The Future Of Urban Warfare

Description

Urbanization is drastically altering the global population distribution. With over half of the worldâ??s growing population residing in cities, future combat will likely occur in these urban environments. Yet this dense terrain presents risks unlike any other type of warfare on the tactical, operational, and strategic levels. On August 16th, a panel of urban warfare professionals met to discuss these challenges and their role in shaping the future of urban conflict. While urban warfare is not a new phenomenon, the challenges of navigating populations, isolating cities, adapting to advancing technology, and maintaining allied relationships will force the United States to learn from past insurgencies. These lessons from Mosul, Sadr City, and Kyiv will be critical to combating irregular actors in developing cities across Latin America, Southeast Asia, and Africa, where urban, ungoverned spaces will be most prevalent.

Enduring Challenges of Urban Operations for Practitioners and Academics

Navigating Urban Terrain and Its Population

Cities have inherent strategic value as centers of power and hubs of human civilization. As a result, while the US military seeks to transition from focusing on counterinsurgency operations to preparing for large-scale combat operations against near-peer adversaries, the problem set posed by fighting in cities remains highly relevant and increasingly complex. Fighting in urban terrain comes with a daunting set of challenges, primarily from the urban landscape, including density, scale, maneuverability, and visibility, as well as from the population, specifically the presence of large numbers of civilians and cultural barriers, among others. Most fundamentally, urban warfare requires massive amounts of manpower and resourcesâ??vastly exceeding the doctrinal 3-to-1 attacker-to-defender manpower ratio standard and requiring up to four times the ammunition consumption compared to rural operations, as well as similarly extreme sustainment demands for water, food, special equipment like precision-guided munitions, explosive ordnance disposal gear, mine-resistant vehicles, and more. The US military learned some of these lessons most recently in Mosul and they are playing out in real-time now in eastern Ukraine.

Urban Warfare
Urban operations in Ukraine. Source.

The presence of civilians in cities creates significant challenges for actors to comply with international rules of war, mainly the principle of distinction. This complicates the decision to use airpower and artillery, as the risk for collateral damage is at an all-time high. The NATO Protection of Civilians Handbook states that the protection of the civilian population is fundamental to the goal of achieving long-lasting peace. Yet distinguishing between civilian and combatant is increasingly difficult in urban warfare.

Isolating enemy forces geographically within a city is one approach to separating combatants from civilians: it limits the enemyâ??s ability to hide among the population and restricts their access to resources and support. This approach came into play during the Battle of Sadr City, which provides important insights for our understanding of urban operations. In 2008, Sadr City was a Shia area of Baghdad, Iraq, with an estimated 2.4 million residents. In March 2008, Jaish-al-Mahdi (JAM) forces had strict control of the population of Sadr City and began to fire rockets from Sadr City into the International Zone of Baghdad, which was home to the Iraqi government offices and foreign embassies. US and Iraqi government coalition forces responded to these rockets by building a barrier wall, known as the Gold Wall, to isolate Sadr City to allow for greater control. The objective for coalition forces was to make it impossible for the insurgents to operate effectively, thereby restoring security to the greater populationâ??it was not to clear or take the entire city of Baghdad. By isolating the enemy, coalition forces forced JAM to sacrifice their defensive urban advantage to come out and fight against US forces that were postured in an advantaged position. This battle illustrates the benefits and risks of adopting a strategy centered on isolating the enemy within a particular urban area and the importance of creating a situation that forces the enemy to surrender the advantages of the city when fighting in urban terrain. The United States must continue to study these lessons to better navigate this urbanized terrain and the civilians that live within it.

Urban Warfare
Urban operations in Iraq. Source.

Challenges with Isolation

Of course, the long-term effectiveness and scalability of the Gold Wall isolation tactics employed in Sadr City are up for debate. Sadr City is not actually a city but a district of Baghdad with a specific demographic. Furthermore, observers noted that JAM was already fractious and its actions were poorly coordinated. Lastly, the battle did not occur in a vacuum but rather against the backdrop of the 2007 troop surge, alongside other operations and political developments throughout Iraq. It was one battle in a decades-long counterinsurgency and stabilization effort still ongoing today, especially after the rise and defeat of the Islamic State. And while studies of the battle focused on the force-multiplying role of

the walls from a military perspective, few discussed their civilian impact. The walls were controversial amongst the civilian populace they affected and became a symbol of the US military presence in both positive and negative ways.

