



Nonlethal Weapons and Intermediate Force: A Necessary Complement to Lethality

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Abstract: This article updates a previous publication, “Beyond Bean Bags and Rubber Bullets: Intermediate Force Capabilities Across the Competition Continuum,” highlighting the relevance of non-lethal weapons as intermediate force capabilities to the U.S. 2022 National Defense Strategy and NATO’s 2022 Strategic Concept. Intermediate force capabilities can strengthen deterrence, providing active or defensive measures to counter aggression below the level of armed conflict, enable military operations among civilian populations in urban environments, and support establishing post-conflict safe and secure environments for transition to host nation governance.

Keywords: non-lethal weapons, intermediate force capabilities, deterrence, gray zone, protection of civilians, urban operations, mobility, infantry, stabilization, stability policing, maritime domain, land domain, NATO.

Introduction

The phrase *nonlethal weapons* often brings to mind capabilities such as bean bags, rubber bullets, pepper spray, and electric stun guns. These capabilities are used domestically by law enforcement and by the military, primarily for protection and security missions. Nonlethal weapons (NLW) technology, however, has advanced significantly over the past 20 years. Technological advancements, including the development of prototype-directed energy capabilities, could provide a variety of counter personnel and counter material effects without destruction. Could this new generation of capabilities provide senior leaders and operational commanders with intermediate force options that support the full spectrum of military objectives? If so, how do they fit in as a complement to the traditional lethality emphasis of military forces?

Evolution

The idea and military need for NLW are not new. In 1993, the U.S. National Security Strategy (NSS) identified nonlethal weapons as one of several key opportunities for the future defense arena. The NSS noted that, in peacetime, these future capabilities would be a deterrent, and in wartime, they would be essential to survival and success on the battlefield.¹ Interest in NLW continued to grow through the 1990s when then-U.S. Marine Corps Lieutenant General Anthony Zinni's efforts to make them available during operations in Somalia for the withdrawal of United Nations (UN) peacekeeping troops in Operation *United Shield* brought them into focus.² The situation was complex; the availability of NLW allowed the troops to make clear to local civilians that UN forces would be firm in maintaining order and apply minimal force as required. Subsequently, Congress directed the DOD to establish centralized responsibility for the development of NLW technology, leading to the designation of the Marine Corps as the DOD NLW executive agent, as well as to the publication of a DOD NLW policy directive.

The policy directive described NLW as a means to reinforce deterrence and expand the range of options available to commanders, including the ability to adapt and tailor escalation of force options to the operational environment, de-escalate situations to preclude the unnecessary application of lethal force, and enhance the effectiveness and efficiency of lethal weapons.³ Nowhere does DOD policy imply that NLW are intended to make for a kinder or gentler military force or that they are limited to military law enforcement applications. The policy also emphasizes that NLW are not a prerequisite for the use of lethal force, nor are they guaranteed to have a zero percent chance of associated fatalities or significant injury. Rather, NLW are intended to provide a range of scalable options that offer an *intermediate* level of force to fill the gap between presence and lethal effects in those situations when it is desired to minimize risk to innocent civilians or the surrounding environment.

In 1999, NATO published a nonlethal weapons policy, agreed to by the North Atlantic Council, which is comprised of all the heads of state or government of NATO member nations.⁴ The NATO NLW policy included many of the same at-

¹ "National Security Strategy of the United States" (Washington, DC: White House, January 1, 1993), <https://nssarchive.us/wp-content/uploads/2020/04/1993.pdf>.

² Anthony Zinni and Gary Ohls, "No Premium on Killing," *Naval Institute Proceedings* 122, no. 12 (December 1996), <https://www.usni.org/magazines/proceedings/1996/december/no-premium-killing>.

³ Department of Defense (DOD) Directive 3000.03E, "DOD Executive Agent for Non-Lethal Weapons (NLW) and NLW Policy" (Washington, DC: DOD, Incorporating Change 2, August 31, 2018), <https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodd/300003p.pdf?ver=2018-10-24-112944-467>.

