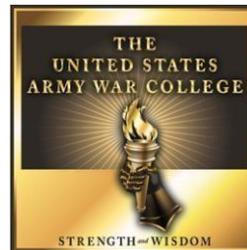


Megacities and the Role of U.S. Special Operations Forces

by

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United States Army War College
Class of 2015

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Abstract

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Military theorists from Sun Tzu to Clausewitz have warned of the dangers and unique challenges of combat in and around cities. By 2030, 60 percent of the world's population is expected to live in massive urban areas or megacities. These megacities feature slums and endemic homelessness, uncontrolled expansion/urban sprawl, and lack of basic support structures making operations complex and extremely dangerous. Urban terrain is a powerful advantage for entrenched combatants. It magnifies the power of defense, and diminishes an adversary's advantages in technology, firepower and mobility. To be effective in this sort of environment, security forces will need to blend police, infantry and military special forces. This research project will examine Special Operations Forces' role in a future of increased urbanization. It describes the global trends responsible for the emergence of modern megacities. It also scrutinizes the three main considerations when defining the SOF role in megacity warfare: megacity typology variances, future urban threats, and the spectrum of urban combat operations.

Megacities and the Role of U.S. Special Operations Forces

Therefore, the best warfare strategy is to attack the enemy's plans, next is to attack alliances, next is to attack the army and the worst is to attack a walled city. Attack cities only when there is no other alternative.

—Sun Tzu¹

The unforgiving nature of urban combat is nothing new. Military theorists from Sun Tzu to Clausewitz have warned of the dangers and unique challenges of combat in and around cities. Urban terrain is a powerful advantage for entrenched combatants. It magnifies the power of defense and diminishes an adversary's advantages in technology, firepower, and mobility. Even with the benefit of 14 years of combat experience, our current understanding of urban military operations is insufficient to address megacity warfare. Megacities are population centers comprised of 10 million or more people and there are expected to be 27 cities of this size by 2025.² By 2030, 60% of the world's population is predicted to live in these massive urban areas.³ The enormous populations occupying an extensive urban geographic area creates a battlespace that epitomizes a "wicked problem" for Special Forces operations--a wicked problem the United States (U.S.) military is not currently prepared to solve.

U.S. military professionals are aware that a megacity conflict is a contingency that needs significant forethought and planning. The U.S. Army white paper on megacities states, "It is highly likely that megacities will be the strategic key terrain in any future crisis that requires U.S. military intervention."⁴ Hostile actors will have relative freedom of maneuver by operating within the local population. Security forces will need to blend police, infantry, and military special forces to be effective in this environment. They must have the capability for highly granular intelligence collection and knowledge management for rapid networking, partnership building, and innovation.⁵ Currently, the

U.S. government does not have a well-formed strategy to address the dynamics of this type of strategic environment in terms of Special Operations Forces (SOF) integration.

There are three considerations when defining the SOF role in megacity warfare. The first dynamic is the type of megacity, quantified by the systemic level of integration. The second aspect is the nature of threats that may be encountered in a megacity battlespace. The third dimension is the scope of conflict. SOF is not designed for attrition warfare. The scale and intensity of an urban campaign influence the nature of SOF participation and what components of the megacity system SOF capabilities can be applied against. The intersection of these factors will determine which SOF competencies are leveraged by the joint force to meet the challenges of working in these complex environments. It can be argued that current strategy is based on capabilities and threat assessments made under the assumption of a permissive environment, where U.S. dominance, technological advantages, and other strengths allow a fairly robust understanding of the environment. This assumption is problematic when considering the complexities of a megacity and our current doctrine and force structure may not be suited for these eventualities. This research project will examine future military operations in megacities, and the role Special Operations Forces will play.

My paper will discuss the background and drivers of the global shift toward megacities and the potential impact on future urban combat operations across the full spectrum of urban combat. The SOF operational challenges while working in megacities has strategic implications across the ends, ways, means paradigm and raises important questions. What is the concept of “winning” in a megacity and how do structural

considerations of different variations of megacity typology impact the ways in which strategy is determined? Does current SOF have the means to operate in megacities when considering the level of structural integration and threat “embeddedness” under different scenarios? As the sophistication of the megacity and threat change, what center of gravities should SOF focus on to achieve strategic paralysis? Addressing these questions is important for understanding the nature of the problem and how SOF will play a vital role in this environment.

Global Changes

Four global trends are expected to shape the future conflict environment. Observing these trends enables informed inferences regarding the future landscape. These trends are 1) population growth, 2) urbanization, 3) littoralization, and 4) connectedness.⁶ The convergence of these four phenomenon is likely to produce a complex synergy of economic, political, and military factors that could potentially lead to instability as different actors compete for scarce resources.

Population growth will be the primary driving factor as births are projected to exceed deaths in the coming years.⁷ As of January 1, 2015 there are six hundred cities on the planet with a population of one million or more, and fifty-eight with a population exceeding 5 million. Experts estimate by the year 2030 the world’s population will top 8 billion with 40 cities of 10 million or more. Another statistic worth considering is that 95% of population growth is occurring in developing countries in Asia, Africa, and South America.⁸ Emerging megacities feature slums, endemic homelessness, uncontrolled expansion leading to haphazard urban sprawl, and lack of basic support structures will make military operations complex and extremely dangerous.⁹ The unchecked growth of these cities is destined to be a source of regional and potentially global instability.

Similar to population growth, the urban migrations are happening in less developed areas of the world. This results in an overwhelming majority of megacity migrants living in overcrowded, filthy, unhealthy, crime ridden slums. Rapid urbanization places enormous strain on fragile or ill-planned infrastructure, resulting in extreme governance challenges. These effects tend to cascade as increased urbanization creates infrastructure insufficiencies, leading to sustainability problems. Many of these cities have already passed the tipping point and still continue to grow.¹⁰ In summary, the world is experiencing unchecked population growth and massive scale migration to urban landscapes in countries least able to support these trends making regional instability and conflict increasingly likely.

