

Megatrend: Urbanization and the Rise of Mega-Cities

Applicable Joint Capability Areas (JCAs):

- Develop Knowledge and Situational Awareness
- Inform Domestic and Foreign Audiences
- Deliver and Adjust Information
- Maneuver to Influence

Description:

According to the Office of the Director of National Intelligence, by 2025 about 57 percent of the world's population will live in urban areas, up from about 50 percent today. Additionally, by 2025, the world will add another¹ eight megacities to the current list of 19—all except one of these eight will be in Asia and Sub-Saharan Africa..

Megacities are rapidly growing population centers, often located on a coastline, where urbanization is outstripping the ability of governments to enforce the rule of law and provide basic socio-economic services. As a consequence, these densely populated areas² can become spawning grounds for terrorism and criminal activities which can pose a threat to national security..

As such, the future joint force will likely be called upon to conduct an increasing number of operations in cities. These operations will be different and more challenging than those that historically been conducted in rural areas and less dense urban areas. The additional challenges are the result of the following:³

- Fragmented political power and contestation over scarce resources resulting in anarchy, governmental collapse and exacerbating ethnic rivalry, cultural grievances, religious-ideological extremism
- Alliances between narco-traffickers and terrorists, the proliferation of 'inhuman weapons' and the spread of infectious diseases."⁴
- Rapid, uncontrolled urban growth and densely populated informal settlements in hazard-prone locations, together with the failure of urban authorities to regulate building standards and land-use planning strategies, render urban dwellers particularly vulnerable to humanitarian crises
- Complex yet fragile urban economies and service systems are particularly susceptible to widespread impacts of disasters or emergencies

Also known as "Feral cities", these urban places are especially dangerous since its infrastructure remains largely connected to the greater international system through airports, ports, and the internet. As a result, these seemingly locally contained threats in the absence of effective governance can lead⁵ to "contagion effects" abroad, where slum-based crime and terror syndicates can threaten international order. . Such connectivity in the hands of these syndicates enables the transport of know-how, people, cash, and perhaps even weapons of mass destruction across the globe.⁶

At the tactical level, the joint force of 2020 must be prepared to execute multiple, near simultaneous operations in tomorrow's megacities in areas measured by city blocks. Marine Corps Commandant, General Charles Krulak, coined the term "three block war" over 15 years ago to describe future operations in an urban environment. He

¹ ODNI, Global Trends, 2025

² OSD Strategic Multi-Layer Analysis Project; September 2013 Megacities Research Statement of Work

³ IASC Strategy: Meeting Humanitarian Challenges in Urban Areas, 2010. Published by the Inter-Agency Standing Committee (IASC) comprised of key UN and non-UN humanitarian organizations

⁴ Peter Engelke and Magnus Nordenma, "Megacity Slums and Urban Insecurity"

⁵ P. H. Liotta and James F. Miskel, "The Real Population Bomb"

⁶ Richard J. Norton, "Feral Cities", National War College Review, Autumn 2003

asserted that in one moment, Marines could be providing humanitarian assistance to persons displaced by war. They may next be called upon to conduct peacekeeping operations directed against warring antagonists. Finally the Marines may find themselves under fire themselves—“all on the same day; all within three city blocks”.⁷

Impact on Information Environment (IE)

The human dimension of the physical component of the urban IE—the civilian populace and combatants—coupled with other physical aspects such as topography, roads and buildings pose significant challenges for a warfighter. Whether conventional force on force, asymmetric conventional and irregular force, or even irregular to irregular force engagements, the advantage typically rests with the defender. They often have superior knowledge of the area and an ability to use natural and man-made barriers to confront the opposing force. The result can be a bloody, drawn out conflict during which the defender wears the attacker down both physically and psychologically.

Urban operations present additional challenges for a joint or combined warfighter because of constraints and restraints imposed on its forces. For example, in all urban operations conducted since 1967, joint force commanders have had to take into account one or more of the following: limiting friendly casualties; minimizing civilian casualties and/or collateral damage; and restrictions on the use of types of weapons.

Despite the lack of official government control and provision of services, the informational component of the future urban IE could, nevertheless, be robust. Privately controlled radio stations, newspapers, and social media could fill the void left by a paralyzed and ineffective government. And of course, another source of information, particularly in densely populated locales where people of the same clan may reside is word of mouth.

It is the cognitive dimension of the IE, however, that exerts the greatest impact on the IE and poses the most complexity. This dimension is where individual and cultural beliefs, norms, vulnerabilities, motivations, emotions, education, ideologies and views of self and group affect how information is transmitted, received, responded to and acted upon.⁹

Far from a state of total chaos, these cities still function with an element of control that governments have ceded to various elements to include criminals, militias, clans/tribes, perhaps even Non-Governmental Organizations (NGOs) or legitimate corporate enterprises and their funded private security forces. These elements would likely hold varying amounts of influence over a surprisingly disparate population comprised of not only long established residents but new groups caught up in an economically-driven wave of cross border and rural to urban migrations. The result is a future IE marked by a complex patch work of authorities competing for influence in areas that may be confined to only a few city blocks.