⁴ "NATO Policy on Non-Lethal Weapons" (Brussels, BE: North Atlantic Treaty Organization, October 13, 1999), https://www.nato.int/cps/en/natohq/official_texts_27417.htm.

tributes of the U.S. policy. However, despite the policies and high-level endorsements and nearly 30 years later, NLW are minimally integrated within the military forces of the US or other NATO member nations. What has occurred over the last three decades is a steady pace of research with promising results on a wide range of technologies with applicability to NLW. Effects without destruction delivered at extended ranges, that last for greater durations and that are delivered from a variety of platforms are now possible. Notably, human effects research has accompanied technology development, providing the basis for risk of significant injury assessments that will enable confidence in use by the military. If used to its full potential, this new generation of nonlethal weapons—better described as a subset of intermediate force capabilities (IFCs)—could offer an array of options to senior leaders and commanders when the use of lethal force is either unnecessary or not desired. IFCs are an evolving construct that wholly includes nonlethal weapons and may also include other capabilities not intended to cause lethal effects.

Today's Binary Option: Lethal Force or No Force

The U.S. 2022 National Defense Strategy (NDS) acknowledges the challenges arising from dramatic geopolitical, technological, economic, and environmental change. It directs the DOD to act urgently to sustain and strengthen US deterrence, with the People's Republic of China as the pacing challenge in the Indo-Pacific and the Russia challenge in Europe as Defense priorities.⁵ The binary peace-war framework that has historically been associated with the U.S. national security posture is evolving. The NDS recognizes that traditional military tools may not always be the most appropriate response to competitors' gray zone methods – coercive approaches that may fall below perceived thresholds for US military action.⁶ While dominant lethality is absolutely essential as a means to deter and prevail in armed conflict, it has not been successful in deterring Chinese aggression in the Indo-Pacific nor Russian aggression in Ukraine. As our adversaries continue to conduct coercive and aggressive acts, the military remains trained and equipped to provide a binary response primarily – through the use of lethal force or no force at all. Intermediate force capabilities could provide active or defensive measures for the military to use as needed when a mission of presence is insufficient, or the use of lethal force is undesired or risks unnecessary escalation.

⁵ *2022 National Defense Strategy of the United States of America* (Washington, DC: U.S. Department of Defense, 2022), <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

⁶ *2022 National Defense Strategy of the United States of America*, 12.

Deterring Aggression in the Maritime Domain

It is well documented that China is claiming and building defenses on disputed islands in the South China Sea, turning submerged reefs into artificial islands and generally attempting to dominate the region. According to a report by the Center for Strategic and Budgetary Assessments, the Chinese government uses a combination of civilian fishing vessels, coast guard ships, and maritime law enforcement troops to protect its island-building efforts. The report notes that because these vessels are unarmed, US naval forces cannot respond with military force without significantly escalating the confrontation.⁷

US interests in this increasingly contested region include freedom of navigation for its fleet and those of its allies and partners. China's civilian fishing fleet is emerging as a third element of its maritime forces.⁸ There have been numerous incidents of nonmilitary Chinese surface vessels serving as government proxies and approaching US or allied vessels and behaving in a provocative fashion. These actions are largely unopposed as island-building continues while the world's most powerful and lethal military force watches without an appropriate counter. China's gray zone activities are similar to the actions of Russia during their 2014 illegal annexation of Crimea in which "little green men" (well-equipped forces without an identifiable uniform) were used to achieve a military objective of taking control of a region without an overt Russian military presence.

In an article titled "Maritime Hybrid Warfare is Coming," James Stavridis described a hypothetical future scenario in which nonattributable speedboats manned by "little blue sailors" attack dozens of Vietnamese fishing vessels, giving China an excuse to provide protection in the region and reaffirm its sovereignty over the South China Sea.⁹ The point of the article was to highlight the need for the United States to analyze and fully understand how such hybrid warfare approaches translate to the maritime sphere, to highlight the importance of developing tactical and technological counters, and to train and exercise with US coalition partners against this threat.

Intermediate force capabilities are a potential technological counter to the maritime scenario described by Admiral Stavridis. Long-range acoustic hailers paired with translation devices could provide clear verbal warnings; eye-safe

⁷ Bryan Clark, Mark Gunzinger, and Jesse Sloman, *Winning in the Gray Zone: Using Electromagnetic Warfare to Regain Escalation Dominance* (Washington, DC: Center for Strategic and Budgetary Assessments, October 5, 2017), <https://csbaonline.org/research/publications/winning-in-the-gray-zone-using-electromagnetic-warfare-to-regain-escalation>.

