



Red Diamond

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TRADOC G-2 Operational Environment Enterprise
Analysis & Control Element Threats Integration



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by TRADOC G-2 ACE Threats Integration

The December issue of the TRADOC G-2 *Red Diamond* newsletter is a selection of articles published during calendar year 2017 that showcase current, real-world threats and how they can be represented or replicated in US Army learning venues for training, professional education, and leader development. The ACE Threats Integration (ACE-TI) Directorate produces the *Red Diamond* monthly newsletter for the TRADOC G-2 Operational Environment Enterprise (OEE) as one of several OE, threat, and/or opposing force collaboration and outreach resources. Interest continues on training topics, doctrinal dialogue, and leader considerations for future tactical conditions of multi-domain threats, precision long-range fires, information warfare, air and missile defenses, and other areas of warfighting functions to sustained readiness.



Red Diamond to Bi-monthly Publication

The *Red Diamond* newsletter will be a bi-monthly publication in calendar year 2018. JAN/FEB 2018 will be issue 1 of volume 9—to be published at the end of February—followed by issue 2 (MAR/APR), to be published in late April.



New and Easy Access!

TRADOC G-2, ACE Threats Integration (ACE-TI) is now available on **All Partners Access Network (APAN)** for its unclassified threats and opposing force (OPFOR) products.



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APAN

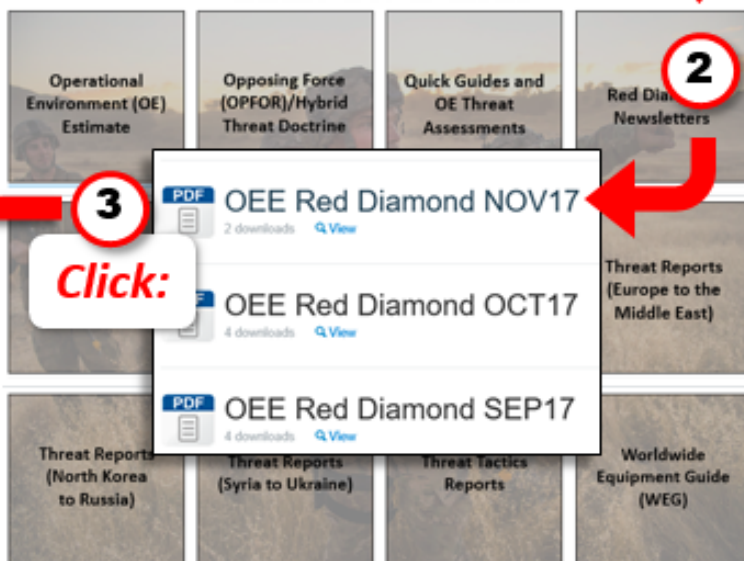
is an easily accessible site that serves as an unclassified information sharing service for the US Department of Defense (DOD).

The ACE-TI APAN site expands collaboration with DOD personnel and multinational partners, such as the United Kingdom, Australia, and Canada, on initiatives for the US Army's Decisive Action Training Environment and other unclassified threat and OPFOR products.

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ACE-TI acts as the TRADOC G-2 lead to study, design, document, validate, and apply hybrid threat (HT) operational environment CONDITIONS to support all US Army and joint leader development, training, professional education, and concept development for sustained US Army readiness.

Training Implications of Militarized Refugee Settlements

by [James \(Jay\) Hunt](#), TRADOC G-2 ACE Threats Integration (CGI CTR)

This article is the first in a series to introduce unique conditions that may be incorporated into training events to enhance realism and add complexity in a training context.

Camps and settlements for refugees and internally displaced persons (IDPs) have become a more common condition in crisis zones as conflicts increase in scope, with more noncombatants in harm's way. Managing large concentrations of civilian noncombatants has often been difficult for the international community and the hosting nation. The inherent difficulties are made worse by the instability caused by external and internal threat actors. Instability beyond the host country's capabilities could result in security assistance requests from US or coalition forces. While security of refugees is not a standard task for assisting forces, the regional security impact can be immense.

When considering refugees of any kind, unit commanders and the training community have generally focused on tasks that only involve force escalation and security at the small-unit level. The increasing size of camp populations is creating an environment in which threat actors seek opportunities to militarize these vulnerable populations. The threat conditions in and around the camps create a vicious cycle of destabilization that pushes the camps to collapse, creating a greater crisis. While refugee camps are often waved away as only a humanitarian issue, their intentional militarization by a range of threat actors could boil over and require a larger commitment of forces.

Large Refugee Settlement as Megacity Microcosm

The challenge of military operations within and around megacities has been difficult for the training community to implement for a number of reasons. Conditions that typify megacities, such as complex and multidimensional terrain, difficulty distinguishing combatants, extreme population density, and difficult outsider access, are often shared by large refugee settlements. For example, population density is one of the defining factors of a dense urban environment. The densities per square mile in the larger camps in Africa are comparable to densities of the top designated megacities.

There are, of course, many differences that break the comparison. Most of these conditions are simply not feasible for constructive training solutions. Relegating dense urban environments to simulations does an immense disservice to the soldiers and commanders that may be called upon to operate under these conditions.

Large camps in recent history have generally developed as noncombatants and defeated combatants flee violence. They are often within a two-day walk from the border of the country experiencing conflict and established at or near junctions of existing lines of communication (LOCs). They may be self-organized or planned. The most common refugee settlements have populations between 10–20 thousand, while the most populous may exceed 90,000. The average population density often exceeds 20,000 per square mile. In comparison, the densities of the most populous megacities averages just over 22,000 per square mile.

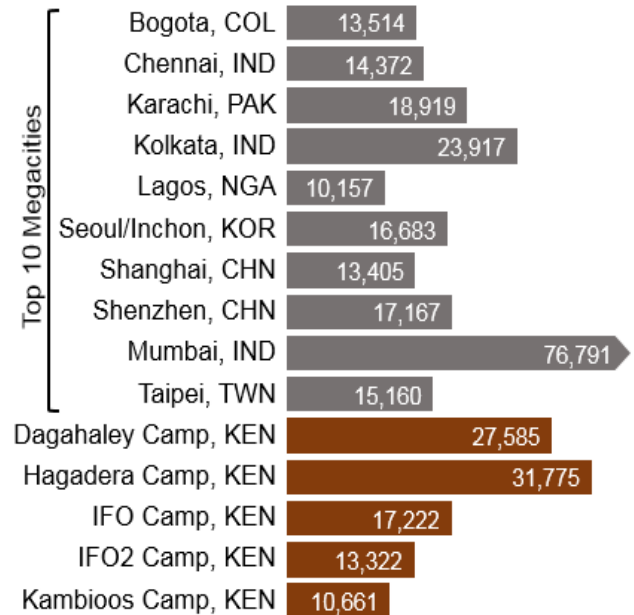


Figure 1. Population density per square mile

Condition	Mega-Camps	Megacities
Rules of Engagement	Complex dynamics and concerns about noncombatants and collateral damage may reduce command flexibility	
Collateral damage risk	Damage to structures, infrastructure, no-fire targets highly likely and will be used for information warfare	
Complex terrain	Multiple concealed attack angles; in-depth knowledge of terrain	
Strategic INFOWAR	Pervasive cameras send selective images to worldwide and regional audience	
Tactical INFOWAR	Easy instant messaging and improvised signaling allow rapid situational awareness and on-demand massing of both combatants and noncombatants	
Dispersed threat actor(s)	Threat actors can rapidly disperse to make identification difficult and obfuscate force centers of gravity	
Difficulty discerning combatants	Threat actors may appear as civilians; noncombatants may also carry weapons and be highly agitated	
3-Dimensional attack risk	Attacks possible from 360°; limited height of structures prevents high-angle attacks	Attacks possible from concealed positions in multi-story buildings and even subterranean locations
Scope of improvised attack methods	Large explosive or fire attacks not as likely	Full range of improvised devices and car/tire fires

Table 1. Mega-Camp to megacity condition comparison chart

While obviously not an exact analogue, the conditions of large refugee settlements and camps present enough similar challenges to be relevant for training.

How do Refugee Camps Militarize?

Even well-managed camps can become militarized very quickly. Unchecked threats can develop with minimal visible signatures and threaten camp occupants and the camp's overall viability, as well as the host nation's economic and security situation. The complex and challenging living conditions within large refugee camps are not the primary threat of concern that military forces might face, but rather the danger of intentional militarization.

While a level of conflict within large camps is to be expected, aggressive militarization of camp residents can destabilize the camps to the point of collapse. This might in turn create an exodus of refugees either returning to the danger areas they fled or streaming into the host nation's towns and cities. Military or police forces may need to be deployed from their normal responsibilities to support or restore security in the region. Preventing the orchestrated implosion of these camps is in the best interest of peacekeeping forces and the host nation.

The path to growing a militarized population within a refugee camp often progresses as follows:

1. Punitive Attacks from Crisis Area

Military and/or paramilitary forces that prevailed in the crisis country follow their defeated adversaries across the border to a refugee camp to prevent re-arming and a possible return as a future threat. Attacks may be brutal, with violent raids against former soldiers and noncombatants alike. Violence against noncombatants may be in retaliation for supporting their "enemies" or to rob, rape, or enslave them. The attacking forces may be company- to battalion-sized army or guerrilla elements with mostly small arms and military or technical vehicles. Small formations of militants may also attack vulnerable refugees in transit.

Security around the camps and on the LOCs between the camps and the affected border region are likely missions for intervening forces. Tasks will vary greatly, from securing and managing various-sized groups of noncombatants to open combat with up to battalion-sized forces.

2. Exploitation of Vulnerable Camp Populations

Refugee populations within camps often either self-segregate or are grouped by language, ethnicity, tribe, area of origin, or other demographic characteristic. Threat actors will exploit fears of real or perceived external threats or "others."

Populations of former combatants can create “refugee warrior communities” that leverage the sanctuary status of the camp to be free from outside attacks while recruiting and training from vulnerable populations.

Former soldiers in camps may initially recruit and train receptive refugees to “defend” themselves against internal and external threats. Insurgent groups may also be present alongside the guerrillas, seeking to add strength and numbers to their ideologically-focused plans. Threat actors will manage their activity levels of organization and militancy to prevent detection and interference by camp security elements. Non-uniformed guerrillas and insurgents may have up to 2–4 battalion-sized elements of former soldiers and camp recruits available. These forces will operate as small cells and reaction units to minimize action by camp security. Limited shows of force and tests of mobilizing larger groups of agitated civilians may occur in areas under their control.

Host-nation and other agreements that affect rules of engagement will dictate to what extent security forces can operate within the camps. In a training context, the ambiguity and rapidly shifting security situations possible are a signature condition of these dense communities.

3a. Seizing Control of Camp Resources and Infrastructure

The inherent volatility of dense, unsettled populations and the aggressive recruitment and militarization by threat actors within the camp may lead to uprisings and disturbances directed against aid workers, camp leadership, or security forces. Camp occupants may perceive violence as more widespread than is actually is. Multiple communication channels may amplify incidents, leading to disproportionate responses, both by camp security personnel and residents. If the security situation is perceived as untenable, camp residents may flee en masse to wherever or whomever they identify as a potential safe haven. This could clog roads and create havoc throughout the region.

Threat forces may manifest in groups ranging from dozens to hundreds. A force of non-uniformed guerrillas and insurgents may have up to 2–4 battalions of former soldiers and camp recruits available. These forces may have a variety of small arms and improvised weapons. Informal communication networks and capabilities allow the forces’ ranks to rapidly swell and dissipate.

This is one of the most dangerous environments and the most similar to megacity conditions. Multiple attacks from easily disguised actors from numerous directions can quickly overwhelm local security forces and require surge capabilities to maintain the semblance of order. Local security elements and low-cost private security companies may not have the training or fortitude to withstand such assaults without breaking ranks or resorting to undesirable techniques.

3b. Using Camp as Sanctuary for Launching Attacks

Alternatively, threat actors and their militarized ranks may use the camp as a protected haven from which to launch attacks, rather than displaying open aggression within the camp. These attacks are usually directed against their former enemies, although more immediate targets may help satisfy grievances of their new constituents and solidify control. Particularly large camps and those with porous perimeters may be more prone to nefarious activities that allow large groups to come and go with little attention from beleaguered security elements. Attacks may range from securing unfettered access in the surrounding areas to large-scale raids against potential competitors or former adversaries.

Threat forces may manifest in groups ranging from dozens to hundreds. A force of non-uniformed guerrillas and insurgents may have up to 4–5 battalions of former soldiers and camp recruits available or combine with forces outside of the camp to create sizeable forces for specific operations. The forces from the camp may have a variety of small arms and improvised weapons, but may have larger weapons in external caches or in the hands of compatriots.

Conclusion and Implications for Training

While large refugee camps may not be the focus of a training event, they can be a primary driver of conflict. Threat dynamics associated with destabilized camps can result in a number of conditions that could be integrated into training events. Examples of these are:

- Ambushes or raids on lines of communications near the camps,
- Supply raids against aid organizations or kidnapping of personnel, or
- Attacks by armed groups either from the camp or from across a nearby border.

A degraded security environment in the region around the camp may also divert security forces from the desired training event.

Commanders have a range of tasks that could be trained by incorporating the real-world conditions associated with large refugee camps. These conditions could add realism and complexity to tasks such as force protection, area security, information operations, unit movement, and combating irregular forces.

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by [MAJ James Andersen](#), TRADOC G-2 ACE Threats Integration

The Russian Army is an artillery army with a lot of combat vehicles. While Western Armies have gravitated to precision fires delivered by fewer systems, the Russians maintain a large artillery park and employ mass fires to destroy hectares of enemy-occupied territory.¹

—Lester Grau and Charles Bartles

Russian military doctrine has long centered on its artillery. As early as the 14th century, the Russians began placing a greater emphasis on larger artillery formations in proportion to their infantry to repel Mongol invaders.² In the 15th century, Ivan the Terrible placed a large impetus on using improved artillery in large numbers to secure victory at Tartar City of Kazan and during the Livonian War.³ Later, following an analysis of the Napoleonic Wars, Russian Lieutenant General Nikolay Okunev concluded that “artillery was not a supporting arm of military forces and could achieve decisive results by itself.”⁴ Okunev was a proponent of large massed artillery batteries of 80–100 guns.⁵ Okunev’s theories may have influenced the Soviet Union as to the importance of achieving fire superiority.⁶

After the First World War, which was thoroughly studied by the Soviet Union, it was determined that any penetration of enemy defensive lines would require massed fires in a ratio of 2:1 artillery to infantry.⁷ Furthermore, according to Vladimir Triandafillov—a prominent figure in Soviet military art— “artillery must follow the infantry, not just with fires, but with wheels.”⁸ Triandafillov’s judgments on mass and mobility again influenced Soviet military thinkers. This is likely the reason for the massive buildup of artillery during the interim war years between WWI and WWII.⁹

Despite the advent of both tactical and strategic nuclear weapon strategies in the 1960s, the Soviet Union did not allow its rocket and artillery forces to wilt away. On the contrary, Soviet brigade and battalion commanders maintained a quantitative advantage over NATO forces of organic artillery at their level, with decentralized control from higher echelons.¹⁰ At higher echelons, such as division, a more centralized approach for rocket and artillery forces was adopted to support overall strategic objectives.¹¹ The high quantities of fires available to brigade and battalion commanders freed, in theory, Soviet division and corps assets from frequent fire-support requests from lower echelons. Moreover, the Soviets demonstrated a willingness to use artillery very aggressively, much closer to the front than other armies, and even direct fire when needed.¹² This often befuddled Western military thinkers, as it seemed to place artillery and antitank weapons at unnecessary risk.¹³ As Chris Bellamy notes, this is because “Soviet gunners were not afraid and never have been afraid to lose a gun or rocket launcher if it rips the arm of an enemy off.”¹⁴

The Fall of the Soviet Union

In December 1991, the Soviet Union collapsed and transitioned into the weakened Russian Federation. Dissolution of the Union of Soviet Socialist Republics (USSR) had a catastrophic effect on the once-mighty Soviet military.¹⁵ Forces that did return from former Soviet Republics did so in a piecemeal fashion, to districts and bases unprepared for their return.¹⁶ During its peak, the Soviet Union had maintained 210 divisions but, by 1999 under the Russian Federation, only approximately 50 brigades remained.¹⁷ Russia’s armed forces were underfunded, unable to man their smaller military,

and incapable of sustaining or upgrading their aging equipment.¹⁸ Faced with such a crisis, Russia prioritized its spending, reforming its military while preserving and modernizing its nuclear forces to maintain a strategic deterrence.¹⁹

The Rise of the Russian Federation and Military Reform

From 1992–2008, a series of military reforms were attempted to fix problems that plagued the armed forces. Of those reforms, two had a major impact on how the Russian Army organizes itself today. The first reform envisioned the creation of smaller, fully manned units that could respond to a regional crisis until larger forces could be mobilized.²⁰ The second reform, beginning in 2004, was the creation of a more professional force through more contracted soldiers and fewer conscripts. Furthermore, this reform also restructured regional district commands, reducing bureaucracy. The military districts were consolidated from 16, under the Soviet Union, to four under the Russian Federation at present.²¹ The realigned military districts also inform the West on where Russia perceives threats from its potential adversaries.²² These reforms allowed Russia to respond relatively quickly in Chechnya in 1994 and 1999 and may have been the reason for the creation of their brigade tactical groups.²³ Since 2008, reforms have been aimed at correcting deficiencies noted in the Georgian War involving communications, electronic warfare, and targeting.²⁴ Lastly, these reforms helped Russia form a coherent policy “clearly formulated on post-Soviet Russian national defense.”²⁵



Figure 1. Russian regional military command after reforms²⁶

The recent resurgence of Russian global influence may be an attempt by the Kremlin to counter US and NATO members' continued encroachment into previously held territories of the former Soviet Union. From the Russian perspective, this expansion is an aggressive attempt by NATO to encircle and mute Russian global influence.²⁷ Of particular concern for the Russians is the placement of ballistic missile defenses in eastern Europe, blunting their strategic nuclear deterrents.²⁸ Furthermore, the Russians view the expansion of NATO as a direct threat to their ability to project power regionally as well as defend themselves.²⁹ The inclusion of Poland and the Baltic states—Estonia, Lithuania, and Latvia—into NATO brought military elements against Russia's eastern border, approximately 500 miles from Moscow in the case of some Baltic states. Given this perception, it is not surprising that Russia would attempt to prevent Ukraine from potentially adopting a pro-Western government that could one day join NATO. Ukraine, as a member of NATO, could deny Russia's Black Sea fleet access to the port of Sevastopol. This is Russia's only warm-water port and its only convenient access to the Mediterranean Sea.³⁰

New Tools, Same Paradigm

Despite the organizational shift to a smaller army less dependent on conscripts, the Russian Army, like its predecessor, remains a fires-focused army. The Russian Army retains both a quantitative 3:1 ratio in terms of the number of artillery pieces at the brigade echelon as compared to the US Army and a qualitative edge—namely range overmatch—to its near peers.³¹ Furthermore, there has been an increased emphasis on improving the precision of its fires and creating additional target acquisition platforms to support fires. However, the Russian Federation understands that to successfully employ its fires against near-peer adversaries such as NATO and the US, tactics, strategies, and equipment have to be developed to overcome near-peer strengths.

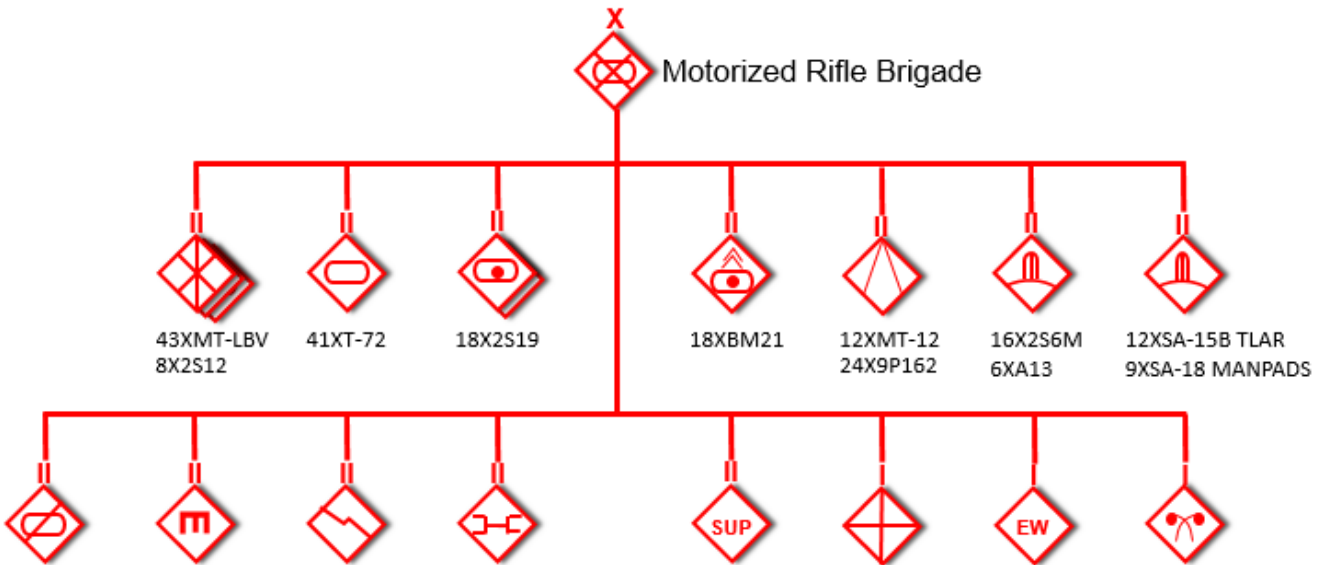


Figure 2. New Russian motorized rifle brigade³²

The Soviet Union watched the success of the US-led coalition in the First Gulf War and noted the effective use of target acquisition and precision fires in attacking not only front line units, but command and control nodes, logistical hubs, and support areas, effectively paralyzing the enemy.³³ More importantly, the Gulf War served as proof of concept for the Russian “deep battle” doctrine developed in the 1930s, which was later revised in the 1980s to adopt new technology and non-nuclear precision fires.³⁴ Deep battle could, theoretically, “exercise a direct and decisive outcome of a future war...deep battle was a strategic concept that focused on terminating, overwhelming, or dislocating enemy forces not only at the line of contact, but throughout the depth of the battlefield.”³⁵

In addition to confirming Russian military theory, the First Gulf War confirmed the need to protect front line, artillery, and rear units from detection by improved US intelligence, surveillance, and reconnaissance (ISR) assets and destruction by air, land, and naval precision fires. During its modernization, the Russian Army focused on updating its considerable air defense capabilities and refining its existing artillery overmatch with increased precision, target acquisition, and electronic warfare capability. Russia understood that it was overmatched in the air and invested heavily in air defense.

Based on Russian reorganization and procurement of equipment, it is assessed that Russia views US and NATO strengths as follows:

- Ground, air, and naval fires precision fires aided by global positioning systems (GPS);
- Well-trained and -equipped armor and infantry units with professional, non-conscript soldiers;
- Effective technical means of intelligence collection via geospatial and aerial platforms;
- Command and control aided by GPS navigation systems and secure, reliable communications; and
- NATO and US overmatch in air power.

Russian Deception: Maskirovka

In order to counter its adversary’s advantages and successfully employ fires, the Russian Federation has developed a multi-pronged approach. The first method is protecting the fires assets themselves. To do this, deception, or *maskirovka*, is

employed. Translated directly, maskirovka means “a little masquerade,” which does not accurately convey the depth of the deceptions employed by the Russians.³⁶ Maskirovka under the Soviet Union could be defined as “the processes designed to mislead, confuse, and interfere with accurate collection regarding all Soviet plans, objectives, strengths, and weaknesses.”³⁷ Maskirovka, in its different forms, is employed by the military at all levels, as well as politically at various levels of the state.

In a broader context, “[m]askirovka is in fact war that is short of war, a purposeful strategy of deception that may combine the use of force with disinformation and destabilization to create ambiguity in the minds of national leaders about how best to respond.”³⁸ Creating such uncertainty amongst NATO members could allow the Russians to gain and maintain the initiative before and during a conflict, should one occur. An example of this is the deception employed in Ukraine, namely the denial of the presence of Russian soldiers, which had several effects. First, it caused the Western world to hesitate to act while it attempted to confirm conflicting reports. Second, it made it very difficult for the Ukrainian government to develop a strategy, as it was unsure of the composition of the adversary it faced.³⁹ Additionally, deception allowed the Russians to move personnel and materials and to mass forces against Ukraine, which included indirect fire systems, while the Western world debated courses of action.

Maskirovka is a fundamental component to both strategic and tactical military operations with three goals in mind: achieving “surprise, interference with the enemy’s decision making, and preservation of combat power.”⁴⁰ Surprise serves as a combat multiplier and may help seize the initiative.⁴¹ Interference “ensures the enemy takes inappropriate action” or is paralyzed with indecisiveness, and “the final objective is to preserve combat forces.”⁴² Preservation of forces protects artillery, rocket, and missile forces, and is particularly important as the Russian Army doctrinally employs indirect fires systems to produce a majority of its casualties. According to Richard Wallwark, “analysis of many of the actions in Second World War attributed the destruction of 80 to 90 percent of the targets in the tactical zone to artillery; hence the name God of War.”⁴³

Russian deception planners first examine the truth and whether the intent is to hide the truth or create a false or half-truth.⁴⁴ Next, the resources available to conduct the deception are examined.⁴⁵ Finally, the adversary’s reaction to the deception is anticipated and its ISR capabilities assessed.⁴⁶ There are five ways maskirovka is typically employed: concealment, imitation, simulation, demonstration, and disinformation.

