Northern European and Transatlantic Security (NOTS)

Lithuania's Military Capability 2020 Jakob Gustafsson

Together with its Baltic neighbours, Lithuania is among NATO's most vulnerable allies in case of Russian aggression. Russia's 2014 annexation of Crimea prompted sizable increases in Lithuanian defence spending and capabilities, and a renewed focus on ever-closer security and defence partnerships.¹ Although the largest of the Baltic States, Lithuania's armed forces remain small due to economic and demographic constraints, but its teeth have been sharpened significantly during the past years. The build-up of military capabilities has enjoyed broad political support.

SECURITY AND DEFENCE POLICY

Before 2014, Lithuanian security policy was internationally oriented and, while watchful of developments in Russia, did not foresee any direct military threats. After its 2004 NATO accession, Lithuania heeded Alliance calls to give priority to expeditionary capabilities over territorial defence. Post-2014, the picture is markedly different, with deterrence and increased national military capabilities taking the front seat.² The 2017 National Security Strategy and the 2016 Military Strategy identify Russia as the main threat to Lithuanian security, with reference to the former's aggressive policies, annexation of Crimea, power projection, build-up of offensive capabilities and conduct of exercises in Lithuania's vicinity. In light of this, Lithuania gives priority to the development of national defence and its ability to receive allied reinforcements.

Equally, Lithuania seeks to strengthen NATO's collective defence and EU unity, and to develop closer relations with the US, the Baltic states, the Nordic states and Poland. The country sees NATO and bilateral US presence as guarantors of Lithuanian security, but points to the need for a capable national defence until reinforcements arrive. In line with this, Lithuania has committed to significantly expanding and modernising its land forces, developing host nation support capabilities and regional

cooperation. The military strategy underlines that the armed forces must be able to respond to threats rapidly and act independently.³

To achieve this, Lithuania has launched a number of reforms to improve in particular readiness, manoeuvre and firepower capabilities. In 2015, Lithuania reintroduced conscription and as a consequence a mixed model for manning the armed forces, which utilises professionals, volunteers and conscripts. Thus, Lithuania has opted for a middle-road solution in comparison to Latvia's professional army and Estonia's mostly conscript army. The force structure was reorganised to make the peacetime structure resemble the wartime structure and by reducing the reliance on mobilisation. Furthermore, Lithuania is procuring advanced equipment such as self-propelled howitzers, infantry fighting vehicles and mid-range air defence.

Continuity has prevailed since 2017, as these reforms are still being implemented, with emphasis on manning and modernising the first brigade. Since the deployment of the German-led eFP battlegroup to Lithuania, in 2017, bilateral cooperation with Germany, hardly mentioned in the security concept or military strategy, has gained prominence.

The first brigade is now affiliated to a German army division. Equally, Lithuanian-Polish cooperation has

³ Seimas, National Security Strategy, 2017; and Lithuanian Ministry of Defence, The Military Strategy of the Republic of Lithuania, 2016. For details on Baltic cooperation, see chapter on Estonia.



¹ Chivvis, Christopher S., et al., NATO's northeastern flank: Emerging opportunities for engagement, (RAND, 2017), p. 116.

² Janeliūnas, Tomas, 'The deterrence strategy of Lithuania: In search of the right combination, in Vanaga, Nora and Rostoks, Toms (eds.), Deterring Russia in Europe: Defence strategies for neighbouring states (Abingdon: Routledge, 2019); and Szymański, Piotr and Gotkowska, Justyna, The Baltic states' territorial defence forces in the face of hybrid threats, (Warsaw: Centre for Eastern Studies, 2015), p. 2.

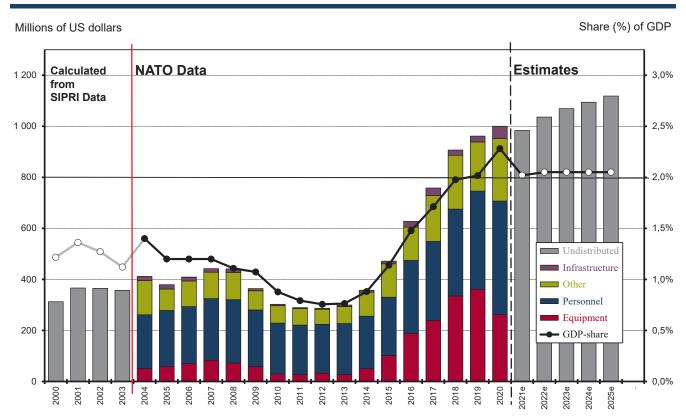


Figure: The military expenditures of Lithuania 2000–2025: Millions of US Dollars/2015 prices (columns) and as share (%) of GDP (curved line)

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

NB: Estimates based on budget data for 2021 and on the assumption that Lithuania will spend around 2,05% of GDP in defence in 2022 – 2025.

increased since 2017.⁴ The most important ally, however, remains the US.

