42nd ROUND TABLE ON CURRENT ISSUES OF INTERNATIONAL HUMANITARIAN LAW ON THE 70th ANNIVERSARY OF THE GENEVA CONVENTIONS

“Whither the human in armed conflict? IHL implications of new technology in warfare”

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Risks in using new technology in urban warfare – and additional steps States should take to avoid civilian casualties

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Before I begin, I would very sincerely like to thank the organizers of this event for the invitation to be here and to share my comments. I don’t work for a humanitarian organization, like many or most of you do. And I’m not a lawyer, like many or most of you are. But as a result of that, I have learned an extraordinary amount during the panels these past couple of days and have really enjoyed the conversations I have had the chance to have with several of the people convened here on the sidelines. So I hope I can repay that and that I can offer some value to the roundtable’s proceedings with my comments.

Since I’m employed by the US Army, I’m obligated to note up front that, firstly, while I’ll make some comments that I think are generalizable to many military forces, my perspective is based very much on the experiences of the US Army. As a result, for the most part, my remarks really focus on ground
combat forces in urban environments, and don’t really engage very much with the question of airpower and cities, which is an important one and an interesting one, but is beyond my scope today. And secondly, while I shall talk about the US Army and the US military more broadly, my comments are not official positions of the Army, the Defense Department, or the US Government.

I believe I was invited here to talk about the state of thinking about military operations in cities within the US military and more generally to offer a military operational perspective.

I work for a US Army organization, based at the United States Military Academy at West Point, called the Modern War Institute. I am also here in my capacity as co-director of that institute’s Urban Warfare Project. My organization is actually quite small—certainly by US military standards. We’re a team of really just a few people, but we have become, I think, one of the foremost—and at least, perhaps, the most prolific—outlets within the Army in terms of thinking about conflict in cities. That is, in part, because it’s something we see as really, really important. But equally, I think it also says something about what is, to be frank, the pretty limited institutional attention paid to cities, not just in the Army or the US military, but I think in many modern military forces around the world.

There has certainly been a notable increase in emphasis in the US military on urban warfare and the idea of military operations in cities—at least in terms of senior leader statements. However, if a US Army unit were called upon tomorrow to fight in a dense urban space, there would be a range of challenges unique to cities that that unit would be woefully unprepared for.

That has important implications, which I want to discuss and which we’ll get to, but first, it’s important to ask: Why? What explains this lack of preparedness to operate in cities, and more broadly, this lack of attention to them? And when I say “lack,” I don’t mean entirely lacking. I mean less attention than you might expect given global demography, future trends, and how badly urban conflict often turns out.

So, why? One of the most important points to keep in mind in answer to that question is this: For most of history, militaries have fought FOR cities, but not IN them. As a result, State-based militaries have been organized, trained, and equipped to operate in large, open spaces with plenty of room to maneuver.
We can think, for example, of the Fulda Gap—has anybody here been to that part of central Germany? If so, you’ve seen the perfect example of what I mean—wide open plains devoid of complex terrain and largely devoid of noncombatants. The Fulda Gap was, of course, the planning scenario—in terms of conventional operations—that governed the way that NATO militaries were organized, trained, and equipped during the Cold War. But that wasn’t some new function of a set of characteristics unique to the Cold War. It has been the way militaries have been organized, trained, and equipped for a long time, certainly as far back as when maneuver warfare came into its own during the Napoleonic Wars.

That trend extends even further back, at least to when the Romans professionalized military service and discovered that mass was a remarkably influential determinant of battlefield success. Soldiers, throughout much of history, might have lived in villages, or towns, or cities, but they would be formed up and would march out to battlefields that were not in cities, where—it’s also important to note—they would fight with increasingly heavy weapons and armor.

So that historical context is really important to remember. The fact, then, that today, military forces are not organized, trained, or equipped for cities should really, maybe, not come as such a surprise when it’s sort of looked at in that broad, historical context. And yet, despite all of this, military forces still have repeatedly found themselves operating in cities including Aachen, Stalingrad, Hue, Fallujah, Ramadi, Mosul and Marawi.

This is, as I’m sure you all know, not an exhaustive list of urban battles. But what do these examples from the past three quarters of a century or so have in common?

Firstly, they involved state-based ground combat forces that were NOT optimized for cities. Secondly, they were incredibly destructive. Thirdly, one of two conditions existed either:

a) They were fought by two sides, neither of whom really wanted to be fighting in that city—Stalingrad is a very good example of this, of how a city can become a terrifyingly destructive battlefield almost, not entirely, by accident. That’s the first condition.

b) Or one side was demonstrably weaker and chose the city as a battlefield because of its leveling qualities, stripping the stronger party of many of its advantages, in terms of armaments, technology, and more.
So, by looking at history, we can sort of begin to understand why modern military forces are not—again, as I said—organized, trained, or equipped to operate in cities.

But also, we’ve seen that despite this, urban centers have repeatedly pulled military forces in. And those cases, when that happens, I said, had a few common characteristics.

Firstly, I want to focus in on the second characteristic—that they were incredibly destructive. What explains this? Why is warfare in cities so destructive? Answering that question is clearly a necessary first step toward diminishing that destruction. That is, of course, an important goal of many of the organizations represented in this room—and I think, of most military forces, as well.