The third trend is littoralization. Urban areas are not evenly distributed, and the majority of human settlements are in close proximity to the sea. Of the 23 existing megacities, only four, (Moscow, Beijing, Delhi, and Mexico City) are located inland. The United Nations Environment Program predicts that by 2010 about 80% of the world population will be living within 62 miles of the coast, and of those, 40% will live within 37 miles of the coast.¹¹ Of great concern is the intersection between littoralization and global climate change. Scientific observations confirm the shrinking of the Arctic Ice Shelf.¹² Minor increases in sea levels will have catastrophic effects on coastal regions in terms of flooding, infrastructure, and migration, which only increase the challenges surrounding megacities. Additionally, littoralization significantly increases the complexity of SOF operations because of specialized amphibious equipment requirements and the necessity to combine and synchronize land, air, and maritime forces in multiple domains contiguous to a megacity.

The final trend is connectedness. “The term ‘connected’ refers to the propensity of global economic, social, and communications systems to become increasingly interlinked.”¹³ Technology connects the majority of the world’s population to the international information flow by cell phones, satellite television, and the internet. High population density, urban, littoral areas have become highly networked. Although connectedness provides access to information, lowers the cost of innovation, and enables industry and international commerce, the dispersal of information technology increases the threat environment, especially from non-state actors.

Megacities as Complex Adaptive Systems

Any theater of war presents a complex array of intermixed physical, geographical, social, political, and economic factors that constitute a complex system of interdependent parts. That system is interconnected in such a way that changes in some elements produces fluctuations in other parts of the system.¹⁴ Megacities are no exception and can be conceptualized as a massive interconnected complex adaptive system. Experts have recognized that a systems thinking approach is necessary to grasp the complexity of a megacity.¹⁵

Therefore, it is imperative that planners consider multiple dimensions of a megacity environment when contemplating SOF integration in order to reduce the likelihood of unintended consequences. This highlights the importance of operational design methods to understand the totality of situational circumstances, which will help shape appropriate strategies. Planners must frame the megacity environment in ways that are germane to the problem of SOF integration. This could include physical aspects of the city such as buildings and infrastructure or human dimensions such as population clusters, ethnicity, and activity patterns. These and other salient dimensions are

significant in terms of scoping a large and complex system into manageable constructs that can be actioned upon. For example, SOF operations in megacities will be heavily influenced by the level of systems integration. Strategy must change when considering cities with mature infrastructure and integrated systems compared to those with nascent structural development. Similarly, SOF may face threats that fall on a continuum of low embeddedness up to those intricately woven into the fabric of the city. Both present challenges from a physical and human aspect that together, form a framework by which SOF integration can be gauged based on the type of megacity and the level of expected threat.

Megacity Typology

Not all cities are created equally. There are so many unique aspects from city to city it is hard to make assumptions or transfer lessons learned from one situation to the next. The U.S. Army has identified a typology to differentiate megacities based on their degree of systemic integration ranging from loosely integrated to highly integrated (see figure 1).¹⁶ The adequacy of infrastructure, ability to meet resource requirements, effectiveness of governance and security, and the level of connectedness determines the level of systemic integration. For example, highly integrated megacities are characterized by stable, secure, and mature systems interconnected to provide redundancy and resiliency in the economic and governance realms. Viewed through this lens, New York City, and Tokyo are examples of highly integrated cities with formal structures and deeply rooted systems.

Moving down the continuum, moderately integrated cities are characterized by evolving systems that run the gamut of fully developed systems on one hand to other areas that are just emerging. Necessity is the mother of invention, and many of the

emerging systems are a byproduct of rapid expansion and unplanned growth, but they are challenged to keep up with the rate of change. This lag in system integration is a source of instability in moderately integrated megacities. Bangkok, Rio de Janeiro, and Mexico City, can be classified as moderately integrated cities that display a mix of mature and nascent systems.

Finally, loosely integrated cities are characterized by disparate systems that are only rudimentarily connected or independent of each other, which form inefficient compartmentalization and single points of failure that affect the overall resiliency of the city. The frailty of the system spills over into governance, commerce, and other functions of the city that result in instability. Cities in developing countries like Karachi, Lagos, and Dhaka are considered loosely integrated (see endnotes for a more detailed description of the megacity typology).¹⁷ From a targeting standpoint, it is important to recognize each megacity categorization has its strengths, vulnerabilities and levels of resiliency that can be exploited by an enemy. How well threats integrate into the different types of megacities is an important consideration for SOF operations and is the second dimension of the framework presented in this paper. The intersection of the systems integration dimension with threat embeddedness provides a way to address the complexity surrounding different megacities.