Concealment decreases the chances of detection, hiding friendly information from an enemy.⁴⁷ It is the simplest form of deception and usually requires the least amount of coordination.⁴⁸ During WWII, the Soviet Union employed concealment using camouflage, night movement, and radio discipline, catching the Japanese completely unaware in 1939.⁴⁹ While concealment is typically associated with decisive action, in the case of Ukraine it was used to hide Russian troops among Ukrainian separatists and civilians.⁵⁰ It has been alleged that former Spetsnaz and Federal Security Service members were among those that infiltrated to support the fight against the Kiev-backed Ukrainian government.⁵¹ The infiltration of non-uniformed personnel is not a new technique. The Soviet Union employed such methods in 1968 against Czechoslovakia and used non-uniformed *Narodnyĭ Kommissariat Vnutrennikh Del* “People’s Commissariat of Internal Affairs” elements in Poland in 1945 to seize objectives before its adversary knew what was happening.⁵² The arrival of uniformed men in the night without insignia, seizing key Ukrainian government facilities, caused confusion even among pro-Russian separatists. These soldiers, later identified as Russian, would be given the moniker “little green men.”⁵³

Imitation “involves the creation of false objects that appear to be real.”⁵⁴ This may include decoy military equipment, false runways, and fake bridges. The desired effect is to cause confusion, conceal true intent, and make an adversary waste time and munitions attacking false targets. Simulation aids imitation by emulating the behavior of military equipment, such as adding heat signatures to decoys, creating false radio signatures or traffic, or falsifying tank tread markings in an effort to fool advanced sensors and intelligence assets and confirm the status of imitated items.

A demonstration is the use of real troops to create a feint or perform extensive reconnaissance to deceive an enemy about the nature or location of the main effort.⁵⁵ It was not uncommon in the Soviet-era military for members of the feint to be unaware of being part of a deception in order to increase operational security in case of capture.⁵⁶ More recently, Russia used military drills in its Western and Central Districts to move and mass units along the Ukrainian border.⁵⁷ Once massed, Russian units fixed Ukrainian forces along the eastern Ukrainian border, preventing them from “any military countermeasures in Crimea.”⁵⁸ The massing of heavy units and artillery forced Ukraine to move considerable combat

power to the lightly defended eastern border, effectively fixing four Ukrainian brigades in place and preventing Russian forces in Crimea from being overwhelmed by Ukrainian forces.⁵⁹ Another demonstration was the very public use of humanitarian convoys, widely suspected of being used to resupply Russian forces, to draw the attention of Western intelligence collections assets while conventional forces slipped across the eastern Ukrainian border.⁶⁰

Disinformation is the use of false information or half-truths and may include staged activities, fake products, or false news stories, and may be used against an adversary or against a country's own population or military.⁶¹ Although the topic of disinformation has received a great deal of attention with the Russian incursion into Ukraine, Russian disinformation is not a new phenomenon. Russia has employed disinformation for much of its history; it was particularly important for the Soviet Union and received renewed emphasis during the late 1980s.⁶² Today, "Moscow has established a new level of ambition, strategic Maskirovka, by which disinformation is applied against all levels of NATO's command chain and wider public opinion to keep the West politically and militarily off balance."⁶³ The little green men's allegiance to Russia was vehemently denied by both Russian military and state officials, to include Russian President Vladimir Putin.⁶⁴ Russia claimed that the little green men were local Ukrainian separatists, not Russian soldiers.⁶⁵ In addition to providing plausible deniability, disinformation provided Russia with justification for the incursion into Ukraine to protect ethnic Russians. It is believed that Russia manufactured stories about atrocities committed against ethnic Russians by Ukrainian forces to bolster separatist ranks and provide justification for Russian involvement.⁶⁶ The Russians used disinformation to create confusion and delay action. Disinformation was also used during the battle of Debaltseve, Ukraine, as well. Ukrainian soldiers received text messages during the battle falsely claiming that they were surrounded and that their commanders had abandoned them, sowing confusion and fear among their number.⁶⁷ The Russians believe that the "fog of war isn't something that just happens, they believe it can be manufactured."⁶⁸

Training Implications

Currently, there is very little military deception taught to US Army officers, warrant officers, and noncommissioned officers (NCOs) in professional military education or specialty courses. Military deception, like many decisive action skills, has atrophied during the past 16 years. NCO and officer academies may consider including blocks of instructions on the subject, to include the history of military deception and both historical and modern case studies of threat deception. Additionally, tactical deception can be employed by the opposing force (OPFOR) during maneuver training center rotations. Such tactical deception includes employment of concealment to hide OPFOR units from blue force (BLUEFOR) sensors, imitation using decoys, and false electronic signatures. Furthermore, the use of feints and demonstrations to force the premature commitment of BLUEFOR's main element may be employed. A permanent deception training course could be established for both ISR collection managers and those assigned to the unofficial position of "Chief of Reconnaissance." This course, in addition to understanding deception, could train collection managers how to efficiently use cross-cueing and redundant ISR tasking to prevent enemy deceptions from being successful in an ISR-degraded environment.

This article is the first installment of a two-part series. Thus far the history of Russian artillery has been discussed, as well as reforms made by the country since the collapse of the Soviet Union and the Russian approach to deception. A future *Red Diamond* article will delve into Russian thinking on air defense, electronic warfare, and artillery employment, along with a review of selected Russian artillery platforms.

Notes

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by [Nicole Bier](#) (DAC) and [Patrick Madden](#) (BMA Ctr), TRADOC G-2 ACE Threats Integration

‘The intent is to push Group 1-, Group 2-, and Group 3-type configurations that can handle Group 4 and Group 5-type capabilities.’¹

– Mike Fieldson
Airborne Intelligence, Surveillance, and Reconnaissance Division Chief
United States Special Operations Command’s Program Executive Office Fixed Wing

The Teal Group estimates the demand for unmanned aircraft (UA) will drive the global military and civilian UA market to reach \$135 billion over the next decade.² Rapid developments in navigation, microcomputing, and sensor capability continue to accelerate growth. It is roughly estimated that there were 200 UA types in 2010, almost 1,000 UA types in 2015, and approximately 3,000 UA types at present. It is currently assessed that China operates 250 different types of UAs, Israel 105 different types, Russia 102 different types, and Iran 19 different types.³ As technology continues to shrink in size and grow in capability, increasingly smaller UAs will attain intelligence, surveillance, reconnaissance, communications, and weapons capabilities previously limited to larger unmanned categories. This article reviews commonly used UA classification variables and shortcomings that are created by the rapid evolution of UA technologies.

Terminology Note: Unmanned aerial vehicle (UAV) is used throughout this article to cover adversary aircraft—to include opposing force (OPFOR) platforms. When unmanned aircraft are used by the US, allied, and friendly forces, even in training, they are referred to as unmanned aircraft systems (UAS). UA is used in two ways: to denote a system used by a country that is neither friend/ally nor adversary of the US; and as an overarching term that includes any unmanned aircraft, regardless of country.

UA Classification Methods

Keeping up with the rate of UA development is a significant challenge for intelligence professionals. Reputable open-source UA databases often do not align, due to the sheer volume and rate of proliferation of UAs. Assessing UAV threats without a dependable baseline creates vulnerabilities in US and coalition military force. Current classification guidance based upon designator, weight, and operating altitude is rapidly becoming obsolete as UA capabilities transcend parametric data points. UA technology fosters an environment of radical innovation and rapid progress, thereby making it difficult to assess system capability exclusively by one or two variables from current classification matrices. It is misleading to use one umbrella name in a classification table for a UA that has multiple variants. Many of these UA types and their variants are commonly referred to under a single-type identifier, while others with varying nomenclature are essentially the same system. As new variants of one type of UA are developed, some capabilities increase while others decrease, which can change the weight and/or altitude of each platform. As a result, legacy UA classification methods are blurred, merged, or haphazardly reinvented, while an evolving threat slips through the cracks.

Table 1 is an example table that includes commonly observed classification variables.⁴ Platforms used in the table are from Israel’s Heron UA fleet, as well as Russia’s Zala UAV fleet. Through an open-source database, parametric data is provided for two of the four Heron variants and 18 different Zala variants. Some of these aircraft spread across multiple weight and altitude classes and look nothing like the original version.

UA Designator	Mass Gross Take-Off Weight (lbs)	Altitude Span (ft)	Altitude Classification
Heron TP, aka Eitan	>1,320	30,000–65,000	High Altitude Long Endurance (HALE)
Heron I, aka Shoval	>1,320	10,000–30,000	Medium Altitude Long Endurance (MALE)
Zala 421-02 Zala 421-02X Zala 421-09 Zala 421-20 Zala 421-23	<1,320	500–25,000	Tactical
Zala 421-06 Zala 421-16 Zala 421-16E	21–55	500–20,000	Mini
Zala 421-04M Zala 421-04M2F Zala 421-08 Zala 421-08M / 08F Zala 421-12 Zala 421-15 Zala 421-16EM Zala 421-21 Zala 421-022 Zala 421-Demo	0–20	20–15,000	Micro

Table 1. Common UA classification variables (select platforms shown)⁵

Classification by Designation

Clearly, classifying a UA by one name is not always accurate, as Table 1 illustrates. Though it may initially look overwhelming, the Heron and Zala fleets are actually easier to classify because the Heron fleet is manufactured by Israel Aerospace Industries, and the Zala fleet is produced by Zala Aero Group, which is owned by Kalashnikov. Both are leading defense industry companies in their respective countries and recognized worldwide. Unfortunately, this is not always the case. Countries such as China have multiple leading organizations involved in their defense industry. The original Chinese Wing Loong I and original Wing Loong II are produced by Chengdu Aircraft Industrial (Group) Company, which is also known as the Chengdu Aerospace Corporation, and include eight variants: Wing Loong, Wing Loong I, Wing Loong II, Wing Loong ID, Pterosaur I, Pterodactyl I, WJ-1, and GJ-1. There is another variant—the Sky Saker—that is developed by China North Industries Corporation, commonly known as Norinco. Another Chinese company named China Aerospace Science and Technology Corporation manufactures the CH-3 (Caihong-3/Rainbow-3), CH-4 (Caihong-4/Rainbow-4), and CH-5 (Caihong-5/Rainbow-5), and all three of these variants look very similar to the Predator and Wing Loong fleets. At the unclassified level, it can be determined that there are 13 different Wing Loong UAV variants developed by three different Chinese companies.

To add to the confusion, the Caihong (Rainbow), developed by China Academy of Aerospace Aerodynamics, looks nothing like a Predator, Reaper, or any Wing Loong or CH-X (Caihong-X/Rainbow-X) variant. The Caihong (Rainbow) has high altitude, long-endurance (HALE) capabilities that reach the stratosphere.⁶ Unless production and proliferation trends are closely



Figure 1. [Chinese Wing Loong/CH-3 \(Caihong-3/ Rainbow-3\)](#), top, and [Chinese Caihong \(Rainbow\)](#), bottom

monitored, accurate assessment of threat UAVs cannot be well-established exclusively using current classification methods, such as a single UAV designator for multi-variant UAVs.ⁱ

Classification by Weight

The UA classification metric based on aircraft weight was originally used for safety and regulatory purposes in assessing expected kinetic energy upon aircraft ground impact.⁷ Due to the nature of conflict and the potential of UAVs, expected kinetic energy upon aircraft ground impact is no longer solely based on the weight of an aircraft. Lighter aircraft will not necessarily provide less kinetic energy upon ground impact due to the potential to weaponize a UAV. Heavier UAVs can potentially provide more kinetic energy upon impact than assessed due to improved UAV weapons capability. Weaponized UAVs flying in formation, or mass-kamikaze style, require an adjustment in weight classification analysis due to the overall expected kinetic energy upon impact. Depending on a threat actor's UAV inventory, the volume of UAVs—as well as other variables—have to be considered. In short, UAVs have broken weight categorization as an effective analysis tool by itself.

For instance, the Russian Orlan fleet of UAVs is comprised of six different variants that spread across multiple weight classes—micro, mini, and tactical. The Orlan-10, the second of six variants, has a mass gross take-off weight (MGTOG) between 31–40 lbs.⁸ The Orlan-30, the fourth variant, has an MGTOG of 59.5 lbs.⁹ The Orlan-3M, the fifth variant, has an



Figure 2. [Russian Orlan-10](#)

MGTOG of 15 lbs.¹⁰ The difference between the Orlan-30 and Orlan-50 is noteworthy. The Orlan-30 is single-engine and the Orlan-50 is twin-engine, which allows the latter to have almost double the maximum take-off and payload weight of the former. However, the Orlan-10 is currently the most-proliferated aircraft of the Orlan UAV fleet.

Classification by Altitude

Altitude classification can also be misleading. Operating altitude as a classification metric was originally used to assist with safety and regulatory guidance in determining collision avoidance requirements and avoiding mid-air collision risk between aircraft.¹¹ Again, due to the nature of conflict, threat UAVs are not likely to operate within the International Civil Aviation Organization or US Federal Aviation

Administration confines. Threat UAVs will not operate within coordinating altitudes in an airspace control plan or within appropriate civilian airspace classes during conflict. Assessing UAV capabilities by altitude only is quickly becoming less relevant. Again, using the Russian Orlan fleet of UAVs as an example, the six variants are spread across multiple altitude classes—micro, mini, tactical, and medium altitude long-endurance (MALE). The Orlan-1, Orlan-10, Orlan-30, and Orlan-50 operate at approximately 15,000 ft.¹² This operating altitude places four of the six variants in the micro, mini, and tactical UAV altitude classes. The Orlan-3 and Orlan-3M, on the other hand, operate at approximately 23,000 ft, placing them in the tactical and MALE UAV altitude classes.¹³ Although the Orlan-3 and Orlan-3M operate at a higher altitude than the Orlan-10, the latter is used more than the newer Orlan variants for many reasons, possibly due to its lightweight capability and survivability in cold weather. However, other Orlan UAVs can become more popular in future conflicts, depending on the operational environment.

The ability to modify UAVs is not limited to larger platforms. Another example of variants of one UA type that spread across two operating altitude classes is the Skylite/Spylite, which was originally named the Skylark by Israeli Rafael Advanced Defense Systems.ⁱⁱ Israeli Bluebird Aero Systems is now exclusively



Figure 3. [Israeli Skylite B](#)

ⁱ For more information on combat identification of UAs, see “Combat Identification (CID) of Unmanned Aircraft” in the March 2017 edition of the [Red Diamond](#).

ⁱⁱ This Skylark UA is not to be confused with Israeli Elbeit System's Skylark UA.

responsible for the Skylite, which is currently called the Spylite. The original Skylite A was a shoulder-fired UA, and was followed by the development of a Skylite B. Since then, a series of significant changes were made to the Skylite/Spylite, to include significantly improved altitude performance. The maximum altitude has now changed from 2,000 ft to a verified altitude of 30,000 ft.¹⁴ Clearly, the current platform has advanced from its original micro UA altitude class to the MALE altitude class and is at the cusp of the HALE altitude class, but at the cusp of the mini UA weight class. This case is evidence of a larger trend: namely, the blurring of current classifications due to the growing rate of UA procurement and proliferation. Due to the low barriers to entry, US forces should expect more UAVs to continue to enter the market.

Low Barriers to Entry—UAV Imports, Developments, and Exports

Countries that did not previously play a major role in the procurement of military weapon systems are now able to enter the UA industry. For instance, Turkey used to import US- and Israeli-made UAS, but now produces over 20 of its own, including the ANKA, a MALE UAS. Turkey plans to add more UAS to its inventory to include a combat-capable UAS—the SIHA—that will be built with a stronger propulsion system, equipped with air-to-ground missiles and laser-guided bombs, and is capable of operating at significantly higher altitudes—thereby bringing this upgraded variant into the HALE UAS class.¹⁵ The SIHA is also known as the Anka +A or ANKA TP. Additional ANKA variants include the Anka-A, ANKA Block A, ANKA Block B, and ANKA-S. The ANKA fleet of UAS includes at least five different variants that fall within MALE and HALE UA weight and altitude classes.



Figure 4. [Turkish ANKA Block B](#)



Figure 5. [Israeli Heron I](#)

Israel has played a significant role in the procurement and proliferation of weapon systems for quite some time. Its experience in the defense industry has resulted in world-leader status in the development and export of UA types and variants in multiple classes. For instance, the Israeli Aerospace Industries' (IAI's) Heron UA fleet is a widely proliferated fleet of MALE UAs that includes numerous different platforms. Greatly improved over the earlier Heron 1, the TP model can travel up to a maximum altitude of 45,000 ft as compared to its predecessor, which can only reach 30,000 ft.¹⁶ Furthermore, the Heron TP can also achieve approximately 85% of HALE capabilities and is more affordable than

typical HALE UAs.¹⁷ IAI intends to export a TP version called the Heron TP XP, which was recently displayed during Aero India 2017.¹⁸ Similar to the ANKA, the Heron fleet falls within MALE and HALE UA altitude and weight classes.

The UAV inventory on a closed state, such as North Korea, is more difficult to monitor, much less determine exact classes its UAVs fall into. Open-source intelligence and databases do not provide as much information on North Korean UAVs. However, there are reports of these platforms conducting reconnaissance, and it is believed that North Korea operates over 300 UAVs to achieve some of its military missions.¹⁹

When examining UAV classification variables, as well as procurement and proliferation trends, it is critical that non-state threat actors are not overlooked, as they also import and modify UAs. Threat actors sometimes increase the capability of their UAVs by manipulating commercial-off-the-shelf (COTS) products, to include weaponizing them. For example, the Islamic State of Iraq and Syria (ISIS) purchased Chinese Phantom IVs that were then weaponized and used in dense urban terrain during the recent Battle of Mosul in Iraq. As COTS UAVs become more capable, US forces should expect platforms that were originally classified in one specific class to move to another class.



Figure 6. [Chinese Phantom III](#)

Importing to Exporting UAs: Impact on Procurement and Proliferation Trends

Staying current on the proliferation of UAVs requires constant monitoring of multiple trends. For instance, countries without access to a US Predator variant are likely to acquire a MALE UA from Israel or China. The Israeli-built Heron or Chinese-built Wing Loong I and II families are widely proliferated MALE UAs. It is reported that Egypt, Iraq, Jordan, Kazakhstan, Myanmar, Nigeria, Pakistan, Saudi Arabia, the United Arab Emirates, and Uzbekistan have a current or future interest in one of the many Chinese Wing Loong variants.²⁰ Again, the trend is that some countries who purchase will begin to modify their current imports, then move on to designing and building UAs for domestic use, and eventually export them. One of many examples is Pakistan, who originally purchased and used many European UAs, but is now enhancing its tactical UA, called Shahpar, in order to use it as a MALE UA.²¹ It is not unreasonable to expect Pakistan to improve the Shahpar UA, domestically develop new variants, and then export the system.

Threat actors that are banned from purchasing specific types of US-made systems acquire them from other countries. Today, threat actors can purchase Chinese, Russian, Iranian, and COTS products, as well as modified and black-market UAs. These systems can also be purchased from countries such as Turkey—a country fairly new in the development of UAs. Saudi Arabia has shown interest in Turkey's ANKA fleet.²² The country has also reportedly agreed to purchase 300 Chinese-made MALE Wing Loong II UAs that are similar in appearance to the US-made MQ-9 Reaper, but cost significantly less per unit versus the estimated \$17 million price tag for the latter.²³ Saudi Arabia—today a UA importer—is working its way to become a UA developer with the Saqr-1 UA, which is assessed to be in the prototype phase. The Saqr-1 will carry weapons similar to the Chinese CH-X (Caihong-X/Rainbow-X) UAV fleet.²⁴

Conclusion

With the growing trend of import—develop domestically—export, US forces should expect there to be multiple variants of one UA type that are manufactured by one or more companies. This provides less consistency with the progression of each variant and less uniformity with the naming convention of each new variant. These factors add even more relevancy to understanding UAV procurement and proliferation trends. In addition, US forces should expect platforms with similar names to fall across different weight and altitude classes. This article only covered a small sample of a population of UAs being enabled to function at different classifications than their original variants. Due to the revolutionary speed at which UA technology, production, and proliferation occurs, accurate assessment of threat actors' UAV capabilities should include regular updates that are inclusive of multiple elements. Analysis would ideally focus on imports, domestic developments, and exports, as well as follow-on variant-specific platforms and their capabilities. Threat UAVs are best analyzed by multiple classification variables, as well as relevancy according to procurement and proliferation trends. Finally, specific UAV threat applicability needs to be assessed based on the conditions of the operational environment.

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Combating Terrorism (CbT) Poster Cyber 18-03 TRADOC G-2 ACE Threats

CYBER SENSE:  ***STOP – THINK – CONNECT***

Understand *Terrorist e-Threats*

-  ***Keep security software current.***
-  ***Use separate password on each account.***
-  ***Be savvy on Wi-Fi hotspot use.***

Be VIGILANT!

See suspicious e-contacts ?

REPORT IT !

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Threat Tactical Vignette Delay and Linkup

by [Jon H. Moilanen](#), TRADOC G-2 ACE Threats Integration (DAC)

Part 6 of 6 in RZ-CRZ Series

This May 2017 *Red Diamond* newsletter article is the sixth and final article in this tactical vignette series. Focusing on reconnaissance and counterreconnaissance as economy of force actions, the mission provides early warning and a degree of protection to the force main body attacking to the east. As the current tactical situation develops in the reconnaissance patrol zone, actions to *delay* and *linkup* challenge the platoon to accomplish its mission intent and not become decisively engaged by the enemy.

Recent Tactical Actions

From previous *Red Diamond* newsletter articles-vignettes, the rapid advance of the encirclement operation continues deep into the enemy's rear zone to linkup and close the encirclement along the KRONATZ river line.¹ Threat mechanized and motorized forces of operational strategic commands (OSCs) crossed the international border days ago in preemptive integrated attacks and quickly exploited gaps in the enemy defenses. Division tactical groups (DTGs) and brigade tactical groups (BTGs) are maneuvering to linkup and close the encirclement.

One divisional reconnaissance company with a flank screen mission has intermittent contact with its platoons across a wide reconnaissance zone. The reconnaissance platoon in this tactical vignette, task-organized as an *independent reconnaissance patrol* (IRP), continues its mission tasks of reconnaissance and counterreconnaissance after contact with enemy elements.²

Soon after the conclusion of this mission, the platoon leader recalled his initial positioning of elements at or near the village of BEJUNIK. The platoon had crossed its line of departure north of the RADO River, and seized a small bridge over MIN River in a brief firefight at BEJUNIK, but only after enemy militia destroyed the main bridge.

- One scout squad remains on the north bank at the destroyed western bridge. Scouts occupy an observation post (OP) on the south bank.
- The senior sergeant (SS) conducts reconnaissance south of the river to predicted enemy location (PEL) 23 and 25.

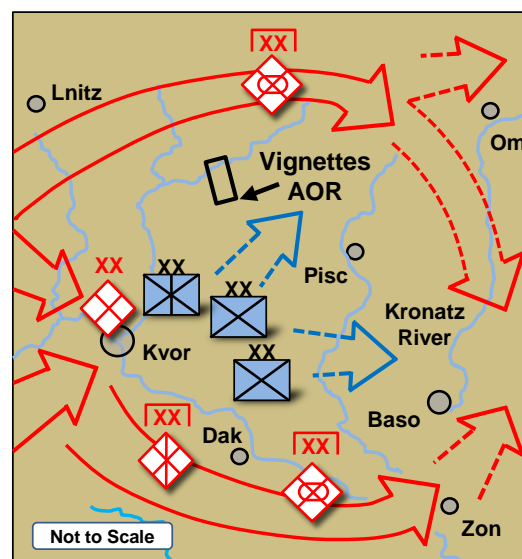


Figure 1. Situational overview



Figure 2. Sketch of IRP tactical dispositions and pending actions

- The platoon leader (PL) conducts route reconnaissance along the roadway from the bridge at BEJUNIK toward KOLTE (PEL 27). PEL 26 is the initial objective task focus.
- The combat engineer squad secures the eastern bridge site and is ready to assist the scout squad at the destroyed bridge or respond to the scout section maneuvering south toward PELs 26–27.
- The mortar section remains in position at BEJUNIK ready to assist the platoon with on-call indirect fires.

The platoon leader and scout section maneuvered south of the MIN River, and move cautiously toward their reconnaissance objectives. The senior sergeant conducting reconnaissance south of the MIN River along the western road engaged and destroyed an enemy armored carrier near PEL 23, and suppressed dismounted soldiers with machinegun fire as they attempted to flank his position. The platoon leader directed that the senior sergeant delay into BEJUNIK, adjust defensive fighting positions of the scouts and engineers, and confirm preparation for the subsequent mortar firing positions.

The platoon leader continued south to PEL 26 and observed lead enemy dismounted and mounted elements emerging from KOLTE near Hill 21. A successful ambush and raid temporarily disrupted enemy dismounted maneuver to the north. The more significant patrol loss was destruction of one BTR on Hill 21 from enemy indirect fire. No BTR crew members of the squad survived. Advancing dismounted and mounted enemy caused the platoon leader to delay north toward the operational bridge at BEJUNIK.

Note. For threat forces presented in the US Army's Training Circular (TC) 7-100 series, an essential component of every military action is reconnaissance. Reconnaissance represents all measures associated with organizing, collecting, and studying an operational environment (OE) in a tactical mission.³ Even though reconnaissance is often associated with stealth and situational awareness, practical analysis of reconnaissance actions indicates that ground maneuver elements will typically also fight for information in order to obtain relevant intelligence.

