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Ukrainian Armed Forces

In 2014, the Ukrainian military, which observers noted had been weakened by years of neglect and underfunding, faced Russia's occupation of Ukraine's Crimea region and invasion of eastern Ukraine. Since that time, the Ukrainian armed forces have made considerable improvements; they have undertaken efforts to adopt NATO standards and received significant NATO and U.S. assistance. Many of these reforms began out of the experience of defending against Russian aggression. Reforms range from the tactical to the strategic levels and include both political measures (e.g., increasing transparency, countering corruption, and ensuring civilian control over the military) and military reforms (e.g., modernizing equipment, reforming command and control, and increasing professionalization).

Significant hurdles remain, however, and the reform process is complicated by Ukraine's Soviet legacy and the continued Russian occupation of parts of Ukraine. Since late 2021, Ukraine has faced a massive buildup of Russian forces on its borders and a potentially imminent threat of further Russian aggression. Members of Congress have expressed interest in understanding Ukraine's military capabilities to help guide policymaking to support Ukraine's defense of its territorial integrity. (For more, see, CRS Report R45008, *Ukraine: Background, Conflict with Russia, and U.S. Policy*, by Cory Welt.)

Key Policy and Strategy Documents

Multiple military and national security documents lay out Ukraine's military strategy, reforms, and defense policy. Ukraine's 2016 *Strategic Defense Bulletin* outlined priority reforms to achieve NATO standards, and its subsequent *State Program for the Development of the Armed Forces (2017-2020)* outlined implementation steps. In 2018, Ukraine continued the reform process with the Law on National Security, which created a framework to coordinate and simplify Ukraine's defense planning and to implement civilian control over the military.

Ukraine updated its *National Security Strategy* and its *Military Security Strategy* in 2020 and 2021, respectively, laying out the country's security and defense policies and objectives. The *National Security Strategy* defines the main principles of Ukraine's national security, which include identifying Russia as a long-term threat to its national security and developing closer relations with the European Union, NATO, and the United States. Ukraine's March 2021 *Military Security Strategy* replaced its 2015 *Military Doctrine*.

Budget and Defense Industry

The 2018 Law on National Security required that at least 5% of gross domestic product (GDP) be spent on security, with 3% of the total going to defense. Economic realities,

however, often mean defense spending in real terms is lower (around 2.5% of GDP). Ukraine's 2021 defense budget is 117.6 billion *hryvnia* (\$4.2 billion), 127 million *hryvnia* (\$4.6 million) less than 2020's budget. Additionally, Ukraine's defense budget allocations are split between funds necessary to maintain the military and funds to support its ambitious reform program.

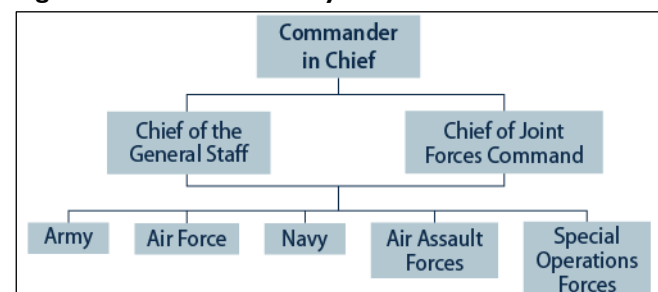
Ukraine inherited a sprawling defense industry from the Soviet Union, producing a wide range of products, including tanks and armored vehicles, aircraft, radars and electronics, missiles, and ships. Defense conglomerate Ukroboronprom oversees the defense industry, which comprises over 130 state-run companies. In recent years, Ukrainian officials have made reforming Ukroboronprom and increasing transparency key goals, including passing a new law, On Defense Procurement, in July 2020 to implement NATO standards in defense procurement. Despite some progress, significant challenges remain with regard to corruption, bureaucratic inefficiency and political infighting, and low transparency.

Command and Control

Command and control has been a central reform focus. Ukraine now requires the defense minister to be a civilian, a key NATO requirement. Some observers see continued threats to civilian control of the military, as former general Andriy Taran replaced Andriy Zagorodnyuk, the first civilian and pro-reform defense minister, in 2020.

The military also has shifted toward a command system more in line with NATO standards. Currently, the military reports to the commander in chief of the armed forces. Under the commander in chief, reforms split responsibilities between the chief of the general staff, responsible for strategic and force planning, and the commander of the joint forces staff, responsible for operations. The shift toward NATO-style command and control is an ongoing process, as many officers appear to remain influenced by their Soviet and post-Soviet military training despite an increase in NATO training and educational opportunities.

Figure 1. Ukrainian Military Command Structure



Source: Ukrainian Ministry of Defense.

