

Warfare in Megacities:

A New Frontier in Military Operations

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In one city block, future Soldiers could find themselves in an intense gunfight with enemy militants. In another, Soldiers might crawl through debris to rescue trapped residents or deliver needed supplies. At the city's opposite end, U.S. troops could be attempting to quell a civilian riot.

As urban populations worldwide continue to rise, the probability of these scenarios increases. From the metropolitan sprawl of Tokyo with its 36 million inhabitants to the massive clutter of rush-hour traffic in Seoul, megacities present a jarringly daunting obstacle to the future of world combat operations, Army senior leaders said at the 2018 Land Forces Pacific (LANPAC) conference.

"The complexities that go on in this scale almost are unimaginable," said LTG (Retired) James Dubik, former commander of the Multi-National Security Transition Command-Iraq.

Additionally, if current trends continue, two thirds of the world's population will reside in large-metropolitan areas, according to United Nations projections. Threats to megacities take increased importance in the Asia-Pacific region, where a majority of the world's megacities are concentrated.

Making matters worse, many of the cities sit inside the Ring of Fire, a 25,000-mile chain in the Pacific basin rampant with volcanic eruptions and unpredictable seismic activity. Some nations, such as Japan, sit on one of the most-



U.S. Army Soldiers conduct actions on an objective during a training scenario at the Asymmetric Warfare Training Center on 23 February 2018 at Fort A.P. Hill, VA. The week-long training provides Soldiers with methods they can use to get through various obstacles on future objectives.

(Photo by SGT Randis Monroe)

active tectonic plates in the world. Densely populated cities like Bangkok and urban centers in Bangladesh are prone to natural disasters.

U.S. forces scarcely encountered operations in megacities in World War II or the Korean and Vietnam Wars.

“The challenge of megacities is unlike [any-thing] we’ve had to deal with in history,” said Dr. Russell Glenn, G-2 director of Plans and Policy at U.S. Army Training and Doctrine Command (TRADOC).

With so much of a nation’s population living in a compact, urban space, megacities pose a vastly different challenge from the deserts of the Middle East Soldiers have grown accustomed to.

“Every act you do in a city reverberates,” said GEN Stephen Townsend, TRADOC commander, who spoke via video teleconference at LANPAC.

Military units in rural areas, deserts, and small villages can contain the after effects of combat. In a large urban environment, skyscrapers, large structures, and traffic can cause a domino effect that spreads throughout a city.

Glenn added that smaller subsystems comprise a megacity that in turn is part of a much larger system that can extend worldwide.

A New Kind of War

To prepare for the complexities of urban warfare, TRADOC has created simulations for Soldiers to prepare for urban terrain. Weeks of coordination and planning must be implemented for a few hours of training, but Army leaders believe it will prepare Soldiers for future conflicts. Townsend said the Army has considered increasing the scale and size of their urban-simulated training centers. He added facilities can never match the scale needed to truly simulate warfighting in a megacity environment.

“Our simulations have not kept up with changes in our formations — changes in warfare,” Townsend said. “So we’ve got to advance our simulations.”

In March 2018, paratroopers from the 82nd Airborne Division spent about a month training for combat in underground tunnels and structures at Fort A.P. Hill, VA. They simulated chemical attacks. Soldiers learned to spontaneously alter current operating procedures to adapt to a city environment.

The Army has been working on a synthetic training environment to bolster its capabilities while also incorporating space and cyber capabilities more than before. Multi-domain operations will be crucial, commanders said.

Urban “Flow”

No amount of planning, study, or preparation can prepare a military unit for the unique rhythm of a major city or what Townsend labeled the “flow.” The city’s flow can’t be clearly defined, but its impact can never be understated, he said. It can be felt during rush-hour traffic or by careful observation over time.

A city’s social infrastructure carries more importance than its physical infrastructure, noted Glenn, but understanding how a megacity’s population moves and lives can provide valuable insight for learning a city’s unique intricacies.

To better understand a city’s flow, Townsend said the Army must consult with a city’s police force, fire department, and its citizens. Recently, the Army held a panel discussion in New York City to discuss logistics and how a force might handle the environment’s unique challenges through interagency cooperation. U.S. Army Pacific Commanding General GEN Robert Brown, Townsend, and New York City Police Commissioner James O’Neill joined the panel.

“The point that came through... more clearly emphasized more than any other was the need to understand our partnership,” Glenn said. “Take advantage of those military and civilian (relationships), only then can we fully understand the environment that we’re working in.”

Glenn said that if wartime conditions necessitate it, a military unit can impose or alter flow, so long as it benefits the friendly population and minimizes friction.

Mosul Opened the Door

The July 2017 recapture of Mosul from ISIS forces presented perhaps a blueprint for the future of urban warfare.

As the commander of the Combined Joint Task Force in Iraq, Townsend said he observed firsthand strategies the Iraqi army used to regain control of the city. Townsend believes potential adversaries noticed, too.

“I think the enemy has watched Mosul,” the general said. “I think they will deliberately go to the cities and dig in there to fight because they know it takes away a lot of our technological advantages... the range of our weapons is degraded — the effects of our weapons are degraded. So I think we’re going to see battle in megacities and there’s little way to avoid it.”

Townsend saw the difficulties of urban warfare in the northern Iraqi city which has a population of less than one million. His unit’s command and control (C2) systems lagged and struggled to keep pace with the conflict. He said digital maps and imagery were impacted.

“The urban landscape changes so rapidly,” Townsend said. “Our C2 systems, our targeting systems... became outdated quickly because the urban landscape was changing faster than we could update our imagery.”

Growing Threat

By 2030, the UN predicts the world’s 30 megacities will also double to 60. Large-scale cities will increase from 45 to 88. America’s potential enemies will take advantage of this trend.

“Wars are basically won or lost where the people are — where the population is,” Townsend said.

The Army’s solution: better training, preparation, and greater trust. At TRADOC, more Soldiers are receiving training in an urban environment. Soldiers must also learn to trust, not only first-responding agencies but accepting greater responsibility, Townsend said.

“As powerful as our mission command systems are, they are all challenged by the environment — the complex terrain that is a city... modern city,” Townsend said. “You can’t go more than one floor deep without losing [communication] with everybody who’s up on the surface. So this whole notion of conveying commanders’ intent, and empowering subordinates... to achieve that commanders’ intent, and trusting them to do that is exactly how we’ll have to fight in even small cities.”