Current Tactical Situation

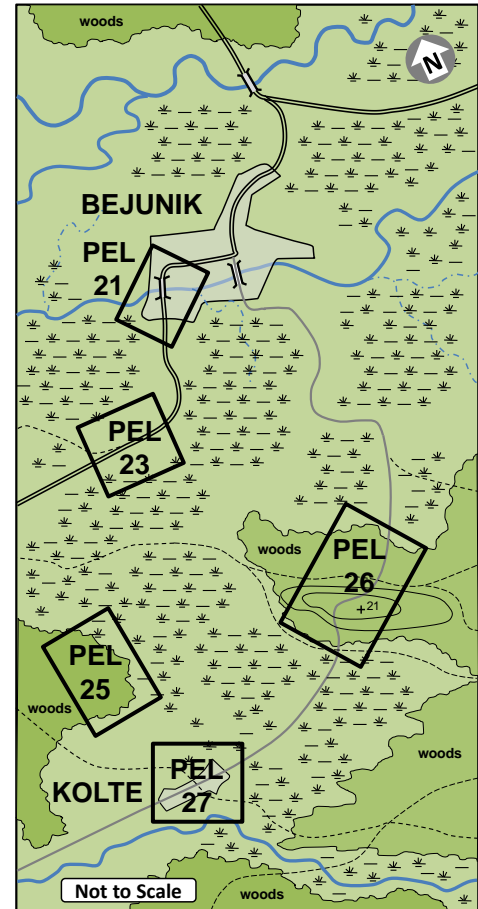


Figure 3. Sketch of IRP PELs

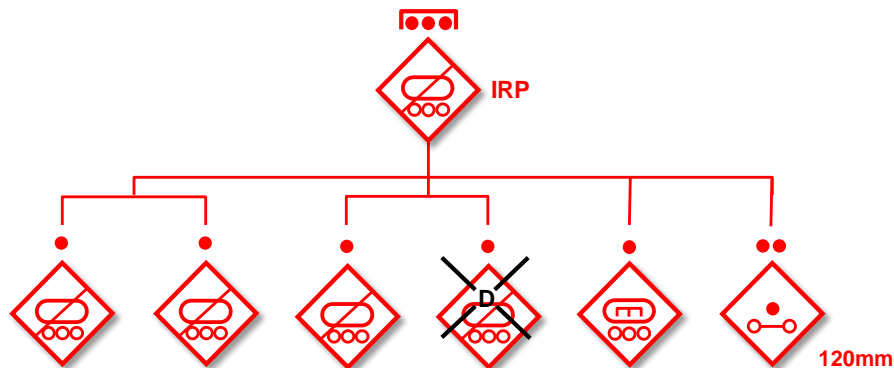


Figure 4. Platoon task-organized independent reconnaissance patrol (current situation)

The scout squad leader near the western ford site supervises emplacement of antipersonnel mines on the northern river bank as the senior sergeant moves in his BTR through BEJUNIK to coordinate with the engineer squad sergeant defending

the useable bridge site.⁴ The platoon leader's delay and passage across the bridge is most likely to be a passage while in enemy contact.

The platoon leader is already delaying north along the roadway as enemy indirect fires explode intermittently near or on the road between his location and the bridge. Hill 21 to his rear appears as a vague gray and white mist as his mortar section fires smoke rounds to obscure enemy observation from this high ground. Looking north to the bridge site ahead, the platoon leader almost feels relieved when suddenly bullets start ricocheting off his vehicle from the left flank.

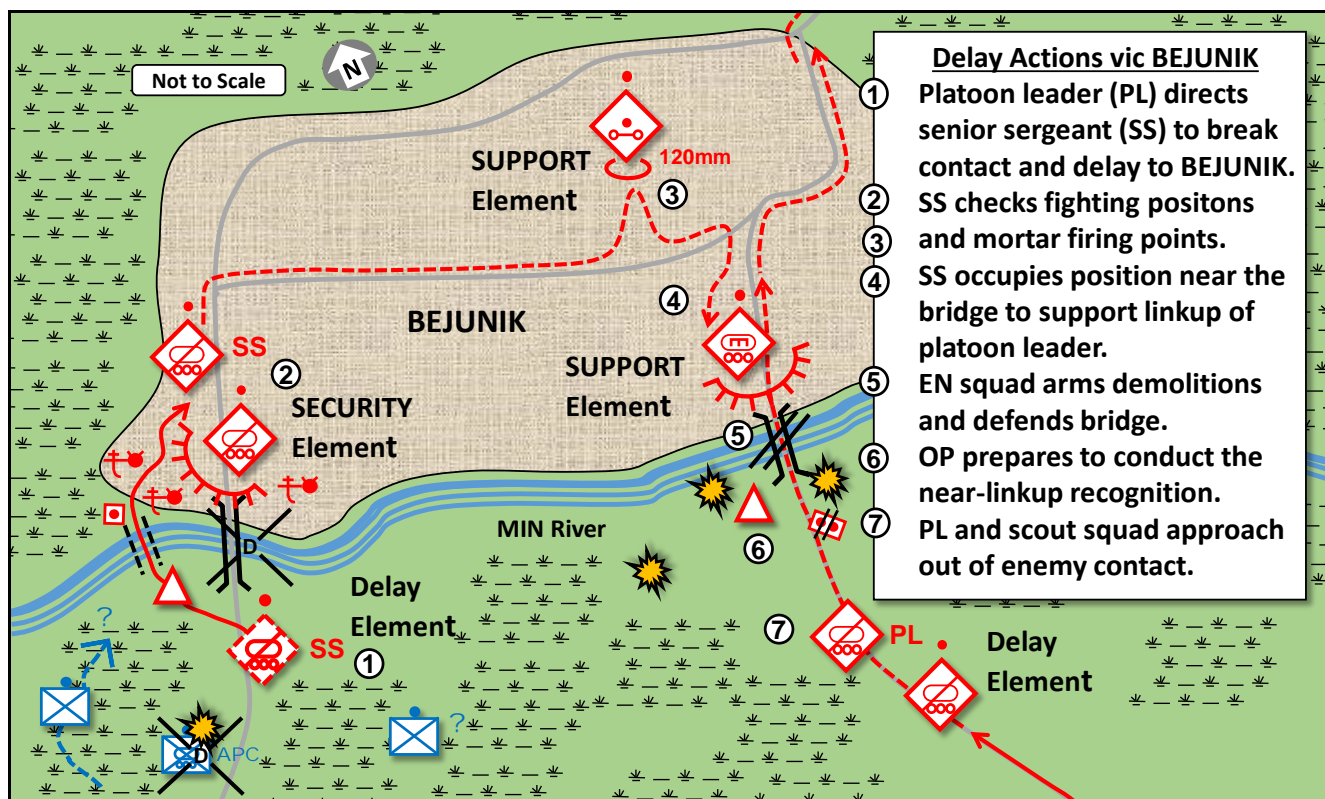


Figure 5. Reconnaissance patrol elements delay to MIN River for linkup and passage

"Contact 10 o'clock! Suppressive fire—machinegun! Keep moving! Keep moving toward the bridge." The platoon leader jerked down reflexively into the turret as bullets ricocheted off his BTR. His next action was to command "Fire Mission-HE. TRP DELTA 77." The mortar section sergeant was already preparing to shift fires to support the passage when this command echoed from the radio net. Indirect supporting fires occurred within seconds.

As the platoon leader raised his head to view the road ahead, the BTR behind his BTR was already suppressing the left flank area of tall marsh grass with machine gun fire. The BTR commander also attempted to remain alert for any approaching enemy vehicles emerging from the haze and smoke near Hill 21.



Figure 6. Senior Sergeant BTR in position near river

At this moment, the platoon senior sergeant was at the northern bank of the bridge crossing to check the demolitions that the engineer team had armed only minutes earlier. Visibility was decreasing rapidly as rain had increased from a sporadic drizzle to a sudden squall. Mortar rounds were impacting as BTR machinegun fires swept across the marshy area on the left flank.

The soldiers at the observation post south of the bridge were ready for the linkup signal from the approaching platoon vehicles. Timing would be critical to acknowledge recognition signals and linkup in the

limited visibility, and then guide the vehicles around the antitank mines buried in the dirt roadway and embankments. Knowing the normal signal flare recognition was doubtful due the heavy rain, the platoon leader alerted the OP team and senior sergeant of the alternate recognition signal as a reflective panel on his right-front deck. “Two BTRs will pass with turret cannons pointed to the east.”

The soldiers in the OP heard approaching vehicles, updated the platoon on the radio net, and came up from their fighting position with their own recognition panel as the first BTR appeared suddenly only 25 meters distant out of the gray wall of rain.



Figure 7. Observation post preparing for linkup with delay element

The platoon leader brought his BTR to a quick halt, and the second BTR almost slammed into the BTR before coming to a quick halt and orienting his BTR to the left flank and enemy fire. The BTR continued controlled suppressive fire to the left flank. By the time the trail BTR came to a halt, one soldier from the OP had mounted the front deck of the platoon leader’s BTR. He leaned against the turret as he yelled instructions to the platoon leader and pointed to mined areas to avoid.

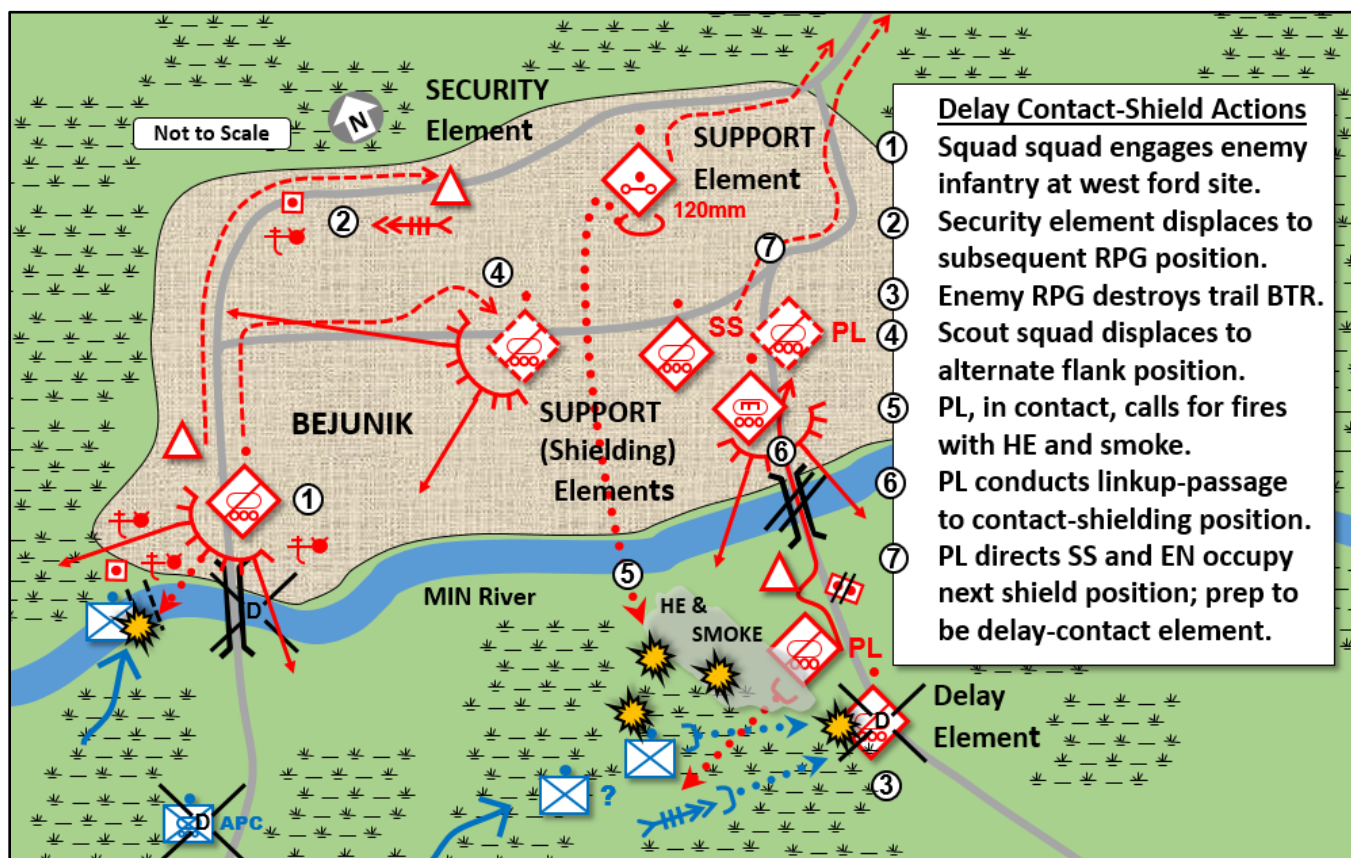


Figure 8. Reconnaissance platoon delay, linkup, and passage at BEJUNIK

The other soldier from the OP was mounting the second BTR when an explosion rocked the left front of the vehicle. “RPG!” rang over the intercom, and the crew burst out of the hatch of the BTR with two of the soldiers dragging a third soldier between them. The vehicle commander continued to fire his turret weapons until all of the crew was clear of the vehicle, and then jumped to the ground to join his crew at the lead BTR. Heavy dark smoke rose from the damaged trail vehicle. The platoon leader yelled into the radio, “One BTR destroyed. One BTR moving now to the bridge.” Mortar rounds were impacting in and near the bridge and road, but the platoon leader could not identify if they were enemy or friendly fires.



Figure 9. RPG hits scout squad BTR at linkup

The platoon leader, having crammed the survivors from the trail vehicle into his BTR, raced his BTR across the bridge and pulled into a fighting position to the flank of the senior sergeant. The security element at the western edge of BEJUNIK reported enemy soldiers were starting to wade across the river ford and were being engaged. The platoon leader directed several actions in quick order: “Western scout squad withdraw to senior sergeant’s vehicle and orient west to protect that flank—mortar section displace to firing point CHARLIE just south of the RADO River bridge—senior sergeant and engineer move to subsequent fighting position to the north and cover our delay. I’ll update you when I’m moving north on the road toward you.”

The platoon leader shifted some of the soldiers from his BTR to the senior sergeant’s vehicle and scout squad vehicle. Enemy small arms fire from side streets in the village was increasing in volume of fire, but the rainy haze prevented any effective friendly or enemy fires. “Fire mission—HE—TRP WHISKEY 21,” from the platoon leader disrupted any enemy

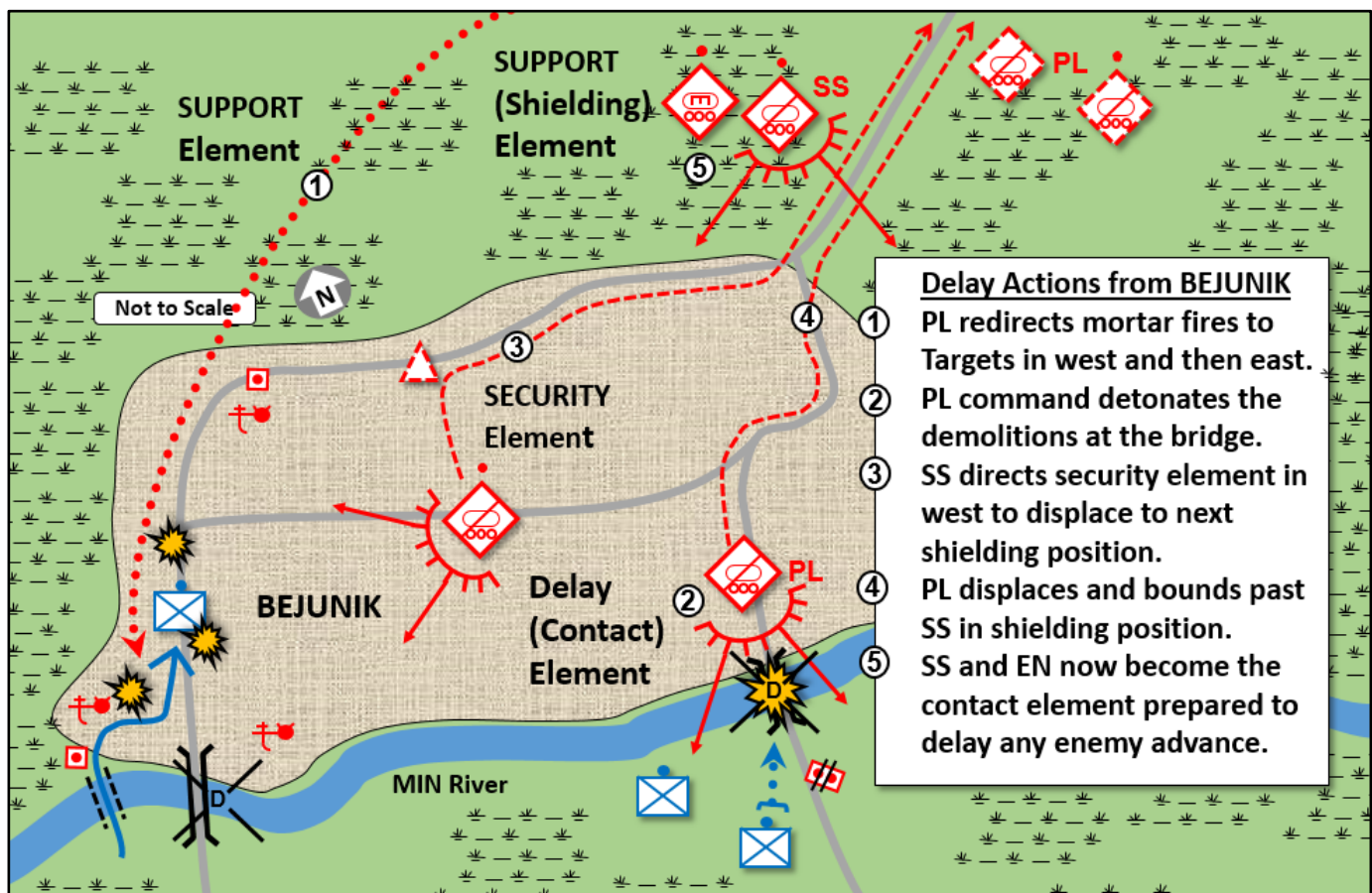


Figure 10. Reconnaissance patrol conducts delay in contact element/shielding element bounds

advance through the village from the west, and allowed the senior sergeant time to move to the next fighting position to the north.

Once he could no longer hear the senior sergeant’s BTR engine in the distance, the platoon leader command detonated the demolitions at the bridge. The explosion, although expected, erupted as a sudden flash and deafening noise—probably

amplified by the rainy-haze conditions. The bridge section appeared to rise briefly and then drop suddenly with a gaping hole in the destroyed road surface. The bridge structure canted at a dangerous angle. No enemy vehicle would be coming across the bridge.

The platoon leader reversed his BTR, and with the scout squad BTR, raced out of the village past the shielding position of the senior sergeant to occupy a subsequent fighting position in order to cover the senior sergeant's next bound to the north. The mortar section shifted fires to the eastern edge of BEJUNIK. The platoon leader and senior sergeant continued to conduct alternate bounds to the north, while the mortar section adjusted its fires along the road trace, on order, to slow any enemy advancing elements.



Figure 11. Bridge damage

As the reconnaissance patrol elements approached the RADO River, the platoon leader reestablished radio contact with his reconnaissance company headquarters. Significant enemy irregular element activity north of the RADO River indicated that an alternate route was required to rejoin the reconnaissance company. The platoon leader was directed to move east along the southern bank of the RADO River, and linkup with company reconnaissance elements about fifteen kilometers to the east.

Training Implications

This article highlights tactical actions of the platoon leader and senior sergeant to coordinate a linkup during a delay action and passage across the MIN River, and to continue the mission as an independent reconnaissance patrol in a much larger offensive operation and encirclement of enemy forces. In this independent reconnaissance mission:

- Limitations due to adverse weather, physical environment, and time sensitivity of enemy expected in zone complicated tactical decisions.
- Mission aspects of a higher headquarters flank screening mission depended primarily on a ground-oriented mounted reconnaissance.
- Mission updates stated a high expectation of encountering enemy reconnaissance elements, infantry, or motorized elements attempting to avoid a developing pocket that would contain enemy forces south of the RADO River.

This article demonstrates the value of leader and individual skills proficiency and effective execution of small unit tasks and drills. A tactical opportunity required a ready-response and initiative to enemy contact without becoming decisively engaged. The platoon leader adapted quickly to the changing tactical conditions during his mission. The actions of

independent reconnaissance patrol (IRP) noncommissioned officers were instrumental to successful execution of the mission. Decentralized command and control (C2) demands leader initiative with prudent risk-taking and willingness to act, and indicates that leaders and soldiers require experienced judgment and mentorship to develop expertise.

Knowing the threat is essential to planning and combating the capabilities and limitations of an adversary or enemy in a training or readiness mission.

- When a specified threat exists in a deployment order, the actual threat force is represented or replicated in training and pre-deployment readiness evaluations.

- When training is not focused on a particular real-world threat, Army activities use an opposing force as stated in [Army Regulation 350-2](#) (2015). This regulation is a 2015 update on the Army OE and opposing force (OPFOR) program. As a *hybrid threat*, the OPFOR can represent or replicate diverse and dynamic combination of regular forces, irregular forces, terrorist forces, and/or criminal elements unified to achieve mutually benefitting effects.

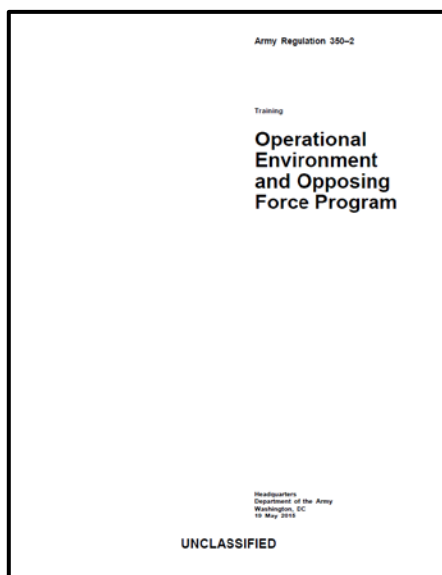


Figure 12. OE and OPFOR Program

Note. Descriptions throughout the vignette use threat terms from the US Army TC 7-100 series.¹ The task-organized platoon in this article is best understood by knowing the unit and weapon system capabilities presented in [TC 7-100.4](#) and its [Threat Force Structure e-folders](#) of units. Another source is the TRADOC G-2 [Worldwide Equipment Guide](#). Capabilities and limitations are determined to represent a robust, realistic, and relevant threat/OPFOR as a condition in achieving US Army training objectives and sustained readiness.

The orderly guidance described in doctrine can be—and usually will appear—very different in execution of mission tasks when conditions are likely change quickly, time is a constraint on what actions can be effectively executed, and critical immediate decisions by tactical leaders require more than a clear understanding of mission and intent. This vignette demonstrates quality training, teamwork, and leadership with initiative and prudent risk taking by officers and noncommissioned officers in crisis moments of tactical leader decisions.

Independent Reconnaissance Patrol

At the platoon echelon, the threat force structure for reconnaissance is often a task-organized element with combined arms capabilities. This task-organized platoon was an IRP with a specific mission to conduct reconnaissance of the enemy and terrain in a reference zone (RZ).⁵ In this tactical vignette, the reconnaissance battalion headquarters coordinated a task organization consisting of a reconnaissance patrol headquarters and two wheeled armored vehicle reconnaissance sections. The combat engineer squad augmented the reconnaissance effort and defensive actions. The attached mortar section was the only dedicated indirect fires for the platoon leader. Soldiers trained in combat lifesaver skills complemented a medic team to provide for immediate medical treatment. Radio communication to company headquarters was disciplined for time intervals but remained flexible to developments.

Mission analysis and a clear understanding by the platoon leader of the mission purpose and intent fortified platoon leader willingness to accept prudent risks in conducting his mission with an expectation that conditions would change from initial situational understanding of the OE and the enemy. Heavy rains and unit movements had already turned underdeveloped roads throughout the zone into muddy ruts. Overcast weather brought aerial reconnaissance to a standstill, and rain or recurring haze severely limited any long-range ground observation.

Delay—Disrupt—Fix—Linkup—Break Contact

Delay is an action to slow arrival time of enemy forces or capabilities, or alter the ability of an enemy or adversary to project elements/forces or their capabilities.

Disrupt is a action to upset an enemy formation or tempo, interrupt an enemy timetable, cause an enemy to commit elements/forces prematurely, and/or cause an enemy to attack in fragmented combat power.

Fix is an action to prevent an enemy from moving any part of an element/force from a specific location for a period of time.

Linkup is an action between or among friendly elements/forces to meet at a linkup point and coordinate to continue mission tasks.

Break contact is an action to disengage elements/forces from an enemy in order to conduct subsequent mission tasks or to avoid decisive engagement.

Figure 13. Mission task/drill descriptions

Tactics, Techniques, and Tasks/Drills

Situational awareness and understanding of an OE and an adversary or enemy is a continuous series of actions to confirm or deny information and intelligence. In C2 echelons above the platoon, overlapping staff resources gather data to

compare and contrast situation reports, information updates, and intelligence analyses. The platoon leader shapes reconnaissance mission task priorities of effort and coordinates mission preparation with the unit's noncommissioned officers.

- **Reconnaissance** is a mission task that represents all measures associated with organizing, collecting, and studying information on the enemy, terrain, and weather in a designated RZ within a zone of reconnaissance responsibility (ZORR). Reconnaissance is part of the threat military function of reconnaissance, intelligence, surveillance, and target acquisition (RISTA).⁶
- **Counterreconnaissance** (CR) is a companion task of reconnaissance as a norm of fighting for information and intelligence. Counterreconnaissance locates, tracks, and destroys all enemy reconnaissance operating in a counterreconnaissance zone (CRZ).⁷

When enemy presence is unknown or unconfirmed, analysis of the OE orients leader decisions and guidance on where and when reconnaissance and surveillance is to be conducted. A PEL is an area in the zone where enemy activity, troops, or systems are expected to be operating or will enter during the period of the mission. Analysis of current information and the updated tactical intelligence estimate combines to indicate known, most likely, and/or probable enemy locations and avenues of approach.⁸

Once reconnaissance elements locate and/or maintain surveillance of an enemy reconnaissance effort, the leader determines when and how to counter enemy reconnaissance elements. The specified task may be to continue reporting with situation updates and preclude direct combat actions. However, when the mission includes CR rather than just surveillance, one or more kill zones can be designated by the leader. Indirect fire targets are incorporated into the mission planning, as are tactical task contingencies such as ambush, assault, or raid. Rehearsals and pre-combat checks conducted prior to the mission confirm the actions and possible contingencies at platoon, squad, and team echelons.

- **Tactics** are an organized doctrinal arrangement of military or paramilitary forces that work toward achieving a common objective or task. The reconnaissance leader applies tactics and techniques to the mission statement and acts in order to achieve the intent of the mission from the higher-echelon commander.
- **Techniques** are the practical application of combat power with skills, experience, and initiative to accomplish mission success. Considering that techniques by nature are non-prescriptive to a distinct way or method of accomplishing a mission or task, the effective execution of tactics uses functional analysis to understand the mission or task requirement.