MILITARY EXPENDITURES

As noted in the chapters on Estonia and Latvia, the three Baltic countries have large similarities in both economic and military developments. The three countries were severely hurt by the global economic crisis in 2008–2009 and they therefore made drastic cuts in public spending, including defence. The Russian aggression against Ukraine, in 2014, compelled them to revise their policies and rapidly increase their expenditures, and all countries now allocate more than 2 per cent of their GDP to defence.

A difference, however, is that prior to the 2008 financial crisis, Lithuania increased its military expenditures at a more modest pace than its Baltic neighbours. Military expenditures rose from USD 312 million in 2000 to USD

441 million in 2008. This increase was largely at par with Lithuania's rate of economic growth. The GDP share remained stable during these years, with an average of 1.2 percent of GDP allocated to defence. After the financial crisis, Lithuanian military expenditures fell to USD 303 million in 2010 and a GDP share of 0.9 per cent. Military expenditures remained at roughly the same level from 2010 to 2013.

Following Russia's annexation of Crimea, Lithuania changed its policy and began a drastic increase in military expenditures, aiming at a GDP share of 2 per cent in 2018. The expenditures morethan doubled, from USD 357 million in 2014 to USD 907 million in 2018. As part of the modernisation of the armed forces, the extra funds were primarily spent on equipment. These investments rose by a factor of 13, from a low of USD 28 million in 2013 to USD 361 million and 38 per cent of the military expenditures in

⁴ Lithuanian Ministry of Defence, 'We are entering a new stage of cooperation with our strategic ally Poland, Minister of National Defence R. Karoblis says', 29 January 2020. For example, Lithuania's brigades are affiliated to NATO Multinational Division Northeast Headquarters in Poland. For more on this, see this report's chapter on Estonia.

2019, although the share shrunk to 27 per cent in 2020.

In 2018, the six major parties of the Lithuanian parliament agreed to increase military expenditures further, aiming at spending 2.5 per cent of GDP on defence in 2030.5 The timetable for the increase is not clear, however, and the coronavirus pandemic may hinder the plans. The projections for 2021 are based on Lithuanian defence budget data. With the decline in the GDP, caused by the corona pandemic, military expenditure as a share of GDP will increase to a higher level in 2020. For 2021, the defence budget stipulates the same amount in nominal terms as in 2020, meaning that expenditure will decrease in real terms in 2021. The projections for the following years are based on the assumption that military spending as a share of GDP will in 2021-2025 lie at a level above 2 per cent, which on average is comparable to the allocations made to defence before the outbreak of the coronavirus.⁷

Apart from the budgetary strains from Covid-19, Lithuania must also strike the right balance between personnel, equipment, infrastructure and maintenance. The past years' extensive procurement will in particular increase costs for maintenance, included in the 'other' category in the graph, as well as infrastructural needs, all which need to be handled during the coming years.⁸

ARMED FORCES

The Lithuanian armed forces are led by the Chief of Defence, supported by a defence staff which is situated in Vilnius. Like its Baltic neighbours, the Lithuanian Armed Forces are primarily made up of land forces. The land forces, comprising the regular army and the National Defence Volunteer Forces/Krašto apsaugos savanorių pajėgos (NDVF/KASP), field approximately 13,000 soldiers, of which some 4500 are professionals. The Navy has around 700 personnel, whereas the Air Force consists of approximately 1300 personnel. The 3700

conscripts serve in all branches, but primarily within the land forces, which has some 2400 conscripts.⁹

Army

The Army's peacetime structure consists of two brigades, an engineering battalion, a logistics battalion and the volunteer NDVF/KASP.

The 1st Brigade – the lightly mechanised Iron Wolf Brigade – has received the major share of the modern equipment procured in recent years, whereas the 2nd Brigade is inheriting its older equipment. The brigade consists of about 65 per cent professionals and 35 per cent conscripts. Primarily based in Rukla, its wartime tasks include defending against attacks proceeding through Latvia and Belarus. The brigade maintains higher readiness than the 2nd Brigade, and two of its battalions make up the core of the rapid response force that was created in 2016. The German-led eFP battlegroup is integrated with the brigade. ¹⁰

The 2nd Brigade – the motorised Griffin Brigade – was set up and assigned two infantry battalions in 2016. Since then, the Lithuanian Army has created and assigned an additional infantry battalion and an artillery battalion to the brigade. Currently, it consists of about 45 per cent professionals and 65 per cent conscripts, but has some way to go regarding manning levels and equipment. The brigade is supposed to defend against incursions from Kaliningrad and secure the port in Klaipėda, the city where it is mainly based.¹¹

The 3rd Brigade, also created in 2016, is reserve-based and is unlikely to be operational before 2024. Currently, only its staff functions have conducted exercises. It will consist of reservists under command of officers from military schools and other headquarters. Based in Vilnius, it likely has the task of defending the capital. As the aim of the reintroduced conscription system primarily seems to be

⁵ Lithuanian Government Offices, 'Agreement on the guidelines for the Lithuanian defence policy signed', 10 September 2018.