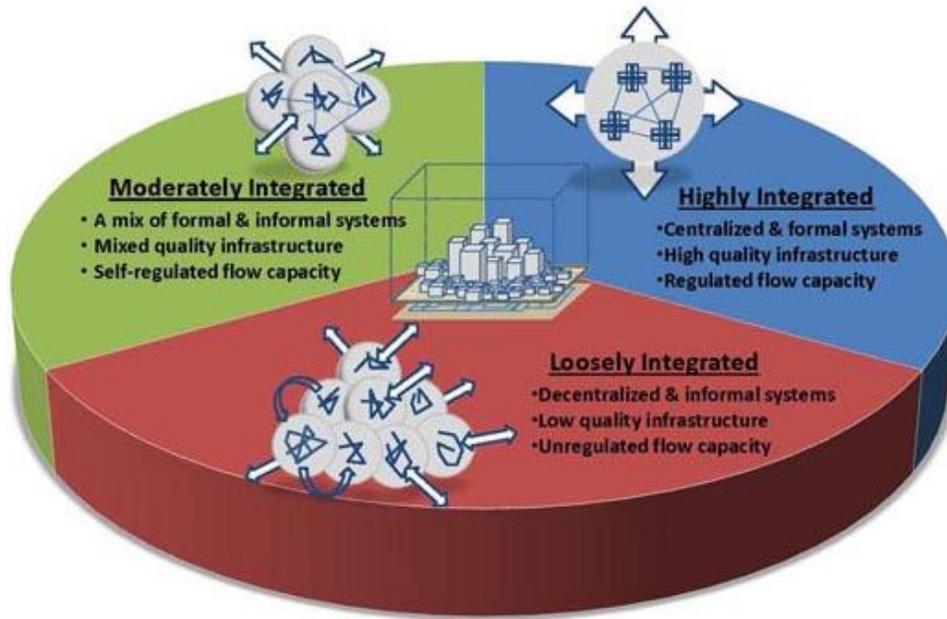


Figure 1. Megacity Typology¹⁸

Threats

Nested threat networks are embedded within a complex urban littoral environment, illicit activities will nest within licit systems and processes, and local threats will nest within networks at the regional and global level.¹⁹ Nested threats can be almost impossible to shut down because of “embeddedness” or interconnection within legitimate markets. The New York Italian Mafia using illegal profits to purchase legitimate parking garages and construction businesses, the drug gangs controlling partitions of Rio de Janeiro’s favelas, and the Sinaloa cartel supporting the luxury goods economy in Mexico City are examples of urban nested threats. Nested entities, especially in loosely integrated areas, are often connection points to the international community, bringing goods and services, which would not normally be attainable by the general population. However, the most distinct feature of a nested, or embedded, organization is they often fill in gaps in governance. When state government is weak,

corrupt, or absent, embedded groups establish normative systems and enforce codes of conduct where violations are dealt with harshly.²⁰ Although, these codes are often exploitive in nature, they replace anarchy with order and predictability. Actions may range from dealing with unsanctioned crime, settling business disputes, supporting civil leadership or allowing development projects. These groups also make overt humanitarian gestures, such as Hamas funding food banks, schools, and clinics.²¹

Codes of conduct and humanitarian gestures give the appearance of legitimacy and give nested organizations a “Robin Hood” type image.²² Embeddedness is not exclusive to loosely integrated megacities. In the world’s most highly integrated cities, the New York City Mafia and Tokyo Yakuza have great influence as de facto functionaries and moderators of their neighborhood’s legal and illegal markets. These conceptual groups become important when defining the urban conflict continuum and the future battlefield tasks of the Special Operations community.

SOF and the Scope of Urban Conflict

It is important to identify SOF strategic capabilities and utilize SOF as part of a combined arms team. In megacity warfare, SOF are uniquely suited to bring four major capability groupings to the fight; the ability to clandestinely collect intelligence, highly specialized direct action capability (man-hunting, hostage rescue, counter-proliferation), influence operations (psychological operations (PSYOPS) and civil affairs) and to aptitude for working alongside indigenous forces to develop host nation capacity in combatting terrorists, insurgents, and transnational criminal network. Figure 2 highlights SOF Missions.

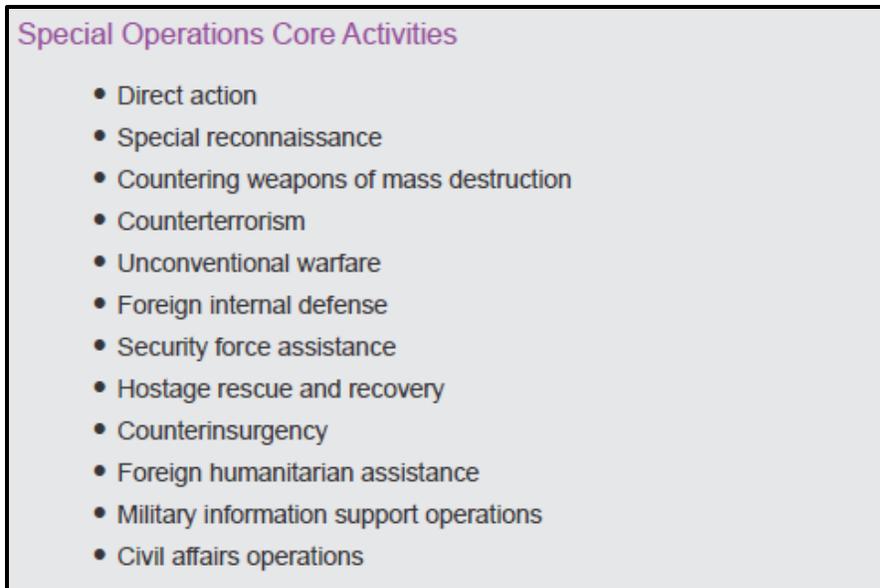


Figure 2. Special Operations Core Activities²³

Understanding these capabilities is critical to properly assimilating SOF forces as the scope of the urban combat operation changes. By virtue of scale, megacities cannot be physically or virtually isolated.²⁴ Additionally, tactical ground maneuver with conventional forces is unrealistic because of congestion and the massive size of the environments.²⁵ Traditionally, SOF operates with a very small footprint. This low profile and ability to infiltrate makes it an appealing solution to the scale and mobility problems. However, SOF is not suited to every situation. Across the spectrum of urban conflict, there is an inverse relationship between the utility of SOF and the intensity, or scale, of conflict. As a general rule, the ability of SOF to influence the battlefield increases as the intensity of the conflict decreases (See Figure 3). The urban conflict continuum is categorized as 1) Total Urban Warfare (War of Extermination), 2) Limited Urban Warfare (Traditional Maneuver Warfare), 3) Containment and Precision Strike Operations, 4) Counterinsurgency-Stability Operations, and 5) Offensive Asymmetric

Operations. These are categorically broad in nature and may shift or combine depending on circumstances.