Of note, control measure and mission task symbols on a sketch or map overlay are neither tactics nor techniques. These graphics assist the leader in visualizing and effectively communicating a planned sequence of actions. Tactical skill and expertise integrate task, purpose, and intent to optimize capability effects with movement and maneuver of the combat power resources allocated to the mission. Understanding function is the underpinning to comprehend and effectively apply tactics and techniques.

Delay and Linkup Dilemma

A delay can be visualized typically as three synchronized elements: a *delay* [action] element, *security* element(s), and *support* element(s). The delay element can be considered a *contact element* in imminent or current contact with an enemy. Depending on how threat elements array for support or security, an element can be considered a *shielding element* that occupies a defensive position to permit a contact element to withdraw or break contact, and reposition into a subsequent fighting position or simple battle position.⁹ The principle of security and dedicated elements to provide security can be problematic, especially in small unit/element tactical actions.

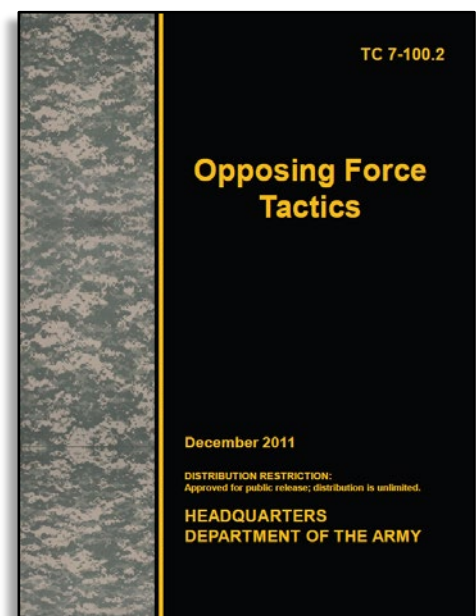


Figure 14. Opposing Force Tactics

In small-scale unit missions such as this independent reconnaissance platoon conducting a delay to not become decisively engaged, the tactical actions may appear as a two-element fire and maneuver complementing sequence to each other. Actions of security and disruption can blur in distinction between delay action and what is a supporting effort by function to the delay. Security elements are *enabling* elements and are primarily focused on disrupting or fixing enemy in support of the delay task.

A small-echelon tactical tasks of conducting a delay with three functional elements—delay element, security element, and support element—relates coordinated actions as follows:¹⁰

- The **delay** element is the *action* element. This element applies defensive fire and maneuver to slow, disrupt, or fix enemy offensive actions, and provide time for other friendly force elements to continue successive support and delay actions that can eventually defeat or destroy enemy elements.
- The **security** element provides early warning of approaching enemy forces and prevents them from reinforcing the enemy in contact with the delay element. The threat leader may accept risk and employ a security element that only provides early warning. In either case, security is an *enabling* element.
- The **support** element provides the delay action element with one or more of the following but is not limited to: C2, combat service support (CSS), supporting direct fire and/or indirect fire, and mobility or countermobility support. Support is an *enabling* element.

In this article vignette, the *delay* [action] element is in contact with the enemy. Other elements disrupt or fix enemy elements by defeating enemy lead elements; determining the location, disposition, and composition of other attacking elements; and may be able to target designated subsystems of the attacking enemy's combat system. As the action element prepared to maneuver to its alternate or subsequent fighting position, the action element leader coordinates the transfer of delay task responsibility to other friendly elements already positioned to shield the action element as it breaks contact and displaces. This shielding element maintains the enemy under continuous observation, accepts handover of the fire fight, and becomes the delay action element.

Smoke is typically employed to obscure enemy observation and reduce effectiveness of enemy actions in general. The deception aspect of using smoke can be integral to camouflage as protective smoke, and a larger principle of concealment. Cover, concealment, camouflage, and deception (C3D) by an opposing force is a fundamental principle in offensive and defensive actions. In addition to vehicle or weapon smoke grenade launchers, and direct and indirect fire smoke rounds, other capabilities include smoke hand grenades, smoke pots, smoke-dispensing systems, and expedients while operating in an OE.

When the delay element is in contact with the enemy, this element provides the *main defense* action of a delay. When the delay element displaces from its simple battle position or fighting position and has coordinated the transfer of main defensive actions to another element now in contact with the enemy, the former delaying element becomes a *support* [enabling] element. These delay maneuvers recur in alternating bounds of the contact and shielding elements.

OPFOR in Training, Professional Education, and Leader Development

An OPFOR is “a plausible, flexible military and/or paramilitary force representing a composite of varying capabilities of actual worldwide forces (doctrine, tactics, organization, and equipment) used in lieu of a specific threat force for training and developing US forces.”¹¹ The OPFOR can represent a particular threat, hybrid threat, and/or an adversary that can morph in capabilities and influence within a relevant population. The threat/OPFOR is not necessarily restricted by law of war protocols or international conventions on armed conflict.

In US Army training, the threat/OPFOR recognizes the value of reconnaissance and counterreconnaissance and employs a disciplined and aggressive approach to plan and conduct these types of mission tasks. Both of these tasks are typical of reconnaissance and security operations. Offensive tasks at platoon echelon anticipate other typical actions of ambush, raid, and assault. Complementary actions include but are not limited to actions on contact, fire and maneuver, disrupt, fix, and break contact.¹²

The threat/OPFOR doctrine and training instill timely and adaptive decisionmaking and leadership that are results focused. Decentralized C2 is a threat norm grounded in a clear understanding of mission task and purpose and the overarching intent of higher headquarters commanders. The threat thinks and acts decisively to achieve tasks with professional execution of individual and collective skills among each element or force level in the tactical mission.

OPFOR Tasks and Drills Update

The TRADOC G-2 Analysis and Control Element, Threats Integration Directorate (ACE-TI) at Fort Leavenworth (KS) is chartered to serve as US Army lead for designing, documenting, and integrating threat [OPFOR] and OE conditions in support of all Army training, education, and leader development programs.¹³

Several OPFOR tasks and drills have been updated as of March 2017. These 17 updated tasks and drills are now posted in the US Army Combined Arms Training Strategies (CATS). For an easy 1-2-3 sequence to retrieve updated OPFOR tasks in CATS, go to the [Army Training Network \(ATN\)](#) with common access card entry, click on the CATS icon, and search using the keyword “OPFOR.” Additional OPFOR tasks are in the process of revision and will be incorporated in the revision of TC 7-100.2. See TRADOC G-2 Handbook 1.09, “Opposing Force Tasks: Collective Company/Subordinate Tasks,” for the updated 17 tasks and drills.¹⁴

These updated tasks are in compliance with the new US Army “Objective T” format, and have a task number sequence in the format 71-CO-85xx, where the last two numerical digits identify the specific OPFOR task number.¹⁵ Several previous OPFOR tasks are being removed gradually from CATS, so look for these 71-CO-85-series company-echelon and subordinate-element tasks and drills for use in home-station training and other readiness venues.

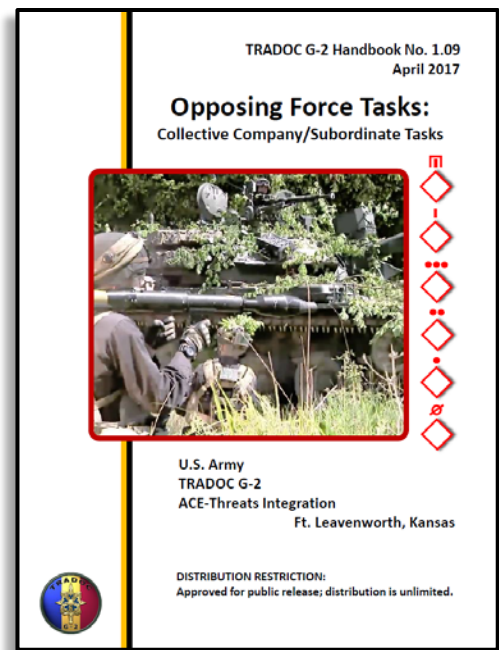


Figure 15. OPFOR Tasks and Drills



For more information and resources on threat/OPFOR, see US Army TRADOC G-27 Operational Environment Training Support Center (OE TSC) at <https://tbr.army.mil/index.html>. The **Virtual OPFOR Academy** (VOA) provides OPFOR tasks/drills, references, instructional and immersion videos, and exercise design/support tools to achieve collective training objectives for sustained Army readiness.

Figure 16. TRADOC G-2 [Virtual OPFOR Academy](#) learning support resources

In 2017–18, the TRADOC G-2 ACE ACE-TI is reviewing and revising threat/OPFOR tasks. The updated list of tasks and subtasks, with conditions and standards for US Army training readiness, will address traditional offensive and defensive tasks, as well as tasks involving instability in an era of persistent conflict now and for the foreseeable future. See the TC 7-100 series for more information on the threat/OPFOR.¹⁶

Notes

¹ A series of tactical vignettes based on US Army TC 7-100.2 opposing force tactics conducted by an independent reconnaissance platoon are in the TRADOC G-2 *Red Diamond* newsletter: June 2015 “Reconnaissance;” July 2015, “Reconnaissance and Assault;” August 2015 “Reconnaissance and Ambush;” September 2015, “Reconnaissance and Raid;” October 2015, “Reconnaissance and Delay;” and May 2017, “Reconnaissance Delay and Linkup.” The article series emphasizes the basic building blocks of understanding tactics and techniques, and the leadership and expertise required to execute tasks and drills effectively in accomplishment of missions.

- ² Headquarters, Department of the Army. [Training Circular 7-100.2, Opposing Force Tactics](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Paras 8-78—8-86.
- ³ Headquarters, Department of the Army. [Training Circular 7-100.2, Opposing Force Tactics](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Paras 8-1 and 8-21.
- ⁴ BTR. Acronym of Russian word meaning, literally, "armored transporter," and is a common term for any of a family and series of Russian or post-Soviet era military armored personnel carriers produced and fielded by a number of nation-states.
- ⁵ Headquarters, Department of the Army. [Training Circular 7-100.2, Opposing Force Tactics](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Paras 8-83—8-86.
- ⁶ Headquarters, Department of the Army. [Training Circular 7-100.2, Opposing Force Tactics](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Paras 8-21—8-28.
- ⁷ Headquarters, Department of the Army. [Training Circular 7-100.2, Opposing Force Tactics](#). . TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Paras 6-8; 8-39.
- ⁸ Headquarters, Department of the Army. [Training Circular 7-100.2, Opposing Force Tactics](#). . TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Paras 6-11—6-13; 8-38; 8-58—8-59.
- ⁹ Headquarters, Department of the Army. [Training Circular 7-100.2, Opposing Force Tactics](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Paras 4-62, 4-70—4-74. The principles described in these paragraphs address tactics at division and brigade group echelons; however, the concept of mutually supporting and successive bounds is also applicable to small unit tactical actions.
- ¹⁰ Headquarters, Department of the Army. [Training Circular 7-100.2, Opposing Force Tactics](#). . TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Paras 4-1, 4-11, and 4-70—4-71.
- ¹¹ Headquarters, Department of the Army. [Army Regulation 350-2, Operational Environment and Opposing Force Program](#). 19 May 2015 with effective date 19 June 2015. Para 1-5b.
- ¹² Headquarters, Department of the Army. [Training Circular 7-100.2, Opposing Force Tactics](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Paras 4-111—4-112.
- ¹³ Headquarters, US Army Training and Doctrine Command. [TRADOC Regulation 10-5-1, Organization and Functions, Headquarters, US Army Training and Doctrine Command](#). Para 8-18c(1)(a).
- ¹⁴ Headquarters, US Army Training and Doctrine Command. Opposing Force Tasks: Collective Company/Subordinate Tasks. TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. April 2017.
- ¹⁵ Headquarters, Department of the Army. G-3/5/7. *Leader's Guide to Objective Assessment of Training Proficiency*, 15 March 2017.
- ¹⁶ Headquarters, Department of the Army. [Training Circular 7-100.2, Opposing Force Tactics](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Headquarters, Department of the Army. [Training Circular 7-100.3, Irregular Opposing Forces](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 17 January 2014. Headquarters, Department of the Army. [Training Circular 7-100.4, Hybrid Threat Force Structure Organization Guide](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. June 2015. Headquarters, Department of the Army. [Training Circular 7-101, Exercise Design Guide](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. November 2010. Headquarters, Department of the Army. [Training Circular 7-102, Operational Environment and Army Learning](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. November 2014. US Army, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. US Army, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. [Worldwide Equipment Guide – Volume 1: Ground Systems](#). December 2016.
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Long Night in Dhaka: The Holey Artisan Bakery Attack

by [Jim Bird](#), TRADOC G-2 ACE Threats Integration (IDSI CTR)

On 1 July 2016, as Americans prepared to enjoy a long Fourth-of-July weekend, most Muslims in Bangladesh were spending a quiet evening at home. Few would care to dine out that evening after breaking their fasts on the last Friday of Ramadan. Largely for that reason, mostly foreigners occupied tables at the Holey Artisan Bakery restaurant, located in the plush diplomatic enclave of Dhaka, Bangladesh, less than a mile from the US Embassy. It was a dual-function eatery, serving as a bakery in the daytime and a Spanish restaurant at night. Shortly after 2100 local time, shouts, bursts of gunfire, and explosions shattered the establishment's normally tranquil atmosphere. Patrons dove under tables or sat frozen in shock as the stunned wait-staff scrambled for exits or sought refuge in the building's backrooms and hidden areas. Members of the kitchen staff initially mistook the gunmen for *dacoits* (bandits), thinking they would "leave in 15 to 20 minutes" after relieving customers of their money and valuables.¹ Instead, the perpetrators headed to an upstairs area undergoing renovation that offered better firing positions for defense. According to one witness, the intruders shouted "Alahu Akbar [God is Great]" as they stormed the restaurant.²

Police arrived on the scene in less than ten minutes and were "met with a hail of bullets and grenades."³ Two local police officers lost their lives in the ensuing gunfight: Mohammed Salahuddin, a police station chief; and his immediate superior, Ashraful Karim, an assistant police commissioner. Following this initial bloody repulse, the police fell back and established a cordon around the Holey Artisan Bakery restaurant, pending the arrival of reinforcements with firepower sufficient to subdue the attackers. Meanwhile the standoff would last throughout the night and into the early morning hours.⁴

As the ten-hour siege began, the perpetrators set about segregating native Bangladeshis from expatriate patrons. One of the attackers was heard to say, "We will not kill Bengalis...We will only kill foreigners."⁵ At that point it

became brutally clear that this was no mere gang of bandits; these were terrorists carrying out a distinct militant Islamist agenda. Once the terrorists had divided their victims into two groups, they began interrogating the non-Bangladeshis. "Through the long, terrible night, one eyewitness said, the attackers tested the hostages, torturing or murdering them if



Figure 1. [Holey Artisan Bakery in relation to the US Embassy](#)

they couldn't recite verses from the Koran.”⁶ Conversely, local nationals inside the restaurant fared much better and received uniformly kind treatment from the attackers, even to the point of being provided dinner. By 2300 Friday night, the militants had killed all 18 of the foreigners inside the eatery. These included nine Italians, seven Japanese, and one citizen each from India and the United States. A restaurant employee who survived the ordeal confirmed that the Japanese were killed almost immediately.⁷

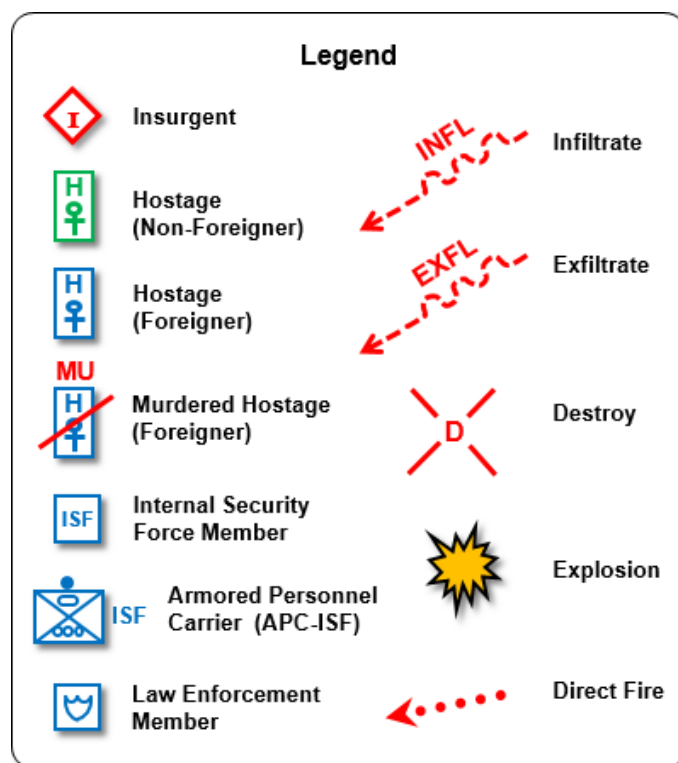


Figure 2. [Holy Artisan Bakery, April 2016](#), and [aerial view](#)

Three students of US colleges numbered among the slain. An Indian woman, subsequently identified as Tarishi Jain—a 19-year-old student of the University of California, Berkeley—lay “badly injured [and] moaning in agony but a perpetrator took a sword to her and killed her without mercy,” a survivor reported.⁸ The American, Abinta Kabir of Miami, Florida, was in Dhaka visiting friends and relatives. She was a sophomore at Emory University’s Oxford, Georgia, campus. The third student, Faraaz Hossain, though a native Bangladeshi, also attended Emory University’s Oxford campus. He was a recent graduate, planning to begin studies in the university’s business school in the coming fall.⁹

Propaganda of the Deed: the INFOWAR Dimension

An important feature of the Dhaka terrorist attack was the emphasis placed by perpetrators on maximizing the propaganda effect of the Holy Artisan Bakery atrocity. By the time the siege ended early on the morning of 2 July, the world already knew that the Islamic State of Iraq and the Levant (ISIL) claimed responsibility for the attack, thanks to word spread through its Amaq propaganda agency. Even as the attack was still unfolding, the perpetrators made establishing an Internet connection a top priority. As an article published in the *New Yorker* magazine explains, “the gunmen had clearly planned to take photos of the carnage, mid-siege, and transmit them for publication on ISIS [ISIL] channels.”¹⁰ However, when signals generated by smartphones confiscated from victims proved too weak to secure an effective transmission, “the restaurant staff was ordered to switch on the Wi-Fi network. One of the gunmen, survivors recalled, had also remembered to pack a laptop.”¹¹ In short order, reported the Indo-Asian News Service, “gruesome pictures emerged on social media showing the inside of the bakery, splattered with blood and broken furniture.”¹²



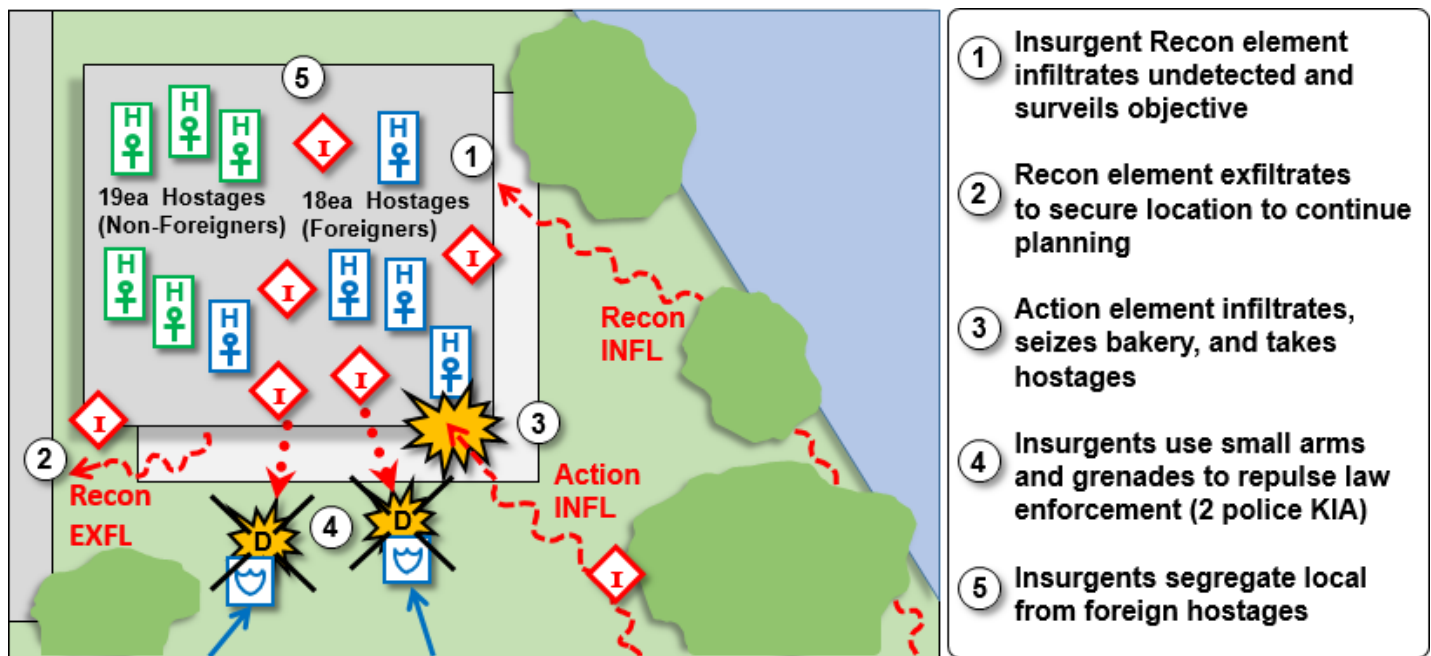


Figure 3. Initial phase of the 1–2 July 2014 Holey Artisan Bakery attack

“We are also ready to die now:” Operation Thunderbolt¹³

As the terrorists and their surviving captives waited throughout the night, Bangladeshi government officials counseled with military and other security force leaders on how best to end the standoff. At the direction of Prime Minister Sheikh Hasina, a rapid reaction battalion augmented by other detachments of local police and military security forces launched an assault, codenamed Operation Thunderbolt, to free the remaining hostages and bring the perpetrators to bay. The gunmen could see their adversaries assembling in the distance as dawn began to break. One witness said he observed commandos and armored vehicles approaching as the hostage-takers conferred among themselves. After a last batch of survivors—including women and children—had been released shortly after 0800, one of the attackers, 20-year-old Rohan Imtiaz, quoted a verse from the Quran before announcing, “we are also ready to die now.”¹⁴ Shortly thereafter, as the terrorists exited the building to ascend to a second-floor location, security forces dismounted armored personnel carriers (APCs) and overran their position. The area, related the survivor, “was enveloped in the sound of fierce gunfire.”¹⁵

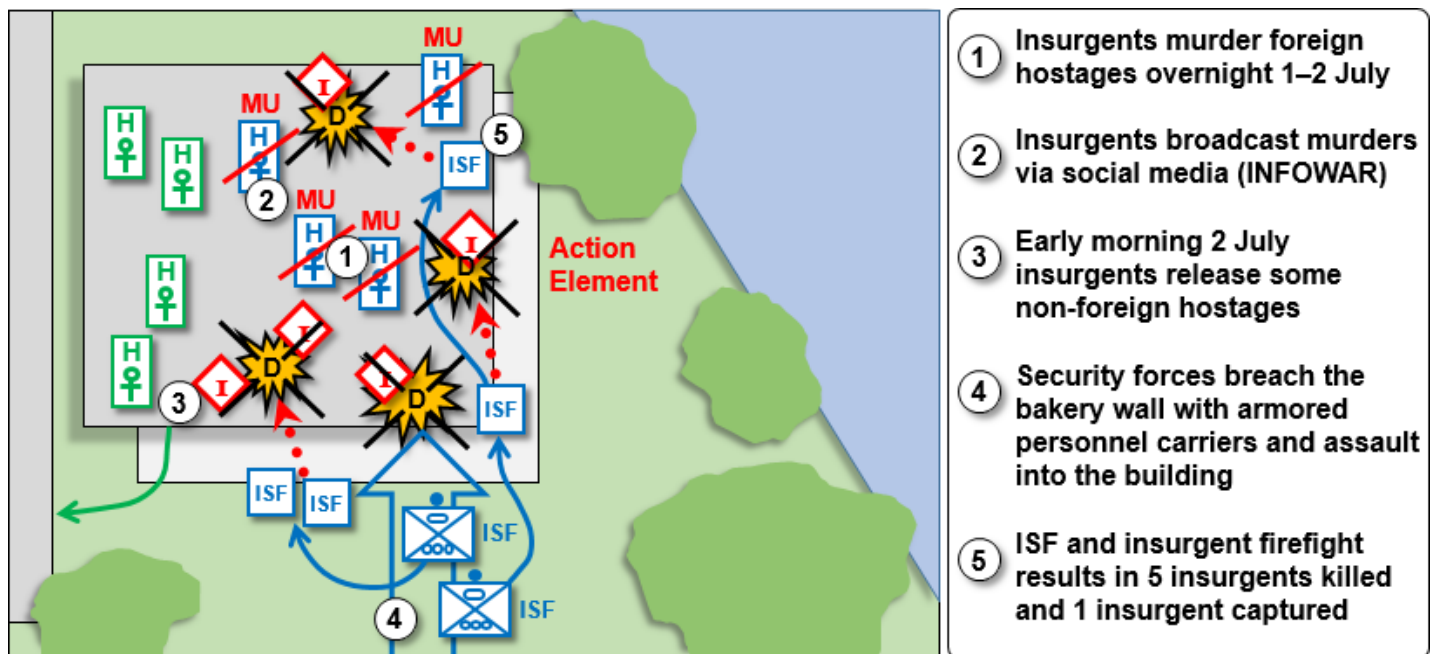


Figure 4. Concluding phase of the 1–2 July 2014 Holey Artisan Bakery attack

Bloody Aftermath

Bangladeshi APCs literally knocked down/shattered the glass walls of the café to create a breach that allowed dismounts to enter their objective area. Within minutes additional hostages were freed, although small-arms fire could be heard for an hour after the operation began, and security forces conducted controlled detonations of explosives left by the terrorists. During an afternoon press conference, Brigadier General Nayeem Ashfaq Chowdhury, the Bangladeshi Army's director of operations, declared that Operation Thunderbolt had ended around 0830 local time. He also confirmed the discovery of 20 bodies of foreign nationals, all killed the previous night. Prime Minister Hasina later announced that 13 hostages had been rescued alive, and that of 7 terrorists, 6 were killed and 1 had been captured alive. However, the number of attackers killed was reduced to five after police realized that they had killed the restaurant's pizza chef, mistaking him for a terrorist.¹⁶

Background and Motivation of the Attackers

Because the Holey Artisan Bakery attack occurred in the world's fastest-growing megacity, where over 70% of households earn less than \$170 per month, it would be reasonable to expect that the perpetrators would come from deprived, perhaps even indigent, backgrounds.¹⁷ This was anything but the case. In the 1 July incident the gunmen, besides being fluent in English and Arabic, were clean-shaven and dressed in Western clothes, creating an appearance that enabled them to blend undetected into Dhaka's elite Gulshan diplomatic neighborhood. With the advantage of hindsight, their dress and deportment was consistent with past terrorist attacks in Bangladesh. They were essentially inoculated against the poverty, unemployment, and sectarian madrasa education often presumed to fuel terrorist behavior. According to the US Department of State's Overseas Advisory Council (OSAC), "evidence suggests that not only do Bangladeshi Islamist militants come from middle/upper class backgrounds, but they are educated at elite universities and are likely to have a background in technical education. This parallels the overall factors associated with foreign fighters and domestically-based individuals linked to ISIL."¹⁸



Figure 5. [Perpetrators of the 1 July 2016 attack on the Holey Artisan Bakery restaurant](#)

Their secular, well-educated, and affluent backgrounds did not prevent the Holey Artisan Bakery militants from succumbing to religious radicalization. OSAC also reported that "according to research, more than 70 percent of ISIL recruits are middle class or wealthier. They are also not particularly religious before radicalization, as...recruits come from secular backgrounds, 'learning about Islam from ISIS-linked preachers' on social media and the Internet, rather than through local mosques."¹⁹ In any event, by the time they carried out their terrorist act, the attackers regarded themselves as pious Islamists. The ISIL website that publicized their deeds said the Holey Artisan Bakery restaurant was targeted because "it was well known for being frequented by the citizens of Crusader countries...a sinister place where the Crusaders would gather to drink alcohol and commit vices throughout the night."²⁰

Of Knives and Guns: a Nexus of Preferred Weapons

A cursory view of the weapons used by the Holey Artisan Bakery terrorists may make a somewhat contradictory impression on a Western observer. Quoting Monirul Islam, chief of the Counter Terrorism Unit of the Dhaka Metropolitan Police, one South Asian media outlet reported that Bangladeshi authorities had recovered five 9mm pistols, three AK-22 rifles, eleven grenades, and an array of other explosives from the site of the attack. This is generally consistent with General Chowdhury's above-mentioned press statement indicating that "we have recovered a huge cache of IED explosives and

AK-22 assault rifles.”²¹ The fact that most of the 20 deceased hostages were killed with bladed instruments, however, begs the question: since the perpetrators were armed with automatic weapons, why did they decide to carry knives and swords along during their assault?

