

A serviceman of the Armed Forces of Ukraine stands on the Hostomel Bridge on 1 March 2022 in the Kyiv region. Behind him is a column of Russian military equipment destroyed during the first days of the invasion. (Photo by Serhii Nuzhnenko, courtesy of https://war.ukraine.ua/)

Something Old and Something New

Lessons from the Ukraine-Russia War

Col. Daniel Sukman, U.S. Army

But probably that's the way of the world—when we have finally learned something we're too old to apply it—and so it goes, wave after wave, generation after generation. No one learns anything at all from anyone else.

–Erich Maria Remarque

he expanded Russian invasion of Ukraine in February 2022 created a learning laboratory for the joint force at the tactical, operational, strategic, and institutional levels of war. The important lessons, however, tend to be those that nations learn time and time again and are lessons that destroy the myths and legends that often rise during peacetime. This article will discuss seven lessons learned from the Ukraine-Russia War through the operational, strategic, and institutional lens.

Lesson 1. Wars Tend to Be Wars of Protraction

Myths often develop in nations that they can begin and end a war on their own terms rapidly and decisively. However, wars, especially wars between near-peer or peer adversaries, tend to be prolonged and protracted. In February 2022, Russia set about its invasion of Ukraine thinking it could topple the regime in Kyiv in less than a week and achieve its strategic objectives before Ukraine and the rest of the free world could respond. In many ways, Russia fell into the trap of believing in a decisive battle (for Kyiv) to immediately win the war.

Through the ages, countless nations rolled the iron dice and assumed that the oncoming war would be fast and decisive. In his book The Allure of Battle, author Cathal Nolen details the range of protracted wars that began with the faulty assumption that using the military instrument of nation power would accelerate the achievement of strategic aims. This list includes the Napoleonic Wars, the U.S. Civil War, Prussia in 1870, and Germany in the two world wars.¹ From a strictly U.S. perspective, Bunker Hill to Yorktown was six years and Bull Run to Appomattox was four years, as was Pearl Harbor to V-E and V-J Days. The Vietnam War lasted approximately fourteen years, and the experiences of unexpected protraction continued with U.S. wars in Iraq and Afghanistan.² In each instance, leaders at the national level underestimated the duration of

the conflict, leaving their military and their nation unprepared for the consequences. The troops eventually make it home for Christmas, but which Christmas remains an uncertainty.

To sustain protracted large-scale combat operations, both Russia and Ukraine mobilized their populations and found unique ways to sustain their forces. The Russians, for example, used the private military company Wagner to first augment its forces, followed by integrating its members into Russian conventional forces.³ Further, after suffering massive attrition, Russia expanded the available population for military service and recruited felons from its prisons to serve on the front line.⁴ Adversaries will find unique ways to generate manpower, and often these ways are antithetical to how the joint force can expand service end strength.

The operational lesson learned by observing the high-end protracted fight in Ukraine is that the joint force must have sufficient capacity at the onset of a future conflict. This capacity can range from combat platforms to communications, to ammunition, and to people. Further, just as the joint force learned in the protracted wars in Iraq and Afghanistan, the joint force must understand what

personnel and manpower policies will enable largescale combat operations in a protracted conflict.⁵ During a future protracted war, for example, enlisted and officer professional military education requirements or gateways such as the Army's Advanced and Senior Leader Programs for noncommissioned officers and Command and General Staff College for commissioned officers may be postponed as a requirement for promotion. Endurance in a theater of war must be a trait of the future joint force.

At the strategic level, the first lesson learned on

Col. Daniel Sukman, U.S. Army, is an army strategist who currently serves as an assistant professor at the Joint Advanced Warfighting School. He previously served as the chief of the Strategy Development Division, Joint Staff J-5. Sukman earned master's degrees from Webster University, Liberty University, and the U.S. Army War College. He served with the 101st Airborne Division (Air Assault), the United States European Command, the Army Capabilities Integration Center, the Joint Enabling Capabilities Command, and the Joint Forces Staff College.

protraction is that efforts across the whole of government, with specific attention to the economic and industrial elements, must be sustainable over a long period of time. Using the economic instrument of national power to enforce sanctions for example must be flexible to adjust to the efforts of an adversary to skirt said sanctions. The heavy economic sanction placed on Russia in the immediate aftermath of their invasion did have impacts, yet Russia adapted to this environment.⁶ Diplomacy must be sustained to account for changes in the perspectives and policies of foreign governments and foreign populations.

