

## Continuing U.S. and Allied Military Support to Ukraine

## THE ISSUE

Russia's February 24, 2022, invasion of Ukraine is a brutal reminder that war remains a feature of international relations. Faced with the destruction of Ukraine—a substantial contributor to global goods like food, energy, and minerals—and the return of Russia as a major threat to Western Europe, the U.S. has provided Ukraine with much of the means to defend itself.

The war has informed Ukraine's requests for specific types of equipment, weapons, and resources. Among the trends:

- This is substantially an artillery war.
  Conventional tube artillery and longer-range rocket artillery are used several thousand times each day by both sides. The devastation wreaked by Russian artillery has placed a premium on counter-battery radars that enable rapid counterstrikes that deny Russian crews the luxury of firing without fear of counterattack. By the same token, Ukrainian gun crews must be able to set up and fire, then rapidly displace to new positions before the Russians can respond.
- Air war is drone war. Aircraft—manned and unmanned—continue to be essential for projecting combat power even as anti-air weapons have prevented either side from gaining air dominance. But in this contest, modern technologies have made drones harder to detect and to counter while still striking targets. The cost-benefit contest favors unmanned aerial vehicles (UAVs) over counter-air weapons. Still, the damage of a successful drone strike against munitions

stores, command-and-control sites, or critical infrastructure like power plants demands that expensive counter-air weapons be employed against comparatively cheap drones.

- Armor still matters. Despite the effectiveness of anti-armor weapons, tanks and armored vehicles, such as personnel carriers, remain necessary to move around the battlefield. Though their utility has been limited, offensive action still requires protected movement and firepower.
- Intelligence and the ability to share it have been crucial to Ukraine's success.

Access to Western intelligence and space-based surveillance and communications, especially in the commercial sector (such as Elon Musk's constellation of Starlink communication satellites) have enabled Ukrainian forces to dominate Russian forces in targeting, making Ukraine's more limited inventory of weapons more effective.

With these realities in mind, U.S. military support to date, provided in several tranches, has included delivery or pledges of:

- Nearly 70,000 guided anti-platform missiles (such as the Javelin);
- 282 howitzers and 1.6 million rounds of artillery and mortar ammunition;
- 38 high-mobility artillery rocket systems (HIMARS) and ammunition;

- Nearly 1,000 armored vehicles of various types, including 45 T-72 tanks and 50 Bradley Fighting Vehicles (to be delivered this spring);
- More than 50 counter-artillery/counter-mortar radars; and
- More than one million rounds of small-arms ammunition in addition to other vehicles, trailers, patrol boats, communications equipment, optics, protection equipment, and medical gear.

To sustain Ukraine and to enable it to get the upper hand against Russia, additional weapons and munitions are needed to match the scale of battle. Further, Ukraine must be able to strike the enemy and supporting bases and facilities inside Russia. Though some worry that striking Russia directly could widen the war, Russia can sustain its effort indefinitely as long as its homeland remains a sanctuary free from threat.

Consequently, future U.S. support should include:

- Ammunition of all calibers and types but especially for artillery (tube and rocket) and anti-platform weapons (such as Stinger anti-air missiles; Javelin missiles; and tube-launched, optically tracked, wire-guided (TOW) anti-armor missiles). Although Ukrainian forces have been firing 6,000 rounds of artillery ammunition per day, the Russians have outmatched them by a factor of 10. Offensive action requires more combat power than defensive action. If the Ukrainians are to force Russia from their country, they will need much more ammunition.
- Tanks and armored vehicles. The U.S. is considering giving Ukraine armored vehicles to enable Ukrainian forces to move rapidly, conduct reconnaissance, and engage Russian forces protected by armor and fortifications. U.S. tanks would give Ukrainian forces a substantial advantage in offensive maneuver warfare and supporting infantry operations in urban terrain.

- Anti-drone systems. Because they are small, drones are hard to detect and to defeat with conventional weapons that are also very expensive. Directed-energy and electronic-warfare weapons are ideal for this job, but few countries possess them, the U.S. being in that small category.
- Anti-ship weapons. Russia's dominance
  of the Black Sea poses another threat to
  Ukraine. It has effectively prevented Ukraine
  from shipping goods from and to its ports.
  Improved naval capabilities would be a great
  help for Ukraine.
- **UAV (drone) systems.** Perhaps second only to the artillery battle, both sides are using <u>drones</u> in ever-increasing numbers for reconnaissance, targeting, and attack. Drones compensate for Ukraine's limited air capability and have proven to be essential. Ukraine needs more of the small types it has received, and would also greatly benefit from larger versions, which would require substantial U.S. technical support.
- Intelligence. Enabled by extensive, multi-spectral surveillance and reconnaissance capabilities, detailed and wide-ranging understanding of the battlespace has been crucial to Ukraine's success in blunting Russian advances and striking Russian forces. Ukraine must get as much "bang for the buck" as it can with every offensive strike and defensive action. Better intelligence and the means to share such with forces in the field are what enables this "bang."

The U.S. and its allies can best support Ukraine by ensuring the continued flow of munitions, expanding Ukraine's inventory of artillery, providing armor to enable offensive operations, improving defensive capabilities against enemy ground and air attack, and enhancing Ukraine's ability to understand what the enemy is doing, so that it can make the best use of its resources.