So would isolation remain effective when applied to a far more extensive, interconnected, and complex city like any of the 17 megacities of the Asian-Pacific region? With increased diversity and more complex mechanisms of governance and power, the idea of isolationâ??physical or informationalâ??becomes daunting. Can we truly isolate a city, an urban population or even an enemy in this increasingly networked and connected world? The recent conflict in Ukraine shows that suppressing information flow, even shutting down entire communications networks, failed to prevent the populace from exchanging information and communicating with the outside world. This suggests that soldiers defending their city from an external attack or insurgents will retain the ability to communicate with each other.

Each city is a unique organism, a web of increasingly complex, interconnected, and adaptive systems. Altering any part of its operation, from the movements of people to patterns of life, can have potentially catastrophic and unpredictable second and third-order effects. As a result, every effort should be made to mitigate collateral damage and preserve a cityâ??s normal flows and functions. As seen in the latest Special Inspector General report on the collapse of Afghan security forces, the Afghan campaignâ??s failure to prioritize the local populace undermined the Afghan governmentâ??s legitimacy and bolstered support for the Taliban. Severe disruptions of the populaceâ??s daily lives and livelihoods significantly contributed to a loss of trust in the Coalition and Afghan governmentâ??s ability to protect the people and their interests. In Sadr City, the degradation of a cityâ??s functions alienated the population, especially when applied long term. Similarly, the Strategic Hamlets program and â??free-fire zonesâ?• during the Vietnam War also severely interrupted civiliansâ?? daily lives and were eventually canceled.

When isolating an urban environment, its population, or the hostile forces therein, it is important to recognize these potential effects, lest we repeat these mistakes. Urban operations should preserve and function within a cityâ??s unique identity and socioeconomic framework, especially to counter serious irregular threats that often arise during stability operations after securing a city. As observed in Iraq, these irregular threats thrive upon local grievances and severely hamper complete control over a city even after its initial capture.

Urban Warfare
Urban warfare training in Israel. Source.

Adapting to Technology

If it can be seen, it can be hit. If it can be hit, it can be killed. Technological advances are providing military forces and irregular fighters with the power to see and locate targets with accuracy and speed like never before. At the same time, the information environment is becoming increasingly complicated. Smartphones and the ability to upload information, pictures, and videos instantly on social media have transformed everyday civilians and other observers into journalists and newsmakers; in operational settings, the military public affairs office no longer controls the narrative.

The war in Ukraine illustrates both the increasing complexity of the information environment and the powerful influence that a clear and cohesive narrative can have on the trajectory of the conflict. President Volodymyr Zelensky understands the role of information in warfare and is using various forms of media and communications to share information about Ukraineâ??s fight as well as to counter Russian disinformation about the war. But he is not doing this alone. Ukrainians across the country and the world are using social media platforms to share photos and videos of the Russian invasion in order to build support in the information battle. These personal stories humanize the struggles of Ukrainians for people across the world, adding ammunition to the fight against Russia.

Social media is not the only way technology is changing the conduct of war. Drones, long-range missile systems, robots, thermal imaging, and facial recognition are all technologies transforming the capability of warfighters, both friendly forces and adversaries. In a potential conflict involving a technologically advanced adversary like China, it is likely that there will not be anything that cannot be seen, whether that is from long-range drones, space, or cyber. Acquiring technologies that make it difficult for adversaries to achieve accurate target identification will be as important as ensuring US forces possess the highest capabilities to see and hit their targets.

Although irregular and even urban warfare are sometimes considered low-tech fights, technological breakthroughs and advances that promote better situational awareness and faster decision making are absolutely critical to urban and irregular warfare. Compared to a rural environment, the urban environment presents unique challenges for targeting due to the sheer density of the population and physical infrastructure. These obstacles provide not only physical cover and concealment, but also allow targets to hide amongst â??the sea of people,â?• making it hard to discriminate between enemies and civilians and enabling enemies easy access to their interpersonal networks. Technologies like 3D modeling and millimeter wave radars give warfighters and planners an enhanced view of the urban terrain, enabling detection and even identification of targets through walls, smoke, and other forms of physical cover and concealment. However, this is still nascent, especially for peering into hardened and subterranean structures.