⁸ Todd Crowell and Andrew Salmon, "Chinese Fishermen Wage Hybrid 'People's War' on Asian Seas," *Asia Times* (Hong Kong), September 8, 2018, www.asiatimes.com/2018/09/article/chinese-fisherman-wage-hybrid-peoples-war-across-asias-seas/.

⁹ James Stavridis, "Maritime Hybrid Warfare Is Coming," *Naval Institute Proceedings* 142, no. 12 (December 2016), <https://www.usni.org/magazines/proceedings/2016/december/maritime-hybrid-warfare-coming>.

dazzling lasers could deliver visual warnings and provide obscuring glare to personnel, windshields, and optics of approaching vessels or unmanned aerial systems; nonlethal “flash-bang” warning munitions could be fired directly in front of, or over, vessels instead of using a lethal shot across the bow. Next-generation high-power radio frequency-directed energy weapons could disrupt electronic controls and shut off vessel engines without harming occupants, and millimeter wave active denial-directed energy technology could physically, but nonlethally, repel personnel on approaching vessels. While many of these IFCs have had initial integration and testing and/or have been used in maritime exercises, they are not integrated or resourced at a level within DOD that they would be considered mainstream.

China and its proxies conduct these hybrid tactics largely unopposed. The use of IFCs would allow the military to push back against the provocative actions with a measured, deterrent response, denying US competitors unopposed gray zone operations or propaganda victories. Denying China the use of its proxy maritime militia would either diminish its subterfuge to harass the fleets of the United States and its partners or require China to be more overt through the use of its military assets. The latter would increase China’s cost, time, and effort – reducing available resources to invest in pursuing lethality parity with the United States.

Protection of Civilians in the Land Domain

The Russian invasion of Ukraine and its indiscriminate use of force against civilians has united most nations of the world against the Russian aggression and has strengthened the NATO alliance. US and NATO strategic guidance highlights the importance of the protection of civilians in times of conflict. The 2016 NATO Policy for the Protection of Civilians recognizes that all feasible measures must be taken to avoid, minimize, and mitigate harm to civilians.¹⁰ In 2022, DOD published an action plan to mitigate civilian harm during operations.¹¹

Intermediate force capabilities could complement lethal systems during complex operations in urban environments, where multiple studies suggest that most future wars would take place and where interactions with civilians cannot be avoided.¹² How well prepared are US and NATO forces to maneuver to an objective in an urban environment which might be impeded either intentionally

¹⁰ “NATO Policy for the Protection of Civilians,” endorsed by the Heads of State and Government participating in the meeting of the North Atlantic Council in Warsaw, July 8-9, 2016 (Brussels, BE: North Atlantic Treaty Organization, July 9, 2016, https://www.nato.int/cps/en/natohq/official_texts_133945.htm).

¹¹ U.S. Department of Defense (DoD), *Civilian Harm Mitigation and Response Action Plan (CHMR-AP)* (Washington, DC: DoD, August 2022), <https://media.defense.gov/2022/aug/25/2003064740/-1/-1/1/civilian-harm-mitigation-and-response-action-plan.pdf>.

¹² Joe Lacdan, “Warfare in Megacities: A New Frontier in Military Operations,” *Army News Service*, May 28, 2018, https://www.army.mil/article/205817/warfare_in_mega_cities_a_new_frontier_in_military_operations.

or unintentionally by civilian pedestrian and/or vehicular traffic? During peacetime, a host nation may provide local security for a convoy or a maneuver element. But in times of armed conflict, in enemy territory, how would the U.S. and/or NATO contend with this situation? To aid in clearing paths, selected armored vehicles, including tanks and personnel carriers, could be equipped with an IFC kit for the Common Remote Operator Weapon Station (CROWS). The CROWS is widely used on armored vehicles with lethal systems, such as the MK19 automatic grenade launcher and the M2 .50 caliber machine gun. The IFC kit would complement lethality by offering infantry and armor units a readily available escalation of force option that could be employed while under armor. For example, an acoustic hailer paired with a translation device, a bright white light, and an eye-safe dazzling laser integrated into the CROWS would provide clear warnings and visual suppression as convoys move through city streets. Future IFCs could include millimeter wave-directed energy to repel personnel and high-power microwave-directed energy to stop vehicles.