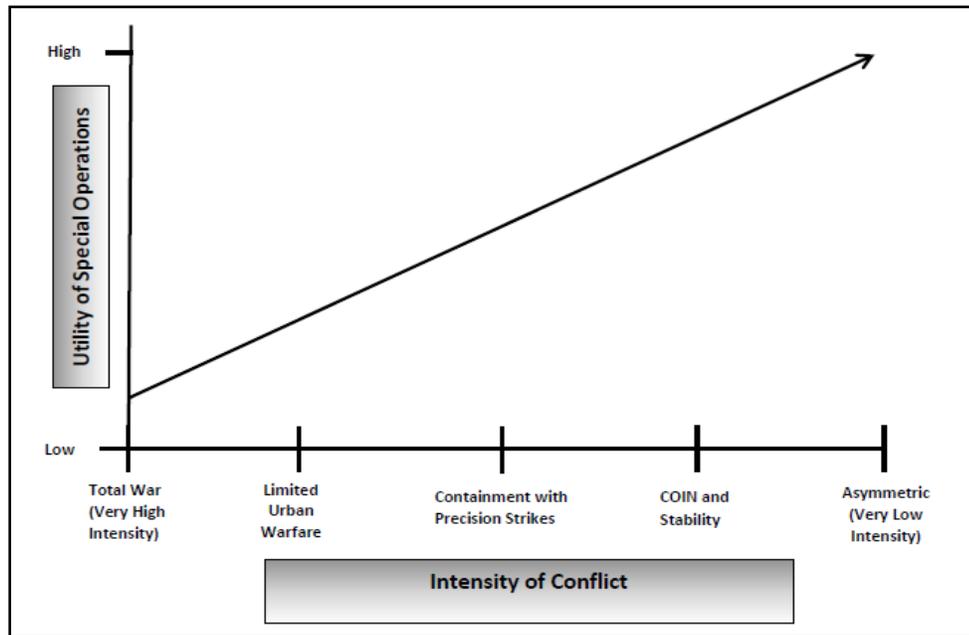


Figure 3. Utility of SOF²⁶

Total Urban Warfare can be characterized by complete unrestrained urban combat. An attacking force has no regard for civilian casualties or collateral damage. The idea is to kill the city. To commit “urbicide,” or violence specifically directed to the destruction of an urban area.²⁷ An example of this type of “urbicide” is the Russian assault on Grozny, Chechnya on New Year’s Eve of 1995. The Russians utilized considerable firepower to systematically destroyed block after block with artillery and strategic bombing. The intent of such wide scale destruction was to make life unbearable for the civilian population and force them to either submit or leave because survival amidst the ongoing destruction was impossible.

Due to the questionable morality and legality, U.S. policy has self-imposed restraints against using these type of tactics. Unfortunately, the dangers posed by

megacities may warrant a reevaluation of total urban warfare even at the risk of undermining the legitimacy of U.S. military operations. As the threat of proliferation of weapons of mass destruction becomes more likely, the existential threat posed the U.S. may warrant the wholesale destruction of adversary's urban spaces to destroy a weapons of mass destruction (WMD) arsenal and infrastructure or to respond to a state-sponsored terrorist WMD attack. As such, SOF has very limited utility in this type of conflict.

Limited Urban warfare is a second level. The battle of Fallujah is a classic example of a limited urban campaign. U.S. Marines spearheaded an assault to oust insurgents controlling the city. While the fighting was fierce, attempts were made to minimize civilian casualties. Unfortunately, this concession permitted many of the combatants to flee the city allowing the conflict migrated away from Fallujah to other cities. In megacities, limited urban warfare will require an agile mix of conventional and other forces. The SOF normally participates in limited urban warfare as part of a combined arms team in a specialized supporting role for sniping, directing close air support and providing personnel security detachments for friendly very important persons (VIPs).

Containment accompanied with precision strikes is a third operational option. In theory, this should be the most effective way to achieve dominance of a megacity battlefield with reasonably low risk. Controlling major transportation corridors, strategic access points, and infrastructure can effectively divide the city and make a very large problem into smaller, more manageable ones. More importantly, friendly forces maintain initiative and maneuverability. However, the scope of the megacity transportation

network makes full or permanent containment impossible, and partial or temporary containment unlikely. Containment operations are further complicated by the necessity to control multiple domains for cities located in the littorals. SOF forces involved in containment operations usually operate independently conducting direct action, special reconnaissance, or unconventional warfare in either an overt or low visibility capacity.

Counterinsurgency/Stability operations encompass the fourth category of urban warfare. The fundamental concept of counterinsurgency is active engagement with the populace using the whole of government approach or the “3D” strategy of Defense, Diplomacy, and Development.²⁸ While all work in concert to achieve national security objectives, “defense” which equates to security is the underpinning of government action. This strategy is the hardest to implement successfully, with efforts in a constant balancing act with risk from persistent engagement with the population via routine patrols, police actions, key leader engagements, and development initiatives. However, failure to operate among the population gives the perception of weakness and allows the enemy both initiative and freedom of maneuver. Success requires security of the population to take precedence over risk to friendly forces. The megacity environment complicates this further because of population density and resultant potential for multiple political, ethnic, cultural and other spheres of influence and control. SOF is well suited for this type of conflict, often acting as the military’s lead agency conducting foreign internal defense missions, civil affairs operations, and precision military actions against opposing forces.

The final category is offensive asymmetric operations, sanctioned terror actions perpetuated by state’s military special operations forces. The terror attacks in Mumbai in

November 2008 demonstrated the strategic effects of asymmetric tactical actions in a megacity. Current U.S. special operations doctrine does not include asymmetric operations directed against enemy populations, but other countries have institutionalized these capabilities for years. In the Russian military, Vypel units are classified as “diversionary” units. These forces exist “for insertion into foreign countries in times of war or political hostility, to foment fear and uncertainty through the sabotage of critical infrastructure and the neutralization of government via kidnappings and assassinations of important political leaders, judges and even businessman.”²⁹

With the danger posed by a megacity conflict, some variety of these tactics may become necessary during a military intervention. Nonetheless, as a world leader there is virtually no scenario where the U.S. would engage in offensive terror attacks against an enemy state’s noncombatants. However, what if the target in question was in the gray area between combatant and noncombatant? Could “diversionary” expertise create armed conflict between two enemy organizations? Violent clashes between criminal gangs, hostile tribes, extremist groups or paramilitary entities nested in an urban sprawl could be beneficial to U.S. military efforts. Military strategy might need to adapt to the changing character of war, and depending on circumstances, offensive asymmetric operations could be an effective and necessary technique in megacity warfare.