⁶ Lithuanian Radio and Television (LRT), 'Lithuanian defence budget to stay above NATO 2-percent threshold', 15 October 2020.

⁷ Defence ministers from the three Baltic countries also issued a joint declaration in June 2020 that their countries, even though they are suffering from the coronavirus pandemic, will maintain and not reduce their defence allocations. Baltic Times, 'Baltic states commit to not reducing defence spending', 16 June 2020.

⁸ Jermalavicius, Tomas, 'To draft or not to draft: Defence policy choices in Lithuania and Latvia', International Centre for Defence and Security, 14 February 2017.

⁹ Republic of Lithuania. Annual exchange of information on defence planning (draft), OSCE Vienna Document 2011, 2020, p. 7.

¹⁰ 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.

¹¹ Gustafsson, Granholm, and Jonsson, Färdplan för tillväxt, p. 6 .

manning units and upholding readiness, the 3rd Brigade might be intended to make use of the surplus of trained conscripts that is likely to emerge.

US units from the rotational brigade stationed in Poland occasionally deploy to Lithuania for exercises and deterrence. In 2019, longer-term deployments started, with an armoured US battalion of some 500 soldiers staying for six months, followed by a similar deployment in November 2020.¹²

The volunteer 5250-strong NDVF/KASP, or National Guard, is organised in six territorial units and constitutes an active reserve for regular army units. It also has wartime tasks, which include protecting of critical infrastructure, creating delaying actions and providing host nation support.

Navy

The small Lithuanian Navy consists of a patrol ship squadron and a mine countermeasures squadron. Its primary tasks are sea surveillance and keeping ports and sea lines of communication open. The ships of the navy, including the formerly Norwegian and Danish patrol boats with only a 76 mm gun, lack heavy weaponry.

Air Force

The Lithuanian Air force is tasked with air surveillance and air defence and maintaining the Šiauliai Air Base, which is prepared for use by NATO allies and hosts the Lithuanian echelon of NATO's Baltic Air Policing initiative. For short-range air defence, Lithuania has procured the Polish GROM man-portable air defence system, in addition to its Stinger and RBS-70 systems. Furthermore, it will receive two batteries of NASAMS 3 air defence by the end of 2020, making Lithuania the sole Baltic country with mid-range air defences. With NASAMS seemingly intended to provide air defence for the

1st Brigade, Šiauliai Aair Base is likely protected by RBS-70 and Stinger, with GROM used as organic air defence in army units. ¹⁴ Lithuania hopes for US and NATO support concerning air defence, which remains a vulnerability for all Baltic States. Lithuania exercises close air support and joint tactical air control with allies. ¹⁵

Personnel and materiel

The reintroduction of conscription and accelerated recruitment efforts have improved manning levels markedly. Since 2014, professional service members have increased from approximately 8000 to approximately 11,000 and volunteers from around 4500 to 5100. In addition, some 3500 conscripts are trained annually. A vast majority of conscripts serve voluntarily. Careful not to lose support for conscription, Lithuania has changed the call-up age, from 19–26 to 18–23. Roughly, 25 per cent of conscripts proceed to professional service upon completion of conscription service.

However, a shortage of junior officers, non-commissioned officers and specialists remains a headache. As for all Baltic States, demographics pose a challenge to recruitment and to expanding the force structure in the years ahead, as the number of 18–23 year olds has decreased significantly and the financial crisis caused many young people to emigrate.

The procurement efforts started in 2014 have come a long way. The 1st Brigade has, for example, received 9 of 16 used but upgraded Panzerhaubitze2000 self-propelled howitzers, tripling its effective range of fire. ¹⁷ Other procurements include the already mentioned GROM air defence system and Javelin anti-tank missiles. Deliveries have started on Lithuania's biggest ever acquisition, 88 new Boxer infantry fighting vehicles (IFVs), equipped with a 30mm cannon and Spike long-range anti-tank missiles. With the IFVs and NASAMS, Lithuania broke with the

¹² The 2019 deployment ended up lasting longer than six months, due to the coronavirus pandemic; see Vandiver, John, 'US tanks and troops headed to Lithuania for lengthy deployment', *Stars and Stripes*, 25 September 2019; and BNS/TBT Staff, 'Another US battalion set to arrive in Lithuania for six months in November – ministry', *Baltic Times*, 22 September 2020.

¹³ Lithuanian Ministry of Defence, 'Lithuanian Air Force experts begin testing NASAMS medium-range air defence system', 3 October 2019. Lithuania intends to integrate its system with Polish Patriot batteries; see Larter, David B., 'On the borders of Putin's Baltic fortress, Lithuania cheers local build-up of US forces', *Defense News*, 14 October 2019.