Army

In 2014, Ukraine's defense minister said the country had 6,000 combat-ready troops. Today, Ukraine's army numbers around 145,000-150,000 troops and has significantly improved its capabilities, personnel, and readiness. The army is the largest component of Ukraine's military and includes mechanized, armored, missile and artillery, army aviation, and air defense units. The army continues to implement reforms in line with NATO standards but remains heavily influenced by its Soviet legacy. Ongoing reform priorities include modernizing equipment, training, and improving personnel management.

Most equipment are heavily upgraded versions of legacy systems in need of modernization. The army also continues to improve training at both the individual and unit levels, which was a significant weakness in 2014. NATO and U.S. support are crucial to training efforts, although most training is limited to the battalion level.

Ukraine operates a mix of conscript and professional soldiers on contracts. By law, conscripts cannot serve on the frontlines but have the opportunity to sign short or long-term contracts upon the expiration of their terms of service. Ukraine has sought to create a professional noncommissioned officer (NCO) corps, based on NATO standards. Low salaries, lack of educational opportunities, and a shortage of housing arguably contribute to a high turnover rate and limit the retention of professional soldiers and NCOs.

Navy

Ukraine's navy lost 70% of its vessels and numerous officers after Russia's occupation of Ukraine's Crimea region. In the aftermath, Ukraine's political and naval leadership debated reforming the navy back into a balanced fleet, a traditional mix of large and small vessels, or a "mosquito fleet," focusing on smaller vessels.

In 2018, the Ukrainian navy adopted the *Strategy of the Naval Forces of Ukraine Until 2035* and selected the mosquito fleet strategy, citing Russia's dominant naval position in the Black Sea and Ukraine's limited resources to procure larger vessels. Additionally, due to advances in ship design and missile technology, Ukraine's leadership argued that smaller vessels could accomplish maritime deterrence and defend Ukraine's coastline and maritime zone. Progress has been slow, however, with a combination of Ukrainian naval and defense industry interests advocating for a larger-vessel fleet.

In addition, the navy includes two Marine Infantry brigades and numerous coastal defense units, equipped with artillery and anti-ship missile capabilities. Marine Infantry are considered elite units, with one brigade permanently deployed outside of Mariupol, on the Sea of Azov. Ukraine also recently deployed the new domestically produced Neptune coastal defense system, which includes a new anti-ship missile.

Air Force

Like Ukraine's navy, its air force suffered significant losses during Russia's invasion. Russia captured or shot down multiple fighters, fighter-bombers, helicopters, and transport aircraft during the conflict. These losses weakened the air force, which previously had suffered from years of neglect and underfunding. Most of Ukraine's planes and air defense systems are over 30 years old.

In 2020, the air force launched an expansive modernization plan, *Vision 2035*, which committed 320 billion *hryvnia* (\$12 billion) to purchasing new multi-role fighters, trainer jets, transport aircraft, unmanned aerial vehicles (including Turkish Bayraktar TB2 drones), and air defense systems. This figure, however, is an ambitious projection (three times Ukraine's annual defense budget) and likely will be revised given Ukraine's defense budget realities.

Air Assault and Special Operations Forces

Ukraine's air assault brigades played a key role combatting Russia's invasion of eastern Ukraine. Considered elite troops, air assault units originally were light infantry under the army's command. Out of necessity and experience, Ukraine's air assault forces increased in size and transitioned into an independent command with heavier equipment.

Analysts generally agree that the creation of Ukraine's special operations forces is one of the most significant improvements since 2014, despite the small size of the force. Formed with U.S. and NATO assistance, Ukraine's special operations forces operate along NATO standards and principles; Ukraine's 140th Special Operations Forces Center passed NATO certification in 2019, allowing it to deploy as part of the NATO Response Force.

National Guard and Territorial Defense

Due to the conventional military's limitations, Ukraine relied on volunteer battalions to help combat Russia's 2014 invasion of eastern Ukraine. These battalions operate as light infantry, with some limited armor and artillery capabilities. Observers raised concerns regarding government control, since oligarchs, political parties, and some right-wing extremist groups created or funded most battalions. These concerns led Ukraine to consolidate most volunteer battalions under the command of the National Guard, created in 2014 within the Interior Ministry.

Ukraine also created a new reserve force based on the law On the Foundations of the National Resistance, which came into force on January 1, 2022. The Territorial Defense Forces (TDF) are locally organized units of 25 brigades (one per region) and 150 battalions (one per administrative district), as well as a separate branch of service. Ukraine plans to recruit 130,000 reservists around a core of 10,000 full-time soldiers.

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