The second strategic lesson learned on wars of protraction is that the financial costs of war will inevitably be higher than thought to be at the onset of war. This financial cost is not confined to the nations with soldiers on the front lines but also includes nations providing materiel, training, and monetary assistance to one side. In the Ukraine-Russia War, U.S. and Western assistance to Ukraine totals in the hundreds of billions of dollars.⁷ Protracted wars are expensive, even when fighting them via proxy.

War is a long and drawn-out affair, and most often is fought through attrition. This attritional aspect leads to the next old lesson being relearned in Ukraine, that the most fundamental characteristic of war is violence.

Lesson 2. War Is Violent

War is never a clean and tidy affair. Included in joint doctrine are the principles of joint operations which include objective, offensive, mass, economy of force, maneuver, unity of command, surprise, simplicity, restraint, perseverance, and legitimacy. Germane to the lesson that war is violent is the principle of legitimacy.⁸ In the eyes of domestic and foreign populations, legitimacy is often conferred upon a military by how it conducts itself on the battlefield. As Carl von Clausewitz observed nearly 150 years ago, the chief characteristic of war is the centrality of violence.⁹ This violence is not limited to service members in uniform but will reach out and touch men, women, and children across all of society. Moreover, this violence often expands to indiscriminate killing and maiming of innocent victims. War crimes occur, and no side is immune to conducting inhumane and cold-blooded acts.

In his book America and the Future of War, Williamson Murray wrote that there are no bloodless wars or wars without violence.¹⁰ There are numerous examples of extreme acts of violence throughout the Ukraine-Russia War. Bucha for example is no longer an obscure Ukrainian town, but rather an infamous example of organized mass murder by the Russian army.¹¹ As the extent of Ukrainian resistance to the Russian invasion became clear, and the extent of Russian military incompetence shined in the light, undisciplined Russian soldiers under unethical and immoral leadership vented their frustrations on the civilian population of the nation they brutally invaded.

At the operational level, there are two primary lessons. First, the joint force must be prepared on how to respond to war crimes conducted by an adversary, an ally, and our own forces. The wars in Afghanistan and Iraq proved that the joint force is not immune to these acts. In Iraq and Afghanistan, the actions of soldiers at Abu Ghraib, the cold-blooded murders committed by Stephan Green in Yusifiyah, and the mass murder committed by Robert Bales in Afghanistan are but three examples of U.S. service members committing vicious war crimes.¹² Commanders at all echelons should include in their planning assumptions that accusations of war crimes will occur, and preplanned and well-thoughtout responses can help to avoid the wrong reaction that further reduces U.S. credibility.

Second, there is a necessity for the joint force, along with allies and partners to conduct prudent and detailed planning to support displaced civilians for a long duration of time. Refugees often begin to leave expected places of conflict before the initiation of hostilities. Moreover, during a protracted conflict, these civilians will require more permanent housing and other humanitarian services. If Russia's wanton destruction of civilian infrastructure, which includes the destruction of power-generating facilities, dams, and residential apartment buildings, is an indicator of future wars, the joint force must also prepare for long-term rebuilding efforts to restore basic services. Protracted war will include protracted recovery.

At the strategic level, the joint force must understand that legitimacy is hard to obtain but easily lost. A nation and its military can quickly lose legitimacy through the actions of individuals and units on the battlefield. War crimes and disproportionate responses can reduce legitimacy and thus erode a coalition, limiting the power and effectiveness of the joint force. The war crimes committed in Vietnam, Iraq, and Afghanistan eroded support for U.S. operations, domestically, in foreign populations, and within the host nation. Conversely, highlighting war crimes and atrocities committed by adversaries is an informational way to gain a diplomatic and military advantage.