¹⁴ BNS/TBT Staff, 'Lithuania's new chief of defense hopes to step up IFV, artillery system procurement – BNS interview', Baltic Times, 20 July 2019.

^{15 442}nd Fighter Wing Public Affairs, 'Whiteman reservists, A-10s Arrive in Estonia, Warrior, 29 July 2016.

¹⁶ Lithuanian Radio and TV, 'Lithuania lowers conscription age', 12 December 2019.

¹⁷ Interview, June 2020. Lithuania has procured 21 howitzers in total, 16 of which are intended for combat operations. All will be delivered by 2021. While most howitzers have been delivered and the artillery battalion has been certified as capable of operating them, they are unlikely to be fully operational. See Jarocki, Michal, 'Lithuanian PzH2000 in live-fire tests', *MilMag*, 25 April 2019; and Lithuanian Armed Forces; 'Units of the MIB Iron Wolf and the NATO enhanced Forward Presence Battalion Battle Group are combat-ready', 17 November 2019.

Table: Personnel and materiel in the Lithuanian Armed Forces

Personnel/Materiel ^a	Numbers in 2020	Planned reforms towards 2025
Personnel		
Regular force	10,750 ^b	11400 −15600 by 2024 ^c
Conscripts	3700	
Territorial defence forces	5150	
Reserves	5150 + 1200 ^d	
Materiel		
Tanks		
Armoured combat vehicles	256 APCs (234 M113A1, 22 M577)	88 IFVs (Boxer) ^e
Heavy artillery pieces	34 (16 self-propelled PzH 2000, 18 towed M101) 57 mortars: 20 2B11, 37 M/41D	
Attack helicopters		
Surface combatants		
Submarines		
Combat aircraft		
Transport aircraft	3 C-27J	
Air Defence	GROM, RBS-70, Stinger	2 batteries of NASAMS 3 mid-range air defence

NB: a. Personnel numbers are from the Lithuanian MoD and represent the numbers for 2019. See Lithuanian Ministry of Defence, 'Skai iai ir faktai'. Materiel numbers, if not otherwise stated, are from from IISS, *The military balance 2020*, **b**. The Armed Forces also employs 2788 civilians, **c.** Jakucionois, 'Lithuania plans to expand', **d**. The territorial defence forces – NDVF/KASP – make up the active reserve. In addition, there is a "prepared reserve" of some 19,000 soldiers (former professionals and newly educated conscripts), of which some 1200 underwent refresher training in 2019, **e.** 15 Boxer IFVs scheduled for delivery in 2019 were delayed; see BNS/TBT Staff, 'Delivery of Boxers to Lithuania delayed due to identified defects', *Baltic Times*, 27 December 2019,

traditional practice of primarily buying used equipment.¹⁸ The same applies for the 2019 procurements of 200 all-terrain, armoured, Joint Light Tactical Vehicles (JLTV) and six Black Hawk UH-60M helicopters, from the US.¹⁹

The expanded force structure and more advanced equipment have caused bottlenecks in other areas, such as infrastructure, logistics and command and control, as well as markedly increased maintenance costs. ²⁰ Infrastructural limitations negatively impact exercises, living quarters and host-nation support capabilities. Lithuania is investing heavily in infrastructure to address this. Furthermore, it is setting up an additional logistics battalion for the 2nd Brigade and upgrading its Battle Management System,

for frontline support to tactical commanders, and thereby strengthening command and control, situational awareness and interoperability with allies.²¹

ASSESSMENT OF MILITARY CAPABILITY

The Lithuanian Armed Forces are still implementing the major reforms launched post-Crimea. The reintroduced conscription and establishment of a second brigade have increased manning levels and readiness. Equally, the procurement of advanced equipment has increased firepower, protection and mobility. However, modernisation takes time, and the three major procurements — IFVs, self-propelled howitzers and mid-range air defence — are not yet

¹⁸ Gustafsson, Granholm and Jonsson, Färdplan för tillväxt, p. 7–9. However, the NASAMS launchers were used.

¹⁹ Lithuanian Ministry of Defence, 'Contract on acquisition of armoured all-terrain vehicles for the Lithuanian Armed Forces has been signed', 21 November 2019; and Lithuanian Ministry of Defence, 'The Lithuanian Armed Forces has taken a decision to procure new UH-60M Black Hawk utility helicopters', 18 October 2019.

²⁰ Gustafsson, Granholm and Jonsson, Färdplan för tillväxt, p. 9.

