*, 30 December 2019. <https://www.defence24.pl/rok-polowicznej-modernizacji-analiza>. Accessed: 2 April 2020.

-
- Republic of Poland. 'Defence Minister Błaszczak decided to create a new mechanized division', 9 September 2018. <https://www.gov.pl/web/national-defence/defence-minister-blaszczak-decided-to-create-a-new-mechanized-division>. Accessed: 3 April 2020.
- Republic of Poland. Ministerstwo Obrony Narodowej. 'Struktura i zadania'. <https://www.gov.pl/web/obrona-narodowa/struktura-i-zadania>. Accessed: 1 November 2020.
- Republic of Poland. Ministry of National Defence, 'Key figures on the Polish MoND budget for 2020'.
- Republic of Poland. 'Misja Baltic Air Policing'. 3 January 2020. <https://www.gov.pl/web/estonia/misja-baltic-air-policing>. Accessed: 3 April 2020.
- Republic of Poland. 'Nowa dywizja Wojska Polskiego'. <https://www.gov.pl/web/obrona-narodowa/nowa-dywizja>. Accessed: 1 November 2020.
- Republic of Poland. 'Polish Armed Forces'. <https://www.gov.pl/web/national-defence/polish-armed-forces1>. Accessed: 1 November 2020.
- Republic of Poland. 'Polski kontyngent na Łotwie'. <https://www.gov.pl/web/obrona-narodowa/polski-kontyngent-na-otwie>. Accessed: 3 April 2020
- SHAPE. 'NATO exercise brilliant jump II 2020 gets underway', 28 September 2020. <https://shape.nato.int/newsarchive/2020/nato-exercise-brilliant-jump-ii-2020-gets-underway>. Accessed: 1 November 2020.
- SIPRI Arms Transfers Database. <https://www.sipri.org/databases/armstransfers>. Information generated 9 November 2020.
- Sliwa, Zdzisław. 'Poland NATO's East European frontline nation', in Vanaga, Nora and Rostoks, Toms (eds.). *Detering Russia in Europe: Defence strategies for neighbouring states*. London: Routledge, Taylor & Francis Group, 2019.
- Szopa, Maciej. 'Poland increases defence expenditure by over 11% in 2020'. *Defence24*, 20 January 2020. <https://defence24.com/poland-2020-defence-expenditure-almost-pln-50-billion>. Accessed: 2 April 2020.
- U.S. Embassy and Consulate in Poland. *Joint declaration on defense cooperation regarding United States force posture in the Republic of Poland*, 12 June 2019. <https://pl.usembassy.gov/slide/joint-declaration-on-defense-cooperation/>. Accessed: 2 April 2020.
- Vanaga, Nora and Rostoks, Toms (eds.). *Detering Russia in Europe: Defence strategies for neighbouring states*. London: Routledge, Taylor & Francis Group, 2019.
- Wasik, Zosia and Buckley, Neil. 'Poland's military shake-up has critics up in arms'. *Financial Times*, 17 May 2017. <https://www.ft.com/content/cc83fcaa-3a1c-11e7-ac89-b01cc67cfec>. Accessed: 2 April 2020.
- Wilk, Remigiusz. 'Poland's GROM special forces unit receives Black Hawk helicopters'. *Jane's Defence Weekly*, 20 December 2019. <https://www.janes.com/article/93344/poland-s-grom-special-forces-unit-receives-black-hawk-helicopters>. Accessed: 3 April 2020.
- Wilk, Remigiusz. 'Poland unveils Technical Modernization Plan for 2021–35', *Jane's Defence Weekly*, 14 October 2019. <https://www.janes.com/article/91888/poland-unveils-technical-modernization-plan-for-2021-35>. Accessed: 2 April 2020.
- Wojska Obrony Terytorialnej. 'FAQ'. <https://terytorialsi.wp.mil.pl/faq/struktura-i-zadania>. Accessed: 3 April 2020.
- Wojsko Polskie, '3. Flotylla Okrętów'. <https://www.wojsko-polskie.pl/3fo/>. Accessed: 1 November 2020.
- Wojsko Polskie, '8 Flotylla Obrony Wybrzeża'. <https://www.wojsko-polskie.pl/8fow/>. Accessed: 1 November 2020.
- Zięba, Ryszard. 2020. *Poland's Foreign and Security Policy*. Springer International Publishing, 2020. E-book.
-