Institutionally, going forward with the lesson on violence, the joint force must continually train leaders at all echelons on the necessity of lawful and ethical conduct on the battlefield. This must be reinforced in training, professional military education, in exercises and wargames. This training must include not only reinforcement of ethical conduct but also training in how units can collectively respond to alleged acts of unlawful violence by an adversary or friendly force.

Critical to the centrality of violence in war are the aspects of fog, friction, and chance.¹³ Leading to the next lesson of the Ukraine-Russia War, war remains unpredictable.

Lesson 3. War Is Unpredictable

War is fought by humans, and as long as humans remain unpredictable, so will the outcomes in war. In his seminal work *On War*, Clausewitz opined that war is characterized by the elements of fog, friction, and chance. Fog is the uncertainty in war, friction is the countless minor incidents that make the simple very difficult, and chance is the unpredictable circumstances that consistently occur in war.¹⁴ Throughout the Ukraine-Russia War, unexpected events occurred at the tactical, operational, and strategic levels.

Russia believed at the start of its expanded invasion that the march to Kyiv to replace Ukrainian political leadership would occur in less than a week. The Russians assumed that overwhelming firepower and mass formations would roll into the Ukrainian capital virtually unopposed.¹⁵ Ukraine, however, surprised the Russians with fierce resistance. Ukrainians were able to mount a significant counteroffensive later in the year forcing a Russian withdrawal from occupied Kherson.¹⁶ Wars tend to be protracted, and Vladimir Putin and his military leadership fell into the trap of believing in the short war fallacy.

At the onset of the war and in the maritime domain, Russia assumed that a country without a navy would be unable to challenge the Black Sea Fleet. Ukraine, however, was able to sink the capital ship of the Black Sea Fleet, destroy a Russian submarine, and eliminate from the Black Sea a significant number of other Russian surface vessels.¹⁷ Previous thinking was that maritime forces supported land forces through long-range fires and other effects. It was unpredictable that land forces would be decisive in creating effects in the maritime domain.

Strategically, leadership in Russia saw the invasion as an opportunity to fracture the NATO alliance. The unpredictable nature of war came to the forefront with the application for and acceptance of Finland and Sweden into NATO.¹⁸ The expansion of NATO required the consensus of all NATO nations, and nations that Russia may have believed was sympathetic to Russia's strategic perspective ratified Finland and Sweden's ascension into the alliance. In addition to expanding the NATO alliance, the Russian invasion, and more broadly the way Russian forces indiscriminately killed Ukrainians and destroyed large swaths of infrastructure gave nations in Europe a sense of urgency, increasing military spending and military assistance to Ukraine.¹⁹

The unpredictable nature of war displays the importance of not forgetting history. The construction of trenches, artillery duels, and new or unexpected material applied in new ways (e.g., civilian drones for artillery spotting) leads to the next lesson on the importance of learning.

Lesson 4. The Warfighting Advantage Goes to the Side That Learns the Fastest

Constantly staying ahead of an adversary is a lesson that the joint force learned time and time again. Surprise is the ability to strike the enemy at a time or place or in a manner for which it is unprepared. In his book *War Transformed,* retired Australian Gen. Mick Ryan observed that achieving surprise upon an adversary is more than tactical level ambushes.²⁰ Surprise can come in the form of new combat platforms or with new methods and ways of fighting. The German operational concept of Blitzkrieg and the Japanese use of kamikazes in World War II offer prime examples of these types of surprise. New doctrine can achieve surprise and force an enemy into a new cycle of learning, putting the friendly force in a position of advantage.

Trying to maintain an advantage in the learning cycle of war is not new to the joint force. During the



Equipment from killed and wounded Ukrainian soldiers is piled near Soledar in the Donetsk region on 14 January 2023. (Photo by Serhii Nuzhnenko, Radio Free Europe/Radio Liberty, courtesy of <u>https://war.ukraine.ua/</u>)

two-decade conflicts in Iraq and Afghanistan, the military constantly fought to stay a step ahead of insurgents. Organizations such as the Joint IED Defeat Organization (JIEDDO) were in a constant struggle to stay ahead of IED tactics, techniques, and procedures (TTPs) employed by insurgents.