²¹ Systematic's SitaWare, which has also been procured by, e.g., Germany and Latvia. Lithuanian Ministry of Defence, 'Lithuanian Armed Forces to install a wider-scope battle management system', 14 February 2020.

fully operational. Importantly, procurement of big-ticket items has been complemented by much-needed efforts to fill up ammunition stocks, including anti-tank missiles.²²

Lithuania's efforts to strengthen readiness and reduce its reliance on mobilisation have paid off. The 1st Brigade's four battalions and parts of the six territorial defence battalions from NVDF could be available within a week. It is furthermore possible that some units of the 2nd Brigade are available within a week, but their usefulness and possible tasks are dependent on how far along their training conscripts are. This latter is also true for some parts of the 1st Brigade. However, there are differences in capability between the two brigades: the 1st has a higher proportion of professionals than the 2nd, exercises more and has fewer vacancies.

The 1st Brigade should be able to delay and inflict losses on a mechanised enemy advancing from Latvia or Belarus, at least if given time to prepare the defence. The relatively open Lithuanian terrain is suitable for tank warfare, which makes the anti-tank capabilities it has stocked up on essential.²³ Their ability to conduct offensive actions is absent, however, until IFVs and self-propelled howitzers (SPH) are properly integrated. Given successful mobilisation of the main parts of the 2nd Brigade, it may be able to slow down incursions from Kaliningrad and secure the port in Klaipėda, at least for some time. The current lack of artillery and air defence is a key vulnerability, as it is in Latvia and Estonia; the armed forces will rely heavily on early support by other allies, from the air. While Lithuania has a greater variety of air defence systems than its Baltic neighbours, which possibly could make it somewhat more resilient to aerial attack, such an abundance of different systems also holds implications for education and logistics.

In addition to national forces, the eFP battlegroup contributes combat power at short notice. The battlegroup employs some 1000 soldiers and 500 vehicles, including main battle tanks, armoured infantry fighting vehicles and self-propelled howitzers.²⁴ Germany has traditionally complicated rules of engagement, and the fact that Berlin designates the deployment a 'training activity' has raised questions concerning its value if deterrence turns to defence. However, German representatives and the Lithuanian Chief of Defence are adamant that the battle-group and Lithuanian forces would respond to a military threat together, even if the North Atlantic Council has not reached a decision.²⁵ In the same spirit, Germany has established and exercised a national reinforcement concept for the battlegroup, and its role in the Lithuanian defence plan has become clearer.²⁶

Given a week's notice, the Navy would likely be able to muster its mine countermeasures and patrol ship squadrons in an effort to keep sea lines of communication open. The air defence battalion would be preoccupied with protecting Šiauliai Air Base from aerial attack. Given the lack of full-spectrum air defences, its capability to interdict fighter jets is limited.

With three months' notice, the overall picture remains roughly the same, with the addition of two more battalions from the second brigade. The quality of army units, not least conscript soldiers, would likely have increased through combat training and more time for preparations of terrain and field works. A key question is whether the 3rd Brigade can be mobilised and properly equipped. At present, this seems unlikely, as only its staff functions have exercised, and the prepared reserve, from which reserves will be drawn, was only recently set up.

Until 2025, introduction of capable IFVs, mid-range air defence and self-propelled howitzers will markedly improve the Lithuanian defence. Having absorbed this, there are long-term plans for long-range anti-tank missiles and additional IFVs.²⁷ This will have to be weighed against the challenges of funding, demographics and infrastructural needs. Political support for increased defence spending has been nearly unanimous, but cannot be taken for granted in

²² Judson, Jen, 'In Russia's growing shadow, Lithuania modernizes its defenses', Defense News, 16 July 2019.

²³ As the NDVF/KASP is equipped with AT-4 and Carl Gustaf anti-tank weapons, tanks could be interdicted before reaching the lowlands of central Lithuania. Additionally, NDVF/KASP soldiers have operated Stinger MANPADs alongside US special forces in exercises; see Trevithick, Joseph, 'U.S. special ops and Lithuanian reservists practiced waging guerilla war against Russia', *The Drive*, 12 March 2018.

²⁴ Lithuanian Military Digest, '7th rotation of the NATO eFP Battalion Battle Group begins service', No. 2, 2020, p. 2. Additionally, the battlegroup provides expertise that can ease the introduction of the modern equipment procured, and it makes more advanced exercises possible.

²⁵ Stoicescu, Kalev and Järvenpää, Pauli, Contemporary deterrence: Insights and lessons from enhanced Forward Presence (Tallinn: International Centre for Defence and Security, 2019), p. 7; and Beniusis, Vaidotas, 'NATO batallion in Baltics would be ready to act', Lithuanian Radio and TV, 6 February 2020.

²⁶ Brauss, Heinrich and Carstens, Nikolaus, 'Germany as a framework nation', in Lanoszka, Alexander, Leuprecht, Christian and Moens, Alexander, Lessons from the Enhanced Forward Presence, 2017–2020, (NATO Defense College, November 2020), p. 65–66.

²⁷ Judson, Jen, 'Lithuania's new Boxer combat vehicle packs a punch', Defense News, 15 July 2019.

the coming years, when for example the economic impact of the coronavirus pandemic becomes clear, the life-cycle costs of modern equipment kick in, and other public sectors compete for limited resources.