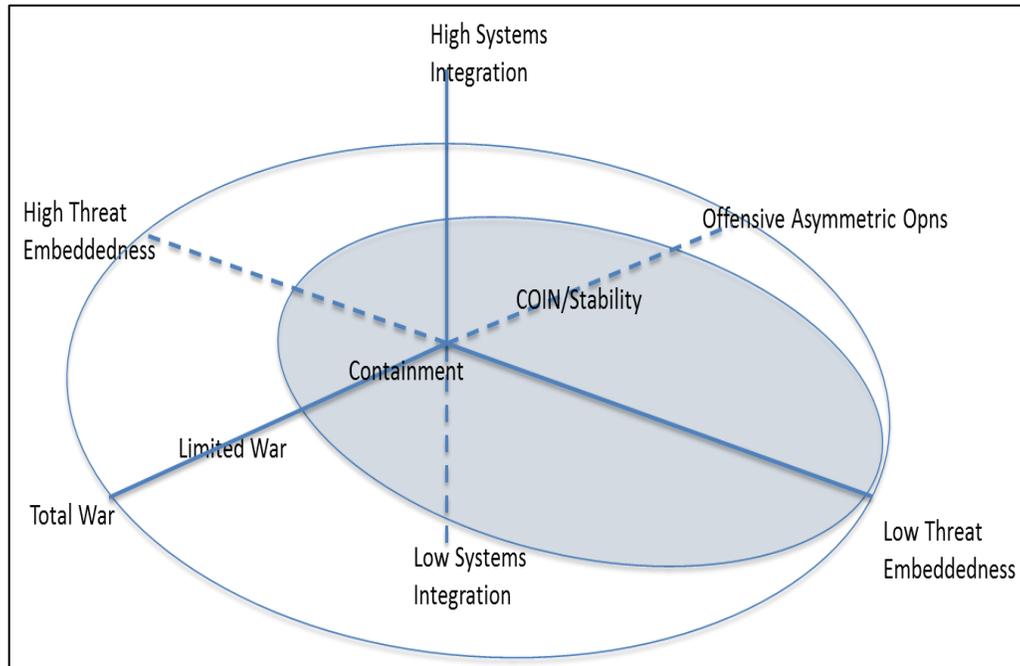


Figure 4. Spectrum of SOF Integration³⁰

When juxtaposed against the systems integration and threat embeddedness dimensions, SOF are most effective integrating their mission capabilities on the lower end of the spectrum of urban conflict and in megacities characterized by loosely integrated systems and lower threat embeddedness (See Figure 4 above). Under these conditions, the disorganization of the megacity works to the advantage of SOF in terms of infiltration, freedom of maneuver, and intelligence gathering operations. However, SOF must be prepared to integrate at higher levels of urban conflict and in more refined megacities characterized by interdependent systems and embedded threats. In addition, as the level of system complexity increases, the ability of the threat to embed their operations to these systems and leverage greater control over a dependent population increases as well. Figure 5 details the most effective use of SOF forces based upon the urban conflict continuum as it relates to megacity system integration and threat embeddedness. Conceptually, the figure demonstrates how the key

constructs intersect to portray both the complexity of the overall system and where SOF can best influence this fight. Current doctrine, training, and equipment tend to maximize SOF effectiveness in containment with precision strikes, counterinsurgency/stability and if the situation requires, offensive asymmetric operations. However, megacities will require more than traditional approaches to address the challenges posed by these massive complex systems.

SOF Integration in Megacities

Existing research has done a thorough job of conceptually defining the megacity environment, but a lesser job in defining ways to integrate SOF. Studies have focused on the enterprise level activities, and little information is present on the participation of individual joint force components. In the necessity of a megacity intervention, SOF will play an enormous role. While they are capable of operating across the spectrum of urban operations, their strategic effect will differ depending on megacity type, threats and the intensity of the conflict. The urban landscape is particularly challenging the decision of who, what, when, where and why to apply them changes. When considering structural integration and threat embeddedness, four categories emerge to define SOF operational integration. While these categories are descriptive representations, they facilitate the conceptualization of how these two dimensions influence which centers of gravity (COG) to focus on and what SOF capabilities to employ inside a megacity (See Figure 5).