Scenarios such as unarmed civilians, including children, standing down a convoy by throwing rocks while cell phones livestream the scene across social media provide a true dilemma for military forces. The convoy commander could choose to win the engagement with lethal force but then quickly lose the war in information space. Intermediate force capabilities empower military forces with a proportional response to civilians who might interfere with the convoy's movement. In urban environments, the use of IFCs would support mission accomplishment and serve as a counter to adversaries who have little regard for civilian casualties or collateral damage and who would seek to exploit social media in an attempt to sway American and global public opinion against US and/or NATO forces.

Enduring Need: Stability and Security Operations

In his book *Decision Points*, President George W. Bush lamented the "one important contingency for which we had not adequately prepared," which was the descent of Baghdad into a state of lawlessness that included the looting of precious artifacts from Iraq's national museums. President Bush noted that the "damage done in those early days created problems that would linger for years. The Iraqis were looking for someone to protect them. By failing to secure Baghdad, we missed our first chance to show that we could."¹³

The looting described by President Bush illustrates the quandary faced by military forces armed almost exclusively with lethal weapons. While the use of lethal force on looters may have been legally permissible, US servicemembers killing Iraqi civilians that they had just liberated from a brutal dictator would have been detrimental to the mission. Alternately, a military force trained and equipped with IFCs would have had options to deter the looters, demonstrating

¹³ George W. Bush, *Decision Points* (New York, NY: Crown Publishing Group, 2010).

the US commitment to maintain the security of the civilian populace to the host country—and the world—while minimizing civilian casualties.

The challenges in Iraq continued for years. In 2006, Lieutenant General Peter Chiarelli, USA, commanding general Multi-National Corps – Iraq, was convinced that US units' missteps were contributing to the insurgency and violence, particularly in the escalation of force incidents in which a perceived threat to coalition troops resulted in the death or injury of civilians. An associated study found that 81 percent of escalation of force incidents occurred during coalition force movement under conditions that gave soldiers and marines little time—often only seconds—to make life-and-death decisions on whether approaching Iraqis were a threat.¹⁴

Many of the escalations of force incidents occurred at checkpoints where US forces were primarily equipped with signal flares, traffic paddles, and lethal weapons. The results of a 2012 military utility assessment (MUA) conducted by the U.S. Army at Fort Benning, Georgia, indicated that increased availability of IFCs might have had a positive impact on checkpoint escalation of force incidents. The MUA evaluated the utility of IFCs at a snap vehicle checkpoint to stop cars that matched specific intelligence criteria.¹⁵ The scenario was not a vehicle checkpoint typically seen at entrances to bases but a hasty one meant to be set up quickly by maneuver elements of an infantry unit instead of security forces and with no advance warning to the local populace. During the assessment, soldiers had a baseline capability set to warn approaching vehicles, and this did not include IFCs. An enhanced capability set equipped with IFCs was used later. Numerous iterations of multiple scenarios were conducted where the intent of approaching vehicles was unclear. When IFCs were used, vehicles were detected, hailed, warned, and stopped an average of 70 meters farther away. Additionally, vehicles were 80 percent more likely to stop prior to the use of lethal force, and the likelihood of civilian wounding decreased by 77 percent.

The IFCs used in these scenarios included acoustic hailing devices, green dazzling lasers, 40-millimeter and 12-gauge flash-bang warning munitions, and a lightweight vehicle arresting device. The baseline set consisted of signal flares, traffic paddles, and lethal weapons. Employed in a layered defense, the availability of these relatively low-cost IFCs increased the soldiers' ability to conduct threat assessments of oncoming cars, communicate with and signal to vehicles, de-escalate a potentially lethal scenario, and reduce civilian casualties. The MUA's results provide a quantitative look at the value of IFCs integrated across the joint force and not only in the law enforcement or security forces communities.

¹⁴ Joel Rayburn and Frank Sobchak, eds., *The U.S. Army in the Iraq War: Invasion, Insurgency, Civil War 2003-2006*, Volume 1 (Carlisle Barracks, PA: Strategic Studies Institute and U.S. Army War College Press, January 2019), 548, <https://apps.dtic.mil/sti/pdfs/AD1066345.pdf>.