The answer may be grounded in religion. That the militants added swords to their arsenal of “small firearms with big magazines,” as one witness observed, may not be so contradictory after all.²² Amarnath Amarasingam, a Fellow at George Washington University’s Program on Extremism, noted that some victims of the Holey Artisan Bakery were cut up with cleavers or machetes, and that “these attacks sometimes do have a sort of weird local flavor.”²³ Part of the local flavor in Bangladesh may be accounted for by a belief apparently prevalent among some Islamist extremists there—and confirmed by the country’s chief of the Counter Terrorism and Transnational Crime unit—“that killing with the blade earns more blessing and eases the path to paradise.”²⁴ Availability of bladed weapons may provide terrorists an added incentive. Although an ancient colonial-era law prohibits the use of blades longer than 7.5 inches in Bangladesh, no restrictions limit the sale of such weapons, and poor record-keeping often prevents tracking identities of purchasers.²⁵

The Brains Behind the Attack

Almost immediately after the Holey Artisan Bakery incident, a consensus emerged among authorities and analysts that the attack reflected meticulous planning and organization. Indeed, it was the most sophisticated to date in the history of terrorism in Bangladesh. In a report generated while the attack was still underway, OSAC affirmed that “the coordinated and complex nature of this assault indicates an increase in the scope and capability for ISIL in Bangladesh.”²⁶ Authorities soon determined that the mastermind behind the attack was a Canadian expatriate of Bangladeshi heritage named Tamim Chowdhury.

Formerly a resident of Windsor, Ontario, Chowdhury attended the University of Windsor, where he graduated in spring 2011 with an honors degree in chemistry. By 2013 he had left Canada, accompanied by another radicalized Islamist, and traveled to Syria to join ISIL. After leaving Syria, Chowdhury served as an ISIL recruiter in Bangladesh, where he inevitably drew the attention of the authorities. He adopted the nom de guerre of Shayk Abu Ibrahim al Hanif, and was featured in the April 2016 issue of ISIL’s official publication, *Dabiq* magazine. According to OSAC analysts, “he reportedly accompanied the...attackers to the targeted [Holey Artisan Bakery] restaurant from their flats,” leaving them there to complete their mission.²⁷ Authorities also considered Chowdhury their primary suspect for planning a massacre six days later (7 July) that targeted Shiites gathering for Eid prayers. On 27 August 2016, less than two months after the Holey Artisan Bakery attack, Chowdhury met his end in a firefight that erupted when authorities cornered him and some companions in a Dhaka apartment building.²⁸

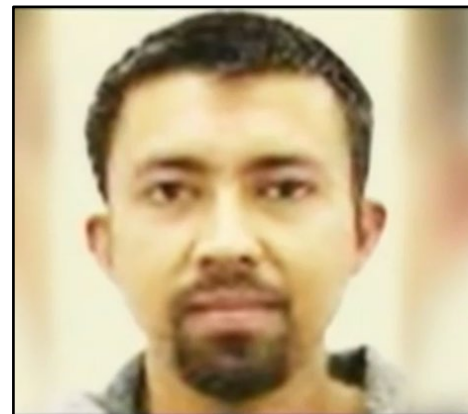


Figure 6. [Tamim Chowdhury](#)

Reading the Tea Leaves: Same Event, Different Conclusions

Despite the consensus that the Holey Artisan Bakery attack was sophisticated, well-planned, and a milestone in the troubled history of terrorism in Bangladesh, plenty of controversy swirled around the issue of whether the perpetrators represented a local, as opposed to international, threat. Most analysts and observers outside of Bangladesh had little doubt that the perpetrators acted in the capacity of a local ISIL franchise. That said, the 1 July attack—though larger in scale and complexity than previous terrorist incidents—admittedly had a local flavor, and represented the latest iteration in a train of events that Bangladeshi authorities insisted were essentially domestic and contained within their own country.

Ironically, the bakery attack occurred only a week after the fifth in a formal series of Bangladeshi-US Partnership Dialogues concluded in Washington, DC, on 24 June 2016. Security topped the agenda at the two-day meeting, in the wake of several small-scale yet targeted terrorists incidents perpetrated in Bangladesh. The identity of the terrorist groups involved was a major point of contention. There was little doubt among Western analysts of ISIL involvement. An Asia News Network report reflected the disconnect between US and Bangladeshi perspectives: “Since October last year, the US has been suggesting that terrorists with links to the Islamic State [ISIL] have been preparing to increase their activity within the territory of Bangladesh. However, the Bangladesh government outright rejected the presence of Islamic State (IS) here. It is said some home-grown criminals were behind the attacks and that activities of criminals and militants are now under

control.”²⁹ Meanwhile, the Joint Statement released after the Fifth US-Bangladesh Partnership Dialogue, couched in diplomatic language, predictably emphasized the meeting’s positive outcomes and spoke in very general terms of both countries’ common fight against terrorism: “Bangladesh and the United States recognize the shared threats they face and that countering violent extremist groups, including Da’esh (ISIL) and Al Qai’da, constitute a global challenge that must be addressed jointly...Our cooperation on security seeks to reinforce Bangladesh’s ability to improve community policing, and provide training on counter-messaging, among others.”³⁰ The issue of whether threat groups operating in Bangladesh were local or transnational in nature went largely unaddressed.

Almost two months before the Partnership Dialogue meeting in Washington, a BBC news reporter in Bangladesh raised the issue of who was behind a series of recent “hacking deaths targeting secular bloggers, professors, foreigners and religious minorities.”³¹ Local militant groups professing an affiliation with ISIL or Al Qaeda had claimed responsibility for the latest attacks, including some that targeted members of the lesbian, gay, bisexual, and transgender (LGBT) community. The Bangladeshi government, however, refused to recognize the connection between the local attacks and the threat of international terrorism. Its information minister, Hasanul Haq Inu, declared, “to our knowledge...IS has not been involved in the recruitment of militants, or any militant activities within the boundaries of Bangladesh...The government is working hard to tackle the problem. If you look at our track record, Bangladesh is safer today than Europe or America.”³²

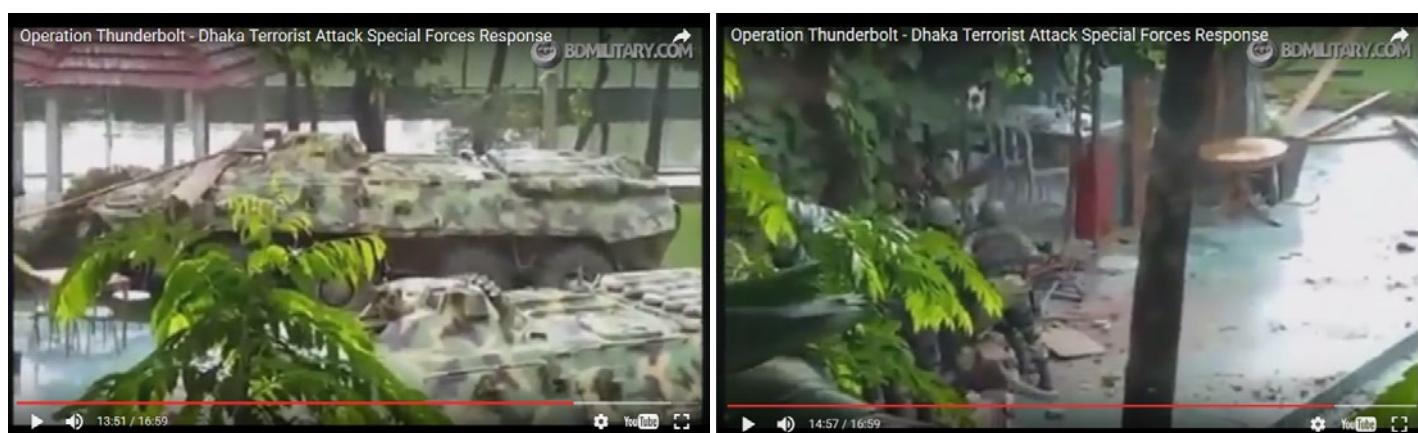


Figure 7. [YouTube video screenshots showing APCs immediately after ramming Holey Artisan Bakery walls and Bangladeshi security forces storming the bakery](#)

Other Bangladeshis were less sanguine about the threat international terrorism posed to Bangladesh. One retired army brigadier recently turned security analyst remarked, “we have 90% Muslims concentrated in a small place. Many of them are highly educated youth who are unemployed. So they get attracted to [militant Islamist] ideology...If these groups get a foothold here, it could be dangerous not just for us but for the region.”³³ Thus during the run-up to the 23–24 June Partnership Dialogue in Washington, some observers in Bangladesh were accusing their country’s government of being in denial about the imminent threat of international terrorism.

One reason why the US was so focused on security as the date for convening the Partnership Dialogue meeting drew closer concerned the 16 April 2016 murder of 35-year-old Xulhay Mannon, a local national employed by the US Agency for International Development headquarters in Dhaka. On his personal time Mannon edited the country’s first LGBT magazine, making him a target for militant Islamists. Shortly after Mannon and another person were hacked to death in the same incident, Al Qaeda on the Indian Subcontinent (AQIS) took to social media to claim responsibility. The furor surrounding the incident soon gained the attention of Secretary of State John Kerry, who condemned the dual killings as “barbaric murder.”³⁴

Will the Real JMB Please Stand Up?

It is possible that the Bangladeshi government’s reticence to acknowledge what outside observers interpreted as a shift in the regional security environment sprang in part from the challenges inherent in differentiating between local and transnational threat actors. A terrorist group calling itself Jamaatul Mujahideen Bangladesh (JMB) actually falls within both categories. According to analysts at OSAC, some of JMB’s founding leaders “participated in the war against the Soviet

Union in Afghanistan, returning to Bangladesh seeking to promote an Islamic revolution and install a Taliban-style government” in their homeland.³⁵ The resulting network of terrorist groups, which included factions supporting Osama Bin Laden, continued throughout the post-9/11 decade and persists to this day.

The original JMB’s heyday lasted from 1998 through 2003, as the group garnered recruits and spread its militant gospel, mostly under the radar of Bangladeshi security forces. Inevitably it ran afoul of the generally secular, tolerant, and pro-Western government of the ruling Alawi party. In 2005, when JMB planned and carried out about 500 coordinated bombings in 63 out of the country’s 64 districts, it captured the undivided and hostile attention of government authorities. In the crackdown that swiftly followed, all of the group’s senior leaders were executed, while hundreds of its operatives throughout the country were rounded up and incarcerated.³⁶

The government succeeded in decimating JMB, but not in eradicating it; a vestige still remained. Over time this remnant resurfaced as the Neo-JMB. Meanwhile the group’s linkages to international terrorism had been reinforced, even as the government insisted that it had effectively eliminated what it believed to be a domestic terrorist threat. National authorities were willing to believe that the above-mentioned Tamim Chowdhury’s involvement in the Holey Artisan Bakery attack reflected a re-invigorated local JMB; but foreign analysts soon realized that Chowdhury “was not only leader of the neo-JMB, but ISIL also described him as the head of their ‘military and covert operations’” in Bangladesh.³⁷

Stakeholders’ Preferred Interpretations

At the end of April 2016—in the aftermath of Xulhaz Mannan’s murder—Bangladeshi authorities still insisted that “IS has no foothold in Bangladesh and that local militant groups, supported by opposition parties, are behind the crimes.”³⁸ Prime Minister Sheikh Hasina declared then that the Bangladesh National Party (led by a former prime minister) and its allies were part of a “conspiracy” that sought “to destabilize the country” by plotting a series of secret killings.³⁹ The government continued to stand by this interpretation even after the Holey Artisan Bakery attack. The perpetrator, said home minister Asaduzzaman Khan, “are members of the Jamaeytul Mujahdeen Bangladesh...They have no connection with the Islamic State.”⁴⁰ Meanwhile ISIL behavior in Bangladesh seemed to be giving credence to an alternative narrative.

28 September 2015—when an Italian national was fatally shot while jogging—marked the first occasion that ISIL claimed responsibility for a terrorist attack on foreigners in Bangladesh. A few days later, on 3 October, ISIL also claimed responsibility for killing a Japanese worker in north Bangladesh as he was riding in a rickshaw. By the end of the month, indigenous Shia Muslims had been targeted for the first time.⁴¹ By the time of the Holey Artisan Bakery attack on 1 July 2016, ISIL had claimed responsibility for about 25 attacks since January of the previous year. By October 2015, the US Embassy in Dhaka had released six security messages warning of potential threats to Westerners in Bangladesh.⁴²

If Bangladeshi authorities focused on denying the linkage between the rising number of militant attacks and outside terrorist groups, the US State Department warning issued on 28 September 2015 focused more specifically on the increasing danger to Westerners. It cautioned US citizens to “maintain a high level of vigilance and situational awareness and [to] exercise caution in public places including restaurants, hotels and other places frequented by foreigners...Terrorists have demonstrated their willingness and ability to attack locations where U.S. citizens or Westerners are known to congregate or visit.”⁴³ Looking back on the Holey Artisan Bakery attack with the advantage of 20/20 hindsight, the State Department warning proved tragically and uncannily accurate. A couple of months prior to the attack, in April 2016, ISIL published the 14th issue of its propaganda mouthpiece, *Dabiq* magazine. It featured an interview with the then still-living Tamim Chowdhury, who it hailed as the “Amir of the Khilafah’s soldiers in Bengal.”⁴⁴ During the interview, Chowdhury affirmed Bangladesh’s strategic importance to the global jihad because of its geographic proximity to Pakistan, Afghanistan, and India.

The South Asian Operational Environment

The author of this discussion of the 1 July 2016 Holey Artisan Bakery attack concurs with OSAC that the preponderance of existing evidence supports the conclusion that international terrorist groups—especially ISIL and AQIS—are actively operating in Bangladesh and regard the country as “a strategic operations base for establishing a caliphate and [for facilitating] attacks inside India, a symbolic target for ISIL.”⁴⁵ It is also noteworthy that, in the context of ISIL beginning to lose its grip on Syria and Iraq, “its leader, Abu Bakr al Baghdadi specifically includes Bangladesh in his communications, telling ISIL members to ‘champion your brothers in...Bangladesh, and everywhere.’”⁴⁶

For units facing possible deployment to South Asia, the extent to which JMB has maintained its own identity, as opposed to being subsumed by ISIL, makes little practical difference. “The fact that Neo-JMB has already established networks with other groups has significant implications for [its own] future, as its web of relationships, operational linkage, and shared ideology could make it easier for ISIL to expand its reach in Bangladesh, while making it difficult for...security forces to effectively target and eliminate the group.”⁴⁷

The possibility of deploying to South Asia is real, as is the threat posed by international terrorist groups like ISIL and AQIS. One observer who resides near the bakery—and before the attack was a regular customer there—commented, “There may be 10 million police, they are very incapable...Bangladesh is not prepared for these sorts of things.”⁴⁸ Whether it ever will be prepared remains a matter of speculation. In any event, the Partnership Dialogue between the US and the country’s pro-Western government will likely continue indefinitely. Bangladesh’s ruling party—the Awami League—regardless of its ability to improve security effectiveness, is generally considered “the sole guardian of secular fibre of Sunni-majority Bangladesh.”⁴⁹ How long this Awami League stewardship can last is questionable, given that Bangladesh’s Muslim population is larger than that of any country in the Middle East. Meanwhile, all signs point to ISIL as the group responsible for the Holey Artisan Bakery attack. As a Washington Post writer pointed out, “a coordinated strike on Gulshan, the epicenter of wealth and elite power in Dhaka has all the hallmarks of the terrorist organization’s strategy.”⁵⁰

Implications for Training

[Training Circular \(TC\) 7-100.2, *Opposing Force Tactics*](#), contains insights related to urban combat that commanders may find useful in replicating events that transpired during the Holey Artisan Bakery attack. The perpetrators clearly regarded “urban combat as a vital subcomponent of [their] tactical actions. Complex urban terrain provides significant advantages to the side that is ready to make use of them.”⁵¹ Paragraph 6-41 in the training circular discusses the multidimensional nature of the battlefield and ways that the opposing force (OPFOR) can operate vertically as well as horizontally—“from basements or sewers to upper stories or on tops of buildings” (see also paragraph 6-61).⁵² This dynamic definitely played out during the terrorist attack on the bakery, when militants fanned out to take up firing positions throughout the restaurant, including its second-floor area.

TC 7-100.2 also discusses tailoring urban detachments to the specific mission at hand, and provides a functional break-out of the various elements that typically comprise urban detachments. Without question, the militants who carried out the Holey Artisan Bakery attack tailored their force to meet their specific requirements. Their planning entailed advanced reconnaissance, a thorough familiarity with the objective area, and provision for logistical support and financing well in advance of the attack date. It is also noteworthy that, as previously mentioned, the planning mastermind, Tamim Chowdhury, accompanied the action element to the restaurant before the group initiated its assault.⁵³

The “Planning for Urban Combat” section of TC 7-100.2 explains that “the OPFOR can use the population to provide camouflage, concealment, cover, and deception (C3D) for its operations,” and that “the civil population may serve as a key intelligence source for the OPFOR.”⁵⁴ There is a high probability that local hires or residents of Dhaka’s Gulshan district had information the perpetrators needed to accomplish their mission. Another important dimension of this attack was how successfully the terrorists avoided detection by blending in with the local population. This capability enabled their special purpose team and reconnaissance assets to “infiltrate and move among civilian groups,” another principle discussed in Paragraph 6-57 of TC 7-100.2.⁵⁵

Perhaps most important of all, the Holey Artisan Bakery attack provided a real-world demonstration of how “portable video cameras, Internet access, commercial radios, and cellular phones are all tools that permit the OPFOR to tell its story. This can influence the local population and/or affect the national wills of countries other than the state.”⁵⁶ It is a certainty that the terrorists in this instance intended to (1) embarrass the Bangladeshi government and the United States by demonstrating the former’s inability to guarantee the safety of Dhaka’s local population, and (2) undermine the government’s authority by placing the local population in harm’s way.

Finally, the Holey Artisan Bakery attack reflected certain characteristics of a raid, which TC 7-100.2 defines as “an attack against a stationary target for the purpose of its capture or destruction that culminates in the withdrawal of the raiding force to safe territory.”⁵⁷ The willingness of the perpetrators to die in place in order to accomplish the INFOWAR dimension of their mission is the primary feature that differentiates the Holey Artisan Bakery attack from a raid: members of the action element apparently had no intention of surviving their mission, thus eliminating the need for an egress route to

facilitate withdrawal to a safe area. The Holey Artisan Bakery attack was an inflection point in the history of Bangladeshi and South Asian terrorism, and offers considerable insight into challenges facing security forces operating in dense urban terrain.

Notes

- ¹ Sadd Hammadi, Rosie Scammell, and Alan Yuhas. [“Dhaka Café Attack Ends With 20 Hostages Among The Dead.”](#) The Guardian. 3 July 2016.
- ² Sadd Hammadi, Rosie Scammell, and Alan Yuhas. [“Dhaka Café Attack Ends With 20 Hostages Among The Dead.”](#) The Guardian. 3 July 2016; Isshaan Tharoor. [“American Is Among 20 Dead In Terrorist Attack In Bangladesh.”](#) Washington Post. 2 July 2016.
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- ⁶ Samantha Subramanian. [“How Will Bangladesh Respond to the ISIS-Inspired Attack in Dhaka?”](#) New Yorker. 3 July 2016.
- ⁷ Daily Star. [“Dhaka Attack: Japanese Murdered Almost Immediately.”](#) 7 July 2016; Sadd Hammadi, Rosie Scammell, and Alan Yuhas. [“Dhaka Café Attack Ends With 20 Hostages Among The Dead.”](#) The Guardian. 3 July 2016.
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- ⁹ Elizabeth Chuck. [“Bangladesh Attack: 3 U.S. College Students, Including American Citizen, Among Victims.”](#) NBC News. 2 July 2016.
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- ³⁷ US Department of State Overseas Advisory Council. [“ISIL Outside Iraq and Syria: Bangladesh.”](#) 14 November 2016.
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The screenshot shows the ATN (Army Training Network) website interface. The header includes the ATN logo and navigation links: Home, myFavorites, ATN A-Z, Unit Training Management, myTraining, Videos, Links, Collaborate, and Help. A search bar is located on the right. Below the header, there are three main sections: Home Station Training Enablers, CoE & Proponent Training Pages, and HQDA and MACOM Training Guidance. The CoE & Proponent Training Pages section contains a list of links, including "OE/OPFOR Publications", "CASCOM Sustainment Unit One Stop (SUOS)", "Regionally Aligned Forces (RAF) Pre-Deployment Training Message", "TRADOC Common Framework of Scenarios", "Fires Center of Excellence", "TRADOC Centers of Excellence", "Operational Environment (OE) Exercise Tools", "TADSS at your local TSC", "Games and Visualizations", and "Regionally Aligned Forces (RAF) Pre-Deployment Training Message". A red arrow points from the "OE/OPFOR Publications" link to a box containing the text "Click and select file". Below this, another red arrow points to a box containing the text "Scroll down and Click". At the bottom of the page, there is a section titled "OE/OPFOR Publications" with a description of TRADOC G-2's role and a list of publications: "OPFOR/Hybrid Threat Doctrine, DATE and RAFTEs, Red Diamond newsletters, Threat Tactics Reports, Worldwide Equipment Guide, OE and Threat Assessments, TRADOC G-2 Threat Handbooks – and more!".

1 <https://atn.army.mil>

2 Scroll down and Click

3 Click and select file

OE/OPFOR Publications

TRADOC G-2 is the Army's lead to study, design, document, validate and apply Hybrid Threat and Operational Environment (OE) conditions that support all U.S. Army and joint training and leader development programs. Publications include **OPFOR/Hybrid Threat Doctrine, DATE and RAFTEs, Red Diamond newsletters, Threat Tactics Reports, Worldwide Equipment Guide, OE and Threat Assessments, TRADOC G-2 Threat Handbooks – and more!**



by [Marc Williams](#), TRADOC G-2 ACE Threats Integration (ThreatTec CTR)

“They studied our doctrine, our tactics, our equipment, our organization, our training, our leadership. And, in turn, they revised their own doctrines, and they are rapidly modernizing their military today to avoid our strengths in hopes of defeating us at some point in the future.”
 —General Mark Milley, Chief of Staff of the Army
[2016 Association of the US Army Conference](#)

The People’s Republic of China (PRC) is conducting an ambitious military transformation program to professionalize the People’s Liberation Army (PLA) and reach its goals. The PLA is a higher headquarters for the Army (PLAA), Navy (PLAN), Marines (PLANM), and Air Force (PLAAF). At the strategic level for the land forces, this transformation includes activation of a PLAA headquarters staff, renaming the Second Artillery Force to the PLA Rocket Force (PLARF), and activation of Strategic Support Forces (SSF).

Transformation of land forces at the tactical level is wide-ranging. The PLAA has followed the US lead and moved away from combat divisions to combat brigades. Most common in the PLAA are combined arms brigades in three variations: heavy, medium, and light. The PLAAF, not the PLAA, includes the PRC airborne forces, whose units are expanding in number. The PLANM is also growing into three full brigades.