In the Ukraine-Russia War, both Ukraine and Russia never stopped learning or adapting to conditions on the battlefield. Early in the war, Ukraine achieved success in targeting Russian operational level headquarters, eliminating senior leaders of the Russian army. Russia responded by moving its headquarters further from the front and out of reach of Ukrainian long-range fires. Ukraine achieved tactical successes using drones, only for the Russians to adapt their electronic warfare tactics and adjust their force protection techniques. Learning occurred in both the Ukrainian and Russian military, the natural outcome of war involving living and thinking adversaries. This state of constant learning is a large contributor to the prolonged duration of the war. At both the operational and strategic levels, the lesson learned for the joint force is to invest in and maintain institutions of collective learning throughout a protracted conflict. An advantage of the U.S. joint force at the operational and strategic level of war is the existence of organizations dedicated to learning during times of conflict. Throughout the Global War on Terrorism, the Combined Arms Center, which produced the Army's doctrine on counterinsurgency, was arguably the Army's most important headquarters and command. In a protracted large-scale combat operation, the joint force must have the foresight to continually fund, man, and equip these organizations in the institutional force to enable the long-term success of the operational force.

War is an adversarial, multiplayer game, and innovations don't last forever. With learning comes experimentation, and in a protracted conflict, commanders across the joint force must allow for and encourage continual and unending innovation and adaptation on the battlefield with the recognition that some may not succeed or will be rapidly countered by the enemy. Without a culture conducive to innovation, a military organization will grow stale and rely on outdated capabilities and thinking, leading to tactical and operational drift and resulting in strategic defeat.

With war being a multiplayer game, one of the lessons learned time and time again is the value and power of allies and partners, which segways into the next lesson.

Lesson 5. In War, It's Good to Have Friends

Nations who find themselves immersed in conflict must find ways of creating power. Part of the art of creating power is the ability to form alliances and coalitions.²¹ Allies and partners are critical and allow for the inclusion of unique capabilities; provide access, basing, and overflight; and offer a modicum of legitimacy toward one side of the conflict.²² Further, creating and nurturing relationships through diplomacy is just as if not more important for a nation to achieve strategic objectives in times of conflict. Armies don't win wars, nations do.

From the onset of the war, Ukraine understood the value and necessity of forming a coalition with Western nations. Although Western nations did not send forces onto the battlefield, they did provide critical combat platforms, munitions, and funding to enable the Ukrainian armed forces. Government leaders in Ukraine, including the Ukrainian president, invested significant time and energy in diplomacy. President Volodymyr Zelensky addressed the executive and legislative leaders across the globe, including a joint session of Congress in efforts to maintain support of Ukraine.²³ The outputs of these diplomatic efforts toward coalition building included the transfer of military equipment, ammunition, training in Western nations, and billions of dollars in military assistance.

In addition to material combat capabilities, Ukraine's partners provided much needed individual and collective training from places of sanctuary. For example, Ukrainians trained on the operation and maintenance of Patriot Air Defense Systems at Fort Sill, Oklahoma.²⁴ Ukrainian pilots trained in the skies over Arizona.²⁵ Newly minted Ukrainian soldiers trained individually and collectively on infantry and armor in multiple European nations, including at U.S. facilities in Grafenwöhr, Germany.²⁶ For the joint force, training from sanctuary is more than training from the United States. Throughout the 2003–2011 war in Iraq, U.S. forces were able to conduct individual and collective training in the Kuwaiti desert before crossing the berm into Iraq. In a future war, the ability to train in theater, but in closer proximity to the conflict than the continental United States will be paramount. Training often involves the massing of troops and equipment, and the ability to train forces out of harm's way, not allowing the adversary to target and disrupt or destroy training formations is an asymmetric advantage.