Examples.

The mission: Rescue a captured US soldier in “House 13” located in a densely packed urban area.

“As they made their way through a dusty warren of two-story mud colored hutches, they found House 11. They found House 12, but no House 13. What they did see were more and more Iraqis swarming around.” *Excerpt from LTC Stephen Dalzell's, “Where the Streets Have No Names”—an account of an operation he led in Samarra, Iraq during OEF.*

In the article cited above, LTC Dalzell further writes that “House 13” will be even harder to find during operations conducted in megacities. He notes that in the future urban IE, forces, will not be groping for House 13; they will

⁷ Charles Krulak, “The Three Block War, Vital Speeches of the Day, 15 December 1997

⁸ JP 3-06, Joint Urban Operations, November 2013

⁹ JP 3-13, Information Operations, November 2012

¹⁰ Stephen Dalzell, “Where the Streets Have No Names”, Military Technology, December 2007

be searching for a particular alleyway hidden among acres of plywood shacks which characterize megacity slums. Or, in the event of natural disaster or heavy fighting, there may be no house left to find.

Other real world examples of urban operations provide a glimpse of the future IE. The failed 1993 raid in Mogadishu on the Somali warlord, Aideed, was, in part, the result his lieutenants switching from radio communication to word of mouth. And Russia's humiliation in Grozny against Chechen forces was in large measure a result of a miscalculation of the foundational beliefs and emotions of the populace that shape how they react to events.

Implications for Joint IO Force.

Globally integrated operation is the concept described in the Chairman's Capstone Concept for Joint Operations (CCJO) for how the future joint force will accomplish its assigned missions. Mission accomplishment will require a globally postured Joint Force to quickly combine capabilities with itself and mission partners across domains, echelons, geographic boundaries, and organizational affiliations.¹¹ The CCJO describes several key elements to globally integrated operations. Among the most salient with respect to urbanization and the rise of mega-cities are: mission command, partnering and the use of low-signature Intelligence, Surveillance and Reconnaissance (ISR) capabilities.

Mission command is the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders in the conduct of operations.¹² Mission command is critical particularly within an urban environment that requires the employment of small teams rather than large massed forces. No matter how advanced ISR and communication systems may become, a senior commander will never be able to effectively command and control tens if not hundreds of small teams that will face threats and rapidly changing conditions emanating from a combination of urban underground sewer systems, multi-floor buildings, and rooftops.

Additionally, by adopting the concept of mission command, the joint force will be able to act quickly during operations to dominate the narrative in an age of increasingly compressed news cycles. The joint force narrative will be but one of many in densely packed megacities—others are proffered by adversaries, neutral parties, and the general (sub) cultural narratives of day-to-day life. The less centralized and more proactive approach to mission command offers the potential of greater flexibility in countering adversary efforts to create and communicate their own narratives.

Globally integrated operations will also place a premium on partnering in order to influence adversaries and gain the trust and support of urban dwellers. The security challenges associated with megacities of the future almost invariably will require more than the military instrument of national power. As highlighted in the CCJO, Joint Forces must be able to integrate effectively with U.S. governmental agencies, partner militaries, and indigenous and regional stakeholders.

Partnering to dominate the narrative will require a consensus perspective and desired outcome to guide specialized teams, such as those first employed in response to deteriorating situations in Iraq and Afghanistan during 2005-2006. Human Terrain Teams (HTT) provided tactical-level support to brigade and regimental Commanders. They conducted field research of the local population to determine the "human terrain" in order to help the commander assess how actions will be perceived by the local populace.¹³

Within the urban environment, the joint force along with its HTTs may have to partner with many organizations in order to implement a strategy that combines lethal force with social programs in order to wrest control of urban areas from criminal/terrorist networks. Here the joint force can look at contemporary Brazilian policy toward the

¹¹ Chairman, JCS; Capstone Concept for Joint Operations (CCJO), September 2012

¹² CCJO

¹³ Army TRADOC web site <http://humanterrainsystem.army.mil/history.html>

threats which sprawling slums could pose to the 2016 Olympic games. As suggested in the figure below the number of organizational partners even for one phase of such operations would be large. ¹⁴

Phase of Operation	Equivalent Joint Operations Phase	Representative Activities
I	O, Shape; I, Deter	Ultimatum to criminal elements to leave the city
II	II, Seize the Initiative; III, Dominate	Sizable military and law enforcement operations to arrest/capture criminals and secure key areas
III	IV, Stabilize	Interdict drug/weapons flows back into area; combat corruption; provide for aid and set conditions for long-term economic development
IV	V, Enable Civil Authority	Recruit, train& equip locals for 24/7 policing; implement anti-gang legislation

The use of low-signature, ISR capabilities represents a third CCJO element relevant to future operations in megacities. This kind of ISR capability is an integral part of globally integrated operations because they are able to operate independently from logistically intensive forces, have operational reach, and can be persistent. Perhaps most significantly, their use does not always constitute an irreversible policy commitment.