Figure 1. [PLA Emblem](#)

PLA Size

The latest transformation of the PLA has reduced the PLAA while building the other services. Despite this, the PLAA is a sizeable modernized force. Future transformation of the PLA includes continued downsizing the PLAA by half and augmenting the other services (especially the PLAN) with more personnel and equipment by 2020. This will be the first time the PLAA active force will drop below one million. The strategic goal is a stronger PLA that can conduct overseas missions.¹ The 2016 force levels are shown below.

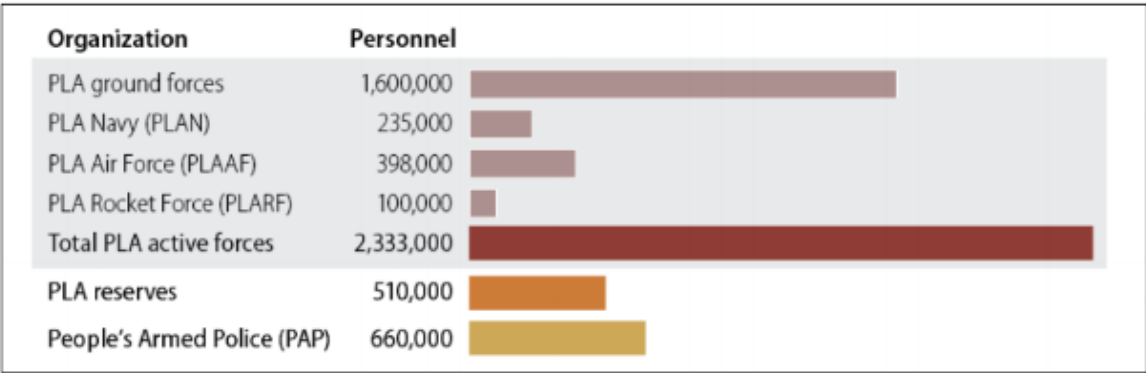


Figure 2. [PLA military and security personnel](#)

As PLAA transformation continues, the three most common brigade types are the heavy combined arms brigade, the medium combined arms brigade, and the light combined arms brigade.

PLAA Heavy Combined Arms Brigade²

Heavy combined arms brigades are mechanized with ZBD04A/ZTZ 99- or ZTZ 96-based units, which are sometimes called heavy tracked units.³ The combined arms battalions of this type of brigade are equipped with main battle tanks (MBTs), infantry fighting vehicles (IFVs), and armored fighting vehicles (AFVs). Among these, the ZTZ 99 and ZTZ 96 MBTs are the most capable. The Type 59 MBT is the most common.⁴



Figure 3. ZTZ 99 MBT, ZTZ 96 MBT, and Type 59 MBT⁵

Among the assigned IFVs and armored personnel carriers, the ZBD 04A is the most modern. The Type 89 AFV is very common as a transport, and there is a command vehicle variant. The most modern units possess the PLZ 10 120-mm mortar/howitzer for organic indirect fire support to the battalion. This is sometimes referred to as a “combo-gun.”



Figure 4. ZBD 04A IFV, Type 89 AFV, and PLZ 10 combo-gun

The air defense battalion is armed with medium-range/altitude surface-to-air missiles (SAMs) like the CSA 15. It is also armed with man-portable air defense systems (MANPADS) and self-propelled (SP) anti-aircraft artillery. The artillery battalion is equipped with PLZ 07 122-mm SP howitzers and 122-mm multiple rocket launchers (MRLs).



Figure 5. CSA 15 SAM, PLZ 07 SP howitzer, and 122-mm MRL

PLAA Medium Combined Arms Brigade⁶

PLAA medium combined arms brigades are mechanized with 6x6 or 8x8 wheeled armored vehicles. These are sometimes called medium high-mobility units. The combined arms battalions of this type of brigade are equipped with assault guns or “wheeled tanks” in the MBT role and possess ground-launched antitank guided missile capability.



Figure 6. 8X8 assault gun and 6X6 assault gun

The ZBL 09 and WZ 551 are the main 8x8 and 6x6 wheeled armored vehicles.⁷ The most modern units also have PLL 05 120-mm mortar/howitzer support organic to the combined arms battalion.



Figure 7. ZBL 09 armored vehicle, WZ 551 armored vehicle, and PLL 05 combo-gun

The artillery battalion is equipped with the PLL 09 122-mm SP howitzer and new wheeled 122-mm MRL. The air defense battalion has the CSA 4B SAM and MANPADS.



Figure 8. PLL 09 SP howitzer, 122-mm MRL, and CSA 4B SAM

PLAA Light Combined Arms Brigade⁸

Light combined arms brigades are wheeled Mengshi-based units, sometimes called light high-mobility units. They use a variety of vehicles built on the Mengshi 4x4 chassis. The 4x4 are the basic HUMVEE types, and the 6x6 variants are the extended armored version.



Figure 9. Mengshi 4x4, Mengshi 4x4 with heavy machinegun, and Mengshi 6x6 armored variant

For artillery, the PLC 09 122-mm SP howitzers and the new wheeled 122-mm MRLs are the most commonly fielded indirect fire systems. There are also Mengshi-based mortar and anti-aircraft (AA) platforms.



Figure 10. 122-mm MRL, PLC 09 122-mm SP, and AA vehicle

Conclusion

The PLA transformation is far more comprehensive across the domains of land, maritime, air, space, and cyber than what is summarized in this article. China's defense industry production order of priority for modernization is (1) missile systems, (2) space systems, (3) maritime assets, (4) aircraft, and (5) ground systems. However, according to the US Secretary of Defense, "China's production capacity continues to advance in almost every area of PLA Army systems, including new tanks, armored personnel carriers, air defense artillery systems, and artillery pieces. China is capable of producing ground weapon systems at or near world-class standards."⁹ Improvements have been made in training and exercises, and units have taken delivery of "advanced command, control, communication, computers, and intelligence (C4I) equipment that provides real-time data-sharing at the division and brigade level."¹⁰ American brigade combat teams would do well to research these formations and develop an understanding of the capabilities of their combat systems.



Figure 11. PLAA tank platoon training in Shenyang

Notes

¹ Defense World. "[China To Downsize Army By Half, Boost Navy Numbers](#)," 12 July 2017.

² Information provided by the US Army Intelligence and Security Command National Ground Intelligence Center (NGIC).

³ US Army, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. [Worldwide Equipment Guide – Volume 1: Ground Systems](#). December 2016. Pgs 25 and 28.

⁴ US Army, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. [Worldwide Equipment Guide – Volume 1: Ground Systems](#). December 2016. Pg 31.

⁵ Figures 3–10 provided by the US Army Intelligence and Security Command National Ground Intelligence Center (NGIC).

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⁷ US Army, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. [Worldwide Equipment Guide – Volume 1: Ground Systems](#). December 2016. Pg 43.

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⁹ Office of the Secretary of Defense. [Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2016](#). Pg 80.

¹⁰ Office of the Secretary of Defense. [Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2016](#). Pg 33.

The QBZ-95

China's Adoption of a Bullpup Rifle and a Proprietary Caliber ...and Not Many Noticed

By [Mike Spight](#), TRADOC G-2 ACE Threats Integration (CGI Federal CTR)

It's reasonably certain that the majority of people—unless they are military small-arms aficionados or defense department subject matter experts—would be unaware of the fact that China no longer issues the Type 56 assault rifle (an AK-47 clone) to its military and security forces. In fact, the country has not issued that particular weapon to its forces for 30+ years, although it may still be found in the armories of militia and very-low-tierⁱ reserve forces. The Chinese military adopted the Type 81 assault rifle in 1983 and it served as the Chinese military's and security forces' primary individual weapon until adaption of the QBZ-95 in approximately 1997. Over the past 20 or so years, the QBZ-95 has generally replaced the Type 81 in all Chinese military Tier 1 units and is steadily replacing it in reserve military, security, and police organizations.

With adoption of the QBZ-95 (95 being the year of acceptance), which is a bullpup assault rifle design, China joined Great Britain, France, Australia, Austria, and several other countries that have adopted a bullpup assault rifle for primary issue to their armed forces or, at a minimum, to special operations forces or other elite formations. But besides the fact that the QBZ-95 is a totally new design for China, it also began design and development of a proprietary cartridge in 1979 and brought it to full production and issue in 1987. This cartridge is 5.8x42mm (DPB-87) and it is certainly logical that China would build its new bullpup design around this cartridge. Not as well-known is a variant of the Type 81 assault rifle, the Type 87 assault rifle, that was produced for use in testing the new cartridge. Note that the Type 87 was very limited in production and is reported to have only been issued to Chinese Special Forces units, and it has most probably been fully replaced in those formations by the QBZ-95. Between 1987 and adoption of the QBZ-95, the QBZ-03 assault rifle, also chambered in 5.8x42mm, was the issue weapon for the Chinese military. Very similar in appearance to the Type 81/87, it will be the topic of an article in a future edition of the *Red Diamond*.



Figure 1. [Original version of the Chinese QBZ-95](#)

Variants

The original variant of the QBZ-95 is estimated to have been first issued to higher-tier Chinese military units in 1997, and was configured as seen in Figure 1. Designed and manufactured by NORINCO, the Chinese state weapons design and manufacturing conglomerate, the weapon system was rather ergonomically unfriendly, as the safety and fire selector switch (safe, single round, three-round burst, and full auto) is located to the rear of the action, near the butt stock. Adding to the ergonomic issues was an ejector and ejection port that would eject spent brass directly towards the face of a left-handed shooter. Clearly a significant issue, this reportedly resulted in all Chinese military personnel who were left-handed

ⁱ Editor's Note: Tier level indicates a weapon's age and/or sophistication, with highest-tier (Tier 1) platforms being the most cutting-edge. For an explanation of equipment tiers, see pages 10–11 of the [2016 Worldwide Equipment Guide \(WEG\)](#).

being forced to train to fire and operate the QBZ-95 right-handed. When coupled with the fact that this would require the shooter to crane his neck to the right in order to use his left (dominant) eye, this was not an optimal situation. Also, on the original variant, the carrying handle was quite high (reminiscent of the French FAMAS) and, if an optical or red-dot sight was mounted, the shooter was unable to maintain a proper cheek weld when utilizing the sight.



Figure 2. [The Chinese QBB-95](#)

Besides the standard rifle, a carbine (QBZ-95B) and light support weapon (QBB-95, Figure 2) were produced and issued. In the case of the carbine, other than a shorter barrel, it is identical to the rifle. The light support variant has a longer, heavier barrel that is designed to dissipate the heat generated by fully-automatic fire, is fitted with an integral bipod, and is issued with a drum magazine feed system that will hold 80 rounds. It also fires a 5.8x42mm cartridge that is loaded with a heavier projectile than used in the rifle or carbine.



Figure 3. [The Chinese QBU-88](#)

Additionally, a designated squad marksman rifle, in bullpup design, was also developed and issued to Chinese forces. The QBU-88 (Figure 3) is equipped with a bipod, longer and heavier barrel, an improved flash suppressor, and a faster rate of rifling twist designed to stabilize a special loading variant of the DBP-87 cartridge, which features a projectile that weights 70 grains (grs), is more streamlined, and is capable of acceptable accuracy out to 800 meters. The rifle is equipped with both iron sights and with an issued 3-9x40 or 6-24x44 variable optic of Chinese manufacture.

As noted earlier, the original QBZ-95 variant was a revolutionary small-arms development for a country with such a large standing army. And yet, the original was terribly flawed from an ergonomic stand point, and it was eventually realized that the design had to be re-evaluated and a follow-on, improved variant be designed, manufactured, and issued to Chinese military and security forces. It is estimated that the QBZ-95-1 variant was developed over a period of years and initially issued in limited quantities for testing and evaluation somewhere around 2010–2011. The most important improvements addressed moving the firing selector switch to a position directly above the pistol grip, where the operator can easily access it with his thumb (right-handed shooter) or with his trigger finger or thumb (left-handed shooter). Perhaps most importantly, the ejection pattern was corrected by redesigning the ejector and the ejection port. Spent brass is now ejected to the shooter's 1:00 instead of his 4:00 position, and left-handed shooters no longer have to be trained to operate the weapon as a right-handed shooter. Other improvements included a re-designed flash suppressor and a slightly longer and heavier barrel with a different rifling twist rate, designed to stabilize a new variant of the 5.8x42mm cartridge with a heavier projectile. Modifications to the butt stock and slightly lowering the integral carrying handle would ensure that the majority of operators would have little or no trouble in achieving a proper cheek weld when an optical or red-dot sight was mounted on the weapon. Logically, a QBZ-95B-1 carbine and QBB-95-1 light support weapon were also designed, and integrated the same improvements as the QBZ-95-1 rifle. One final modification was a newly-designed forward handguard with a diamond-shaped profile for improved heat dissipation and elimination of the forward vertical grip that was integral to the trigger guard of the original model of the QBZ-95.

Specifications

In terms of overall “handiness” and ease of carry and use, the dimensions of the QBZ-95 and 95-1 families are virtually identical; the major changes were in regard to ergonomics. As for specifics, the following is known: QBZ-95 rifle—length of 29.3 inches, weight of 7.2 lbs.; QBZ-B carbine—length of 24 inches, weight of 6.4 lbs.; QBB-95 light support weapon—length of 33.1 inches, weight of 8.6 lbs. Even the QBU-88 designated squad marksman rifle is impressively light (9 lbs.) and

only 36.2 inches in length. Certainly no surprises there, as the primary reasons for the existence of the family of bullpup weapons are decreased weight and overall length for the purposes of reducing the operator's overall weight burden and making a weapon that is handy in tight, confined spaces, such as infantry fighting vehicles or while engaged in clearing buildings.

Ammunition

These weapons systems were designed around the new, proprietary cartridge developed by the Chinese as a direct competitor to both the Russian 5.45x39mm and US/NATO SS109 (aka "Green Tip") 5.56x45mm intermediate cartridges. The Chinese sought to produce and issue a cartridge that would possess superior capabilities to penetrate helmets and body armor, have superior accuracy at all ranges, and provide a low, manageable recoil pulse for the average-sized Chinese male serviceman. The original round developed was, as noted earlier, the DBP-87, which was loaded with a 64-gr projectile, produced a muzzle velocity of 3,100 feet per second (fps), and was for use in both the rifle and the carbine. For use in the QBB-95 light support weapon, a cartridge loaded with a 77-gr projectile (DBP-88) was produced. The heavier projectile was intended to increase its ability to penetrate body armor, helmets, and barrier materials at longer ranges than the 64-gr rifle and carbine cartridge, and it produced a muzzle velocity of 2,900 fps.

But with development of the new variant, the QBZ-95-1 series, the decision was made to, in tandem, develop a cartridge that would meet the requirements of the rifle, carbine, and light support weapon. As a result, the DBP-10 cartridge with a 71-gr projectile was developed, tested, and issued for use in the new QBZ variants. This cartridge produces a muzzle velocity of 3,000 fps and, with improved propellant, provides China with a cleaner-firing cartridge with a modern copper-coated, steel-core projectile. Although China has claimed flatter trajectory, improved accuracy, and greater penetration for all variants of the 5.8x42mm cartridge, to the author's knowledge, those claims remain to be seen or proven in straight-up, side-by-side tests against either its Russian or US/NATO competitors.

The new QBZ-95-1 rifle and carbine variants are capable of mounting the new under-barrel grenade launcher, the QLG-10A, which fires a caseless 35mm grenade (DFS-10) that leaves nothing behind in the launcher after firing. As a result, subsequent grenades are loaded from the muzzle, thus potentially speeding up the rate of fire and alleviating the need for an opening breech for removing empty grenade casings and reloading.

China has certainly joined the world of modern, advanced weaponry with the development and continued upgrades to its QBZ-95 family of weapons. Whether the rifle, carbine, light support weapon, or designated squad marksman variant, continuous upgrades to the weapon itself and to the ammunition types available have ensured that China will be on par with any other world power with regard to the weapons its military and security forces are issued.



Figure 4. [Marines of the People's Liberation Army armed with QBZ-95s](#)

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by [LTC Matt Morgan](#), MCTP OPFOR Commander, Ops Group X, and [Patrick Madden](#), TRADOC G-2 ACE-TI (BMA CTR)

Mission Command Training Program (MCTP) Warfighter Exercise (WFX) 17-1 was scheduled as a distributed, simulation-supported, corps-level, command post exercise at Fort Stewart, Georgia, and Fort Leavenworth, Kansas. The WFX was scheduled for 4–12 October 2016 but was cut short because of a hurricane. The first two days of the exercise occurred as scheduled, but Hurricane Matthew triggered the abandonment of the WFX as originally planned. The decision was made to suspend the WFX for the safety of the personnel and equipment. The hurricane came and went, but not without causing significant damage to the infrastructure to support a digital simulation. Some training audiences continued to take advantage of the opportunity to train with the support of MCTP.

The purpose of this article is to provide an overview of the actions of the WFX during the first two days, 4–5 October. This includes the first critical event for both the opposing force (OPFOR) and blue forces (BLUFOR) and the outcomes of that critical event. This article will cover the scenario design and actions leading up to the start of the exercise (STARTEX), the actions in the two days after STARTEX, and insight into the planning factors used by the OPFOR. The intent is to provide greater understanding of the OPFOR operations process, the operational framework used, and decisions that led to the final outcome. It is clear that the effects of the two days of competitive fighting between OPFOR and BLUFOR would have had a significant impact on all subsequent engagements if the fighting had continued beyond 5 October.

Scenario Design

The scenario design for WFX 17-1 was similar to the design of WFX 16-5 at the strategic level.¹ However, at the operational level the fight was established as a mostly north-south fight; i.e. the BLUFOR divisions were located in the north and northwest, which provided a different battlefield architecture. Establishing the fight as a north-south fight required a few changes to the scenario. First and foremost, the Caspian Sea was converted to a Caspian Ocean. This enabled joint reception, staging, onward movement, and integration to occur at two locations. The [4th Infantry Division](#)ⁱ (ID) entered the joint operations area (JOA) from the Black Sea through Gorgas in the west and was positioned in the northwest with a compliment of division and corps enablers. The [3rd Infantry Division](#) (ID) entered the JOA through a port north of Baku from the Caspian Ocean. STARTEX occurred on 4 October and was preceded with multiple intelligence feeds to BLUFOR as well as a simulation “warm start” period of six hours. During warm start, rotational training units are allowed to conduct reconnaissance with unmanned aerial systems (UAS) and confirm or deny their understanding of the opponent. Units are NOT allowed to conduct any ground movement.²

OPFOR Mission and Organization

Mission

The mission of the Operational-Strategic Command (**OSC**) was to seize Baku and defeat Atropian Forces in order to seize and retain critical hydrocarbon resources. On order, troops were to seize key industrial resources and force coalition forces to withdraw in order to enable the installation of true Islamic Ariana-friendly political regime. This translated to a force that was terrain-oriented with the operational objectives of Baku, the Sangachal Oil Terminal, the Trans-Caucasus Petroleum Pipeline, and bridges over the Kura River.

ⁱ Editor’s Note: Military unit names in this article appear in either **red** (OPFOR), **blue** (US), or **green** (host nation) text for readability purposes.

Options to Achieve Strategic Objectives

The OPFOR assessed that it could achieve its strategic objectives in a number of ways. This could occur along an axis to the northeast and Baku, or to the northwest and Yevlak. Seizing and retaining the Sangachal Oil Terminal would control the flow of oil from the Caspian to the west. Seizing Baku would enable control of the economic and political infrastructure.

Seizing Yevlak would provide alternative locations to serve a similar purpose if the OSC was unable to achieve the intent of capturing Sangachal or Baku. The seizure of Trans-Caucasus Pipeline pumping stations in the vicinity of Yevlak would enable control of oil flow further west. Seizure of Yevlak and its infrastructure (economic center of the west, hydroelectric capacity at the Mingachevir Reservoir dams) in the area would provide the power to influence everything in Atropia except Baku. Additionally, the seizure of Yevlak would effectively sever any coalition lines of communications (LOCs) between the west and east, and enable Ariana to isolate the coalition in the vicinity of Baku and ultimately defeat it.

Organization

The OSC was created as part of a campaign plan similar to the forming of a joint task force in BLUFOR doctrine. Ariana began with the 2nd Army, mobilizing the forces with a mission, task-organizing accordingly, and reflagging the unit as an OSC. During this exercise the OSC organized the division tactical groups (DTGs) based on the intent required. This occurred in the exact same fashion as in [Army Field Manual 6-0, Commander and Staff Organization and Operations](#). The OPFOR determines the intent to be achieved in a given area, assesses the likely enemy (BLUFOR) to be in the area, and conducts relative combat power analysis. Once the OPFOR has determined the requisite force by type and size, the units are then grouped based on the amount of forces required. The last step in the process is assigning a headquarters. MCTP OPFOR follows this method on almost all occasions; however, deviations do occur. When there is a deviation it is a deliberate decision with a specific intent to be achieved and acceptable risk analysis.

Task Organization

During WFX 17-1 the OSC was organized with the four constituent DTGs of the 2nd Arianian Army.³ The DTGs were the 17th Mechanized Infantry (MEI), 18th Truck Mobile Infantry (TM), 19th Motorized Infantry (MOI), and 20th TM (see Figure 1). Also constituent was the 306th Reconnaissance Brigade (REC), 302nd Mechanized Infantry Brigade, 304th Tank Brigade, 308th Anti-Tank Brigade, and the Arianian Naval Infantry Regiment (ARNIN). The 302nd and 304th served as the OSC reserve. The 3241st Special-Purpose Forces (SPF) were constituent as well. Units dedicated to the OSC included the 995th Commando Brigade, 600th, 601st, and 602nd Militia Brigades, the 10th Aviation Regiment, the 704th Air Defense Artillery Brigade, and the 935th MRL Brigade.

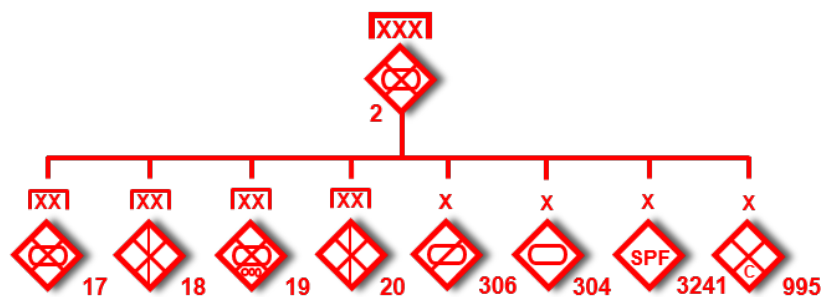


Figure 1. OSC organization (select units shown)

How the OPFOR Task-Organizes

The OPFOR operationally task-organizes with a few principles in mind. First, provide each DTG a balance of forces. Each DTG has a constituent tank brigade. The OSC task-organized so that each DTG had a mechanized or motorized brigade tactical group (BTG) and a light BTG (truck mobile). This enabled each DTG to have the capacity to clear and retain complex terrain with light forces, and to conduct a combined arms breach with heavy forces. This is similar to the modularity concept used by BLUFOR. Additionally, these horizontal task-organized forces in the DTGs provided assets across the spectrum instead of specializing in light or heavy forces.

Secondly, force ratios are critical. The OPFOR deliberately preserves combat power whenever possible. This protects assets and preserves them for employment elsewhere as required. The third task-organization principle currently used by

the OPFOR is the relative vertical retention of enablers at the **OSC** and/or DTG level. This applies to assets such as unmanned aerial vehicles, commando, SPF, electronic warfare, and aviation—both fixed and rotary wing. In general these assets are task-organized and employed in accordance with the unit Modified Table of Organization and Equipment and OPFOR doctrine. These assets are generally not broken down and pushed to lower levels, with a few exceptions. This enables the **OSC** to employ these assets in specific, discrete windows to achieve a specific effect at a critical event. That said, the **OSC** also retains the vertical and horizontal capability across its organization in order to rapidly task-organize different types of forces, such as a strike force, in order to destroy a specified enemy organization.

OPFOR Intelligence Preparation of the Battlefield: Enemy Event Template

Understanding of the Coalition (BLUFOR) Options

The higher command was a notional **VII Corps** staffed by the 82nd Airborne Division and served as both the corps and the Coalition Joint Forces Land Component Command (**CJFLCC**). STARTEX signified the **CJFLCC** transition to Phase 3 (Dominate) in accordance with [Joint Publication 3-0, Joint Operations](#). The OPFOR assessed four critical events for the **CJFLCC**: (1) Passage of lines with Atropian Forces; (2) Establish and defend to force the culmination of the **19th** DTG north of the Kura River; (3) Seize Kura crossing sites and defeat the **19th** DTG at the Kura; and (4) Restore the international border. It was also calculated that the **CJFLCC** main effort was the **3rd** ID in the east, based on its proximity to the capital of Baku. Figure 2 is a graphical depiction of the OPFOR assessment of **CJFLCC** options.