Russia, from a position of necessity, formed its partnerships with multiple autocracies to support and continue its war-making capacity. Assistance from other nations spanned multiple instruments of national power. For example, Russia skirted international sanctions by selling gas to China. North Korea provided artillery shells and other ammunition.²⁷ Iran provided Russia with unmanned aircraft systems in the form of Shahed drones.²⁸ Without outside economic and military assistance, Russia's ability to fight a protracted war might be in doubt.

The Ukraine-Russia War teaches us at the operational level the necessity to develop methods of integration before a conflict begins. At the onset of the war, for example, Ukraine was saddled with outdated Soviet era equipment. As the war became protracted, Ukrainians gradually became a military equipped with U.S. and other Western capabilities. This created friction for Ukrainians who had to innovate and adapt to integrate various, and often noninteroperable capabilities. The joint force must advance the construct that the current chairman of the Joint Chiefs of Staff, Gen. Charles Q. Brown Jr., calls "integrated by design" a concept where allies and partners are included at the onset of planning and execution, not bolted on after operations commence.²⁹

At the strategic level, the lesson learned is that adversaries will continue with their own diplomacy or try to find asymmetric ways to fracture an alliance. Throughout the war in Ukraine, Russia did its best to influence foreign governments and foreign populations to reduce the goodwill and support flowing into Ukraine. Sustaining ally and partner support throughout a protracted war requires continuous diplomacy,



A Ukrainian border guard prepares an unmanned aircraft for reconnaissance near the front line in the Kharkiv region in August 2023. (Photo by Petro Zadorozhnyy, State Border Guard Service of Ukraine)

often conducted by elected officials, diplomats, and military leaders executing military to military engagements, inside and outside the theater of conflict.

Lesson 6. There Are No Silver Bullets in War

In his book *The Future of Land Warfare*, Michael O'Hanlon opines that Americans possess a fascination with modern technology, and often this leads to a belief that the military can accomplish things it cannot do.³⁰ Although wars often serve as laboratories for innovation and for the acceleration of technology, rarely is there a single weapon or combat platform that will alter the course of a war. Early in the Ukraine-Russia War, *s*pecific weapons systems such as Javelins and Turkish TB2 drones had devastating impacts on Russian forces. However, the Russians were able to adapt and continue to conduct attacks using new TTPs that minimized the effect of Ukrainian weapons. These adaptations included physical and electronic protection from unmanned aircraft and improvements to the dynamic targeting of Ukrainian fires platforms. None of these new platforms or methods of employment decisively shifted the conflict toward one side or the other.

Throughout the Ukraine-Russia War, both sides experimented with new weapons and delivery systems. These systems include unmanned aircraft in the air domain and unmanned ships and unmanned subsurface vessels in the maritime domain.³¹ Although these new and innovative adaptations were able to cause significant casualties, over time, each adversary adopted TTPs to counter or minimize the effects of each system, often at low cost. For example, the initial use of drones by the Ukrainian armed forces to destroy combat platforms such as tanks, artillery, and air defense systems was countered by improvements to Russian electronic warfare capabilities and add-on protection such as antidrone nets to Russian buildings and vehicles.³² The natural progression will be Ukrainian adjustments to their drones and to their TTPs as we continue to learn

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that counters to a perceived silver bullet are rarely permanent solutions themselves. For every action there is a reaction.

At the operational level, the joint force must understand that war remains a human endeavor, and that technology still has limits. Service members in the joint force will need to continually learn how to use new advancements to counter adversary capabilities and train to effectively employ new fielded capabilities before the adversary develops their counter. Unmanned maritime and aerial platforms may accelerate new types of combat platforms, new doctrine to fight with the platforms, and new force structure and force presentation to sustain the use of these platforms over the long term. As Peter Mansoor observed, "It is important to important to keep the U.S. military at the cutting edge of technology, but not for its own sake, you need an operating concept to fight it with and test it."33 The institutional force of each of the services must continually make room to allow for individual and collective training that accounts for the unending list of newly fielded capabilities in the never-ending move-countermove dynamic in war.