Stephen Cranby in “Planet of Slums” describes a low signature capability for mapping slums. He cites successful efforts to map Africa’s largest slum, Kibera in Nairobi, Kenya in order to help government and non-governmental organizations better target poverty. The capability, however, also has potential implications for the joint force. The Kenyan poverty project began with providing a small number of local inhabitants with GPS devices and asking them to upload information such as pathways, local markets and locations of water and power generation. The information when combined with satellite imagery provides a visual image of daily life in the slums.¹⁵ A future joint force commander with just a small number of mobile phone equipped local volunteers and aided by equally small yet highly trained DOD human terrain teams could provide much needed situational awareness for planning and assessing IO in urban areas.

DOTMLPF-P Change Recommendations. Given the impact that megacities and urbanization will have on the IE and future joint force, the following recommendations are provided.

Doctrine (to include TTP):

- D.1. The next revision to JP 3-13, *Information Operations*, should emphasize the CCJO ‘s concept of mission command with its decentralized nature that emphasizes initiative and timely decision-making, guided by clearly communicated intent and desired end-state.
- D.2. The next revision to JP 3-08, *Inter-organizational Coordination During Joint Operations*, should place greater emphasis on the likelihood of coordination with not only international organizations but country/region/city-specific organizations having informational, social, and economic organizations along with the recommendation that CCMDs maintain listings of such organizations for tasked and potential crisis action directed plans.

¹⁴ Victoria Banea, “Favelas in the Spotlight,” *Harvard International Review*. Spring 2011

¹⁵ Stephen Cranby, “Planet of Slums”

Disposition: Provide the above recommendations in response to anticipated late 2014 or early 2015 JS/J7 Request for Feedback to JP 3-13 and JP 3-08.

- D.3. JP 3-29, Foreign Humanitarian Assistance, (January 2014) should be updated to include a brief discussion of the unique challenges of urban HA operations. Additionally, the discussion within the IO section of the pub should include the need to monitor social media and counter false information during humanitarian operations that occur in areas that have experienced ethnic tensions and conflict. For example, during HA operations in Kyrgyzstan in 2011, aid organizers had to contend with the spread of rumors on social media sites. Posted false information ranged from humanitarian aid being poisoned to cross border attacks carried out by an ethnic group.

Disposition: Provide the above recommendations in response to anticipated late 2014 or early 2015 JS/J7 Request for Feedback to JP 3-29.

- D.4. DOD funding for exploration of new methods for improving socio-cultural and human geographic analyses and is visualization and modeling at the community and city levels by integrating remote sensing and social media/collaboration information. ¹⁶

Disposition: JIOWC obtain greater situational awareness of ongoing socio-cultural and human analysis (perhaps as an agenda item to June 2014 IOII conference); work within normalized Intelligence Community, Service, JS and OSD PPBE processes to advocate for those programs that appear most promising.

Organization:

- O.1. Despite the inevitable DOD drawdown from the wars in Iraq and Afghanistan, retain a residual Human Terrain Analysis function with a capability to surge over time depending on future contingency operations.

Disposition: Determine how the Joint IO Proponent can provide advocacy for a sustained Human Terrain Analysis program.

Training:

- T.1. Small unit leadership training and service exercise curricula should be modified to include CCJO mission command concept with emphasis on rapid, decentralized decision making, allowing flexibility in accordance with a clearly defined intent and end-state.

Materiel:

- M.1. Recommendation D.3., above, implies investment in technological means necessary to accomplish improved socio-cultural analysis.
- M.2. Recommendation D.3., above, implies investment in technological means necessary to accomplish improved human geographic analyses and mapping
- M.3. Partner with industry and NGOs such as CrisisMapper Network ¹⁷ to evaluate commercial mapping applications for suitability in urban operations...

¹⁶ For example, the OSD-sponsored Strategy Multilayer Assessment (SMA) project's effort to develop an approach and methodology for assessment of megacities ISO CCMD planning focused on Dhaka, Bangladesh.

¹⁷ Crisis Mappers is a humanitarian technology forum comprised of 6,000+ members in over 160 countries, who are affiliated with over 2,000 different institutions. The UN's Office for the Coordination of Humanitarian Affairs formally requested crismapping support to improve their situational awareness of the Libyan crisis in 2011. Crisis mappers' task-organized media team monitored mainstream and social media sources for relevant information. A Geo-location team identified the GPS coordinates for events reported by the media team. A verification team worked to ascertain the veracity of the information being mapped. Finally, a team of analysts produced SITREPS and other reports. For a further discussion of CrisisMappers, see Patrick Meier, "New Information Technologies and their Impact on the Humanitarian Sector", International Review of the Red Cross, December 2011