Lithuania must also handle the transition from a largely static army to a modernised and mobile one. This entails education, training, and adapting the concept of operations and command structure to the new equipment and units. For example, the new howitzers are tracked and have three times the range of their predecessors, while the trucks acquired to transport their ammunition are wheeled, which could prove a tactical limitation in Lithuanian terrain. Additionally, the lack of adequate full-spectrum air defence is likely to be addressed in the years ahead, most probably through regional and NATO initiatives.

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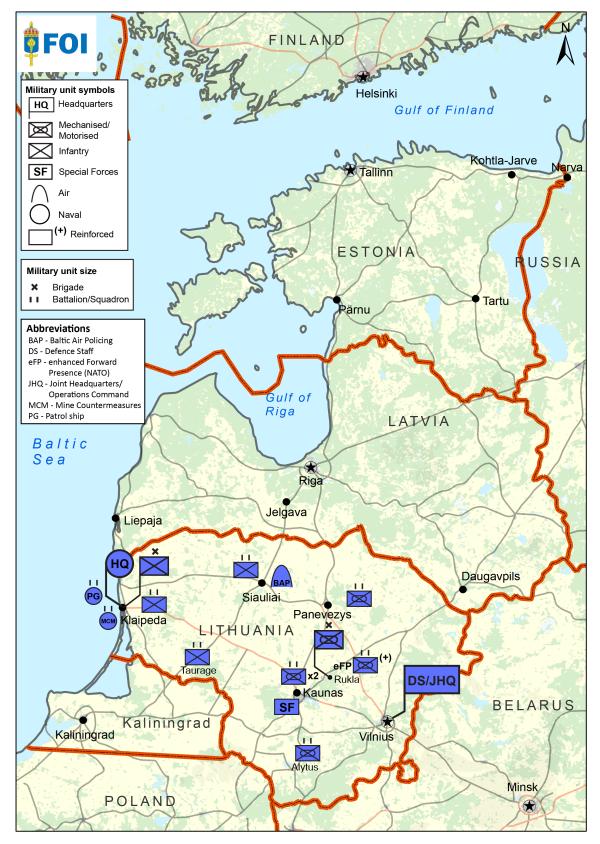
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²⁸ BNS, 'Lithuanian military purchasing 25 Arocs trucks for €10m', *Lithuanian Radio and TV*, 21 January 2020.

Table: Force structure of the Lithuanian Armed Forces

	Organisation 2020 ^a	Planned reforms towards 2025	Assessment of forces available at short notice
Joint	1 Defence staff 1 logistics battalion 1 special operations group (1 jaeger battalion, 1 counter-terrorism unit, 1 combat diver unit) 1 military police battalion		
Army	Land Forces HQ 1 mechanised (light) brigade (4 mechanised (light) battalions, 1 logistics battalion, 1 artillery battalion, 1 eFP battlegroup b) 1 motorised brigade (3 infantry battalions, 1 artillery battalion) (1 reserve brigade) 1 engineer battalion 6 territorial defence battalions	Logistics battalion for second brigade to 2024 ^c	3-4 mechanised (light) battalions of the 1st Brigade, with support 1-2 infantry battalions of the 2nd Brigade 6 territorial defence companies (reinforced)
Navy ^d	1 patrol ship squadron 1 mine countermeasures squadron		Up to 1 patrol ship squadron Up to 1 mine countermeasures squadron
Air Force	1 aviation base ^e 1 air defence battalion		1 air defence battalion

NB: **a**. Unless otherwise stated, see International Institute for Strategic Studies – IISS, *The military balance 2020* (London: IISS, 2020), **b**. Logistics battalion not listed in *The military balance*; see Lithuanian Military Digest, 'Flag of the Mechanised Infantry Brigade Iron Wolf – in the hands of new commander', No. 12, 2019, p. 8, **c**. Jakucionois, Saulius, 'Lithuania plans to expand troops and set up new battalion', *Lithuanian Radio and TV*, 6 November 2019, **d**. Lithuanian Armed Forces, 'Naval flotilla', **e**. Lithuanian Armed Forces, 'Air base of the Lithuanian Air Force'.