The emerging trend towards â??smart citiesâ?• provides new potential to tap into environments and networks beyond the physical infrastructure. This promotes a more holistic understanding of a city and its working parts as a whole living organism. A smart city is commonly defined as a city that collects data to optimize its operations through networked surveillance CCTV cameras or by gathering insights through personal electronics. Practitioners can leverage this myriad of possibly omnipresent sensor and data networks to unmask hardened structures, bypassing the need to detect objects through increasingly challenging physical barriers. Moreover, they can better understand the cityâ??s inner workingsâ??its socioeconomic aspects, logistics, personal communications, interpersonal networks, and moreâ??-to tailor combat and stability operations to local populations and conditions. At the same time, the proliferation of surveillance technology as part of this trend toward smart cities also brings with it increased vulnerabilities for friendly forces looking to stay undetected, especially in politically sensitive missions or environments. And while advances in technology allow states to collect and analyze more data and information than ever before, the challenge of linking and presenting this information to the warfighter on the ground in a meaningful, real-time fashion remains substantial.

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Urban warfare training in Israel. Source.

Maintaining Allied Relationships

Over the past 20 years, alliances and partner relationships have played a central role in counterinsurgency operations and irregular warfare. As the Pentagon shifts focus toward large-scale combat operations, it is equally if not more important to invest in and maintain relationships with allies and partners around the world.

In the urban environment, these partnerships will need to extend beyond the nation-state level. The complex nature of urban environments requires that the United States partners with those who live in the city to keep it running effectively. Whether it is municipal officials, electricians, or garbage collectors, these will be the partners that allow the city to continue to operate. Maintaining or repairing these essential services will ensure that diseases do not spread, hospitals continue to function, and schools remain open. The proper management of these essential services will build the civilian support necessary to control a city. In urban operations, the United States will need to work closely with allies ranging from international partners to local civilians to ensure the proper control and continued operation of the city.

Call for Engagement

As the world becomes more urbanized, more technologically advanced, and more polarized, the US military should not let the lessons learned from Afghanistan, Iraq, and most recently Ukraine atrophy as the priority switches from counterinsurgency operations to large-scale combat operations. Instead, the United States should continue to work closely with allies to prepare for an increasingly complex battlespace.

Stability in Sadr City and elsewhere in Iraq was achieved after engaging with and securing buy-in from local leaders. The latest SIGAR report on the collapse of Afghan forces also highlighted the importance of engaging local leaders and crafting narratives and solutions within the framework of local ideologies, identities, and power structures. These examples show that people are the most critical part of the urban environmentâ??and also the most challenging aspect to replicate in training across the operational variables.

There is also a need to engage the military community and leadership to facilitate a better understanding of the urban environment and practitioner experiences and needs. In recent years, there was a de-emphasis on conventional urban and irregular warfare initiatives in favor of near-peer competition and the multi-domain operations concept. For example, the Asymmetric Warfare Group was disbanded, along with education and development efforts like the Marine Corpsâ?? Metropolis II project and the Armyâ??s Urban Mobility Breachers Course. This trend shows a professional military education gap in educating military planners about the integral role of urban and irregular warfare in near-peer contexts.

The US military should also work more closely with diverse industry sectors, ranging from mining and civil engineering to technology, to develop a shared picture of the urban environment and its challenges. Often, the US military does not know where to seek solutions to pre-existing requirements or is hampered by a ponderous, clumsy acquisition process. On the other hand, stakeholders behind novel technologies often need help finding practical applications. Industry-focused education efforts would help better connect practitioners with appropriate industry partners to facilitate the rapid development of solutions to todayâ??s most pressing urban warfare needs.

As the world becomes more urbanized, conflict is increasingly happening in and around urbanized areasâ??war occurs where people are. With this dense environment comes a wide array of challenges, including the complex terrain, active population, advancing technology, and complicated partnerships. These challenges enforce the importance of applying the lessons learned from the defenders of cities to the future battlespace. By sharing experiences, research, and lessons learned, practitioners and analysts alike can better prepare for the future of urban warfare, which is the future of warfare.

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