We heard in a comment yesterday during one of the panels from a gentleman who said that in teaching here in Sanremo, one of the key points they try to get across is that by complying with IHL, a military commander will be more militarily successful. I certainly agree with that, and I think that becomes most apparent when you focus on longer-term, strategic military objectives. We all have an interest in limiting the effects of military operations on civilians, physical property, infrastructure, cultural property—all the sorts of things that you find a lot of in cities.

So, back to the question: Why are military operations in cities so destructive?

Remember, I’ve used this phrase several times now: organized, trained, and equipped. So if we think in those terms, organizational changes are the most difficult to conceptualize in terms of how they might make military operations in cities more effective and less destructive. But really, the impact of the way militaries are organized is probably the least of the three. Whether a force has squads with 9 soldiers, or 10 soldiers, or 13 soldiers—whether an army is built around the division level or the brigade level—these are important organizational questions for the military, but probably not all that impactful on how operations are conducted in cities.

Secondly, I would like to focus on training. Urban terrain requires unique types of training. What is required to do the basic soldier tasks of “shoot, move, and communicate” in a dense city is very different than what is required in comparatively open terrain. To do those basic things with so many civilians in the battlespace requires specialized training. Now, we’ve seen training
improvements in recent years. Better methods, better facilities that more accurately replicate the complexity of a city, but we still have a long way to go.

The most common form of training for cities which we used to call MOUT—military operations in urban terrain—is really limited to a single task: enter and clear a room. It’s a pretty straightforward thing, but when you actually break down the mechanics of a team stacking on a door, breaching, passing through what we call the fatal funnel, and each team member scanning his or her assigned portion of the room, while moving, while trying not to trip on the power cord or weapon or clothes or toys or whatever else might be in there, and making split-second decisions about the people in there, it’s tough. Now do room after room after room after room, which is how many urban battles end up. That’s a persistent exposure to incredible complexity that, I think, is extraordinarily difficult to train for.

And that’s just the tactical complexity—it doesn’t even touch on trying to train soldiers for the strategic complexity of a city. A colleague of mine who has spent years studying urban conflict has a very good analogy. He says military operations in open environments is like playing billiards. You strike one ball and you pretty much can predict the other impacts, the follow-on effects. Conducting military operations in cities is like playing with 100 other balls on the table. It’s virtually impossible to predict the second and third order effects and even beyond each tactical decision made, which can in many cases have strategic consequences.

So that’s organization and training, which brings us to equipment. These are the tools that a force brings to the fight, and to be clear, the issue of equipment is the most explanatory factor, I think, in terms of why military forces struggle to be effective in cities and why the effects are so destructive.

The equipment that ground combat forces use—from small arms to artillery and from personnel carriers to tanks—are designed to maximize effectiveness in open spaces. Their limitations are on full display when they are used in the condensed spaces characteristic of cities. However, military forces must operate with the tools that they are given, and as long as those tools are not designed specifically with the density of cities in mind, those forces will struggle to maximize their effectiveness and their operations will be more destructive than anybody wishes.

Make no mistake, new technology will help. Greater precision, more adjustable payloads that allow munitions to be delivered with the minimum
necessary firepower to meet the military objective. But it is difficult for me to conceive of any technological development or combination of technological developments, and I think we would make a mistake if we have that expectation about the future, that technology is going to solve the problems associated with protecting civilians on the battlefield.

I know our moderator on this panel has said he has non-lethal tools to keep each of us from speaking for longer than we promised, and I hope I’m not at risk of being the target of his bell, but I find it fascinating that he said that, because that means he is better equipped with non-lethal tools than the typical soldier deployed in an urban environment.

There are a lot of reasons for that. In part, it’s a function of deliberate decision-making—remember, most forces are organized, trained, and equipped to operate in open terrain without civilians on the battlefield. There’s not much need for non-lethal tools in those areas.

But there are other reasons, as well. I spent 15 months deployed in east Baghdad in 2007 and 2008. Our area of operations spanned several sectarian fault lines that crisscrossed the city. There were also a number of Shia holy sites in the region, and every few months, there would be a pilgrimage, with tens of thousands of people marching through the city. Unfortunately, there were also places these marches passed that left these crowds vulnerable and they were, on a number of occasions, targeted by suicide bombers, car bombs, and rocket attacks. Coalition forces had few, if any, non-lethal tools with which to disperse crowds and keep them from these sites where they were most vulnerable.

What would police forces in many countries, including my own, use to disperse a crowd? Tear gas or, in other words, CS gas. It is remarkably unpleasant. Has anyone in here experienced it? I have. But it generally works, as well. It’s also banned for military use by the chemical weapons convention. That convention is inarguably an achievement. But I still remember soldiers in Baghdad asking why we don’t just use tear gas to disperse the crowds instead of seeing them targeted and seeing innocent civilians killed. For those soldiers, that’s their only touchpoint with the chemical weapons convention and is a perspective that I think is important to keep in mind when we talk about non-lethal weapons and their utility on the modern battlefield.

I think I’m going to leave it there, although there’s certainly scope to flesh those ideas out much more. The main point I’d like to leave you with is that, in
terms of limiting the destructive nature of urban conflict, technology is going to be a help, and we as a military community and the humanitarian and legal communities are all going to have a role in making sure technology is leveraged to that end. But don’t expect technology to solve the problems entirely.

Enhancing military effectiveness in cities and limiting the destruction caused by military operations is ultimately, I think, going to require changes to the way we organize, train, and equip our forces.