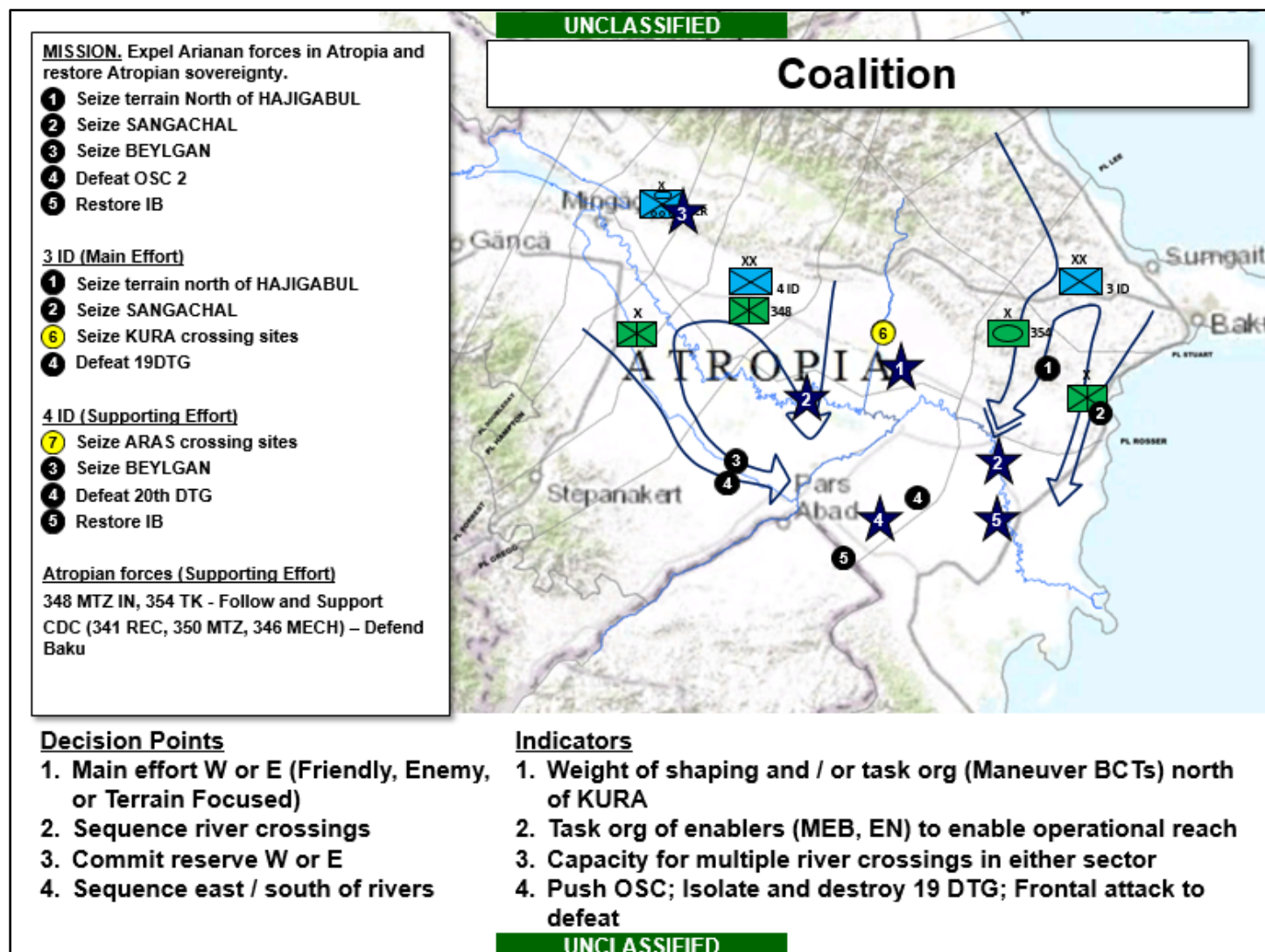


Figure 2. OPFOR assessment of the BLUFOR courses of action (COAs)

The OPFOR assessed that the CJFLCC had a few significant decisions at the corps and division level as outlined below.

Corps Decisions:

- Main effort 3rd ID (east) or 4th ID (west)
- Sequence of river crossings
- Commitment of the reserve
- Sequence of actions south of the Kura

Division Decisions:

- Sequencing of actions north of the Kura
- River crossing (Location, how many sites)

3rd ID COAs in the East

OPFOR calculated that the 3rd ID would conduct a passage of lines and attack to reinforce Sangachal with a brigade. It would simultaneously seize the key terrain to the immediate northwest of Sangachal with a brigade. Once completed with these two key tasks, the 3rd ID would establish a defense to force the culmination of the 19th DTG. In the defense, the 3rd ID would have the capacity to defeat six attacking brigades if it was able to establish the defense prior to the OPFOR attack. The OPFOR assessed the 3rd ID would need to establish a defense because, with its four maneuver brigades, it lacked the force ratio to go on the offense and penetrate or defeat the 19th DTG at the Kura River.

After forcing the culmination of the 19th DTG, the 3rd ID would retain the initiative and advance to the river. This would enable it to exploit the opportunity to limit the ability of the OPFOR to reinforce at the river. It was anticipated that the 3rd ID would penetrate the river just south of Hajigabul, where it would have some relatively-protected routes to the river and shorter LOCs. After establishing a bridgehead line, it would be forced to decide whether to exploit any success at that river crossing or to establish a second location further southeast, across open terrain and extended LOCs.

Starting Conditions: Actions prior to 4 October STARTEX

Attack to Kura River

The OSC began its conventional liberation of Atropia prior to 4 October. The 19th DTG seized river crossing sites at the Kura (Figure 3, red #3 and shaded in blue). This was done along two axes of advance with two BTGs on each axis. The 19th DTG had the 195th Artillery Brigade (constituent) and the 211th Artillery Brigade (ART BDE) supporting with fires. The DTG had secured the far side of the significant Kura River crossing sites on 3 October. Prior to continuing its attack to Sangachal, it required time to consolidate, reorganize, and posture forces that would enable operational reach. The continued attack was planned for 4 October (STARTEX).

Protect in the Northwest

The 306th REC Brigade attacked simultaneously to the northwest (Figure 3, red #1 and shaded in green). It secured Aras River crossing sites and subsequently established a guard along the Kura River. This included securing two significant crossing sites and establishing a guard on the friendly side of the river on 3 October. The 306th was reinforced by the 212th Artillery Brigade. However, the 306th was second in order of priority behind the 20th DTG.

Block the Southwest

In the southwest, the 20th DTG attacked to seize Aras River crossing sites (Figure 3, red #2 and shaded in yellow). It secured the two significant crossing sites in Imishli and established a bridgehead line on 3 October. It was supported by the 205th Artillery Brigade (constituent) and the 212th Artillery Brigade.

Enablers

The OSC supported the initial attack with the 310th and 312th constituent aviation (AV) brigades. Each of those brigades were given an area-support role, with the 312th AV supporting the east and the 19th DTG. The 310th AV was responsible for the west and support for the 20th DTG and the 306th REC.

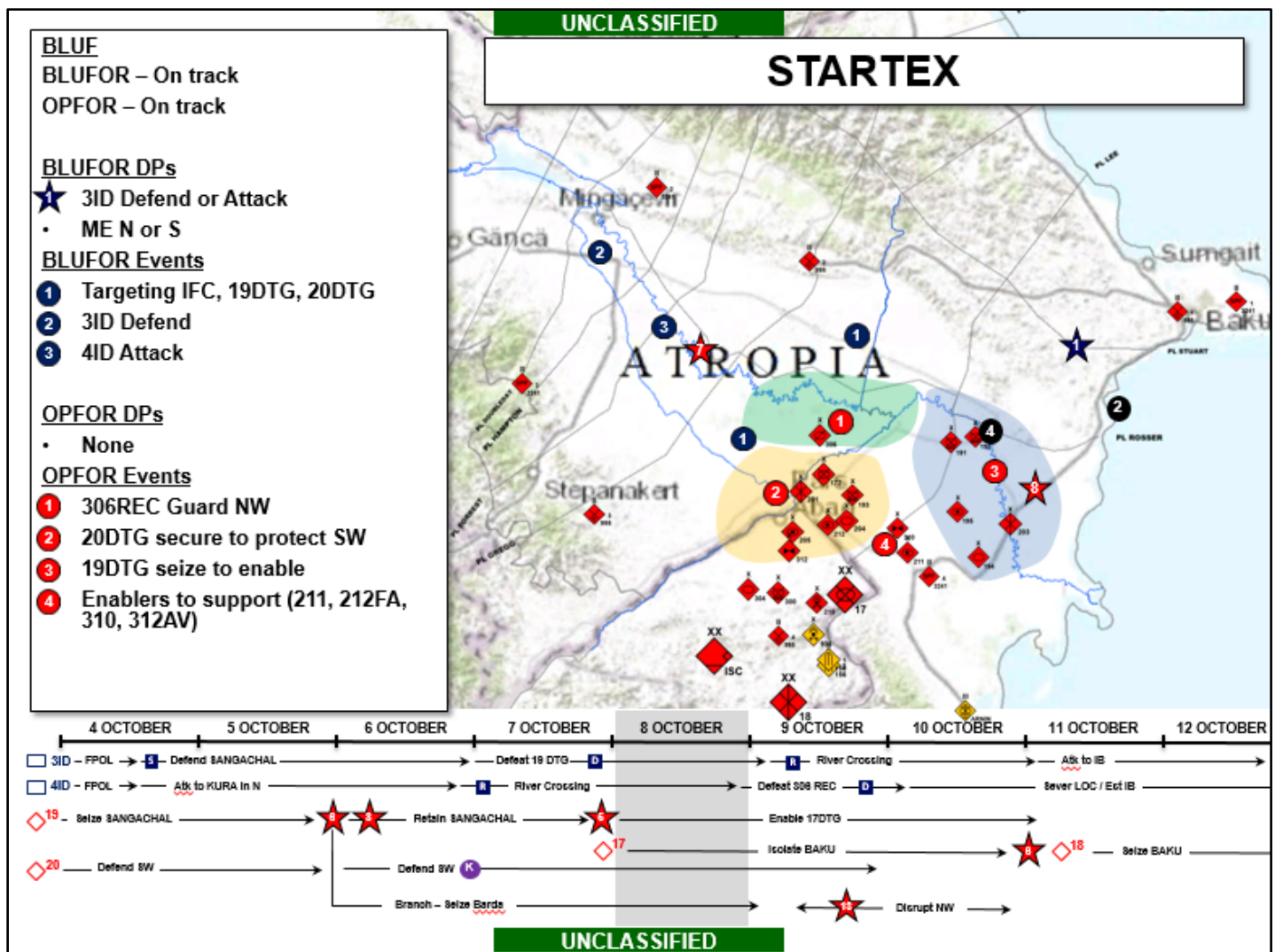


Figure 3. STARTEX

Uncommitted Assets

The 17th DTG, 18th DTG, and all reserve forces remained in Ariana prior to 4 October (STARTEX). The 3241st SPF Brigade infiltrated approximately 75% of its personnel prior to the movement of conventional forces from the OSC. This included a battalion in Baku and one battalion along each likely coalition avenue of approach. Similarly, 995th Commando Brigade had infiltrated approximately 50% of its forces prior to the OSC conventional attack. The remainder of each brigade would serve as reserves or infiltrate beginning on 4 October to link up with their forward units or to establish a disruption zone in depth.

Strength

At the beginning of the exercise, the overall strength of the OSC was approximately 70%, resulting from previous attrition from the invasion into Atropia. Units that experienced contact were obviously at a lower strength than those not in contact. The 19th DTG began the exercise at 70% strength based on the contact it experienced, while the 17th remained in Ariana at 95% strength.

OPFOR Plan

Framework for Operations

The OSC uses a common framework for almost all operations. It is based on [FM 3-94, Theater Army, Corps, and Division Operations](#), and the principles in the first three chapters. The framework includes four critical effects that must be achieved to be successful in any engagement:

- Shaping to set force ratios: Organizing the battlefield architecture into manageable-sized elements and reducing or shaping elements that are too large for a given subordinate to manage;
- Isolating to enable/maintain force ratios: Helping to maintain force ratios and enabling a decisive or main effort to focus actions inward;
- Sustaining to enable operational reach: Setting conditions that enable tempo and ensuring a unit retains the capacity to exploit opportunities; and
- Sequencing in time and space to enable the decisive effort.

How OSC IPB Influenced the Development of the OPFOR Plan

The OSC assessed the 3rd ID COAs as indicated above. However, there were a few key assumptions that influenced how the OSC planned its attack. First, the OSC assessed that the congested, restricted terrain west of Baku would have a significant impact on the coalition tempo. As a result, the OSC estimated it would take approximately six hours for 3rd ID to complete a passage of lines and reinforce the units at Sangachal. Secondly, although the OSC knew that 3rd ID had the capacity to conduct an air movement to reinforce Sangachal, it was assessed as high risk and not likely to occur. Thirdly, the OSC assessed that the seizure of key terrain northwest of Sangachal would occur simultaneously with the reinforcement of Sangachal.

Nonetheless, the latter half of this article articulates the fact that all three of these critical assumptions were proven invalid during execution. Additionally, the OSC did not observe and assess indicators appropriately that would enable an adjustment decision if the assumptions were proven invalid.

OSC 2 Concept: Actions Beginning 4 October and Beyond

OSC Concept

Figure 4 depicts the mission, terrain-oriented objectives, and tasks to maneuver units. The operational timeline across the bottom depicts the planned timeline and included anticipated BLUFOR critical events. The graphic depicts the desired unit dispositions for 7 October. This would place the OSC in position to make the decision to commit the 17th DTG to isolate Baku. The OSC was not in these locations at the start of the exercise and would be required to competitively fight to move into these positions.

The four terrain-focused objectives were: Baku, Sangachal, the Trans-Caucasus Pipeline, and bridges over the Kura River. The OSC planned to continue to employ the 19th DTG to retain bridges over the Kura and to seize Sangachal. The 20th DTG and 306th REC Brigade (Figure 4, yellow #2, yellow shaded area, and yellow #3, green shaded area, respectively) planned to enable the 19th by protecting in the west and southwest. The 306th REC would continue to guard along the Kura, west of the Agshu River, to protect the northern flank of the 20th DTG. This would enable the 20th to focus west toward Yevlak if required. The 17th DTG (Yellow #4), was in Ariana at the start of the WFX, and planned to isolate Baku for the 18th DTG.

The OSC decision points:

- Commitment of the 17th DTG
- Location of the 17th DTG commitment
- Commitment of the 18th DTG
- Seize Yevlak in lieu of Baku
- Commitment of a reserve force (300st MOI, 302nd MEI, 304th Tank)

First Planned Decision

The OSC anticipated making the decision on 7 October to either commit to Baku or Yevlak. If the OSC did not have the capacity to seize Baku, it would shift to Yevlak as a branch plan. The concept for the OSC beyond 7 October was rather simple regardless of orientation, east or west. The DTG on the supporting-effort axis would establish a defense to protect the flank of the main effort, while the second-echelon DTG would pass through the DTG on the main-effort axis to continue the attack to seize the critical city and infrastructure. The employment of the second- and third-echelon DTGs was intended in the direction of the main effort. The movement of the 17th DTG, the OSC second-echelon division, signified the potential direction of the main effort.

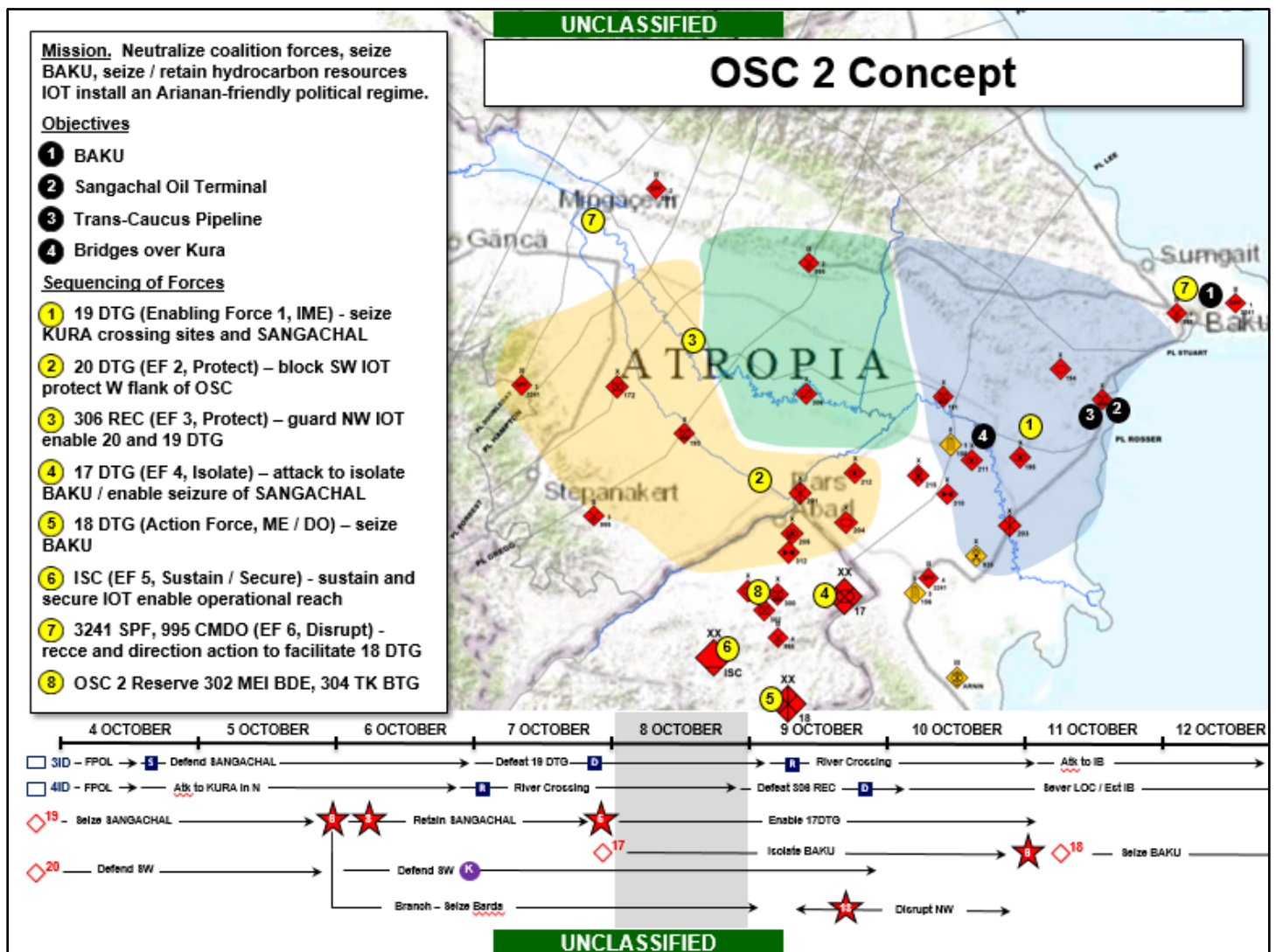


Figure 4. OSC concept

19th DTG (Action Force) Plan at Sangachal⁴

Action Force

The 19th DTG was designated as the OSC initial Action Force, with the mission to seize and retain the Sangachal Oil Terminal (see Figure 5). It was task-organized with just enough combat power to seize the terminal if there was less than two coalition brigades at Sangachal. The DTG lacked the capacity to fight in two different directions. This meant that the DTG would have to seize the initiative early and seize Sangachal before the Coalition could reinforce the area or apply pressure from the northwest.

Enabling Operational Reach

The 19th DTG planned to enable operational reach by employing the three infantry battalions of the 203rd Brigade Tactical Group (BTG) to retain the bridges over the Kura River (Figure 5, yellow #3). The 4th Tank Battalion (BN) of the 203rd was designated as the DTG reserve. The 191st BTG was tasked to protect the northwest flank of the DTG and prevent the DTG from having to fight in two directions. This included all four battalions of the 191st and the two bridges over the Kura in the northwest (Figure 5: Yellow #2). The 191st had the capacity to establish a block, but did not have the operational reach to establish at the Aras River.

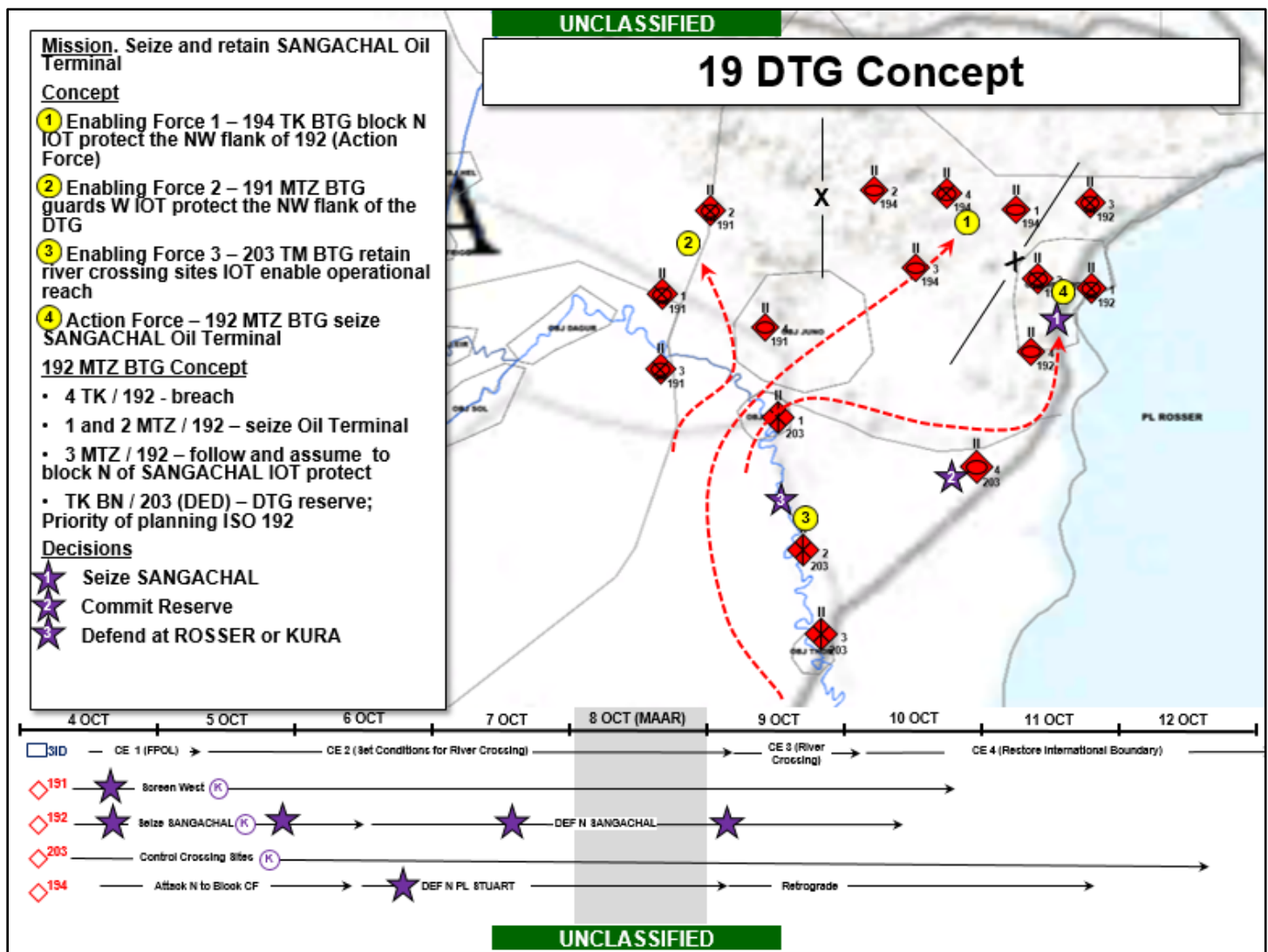


Figure 5. 19th DTG concept

The 194th BTG was tasked with isolating Sangachal Oil Terminal and the key terrain just northwest of Sangachal. Its mission was the most difficult based on the location, terrain, and potential of a coalition brigade being able to seize the key terrain (Figure 5, yellow #1) before the 194th could get there. The DTG action force was the 192nd BTG with the task to seize and retain Sangachal (Figure 5, yellow #4). The 192nd planned on leading with the 4th Tank BN of the 192nd to breach any obstacles. It would be followed by the 1st and 2nd Motorized BNs to seize and retain Sangachal. Lastly, the 3rd Motorized BN would establish a block north along the avenue of approach from Baku.

The 19th DTG would begin with the 203th assuming responsibility for the Kura crossing sites. This would occur simultaneously with the 194th moving northwest to cross the river south of Hajigabul ahead of the 192nd. The 191st would attack to establish its block at the same time as the 203rd was moving to assume crossing sites. The 194th would establish the isolation immediately northeast of Sangachal. Then the 192nd would be able to attack into Sangachal either south to north or west to east. The reserve, 4th Tank BN of the 203rd BTG, would follow the 192nd.

Setting Force Ratios

The 19th DTG planned on moving the 195th BDE north of the Kura to provide the range required to support Sangachal. The OSC would support the DTG with two rotary wing attack companies from 310th AV. This would equate to eight MI 35M HINDs that are employed as companies of four each. OSC-level targeting was planned to disrupt the coalition theater ballistic missiles and high to medium air defense coverage of Sangachal. This will would enable the employment of rotary and fixed wing assets north of Sangachal to isolate and help set force ratios.

Isolating from the north

The OSC planned to isolate Sangachal from the north with an integrated attack. This would suppress integrated air defense system (IADS)/anti-access and area denial (A2AD) and allow the employment of aviation in the area. Fires would suppress assets in Sangachal and help set the force ratios. Isolating from the north would also help set and/or retain the appropriate force ratios for the 19th DTG. The OSC planned to employ family of scatterable mines along the avenue of approach out of Baku.

Execution

OSC Big Picture

On the morning of 4 October (STARTEX), the OSC continued its attack to block in the west and seize Sangachal in the east. The 20th DTG was able to establish a defense at the river in the southwest as planned. The 306th was able to improve its guard at the Kura in the northwest. The 310th and 312th AV BDEs positioned forward with the capacity to support as planned.

Confirm Enemy Situation at Sangachal

During the night of 3–4 October, the OSC reconnaissance assets confirmed the presence of an Atropian brigade defending Sangachal with an obstacle belt along the avenue of approach from the south. The OSC was also able to observe a coalition air assault that put a minimum of two battalions south of the Atropian brigade and established an overwatch of the obstacle belt.

Reinforce Sangachal from the North

During daylight hours on 4 October, reconnaissance detected a brigade from 3rd ID passing through the Atropian forces located between Sangachal and Baku. The OSC anticipated that if that brigade was able to get to Sangachal, the 19th DTG would not have enough combat power to seize the objective. The OSC targeting assets began to detect and neutralize Atropian strategic A2AD, though at the neglect of tactical A2AD at Sangachal. The OSC subsequently employed aviation assets without fully assessing the effects achieved from targeting. This was done based on time sensitivity and preventing the BLUFOR ground maneuver brigade combat team (BCT) from reaching Sangachal. The OSC was able to disrupt the BCT at a minimum, but it came at a significant cost. A substantial number of aircraft were lost due to the operational and tactical A2AD assets in Sangachal that were not suppressed by OSC targeting. The OSC actions ultimately slowed the BCT. Nevertheless, it did not stop the BCT from reinforcing Sangachal.