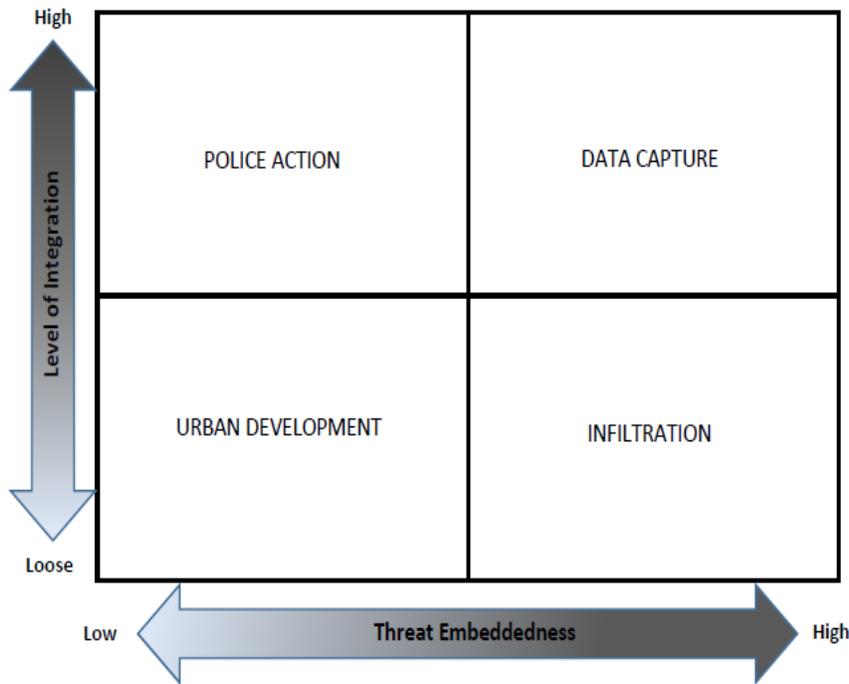


Figure 5. Dimensions of SOF Integration³¹

Every megacity will have unique centers of gravity and targeting these will be an integral part of the strategizing process. U.S. Air Force Colonel, John Warden, describes a five-ring model consisting of Leadership, Organic Essentials, Infrastructure, Population, and Fielded Military Forces that identify COGs to any system (see Figure 6).³² Megacity leadership is the brain of the system and provides leadership and direction. Leadership can take many forms, municipal government officials, senior military officers, and gang leaders. Organic Essentials are the fuel, ammunition, water and food to keep the city alive. Infrastructure refers to power grids, public transportation systems, roads, railways, and seaports, which support the operations of the city. The population and fielded military forces are as labeled, but in megacity warfare, there is an expectation these lines will become blurred and a there will be intermingling of these groups. He argues that, “At a strategic level, we obtain our objectives by causing such

changes to one or more parts of the enemies physical system that the enemy decides to adopt our objectives or we make it physically impossible for him to oppose us. The latter we call strategic paralysis.”³³ The complex adaptive megacity system can be paralyzed in this way by identifying and applying effort to the correct change agent, be it elimination of a violent extremist organization, rooting out corruption, crime reduction or urban development. In this way strategic paralysis can be a catalyst of situational improvement.³⁴ However, in a slight departure from Warden’s theory, when dealing with megacities the relative importance of the system rings change according to level of system integration and threat embeddedness. This shift further helps determine what SOF capabilities are most effective under these circumstances.

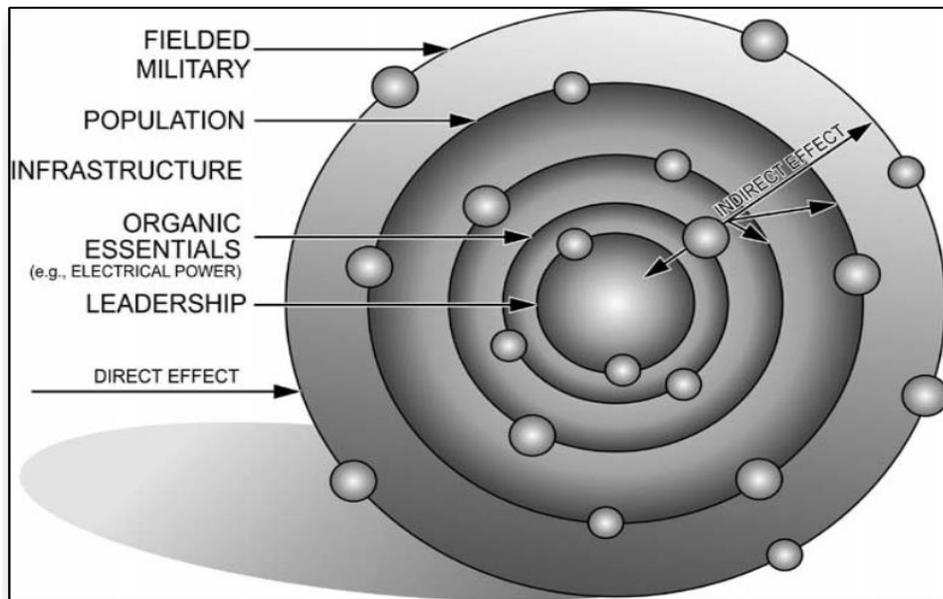


Figure 6. Center of Gravity Rings³⁵

Police Action - Highly Integrated/Low Embeddness

The first scenario is a highly integrated megacity with a low embedded threat environment. This equates to a security problem, or “police action.” An adversary that has failed to nest itself within a megacity population suggests two possibilities. The

population is either indifferent to the group at the very worst, or at odds with them at the very best. There are many reasons for this; ethnic, tribal, religious, social, or immigration status makes nesting within a population difficult. In these situations, targeting leadership and fielded military forces in the five ring model are appropriate.

In his category, success requires the combined military/law enforcement team to focus on the interpersonal interactions with the public as authority figures supporting quality of life improvements and maintaining order. Police actions are normally undertaken to assist an ally to maintain stability, defeat criminal enterprises, interrupt violent extremist group plans or deter fledgling insurgencies. Police action requires persistent engagement with a fusion of military and law enforcement capabilities. A community-oriented approach partners with the local population to reinforce existing power structures and remove outsiders or dissenters from the community. SOF functions will center on enabling roles by providing support to civil authorities, static security or mobility assets. SOF operations are restrictive and judiciously applied when organized criminal activity reaches unaccepted levels, or when police capabilities are overwhelmed, and military involvement is needed to quell civil disorder. The SOF role will be a small but integral piece of the larger military/law enforcement efforts.