Map: Overview of Lithuanian armed forces and their basing

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

References

- 442nd Fighter Wing Public Affairs. 'Whiteman reservists, A-10s arrive in Estonia. *Warrior*, 29 July, 2016. https://www.whiteman.af.mil/Portals/53/documents/Warrior%20Archive/2016/7-29%20Whiteman%20Warrior.pdf?ver=2016-08-05-113110-610. Accessed: 1 October 2020.
- Baltic Times. 'Baltic states commit to not reducing defence spending', 16 June 2020. https://www.baltictimes.com/baltic_states_commit_to_not_reducing_defense_spending/. Accessed: 28 October 2020.
- Beniusis, Vaidotas. 'NATO batallion in Baltics would be ready to act'. Lithuanian Radio and TV, 6 February 2020. https://www.lrt.lt/en/news-in-english/19/1140168/nato-battalion-in-baltics-would-be-ready-to-act-interview. Accessed: 1 October 2020.
- Bergstrand, Bengt-Göran. *NATO military expenditures*. Working Document. Stockholm: Swedish Defence Research Agency (FOI), October 2020.
- BNS. 'Lithuanian military purchasing 25 Arocs trucks for €10m. *Lithuanian Radio and TV*, 21 January 2020. https://www.lrt.lt/en/news-in-english/19/1140168/nato-battalion-in-baltics-would-be-ready-to-act-interview. Accessed: 1 October 2020.
- BNS/TBT Staff. 'Lithuania's new chief of defense hopes to step up IFV, artillery system procurement BNS interview'. *Baltic Times*, 20 July 2019. https://www.baltictimes.com/lithuania_s_new_chief_of_defense_hopes_to_step_up_ifv__artillery_system_procurement_-_bns_interview. Accessed: 1 October 2020.
- BNS/TBT Staff. 'Delivery of Boxers to Lithuania delayed due to identified defects'. *Baltic Times*, 27 December 2019. https://www.baltictimes.com/delivery_of_boxers_to_lithuania_delayed_due_to_identified_defects/. Accessed: 1 October 2020.
- BNS/TBT Staff. 'Another US battalion set to arrive in Lithuania for six months in November ministry'. *Baltic Times*, 22 September 2020. https://www.lrt.lt/en/news-in-english/19/1140168/nato-battalion-in-baltics-would-be-ready-to-act-interview. Accessed: 1 October 2020.
- Brauss, Heinrich and Carstens, Nikolaus. 'Germany as a framework nation', in Lanoszka, Alexander, Leuprecht, Christian and Moens, Alexander. *Lessons from the Enhanced Forward Presence, 2017-2020*. NATO Defense College, November 2020.
- Chivvis, Christopher S., et al. *NATO's northeastern flank: Emerging op*portunities for engagement. RAND, 2017.
- 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.
- International Institute for Strategic Studies IISS. *The military balance* 2020. London: IISS, 2020.

Interview (by e-mail), Vilnius, June 2020.

- Jakucionois, Saulius. 'Lithuania plans to expand troops and set up new battalion'. *Lithuanian Radio and TV*, 6 November 2019. https://www.baltictimes.com/lithuania_s_new_chief_of_defense_hopes_to_step_up_ifv__artillery_system_procurement bns interview. Accessed: 1 October 2020.
- Janeliūnas, Tomas. 'The deterrence strategy of Lithuania: In search of the right combination', in Vanaga, Nora and Rostoks, Toms (eds.). *Deterring Russia in Europe: Defence strategies for neighbouring states.* Abingdon: Routledge, 2019.
- Jarocki, Michal. 'Lithuanian PzH2000 in live-fire tests'. *MilMag*, 25 April 2019. https://www.milmag.eu/news/view?news_id=2257. Accessed: 1 October 2020.
- Jermalavicius, Tomas. 'To draft or not to draft: Defence policy choices in Lithuania and Latvia'. International Centre for Defence and Security, 14 February 2017. https://icds.ee/en/to-draft-or-not-to-draft-defence-policy-choices-in-lithuania-and-latvia/. Accessed: 1 October 2020.
- Judson, Jen. 'Lithuania's new Boxer combat vehicle packs a punch'. Defense News, 15 July 2019. https://www.defensenews. com/land/2019/07/15/lithuanias-new-boxer-combat-vehic-le-packs-a-punch/. Accessed: 1 October 2020.
- Judson, Jen. 'In Russia's growing shadow, Lithuania modernizes its defenses'. *Defense News*, 16 July 2019. https://www.defensenews.com/land/2019/07/16/in-russias-growing-shadow-lithuania-modernizes-its-defenses/. Accessed: 1 October 2020.
- Larter, David B. 'On the borders of Putin's Baltic fortress, Lithuania cheers local buildup of US forces'. *Defense News*, 14 October 2019. https://www.defensenews.com/land/2019/10/14/on-the-borders-of-putins-baltic-fortress-lithuania-cheers-the-build-up-of-us-forces-in-the-baltics/. Accessed: 1 October 2020.
- Lithuanian Armed Forces. 'Air base of the Lithuanian Air Force'. https://kariuomene.kam.lt/en/structure_1469/air_force/structure_1330/air_base.html. Accessed: 1 October 2020.
- Lithuanian Armed Forces. 'Naval flotilla'. https://kariuomene.kam.lt/en/structure_1469/naval_force/units_of_the_naval_force/naval_flotilla.html. Accessed: 1 October 2020.
- Lithuanian Armed Forces. 'Units of the MIB Iron Wolf and the NATO enhanced Forward Presence Battalion Battle Group are combat-ready', 17 November 2019. http://www.algirdobatalionas.lt/en/military_insignia/news_1889/units_of_the_mib_iron_wolf_and_the_nato_enhance_forward_presence_battalion_battle_group_are_combat-ready. Accessed: 1 October 2020.
- Lithuanian Government Offices. 'Agreement on the guidelines for the Lithuanian defence policy signed', 10 September 2018. https://ministraspirmininkas.lrv.lt/en/news/agreement-on-the-guidelines-for-the-lithuanian-defence-policy-signed. Accessed: 1 October 2020.
- Lithuanian Military Digest. 'Flag of the Mechanised Infantry Brigade Iron Wolf – in the hands of new commander'. No. 12, 2019.
- Lithuanian Military Digest. '7th rotation of the NATO eFP Battalion Battle Group begins service'. No. 2, 2020.