¹⁵ *Entry Control Check Point Military Utility Assessment Report* (Quantico, VA: Joint Intermediate Force Capabilities Office, 2012).

Lessons Not Learned?

The following are key questions for military forces: Have the lessons from post-conflict Iraq and Afghanistan been learned? Will future post-conflict security environments fare any better? A case study by the U.S. Army's Peace Keeping and Stability Operations Institute on the post-conflict environment following a hypothetical conventional war with North Korea in which South Korea and the United States prevail provides an illustrative example.¹⁶ The study examined the aftermath of a kinetic battle, where a tremendously large—and most likely starving and frightened—population would endure. The following case study questions illustrate the challenges:

- How would the immediate security needs of the population be met, especially with several hundred rogue North Korean soldiers and police officers on the loose who have not surrendered, as well as a populace that is at best deeply suspicious of foreigners and at worst deeply terrified of them?
- How would refugee camps be secured? As some desperate North Koreans turn to crime (such as attacking World Food Program convoys), what would be the response?
- How are strategic communications conducted with a frightened population to reassure them that their immediate needs would be met and that foreign government personnel and forces should not be feared?

A force trained and equipped only with lethal weapons would be challenged in maintaining security and minimizing civilian casualties in this scenario. IFCs, integrated into conventional platforms along with lethal systems, afford military forces means to provide security at logistics hubs for the distribution of supplies, convoy protection, and protection of refugee camps and critical infrastructure. Information on the types of IFCs being employed could be readily communicated to the civilian population through an information operation and public affairs campaign, demonstrating the resolve to maintain security while also protecting the civilian population – the same approach employed by General Zinni in Somalia.

While the North Korea case study is theoretical, the events that unfolded in August 2021 during the US withdrawal from Afghanistan showcased the challenges of a military force dealing with a desperate civilian population. Chaos ensued as thousands of civilians approached Hamid Karzai International Airport (HKIA). The airfield perimeter was breached as hundreds rushed to aircraft parked on the tarmac. Scenes of civilians clinging to a C-17 taxiing down the runway exemplified the lack of security. US servicemembers and Afghan civilians

¹⁶ Tamara K. Fitzgerald, *After the Fall of North Korea: A Post-Conflict Stability Operations Exercise*, Case Study 0617-03 (Carlisle Barracks, PA: U.S. Army Peacekeeping and Stability Operations Institute, n.d.), <https://pksoi.armywarcollege.edu/index.php/after-the-fall-of-north-korea-a-post-conflict-stability-operations-exercise/>.

were killed and seriously injured as crowds swelled the Abbey Gate entrance to HKIA and a suicide bomber detonated his payload.

There were many factors that contributed to the nature of events that unfolded at HKIA. Although nonlethal weapons alone undoubtedly would not have been a cure-all for the situation, the existence of longer-range nonlethal weapons integrated into platforms with military forces routinely trained to use them could have reinforced airfield and aircraft security. The few legacy nonlethal weapons that were available and used in an attempt to control the crowds, such as riot control agents and flash-bang munitions, were insufficient or even detrimental due to their short effective range and the nature of their associated nonlethal effects.¹⁷

As the tragic Afghanistan withdrawal fades in memory, the NDS notes that climate change and other transboundary threats may challenge the governing capacity in some countries while heightening tensions between others, risking new armed conflicts and increasing demands for stabilization activities.¹⁸ Similarly, the 2022 NATO Strategic Concept states that climate change will profoundly impact Allied security as a crisis and threat multiplier, exacerbating conflict, fragility, and geopolitical competition.¹⁹ It is fair to ask if lessons have been learned from stability operations in Iraq and Afghanistan. The establishment of NATO's Stability Policing Center of Excellence (SPCoE) in 2015 is an important step forward. Stability policing refers to actions that may be conducted by military forces—not just the military police—to establish safe and secure environments. One of the main findings from a recent SPCoE doctrine forum on the role of stability policing in countering hybrid threats was the suitability of intermediate force capabilities to avoid/minimize collateral damage.²⁰ Prudent investment by US and NATO member nations in training and equipping military forces with an appropriate mix of IFCs will be necessary to mitigate the long-term human and fiscal costs of extended stability operations and crisis response by quickly maintaining the safety and security of the population and enhancing the protection of civilians.