Data Capture - Highly Integrated/High Embeddedness

High embeddedness, whether in a highly or loosely integrated megacity are at its core, an intelligence problem. In highly nested situations, non-state or criminal soldiers in organized criminal activities “embraces a symbiotic relationship with the state, much as a small parasite lives off of a larger host and wants neither to draw attention to itself nor to threaten the survival of the state.³⁶ The parasitic nature of the threat combined with the extraordinary resiliency of highly integrated systems defies the order of the five

ring model and necessitates extreme specificity when targeting system weaknesses. High integration makes organic essentials and population the most important rings, because systemically they are the two most substantial weaknesses. Leadership is easily replaced and high redundancy infrastructure limits attack effectiveness, but highly integrated megacities are exceedingly reliant on organic essentials, and the “civilized” population is available for exploitation.

Organic essentials can be broken into virtual and physical systems. The virtual constructs in the form of information are very important in highly integrated cities. The massive amounts of information produced in a highly integrated city with a high embedded threat create a “data capture” problem. For a data capture strategy to work, military intelligence is critical. Urban planners, and civil engineering specialists will need to be consulted during the design process. Technical surveillance like wiretaps, email hacks, and cellular signals capture will be an invaluable resource. Military forces must integrate cyber capabilities like never before. Cyber Intelligence enablers are the first step in the technological path to success in megacities. Software designed to data mine open sources will be critical in pattern analysis. Massive open source information gathering can be utilized to determine population atmospherics. The PSYOPS will leverage social media for strategic messaging purposes. Access to cyberspace and 24-hour mass communications can magnify the psychological impact of military operations. As such, military actions do not need to be directed against the population to influence behavior. The downside of the data capture strategy is cost. High technology problems create a requirement for higher technology solutions.

SOF surgical strike capabilities can easily be applied to physical organic essentials as well. Highly integrated megacities have the tendency to be built up and the one thing nearly all residents have in common is a lack of living space. This lack of space makes stockpiling emergency supplies for the general public extremely unlikely. New York City has three primary reservoirs and two water transport tunnels that supply close to 100% of the water to its 10 million residents. A SOF operation to seize control of the water supply tunnels can effectively hold New York City hostage.

Urban Development - Loosely Integrated/Low Embeddedness

In loosely integrated, low embedded threat environment “urban development” is the priority. To clarify, “low embedded threat” does not equal “no threat.” It simply means adversaries are not interwoven into the cultural, political and economic makeup of the city. Target identification may be less complex making the find, fix, finish chain easier to implement. Focus shifts towards supporting leadership, building infrastructure and ensuring access to organic essentials.

Cooperative partnerships between the military enterprise and other stakeholders (government agencies, non-governmental organizations, international partners) are vital to success. Leadership needs to be viewed as legitimate in order to extend governance. The military provides security and leverages its non-destructive capabilities to minimize the causes of instability. Even in the most loosely integrated megacity, there are certain areas which are relatively modern, and possess qualities of a highly integrated environment. The overarching concept in loose-low situations is first to protect and then expand these emerging highly integrated regions within the megacity. SOF Forces can be extremely effective in this environment by filling in security gaps and assisting with

development initiatives. SOF can train host nation forces to protect host nation VIPs, government entities, and natural resources.

They can also conduct civil affairs missions to dialogue with key megacity leadership to collaborate on improving quality of life. In this category, success requires the combined military/law enforcement team to focus on interpersonal interactions with the public as an assistance entity. Improvement of security and extension of governance is one of the best ways to keep a loosely integrated, low embedded threat population from becoming disenfranchised and deteriorating into a more savage existence. Opposition to the Urban Development strategy would argue that humanitarian aid and development initiatives too often benefit the least deserving. It is true, that informal power structures are usually controlled by warlords or criminals who cause the problems. However, low embedded entities tend to operate on the fringe of society in an oppressive manner. Without support from the local population current military capabilities can adequately address these threats.

Infiltration- Loosely Integrated/High Embeddedness

A loosely integrated city with a high embedded threat presents the most challenging problem. Most of these scenarios will be found in what is called a feral city. A feral city is a metropolis with a population of more than a million people where the state government has lost the ability to maintain the rule of law within the city's boundaries yet the city remains a functioning actor in the greater international system.³⁷ Feral cities combination of loose integration and high embedded threat present the worst, and most likely scenario for megacity conflict.

Feral cities are often safe havens for criminal and violent extremist organizations. They are an ideal recruiting ground because of the poverty, high numbers of

marginalized people, and lack of opportunity. All of the five rings are in such a state of if disrepair that attacks against them are almost ineffective because there is so little to destroy. Leadership is splintered, between formal and informal power structures. Where state leadership is functioning, it is often corrupt and exploitive. Organic Essentials and infrastructure are insufficient and fragile. The population is often in survival mode and fielded military forces mercenary nature makes them just as likely to kill each other as any outsiders. Out of all the challenges, the largest may be “how to strategically paralyze the enemy when it is a collection of disjointed non-state entities?” Is strategic paralysis possible? It is very hard to settle political issues without a functional political structure. Rooting out embedded threats may cause the collapse of the entire system. A loosely integrated, highly embedded megacity’s greatest defense is its underdeveloped nature. The bottom line is war in a loosely integrated high embedded threat megacity will call for significant expenditures in blood and treasure.

Military operations in this environment will require specialized human intelligence operations for any hope of success. Infrastructure density is extremely prohibitive to technical surveillance methods. Additionally, intelligence gathering is problematic with inaccessible areas, unreliable sources, and intermittent frequency. Adversaries will sidestep conventional war and slip into insurgent tactics, which will drag on for years as a megacity has no shortage of human capital as life is cheap in the third world.

Without a total war or an offensive asymmetric strategy, infiltrating these groups is the only way to attack highly embedded adversaries with confidence. This will require incredible amounts of coordination between and creative thinking by friendly forces Intelligence, military, and law enforcement entities will have to shape the environment to

identify possible candidates for infiltration. These contingencies may require the military enterprise and SOF, in particular, to seriously consider recruiting first-generation immigrants. In a loosely integrated, highly embedded megacity the military will use its most advanced capabilities of the force's, mobility, protection, lethality, and sustainment. SOF can expect to bring to bear every capability in its arsenal. All of this still may not be enough. "Quagmire" is the word to describe the most likely outcome of attempting to control a loosely integrated, high embedded threat megacity.