At the strategic level, the joint force must understand that in times of prolonged conflict, continued advancements in technology and improvements to combat capabilities will be necessary throughout the conflict. As Christian Brose observed in The Kill Chain, the industrial base is brittle, and the department must expand the size of the industrial base by increasing the number of major defense firms.³⁴ To spark this innovation, this translates to the necessity to continue and improve partnerships with academia, industry, tech companies in Silicon Valley, and other engines of innovation.

Lesson 7. During War, There's Other Stuff Happening

Although the United States and its allies and partners are supplying the Ukrainian war machine, the fight has not involved direct action outside of Ukraine and Russia. When Russia expanded its invasion of Ukraine in February 2022, the joint force and the department became hyper focused on the conflict. The National Security, National Defense, and National Military Strategies all referenced the war, characterizing Russia as an acute threat.³⁵ The United States, along with allies and partners across the globe, committed money and materiel to support Ukraine's efforts to defend itself. However, in a prolonged war, national attention can be diverted to other crises happening across the globe. On 7 October 2023, attention shifted from Ukraine to Israel, the Levant, and the Middle East.

While sending military capabilities to Ukraine, the United States found itself fighting a low-level conflict in the water of the Middle East. This included providing protection to shipping in the Red Sea, a mission that includes shooting down adversary drones and ballistic missiles.³⁶ Further, the United States struck a series of targets in Syria and Yemen in response to continued Houthi attacks. The counterterror mission also continued in the U.S. Central Command area of operations with repeated strikes against Iran backed militant groups in places such as Iraq and Syria, some as a direct response to U.S. soldiers being attacked at forward operating bases conducting other missions inside Syria.³⁷ The rest of the world didn't stop and wait for the Ukraine-Russia War to end.

Fortunately, reacting to and preparing for multiple contingencies is old hat for the joint force. Joint doctrine accounts for global campaigning across the competition continuum to include during times of armed conflict.³⁸ Most recently, the joint force operated in Iraq and Afghanistan, while simultaneously maintaining a presence on the Korean Peninsula, executing homeland defense, and conducting multiple humanitarian assistance and defense support to civil authorities missions.³⁹ The continual occurrences of crises that require U.S. attention and the commitment of joint force capabilities is a reminder that the joint force is a global force, with global reach, and must continually satisfy global responsibilities through global campaigning.

At the operational level, understanding that the joint force must simultaneously respond to multiple crises in multiple geographic regions and that these crises can span the entire range of military operations. While service and joint force commanders should continue to prioritize planning, manning, equipping, and training against the pacing threat, they must be prepared to provide forces that can operate effectively against other adversaries and actors.⁴⁰ The joint force doesn't necessarily get to respond to the crisis it prefers.

At the strategic level, the joint force should continue to look to the chairman as the global integrator

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who can incorporate input from the joint chiefs and all combatant commanders to provide advice to the president and the secretary.⁴¹ It is the chairman who is charged with thinking both globally and across the time horizons of force employment, force development, and force design. It will be the chairman who makes recommendations on the prioritization of efforts in the employment of forces, and on what capabilities the joint force can employ balanced against requirements for modernization.

Conclusion

For military organizations, one of the best ways to learn is through observing other nations at war. Learning from observations or insights, however, doesn't occur until actions or changes occur. The lessons learned in observing the Ukraine-Russia War happen at the tactical, operational, strategic, and institutional levels of war. This learning occurs both by watching events on the battlefield and global events, and by assessing our own reactions as events unfold.

It is critical for the joint force to continually observe and learn from the Ukraine-Russia War. Learning and implementing the right lessons in an organization the size of the U.S. military is hard, and without personal or direct experience in the hard-fought lessons. This aspect of continued learning emphasizes the value of the institutional and generating force of the services, which in a future prolonged war should not be sacrificed as the alter of the operational force. Leaders across the joint force must think critically and strategically about the consequences of prolonged interstate war.

The views represented in the article are those of the author and do not reflect the positions of the U.S. Army, the Joint Staff, or the Department of Defense.

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41. 10 U.S.C. § 153(a) (2021). Title 10, section 153 tells the chairman to serve as the global military integrator, while the Unified Command Plan designates the chairman as the global integrator. This global integration responsibility is charged to the chairman in both law and policy.

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