- Lithuanian Ministry of Defence. 'Skaičiai ir faktai'. https://kam.lt/lt/personalo_politika_512/skaiciai_ir_faktai_537.html. Accessed: 1 October 2020.
- Lithuanian Ministry of Defence. *The Military Strategy of the Republic of Lithuania*. 2016. https://kam.lt/download/37816/karine-strategi-ja-en%20internet.pdf. Accessed: 1 October 2020.
- Lithuanian Ministry of Defence. 'Lithuanian Air Force experts begin testing NASAMS medium-range air defence system', 3 October 2019. http://kam.lt/en/news_1098/news_archives/new_archive_2019/news_archive_2019-10/lithuanian_air_force_experts_begin_testing_nasams_medium-range_air_defence_system.html. Accessed: 1 October 2020.
- Lithuanian Ministry of Defence. 'The Lithuanian Armed Forces has taken a decision to procure new UH-60M Black Hawk utility helicopters', 18 October 2019. http://kam.lt/en/news_1098/news_archives/new_archive_2019/news_archive_2019-10/lithuanian_ministry_of_national_defence_has_taken_a_decision_to_procure_new_uh-60m_black_hawk_utility_helicopters.html. Accessed: 1 October 2020.
- Lithuanian Ministry of Defence. 'Contract on acquisition of armoured all-terrain vehicles for the Lithuanian Armed Forces has been signed', 21 November 2019. http://kam.lt/en/news_1098/news_archives/new_archive_2019/news_archive_2019_-_11/contract_on_acquisition_of_armoured_all-terrain_vehicles_for_the_lithuanian_armed_forces_has_been_signed.html. Accessed: 1 October 2020.
- Lithuanian Ministry of Defence. 'Lithuanian Armed Forces to install a wider-scope battle management system', 14 February 2020. http://kam.lt/en/news_1098/current_issues/lithuanian_armed_forces_to_install_a_wider-scope_battle_management_system_to_be_installed.html. Accessed: 1 October 2020.

- Lithuanian Radio and Television (LRT). 'Lithuanian defence budget to stay above NATO 2-percent threshold', 15 October 2020. https://www.lrt.lt/en/news-in-english/19/1253738/lithuanian-defence-budget-to-stay-above-nato-2-percent-threshold . Accessed: 28 October 2020.
- Lithuanian Radio and TV. 'Lithuania lowers conscription age'. 12 December 2019. https://www.lrt.lt/en/news-in-english/19/1124775/lithuania-lowers-conscription-age. Accessed: 1 October 2020.
- Republic of Lithuania. 'Annual exchange of information on defence planning (draft)'. OSCE Vienna Document 2011. 2020.
- Seimas. *National Security Strategy.* 2017. https://kam.lt/download/56659/national%20security%20strategy%202017-01-17. pdf. Accessed: 1 October 2020.
- Stoicescu, Kalev and Järvenpää, Pauli. Contemporary deterrence: Insights and lessons from enhanced Forward Presence. Tallinn: International Centre for Defence and Security, 2019.
- Szymański, Piotr and Gotkowska, Justyna. *The Baltic states' territo*rial defence forces in the face of hybrid threats. Warsaw: Centre for Eastern Studies, 2015.
- Trevithick, Joseph. 'U.S. special ops and Lithuanian reservists practiced waging guerilla war against Russia'. *The Drive*, 12 March 2018. https://www.thedrive.com/the-war-zone/19186/u-s-special-ops-and-lithuanian-reservists-practiced-waging-guerrilla-war-against-russia. Accessed: 1 October 2020.
- Vandiver, John. 'US tanks and troops headed to Lithuania for lengthy deployment'. *Stars and Stripes*, 25 September 2019. https://www.thedrive.com/the-war-zone/19186/u-s-special-ops-and-lithuanian-reservists-practiced-waging-guerrilla-war-against-russia. Accessed: 1 October 2020.