Conclusion

To understand the totality of the megacity challenge and identify the SOF role in a military intervention it is important to consider the "Ends" or end state. The potential drain of lives and resources should drive decision makers to ensure the objective is critical to national security, achievable, and the benefits outweigh the cost. After the investment of nearly a trillion dollars and the loss of nearly 7,000 American lives between Iraq and Afghanistan, the United States failed to achieve a decisive strategic "end." Ambiguous outcomes are universally unpopular. Before embarking on a conflict involving megacity operations, it is critical to determine what it means to "win" in megacity warfare.

Clausewitz theorized war was a continuation of politics by other means, and thus a country should only go to war to obtain something of political value. In megacity warfare, there is an extremely wide assortment of variables influencing outcomes, such as the level of system integration and threat embeddedness. A decisive end in a megacity will require leveraging all of the elements of national power. Diplomatic engagement, economic opportunity, strategic information, financial investment, law enforcement presence and robust intelligence will all contribute to a desired outcome.

The reliance solely on military power may aggravate underlying problems. As evidenced by Iraq and Afghanistan, military force usually results in one of three outcomes; perpetual conflict, conflict termination which is cessation of fighting without a political resolution, or a solution to the underlying political problem.³⁸ There is the enduring question of whether conflict resolution is even possible in a city of 10 million plus people.

The focus of this paper was to address the unique megacity environment and determine the best way to leverage SOF capabilities to win in a volatile, uncertain, complex, ambiguous, and adaptive megacity system. History is littered with militaries that suffered the consequences for adhering to outdated modes of warfare. Megacities are the next battlespace and military actions in them insist on a new way of thinking. Irregular, hybrid and nested threats will continue to propagate until the U.S. figures out how to conclusively vanquish them. Combining these two concepts leads to the conclusion the U.S. must accept that megacity warfare is an “all in” endeavor. The U.S. military primacy has led to a pattern of limited interventions that ultimately fail because of sparsely detailed, confusing, and conflicting strategic objectives.³⁹ The U.S. has made this mistake in the past. In a megacity, half-measures will not produce victory. The U.S. military’s combat readiness will be predicated on a realistic grasp of the challenges of megacities and the many forms of warfare. To do otherwise will produce a high probability of failure.⁴⁰

Endnotes

¹ Sun Tzu, *Art of War*, trans. Samuel Griffith (London: Oxford University Press, 1963), 78.

¹⁷ Highly integrated systems are characterized by strong formal and informal relationships among its component parts. These relationships manifest as highly ordered hierarchical structures with formalized procedures and norms, and open communication among its various parts. Highly integrated systems are inherently stable, show high degrees of resilience (ability to absorb stress) and manage growth in a relatively controlled manner.

Loosely integrated cities, on the other hand, lack many of the formal relationships that keep highly integrated cities stable. Weak control and communications systems and lack of consistent rules for interaction amongst component parts lead to low resilience and unregulated growth. This growth, in turn, contributes more component parts that aren't formally integrated into the system, creating a downward spiral of instability. Loosely integrated cities are largely incapable of dealing with the challenges presented them to-day, and there should be little expectation of their ability to meet the growing challenges of tomorrow.

Moderately integrated cities show some characteristics of highly and loosely integrated megacities. In these environments, formal governments may be able to control portions of the city and episodically control other less integrated parts of the city. These conditions are brought about by rapid, unplanned growth, compounded by separation. Office of the Chief of Staff of the Army, Strategic Studies Group, "Megacities and the United States Army Preparing for a Complex and Uncertain Future," 14.

¹⁸ Ibid.

¹⁹ Kim Murphy, " Hamas Victory built on Social Work," *Los Angeles Times*, March 2, 2006.

²⁰ Kilcullen, *Out of the Mountains*, 132.

²¹ U.S. Department of the Army, *Urban Operations*, Field Manual 3-06 (Washington, DC: U.S. Department of the Army, 2006), 6-2.

²² Glenda H Eoyang, Christine Black-Hughes, and Dan Smilonich, "The Robin Hood Syndroms: Streetgangs as Complex Adaptive Systems," 5.

²³ U.S. Joint Chiefs of Staff, Special Operations Joint Publication 3-05 (Washington DC: U.S. Joint Chiefs of Staff, July 16, 2014), II-3.

²⁴ Ibid., 8.

²⁵ Ibid.

²⁶ Developed by author.

²⁷ Kilcullen, *Out of the Mountains*, 111.

²⁸ USAID, "3D Planning Guide: Diplomacy, Development, Defense," July 31, 2012, http://www.usaid.gov/sites/default/files/documents/1866/3D%20Planning%20Guide_Update_FLNAL%20%2831%20Jul%2012%29.pdf (accessed March 20, 2015).

²⁹ John Guidick, *Terror at Beslan: A Russian Tragedy with Lessons for America's Schools* (Archangel Group, 2005), 103.

³⁰ Developed by author.

³¹ Developed by author.

³² Warden, "Enemy as a System."

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Robert J. Bunker, "Convergence: The Changing Missions of Police and the Military," December 2008, http://scholarship.claremont.edu/cqu_fac_pub/310/ (accessed February 4, 2016).

³⁷ Ibid.

³⁸ William Flavin, "Planning for Conflict Termination and Post Conflict Success," *Parameters*, Autumn 2003, 96.

³⁹ H. R. McMasters, "The Lies that Led to the Vietnam War: Why the U.S. Got Involved and Why It Failed," 1997, *Youtube*, <https://www.youtube.com/watch?v=-2AVCrbGwnE> (accessed March 27, 2015).

⁴⁰ Frank G. Hoffman, "Thinking about Future Conflict Preparing from the Full Spectrum," *Marine Corps Gazette*, November 2014.