Mainstreaming Intermediate Force as a Complement to Lethality

DOD has benefited from a formalized NLW program for more than 25 years. Much has been accomplished in that time, including the fielding of NLW primar-

¹⁷ "Hell at Abbey Gate: Chaos, Confusion and Death in the Final Days of the War in Afghanistan," *ProPublica* and *Alive in Afghanistan*, April 2, 2022, www.propublica.org/article/hell-at-abbey-gate-chaos-confusion-and-death-in-the-final-days-of-the-war-in-afghanistan.

¹⁸ *2022 National Defense Strategy of the United States of America*, 6.

¹⁹ "NATO 2022 Strategic Concept," adopted by the Heads of State and Government at the NATO Summit in Madrid, June 29, 2022, 6, www.nato.int/strategic-concept/.

²⁰ NATO Stability Policing Centre of Excellence, *Doctrine Forum II Fact Sheet*, September 19-22, 2022, <https://www.linkedin.com/company/nato-spcoe/posts/?feedView=all>.

ily in support of military security and law enforcement functions. Extensive research into new technologies has yielded promising results. These technologies are now approaching a stage where they and their associated systems and subsystems could be integrated into a wide range of military platforms for missions on land, sea, and air. The scope of these capabilities goes well beyond legacy law enforcement applications and is better described as intermediate force capabilities.

Over the past 20 years, NATO members have participated in formal systems and analysis studies on NLWs (IFCs) to evaluate measures of effectiveness, inclusion in concepts, and opportunities for future operations.²¹ NATO has also conducted NLW (IFC) technology demonstrations, as well as maritime and land exercises.²² The maritime exercise demonstrated that integrating NLWs into an escalation of force situations encountered during visit, board, search, and seizure missions increased the operational effectiveness of boarding teams to warn a vessel's crew, move people, deny access to an area, and suppress individuals. The land exercise demonstrated that integrating NLW into an escalation of force situations encountered during counterinsurgency missions increased the operational effectiveness of NATO forces in warning potential threats, supporting the threat assessment process, moving people, denying access to an area, and suppressing individuals.

Despite the apparent operational benefits, neither the United States nor other NATO member nations have prioritized the training and equipping of intermediate force capabilities. The deterrent and de-escalatory advantages that IFCs could provide in the gap between shouting and shooting and providing increased time/decision space are largely missing from U.S. and NATO concepts and doctrine. Further work is needed in concept development, the use of modeling and simulation to assess the contribution of IFCs to mission accomplishment, and routine inclusion of IFCs in wargames that address adversary aggression below the level of armed conflict and military operations in and around civilian populations. An updated lexicon should be developed that eliminates the cognitive bias of nonlethal weapons as tools solely for law enforcement, with updates to doctrinal publications to fully integrate the use of intermediate force as a complement to lethality. By doing so, IFCs could begin to be mainstreamed into operational planning, exercises, and mission-essential task lists, as well as in training and professional military education.

²¹ *Analytical Support to the Development and Experimentation of NLW Concepts of Operations and Employment* (Brussels, BE: North Atlantic Treaty Organization, May 5, 2017).

²² "Non-lethal Weapons: New Technologies to Save Lives," *NATO Newsroom*, October 2016, https://www.nato.int/cps/en/natohq/news_135772.htm.

Summary

Military forces trained and equipped with intermediate force capabilities would be better prepared to compete, fight and win across the spectrum of operations. The collective lethality of the US and NATO alliance provides a strong and necessary deterrent to adversaries. However, China's actions in the South China Sea and Russia's attack on Ukraine indicate that lethality alone does not deter aggression. Moreover, experience from operations in Iraq and Afghanistan has shown that lethality alone is insufficient to establish safe and secure environments in civilian populations.

As a complement to lethal weapons, intermediate force capabilities provide a means to assess potential threats, de-escalate situations, and increase the time and space to make decisions on the use of lethal force. Technology has significantly evolved beyond the traditional bean bags, rubber bullets, and tear gas of the last century, enabling a new generation of capabilities that can expand the competitive space and counter adversaries' strategies to exploit vulnerabilities that cannot be readily solved with lethal force alone. Sustained commitment by US and NATO civilian and military leadership is needed to mainstream these capabilities – from the infantry squad to the operational commander. With proper tools and training, our military will remain unbeatable across the entire spectrum of operations.

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