Seizure of key terrain

While this was occurring, the OSC and 19th DTG neglected to confirm or deny the presence of enemy on the key terrain northwest of Sangachal. This critical oversight proved costly as well. During the night of 3–4 October, a coalition brigade from 3rd ID had conducted a passage of lines and seized the key terrain. This provided 3rd ID dominant overwatch of the avenues of approach to Sangachal from the west. It closed the time gap the OSC had assessed and seized the exact terrain that the 194th BTG had intended to occupy.

The coalition had seized the initiative with its uncontested air assault, BCT attack from the north, and seizure of key terrain. This is clear in hindsight, but was not apparent during execution because of OSC difficulties in assessing current operations. The coalition was able to do this based on its planning and execution but it was not without unintended help from the OPFOR.

1st BN, 156th Missile BDE Left Behind

The 1st BN, armed with SS-21 surface-to-surface missiles with a 120-km range, was tasked to support the isolation from an assembly area position just south of the Kura. This would place it in range to reach almost all 3rd ID assembly areas and clearly in range to support Sangachal. In the first days of the campaign, this battalion had moved into southern Atropia with the capacity to support either east or west. The unit did not get the notification to continue its movement north to support Sangachal. When called to fire in support, it was not able to range as required.

Collection Plan

The OPFOR collection focus at the OSC level was focused on corps enablers. The OSC did not initially collect to confirm templated locations of coalition forward arming and refueling points or attack aviation assets. The DTG focused collection on combat units at Sangachal and did not include obstacles or enablers. As a result, the OSC and DTG did not know the coalition had committed an attack aviation battalion to support the defense at Sangachal until they were in physical contact. The only asset capable of countering this capacity was the OSC MI 35M HINDs that were employed at the company level (four aircraft at a time). These companies were committed one at a time in two-hour blocks with a priority for engagement of air-to-air, then air-to-ground. They were also limited in the depth of employment since the OPFOR failed to neutralize or suppress the IADS at Sangachal. Commitment of the HINDs did achieve the desired effect; however, much too late. They were not able to facilitate any OPFOR offensive operations.

The net effect of not targeting the appropriate IADS in Sangachal as well as not having the appropriate fires assets in range to suppress limited the ability of the OPFOR to employ any air assets. This affected rotary and fixed wing assets. This was coupled with a lack of OPFOR air defense assets positioned with the forward ground units, which had resulted from a failure to follow up on task-organization changes. The failure to isolate Sangachal from the north or northwest enabled BLUFOR to reinforce almost at will. The BLUFOR's only limiting factor was throughput capacity on the avenues of approach from the north to the south and the amount of units remaining available to move south.

19 DTG, Sangachal—Box Method

The 19th DTG continued posturing to set the conditions for the attack. The 203rd BTG assumed responsibility for the majority of river crossing sites, but took longer than planned. The 191st BTG attacked north and established blocking position to protect the northwest flank of the DTG without incident.

The 194th Tank BTG conducted its movement from the eastern axis of advance to the center axis. Its movement occurred relatively smoothly until it began to approach the river crossing sites near Hajigabul. Based on the relief in place (RIP) between the 203rd and 192nd, the routes became congested. It took the 194th much longer to get across the river than planned. The 192nd initially pushed its lead two battalions across and east to make room for the 194th to pass behind. This created separation between the four battalions of the 192nd that would prove difficult to overcome. The DTG reserve (4th Tank BN / 203rd BTG) and 195th BDE both postured across the river slightly behind schedule. The 211th BDE was postured in an assembly area position south of the Kura in position to range the southern half of Sangachal.

After approximately five hours, the DTG was postured to continue the attack to seize Sangachal. This was well after the 3rd ID had already seized the initiative. Using the dominant terrain to the northwest of Sangachal, 3rd ID was able to employ indirect fires, attack aviation, and some ground fires to force the culmination of the 194th BTG. Less than two hours after the 194th had begun its attack from the Kura it had culminated, but did not fully understand the conditions. The 194th trail elements continued to attack while the lead elements had culminated. The BTG was unable to isolate Sangachal or force the enemy there to fight in two directions.

Assessing Current Operations

It proved difficult to assess the current situation based on the inadequate collection plan and pace of operations. The OSC and DTG did not know they had lost the capacity to seize Sangachal with the culmination of the 194th. The 194th continued the attack toward Sangachal from the south. However, the separation that the brigade experienced between the four battalions while posturing for the river crossing was now exacerbated. As a result, it attacked with only two battalions. The two trail battalions remained on the south side of the Kura River, unable to get across due to the congestion at the crossing sites. The OSC and DTG main effort attacked into the main obstacle belt, against two brigades in prepared defensive positions, without the objective being isolated and with inadequate force ratios. The OPFOR did not stand a chance.

Conclusion

The OPFOR failed to target and shape in order to set force ratios or to isolate to maintain the desired ratios. BLUFOR began at Sangachal with one brigade in a deliberate defense. This meant that the OPFOR required a minimum of three brigades attacking Sangachal to be effective. The desired ratio of five or six attacking brigades against the one defending brigade

would potentially ensure success. Without the isolation effect, BLUFOR continued to reinforce the objective with two infantry battalions that air-assaulted to the south of Sangachal. This was coupled with the seizure of key terrain to the northwest of Sangachal from another brigade. This equated to three BLUFOR brigades (-) at Sangachal, supported by a brigade to the northwest. Thus the force ratios equated to eleven BLUFOR battalions defending in the area of Sangachal and four OPFOR battalions attacking. The four OPFOR battalions consisted of the two lead battalions of the 194th and the two lead battalions of the 192nd. The OPFOR had deviated from its fundamentals and as a result lost the battle before it knew what was occurring.

Late in the day on 4 October, the 19th DTG and OSC were finally able to put the pieces together and assess the situation appropriately. The OSC had failed to isolate the objective or to set the appropriate force ratios for the DTG. The DTG had moved much slower than anticipated because of sequencing and congestion at the river. The OSC had culminated. The DTG and OSC commanders acknowledged the conditions and formally directed the consolidation and reorganization at the Kura River. This was not much of a formal decision; it more closely resembled the respective commanders acknowledging what was already occurring at the BTG level. The ground forces did not have a choice and were already executing consolidation and culmination.

Sequencing

It is clear that the OPFOR did not sequence in time and space to achieve the desired effects. This is evident in the fact that the 19th DTG required significant posturing at the Kura prior to continuing the attack. It attacked with a balanced formation with two brigades on two parallel axis of advance. The 192nd BTG had to wait on the 194th to move west and across the river to attack toward Sangachal. This cost valuable time and allowed BLUFOR to execute unimpeded. This was coupled with the required RIP at the river crossing sites for the 203rd BTG to assume security. This had significant second- and third-order effects in the subsequent hours. The end effect was that BLUFOR was able to seize the initiative without having to kinetically fight for it.

Consolidation and Reorganization

OPFOR's failure to seize Sangachal triggered a defense in depth at the Kura River to protect the northeast flank of the OSC. This included the remaining three battalions of the 203rd BTG at the river and remnants of the 192nd and 194th. The 194th was combat ineffective. The 192nd had two remaining battalions that were task-organized to the adjacent BTGs as reserve forces to block any penetration at the river. The 191st BTG repositioned to the key terrain north of Hajigabul to serve as the DTG disruption zone. The OPFOR had the capacity to defend each river crossing site against a single brigade and the capacity to reinforce with a single battalion reserve at two separate sites. This equated to defending two sites against two brigades. Had this warfighter exercise not been cut short, the OSC would not have been able to continue hostilities in Atropia.

Notes

¹ For more information, see: Madden, Patrick. "[MCTP Warfighter Exercise 16-5](#)." Red Diamond. September 2016.

² Editor's Note: Unmanned aerial systems (UAS) is the title given to platforms used by US, allied, and friendly forces, such as rotational training units. When these platforms are used by adversaries of the US—to include the OPFOR—they are referred to as unmanned aerial vehicles (UAVs).

³ "Constituent units are those forces assigned directly to a unit and forming an integral part of it. They may be organic to the table of organization and equipment (TOE) of the administrative force structure forming the basis of a given unit, assigned at the time the unit was created, or attached to it after its formation. *Dedicated* is a command relationship identical to constituent with the exception that a dedicated unit still receives logistics support from a parent headquarters of similar type." [Training Circular 7-100.2, Opposing Force Tactics](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Paras 2-6, 2-7.

⁴ Action Force definition: "One part of the unit or grouping of units conducting a particular offensive or defensive action is normally responsible for performing the primary function or task that accomplishes the overall mission goal or objective of that *action*. In most general terms, therefore, that part can be called the *action force* or *action element*. In most cases, however, the higher unit commander will give the action force or element a more specific designation that identifies the specific function or task it is intended to perform, which equates to achieving the objective of the higher command's mission." From: Headquarters, Department of the Army. [Training Circular 7-100.2, Opposing Force Tactics](#). TRADOC G-2 Analysis and Control Element (ACE) Threats Integration. 9 December 2011. Para 2-52.

RUSSIA DESIGNS THE 80TH SEPARATE MOTORIZED RIFLE BRIGADE FOR OPERATIONS IN THE ARCTIC

by [LTC Bryce Frederickson](#), TRADOC G-2 ACE Threats Integration

The Arctic Ocean region is becoming a potential source of conflict. With the impending ice melts that open up shipping lanes and potential resources, there is a new interest in this barren region. There are five countries with claims in the Arctic Ocean: Russia, United States, Canada, Norway, and Denmark. These five countries' claims have all been based off the UN Convention Law of the Sea (UNCLOS), with the exception of the United States which has not ratified the treaty. The importance for this reason grows with the release of new data and research in the Arctic. The US estimates that about 15% of the world's remaining oil, up to 30% of its natural gas deposits, and about 20% of its liquefied natural gas are stored in the Arctic seabed.¹ As the Arctic warms, Russia is positioning itself to become the dominant player in a resource-rich and strategically positioned region.² Russia's will consider the positioning of its forces and developing new force structures to accomplish its goals and objectives.

A potential conflict in the Arctic would require specially trained forces that would be able to manage with the difficulties operating there. The majority of conventional units not trained in this environment would have a steep learning curve to overcome the natural harsh conditions, increasing the difficulties of combat. To ensure Russia remains a dominant force in the Arctic region, Russia has recently invested in a new Separate Motorized Rifle Brigade, designed for operations in the Arctic.

The Russian Northern Fleet has two Separate Motorized Brigades as its land forces. The 200th Separate Motorized Brigade has a traditional force structure and is primarily focused on protection of the Fleet's ports and airfields. The 80th Separate Motorized Rifle Brigade, which was activated in January 2015 and is based in the town of Alakurtti, can also be used for the same purpose as the 200th Brigade, but its organization, equipment, and training exercises indicate a somewhat different mission.³ Currently, complete composition of the 80th Brigade is unknown, however there are some indications from reports that the composition of this new Brigade continues to evolve and affect how this unit will be used. It is important to note that this will



Figure 1. Arctic region

be a unique unit in the Russian Armed Forces inventory, with a mission focused on Arctic warfare.

Russia reports that a reconnaissance parachute company with the 80th Separate Motorized Rifle Brigade will be trained to fight on drift ice near the North Pole, and troops with the special operations forces have begun to learn to operate in the region too.⁴ Additionally, the 80th Brigade is equipped and trained not for forced entry, but for extended independent

operations far away from friendly bases on the many islands and archipelagoes of the Arctic theater of operation, such as Novaya Zemlya, Franz Josef Land, and Splitsbergen, and relies mainly on air and sea resupply.⁵ The strategic mobility requirement and the need to operate in extreme conditions with limited logistical support means that the 80th Brigade is more lightly equipped than conventional motorized rifle units. It does not have a tank battalion, and its rifle battalions are mounted on *Mashina Transportnaya Legkaya Boyevaya* (MTLB) [Russian transport vehicle for combat] tracked armored personnel carrier (APCs) which have good mobility over snow and tundra.⁶

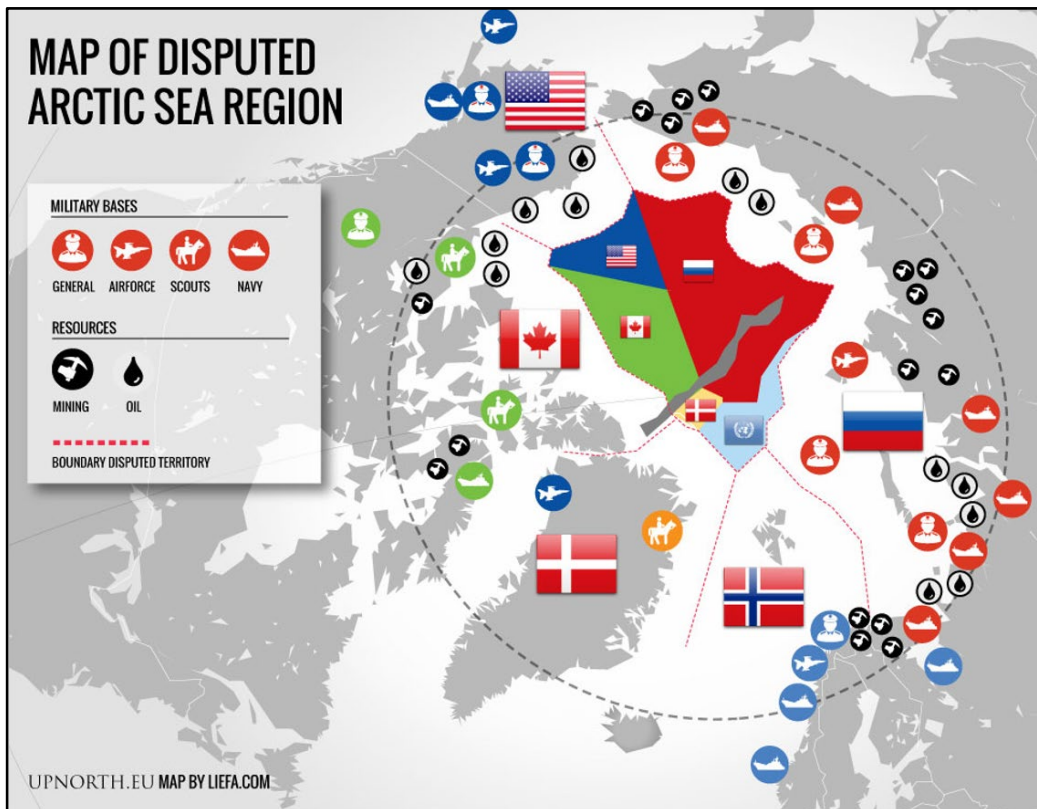


Figure 2. Arctic Council, Arctic Ocean claims

The missions that the 80th Separate Brigade could receive are as diverse as the unit itself. There are some reports it could play both a defensive role, protecting key Russian military infrastructure such as airfields and early warning radar stations against NATO special operations raids, and an offensive one by pre-empting NATO landing on any contested land areas of the Arctic.⁷ This force projection role and the associated training and acquisition of exclusive arctic equipment sets this unit apart from the 200th Separate Brigade.

Since the 80th Separate Brigade was activated in 2015, it has been conducting training exercises and testing new tactics and equipment for Arctic missions. Tactical operations in Arctic conditions require substantial training and preparation by any force planning for success. The harsh weather conditions to include freezing temperatures, blistering winds, and snow-blindness, along with permafrost terrain difficulties, requires military units to train and rehearse operations in those conditions to be successful. Military operations require sustainment units that can extend their lines of communication farther than typically required in temperate climates



Figure 3. 80th Separate Brigade and reindeer sled mobility

due to the lack of infrastructure.⁸ In 2016, the reconnaissance element from the 80th Separate Brigade conducted training operations using snow dogs and reindeer for their movement and equipment.

The Arctic council and its members have been able to negotiate and keep the region on diplomatic terms. However, human nature and the vast resources and economic benefits on shipping lanes means the Arctic presents itself as potential point of conflict in the future. To settle disputes, look to Russia to use the 80th Separate Motor-Rifle Brigade in some capacity since it is clearly postured to project military force into this contested region.

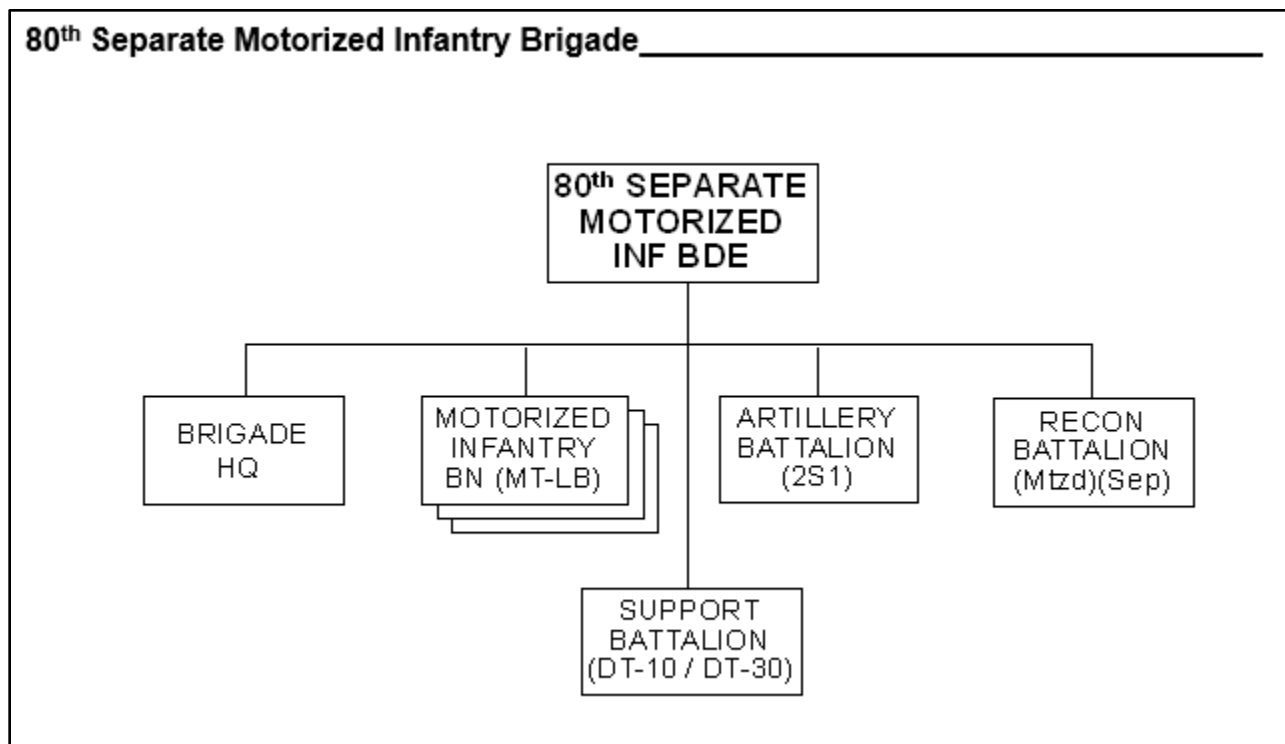


Figure 4. This estimate of the composition of the 80th Separate Motorized Brigade is based on unclassified research conducted by the analyst

Figures

Figure 1. Arctic Region from NOAA, U of Texas Arctic region 2000.

Figure 2. Map of Disputer Arctic Sea Region, UPNORTH.EU.

Figure 3. Russian Northern Fleet's Arctic mechanized infantry brigade conducts military exercises to learn how to ride reindeer and dog sleds at a reindeer farm near the Lovozero settlement. (Photo by Lev Fedoseyev\TASS via Getty Images)

Notes

¹Jeremy Bender and Mike Nudelman. "[This map shows Russia's dominant militarization of the Arctic.](#)" October 2016.

²Jeremy Bender and Mike Nudelman. "[This map shows Russia's dominant militarization of the Arctic.](#)" October 2016.

³J. Hawk J. and South Front, "[VIDEO: Russia's Northern Fleet in the Arctic. Surface Ships, Submarines, and Aircraft.](#)" February 2016.

⁴TASS Russian News Agency, "[Russian Spetsnaz Continue Arctic Training.](#)" 14 July 2016.

⁵J. Hawk J. and South Front, "[VIDEO: Russia's Northern Fleet in the Arctic. Surface Ships, Submarines, and Aircraft.](#)" February 2016.

⁶J. Hawk J. and South Front, "[VIDEO: Russia's Northern Fleet in the Arctic. Surface Ships, Submarines, and Aircraft.](#)" February 2016.

⁷J. Hawk J. and South Front, "[VIDEO: Russia's Northern Fleet in the Arctic. Surface Ships, Submarines, and Aircraft.](#)" February 2016.

⁸Justin Lynch. "[America Needs to Get Serious about the Arctic.](#)" January 2017.

DATE 3.0

Modifications and Additions to the Decisive Action Training Environment

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This past July, TRADOC G-2 ACE Threats Integration (ACE-TI) published the latest update to the [Decisive Action Training Environment \(DATE\)](#). DATE 3.0 includes many revisions—some minor, others substantial. The largest modifications involve the addition of new groups, changes in country borders, the removal of Kalaria, the addition of a new chapter focused on threat actors, and the minimization of real-world countries and ethnicities. In addition, orders of battle (OBs) for DATE threat actors have been moved to a new chapter, and the scope of Donovia's Physical Environment variable was expanded to include the entire country. This article highlights substantial changes made to this newest edition of the DATE, as outlined in the document's Strategic Setting. A comprehensive list of changes to the DATE OEs is available on the [DATE page](#) of ACE-TI's website on the Army Training Network (ATN).

General Revisions

Strategic Setting. Sections were added that address access to the Black Sea and the assignment of countries to US Combatant Commands (COCOMs) in the DATE world. Additional guidance on modifying DATE conditions for exercises was given, including examples of acceptable and unacceptable changes. Explanations of the concepts of "fixed" dates (e.g., January 1969) and "sliding" dates (e.g. six years ago) as used in the DATE were also incorporated.

Borders. Borders for Ariana, Gorgas, and Limaria have been restored to those used in DATE 2.1, as shown below. All maps in DATE 3.0 have been updated to reflect these changes. Related information, such as road miles and percentage of arable land, have also been revised in the affected countries.

Kalaria. All mentions of Kalaria, including its citizens, ethnicity, and language, have been removed from the DATE. Text discussing Limarian conflict with Kalaria has also been removed, resulting in Limaria's main focus being limited to one DATE country—Atropia.

Real-World Countries. All mention of named non-DATE border countries has been removed from the DATE. Most of these mentions have been removed in their entirety. In a few select instances, text referring to a specific country has been modified to refer to an "eastern neighbor" or "regional conflict." All maps were revised to eliminate defined borders for non-DATE countries. In addition, mention of other real-world countries not bordering the DATE OEs has been minimized, and all references to the Global War on Terror (GWOT), Operations Enduring Freedom (OEF), and Operation Iraqi Freedom (OIF) have been removed.



Figure 1. DATE border changes

Elections. The election cycle discussion for each country was augmented. Each one now includes length of term; term-limit information; sliding date(s) of the last election(s); and sliding date(s) of the next election(s). In addition, information is given on when each president was elected and how long he has been in office.

Tables and Timelines. Country-specific tables were added to each country's Physical Environment variables, and timelines of events were added to the Time variables.

Units of Measure. All units of measure, except for those associated with military weapon systems, have been converted from metric to English (Imperial) units.

New Groups. Multiple new threat groups have been added, to include two religious-based violent extremist organizations, One Right Path and The True Believers; a hacking/computer crimes group, Saints of Cognito; and several country-specific criminal groups. In addition, several new fictional nongovernmental organizations (NGOs) were added.

Threat Actors Chapter. Force structures for OE threat groups—e.g., insurgents—were moved from the individual countries' OBs to the new Threat Actors chapter at the end of Section Two. This chapter also includes a summary table—shown below—listing each threat group by location (countries) and type, as well as a more detailed table. Force structures were added for the violent extremist organizations and the Lower Janga Army.

Type	Ariana	Atropia	Donovia	Gorgas	Limaria
Criminal	<ul style="list-style-type: none"> <i>Gentlemen's Purdah Society</i> <i>Hacking for Ariana</i> <i>Saints of Cognito</i> Drug and Weapons Organizations 	<ul style="list-style-type: none"> Al Iksir Cartel <i>Amali Diners' Club</i> Atropian Organized Crime Bocyowicz Crime Family <i>National Social Media Foundation</i> <i>Pan-Muslim Relief Society</i> <i>Saints of Cognito</i> 	<ul style="list-style-type: none"> Al Iksir Cartel Donovian Mafia Jinat Crime Family <i>National Inter-Business Cooperative</i> <i>Pan-Caucasus Miner's League</i> <i>Pan-Donovian Law Enforcement Brotherhood</i> <i>Saints of Cognito</i> Criminal Actors 	<ul style="list-style-type: none"> <i>Gorgan Tourist Association</i> <i>Hawala Assistance Brotherhood</i> <i>Pan-Caucasus Petrol Distributors</i> Criminal Actors 	<ul style="list-style-type: none"> Abgar Bozian's Bozian Gerdaстан Limarian National Labor Union Limarian Socialist Democratic Party <i>Pan-Caucasus Petrol Distributors</i> Criminal Actors
Insurgent/ Guerrilla	<ul style="list-style-type: none"> God's Helpers Brigade Anti-Ariana Insurgent Groups 	<ul style="list-style-type: none"> Bilasuvur Freedom Brigade Free Lower Janga Movement Limarian Liberation Front Provisional Army of Lezgin Salasyl South Atropian People's Army 	<ul style="list-style-type: none"> Bilasuvur Freedom Brigade Anti-Donovia Insurgent Groups 	<ul style="list-style-type: none"> Falcon Brothers <i>Jarie Separatists</i> People's Liberal Republican Martyrs Group South Ostremek Separatists Zabzimek Irregular Forces Zabzimek Separatists 	<ul style="list-style-type: none"> Free Lower Janga Movement Limarian Liberation Front
Violent Extremist	<ul style="list-style-type: none"> <i>One Right Path</i> 	<ul style="list-style-type: none"> <i>One Right Path</i> <i>The True Believers</i> 	<ul style="list-style-type: none"> <i>One Right Path</i> <i>The True Believers</i> 	<ul style="list-style-type: none"> <i>One Right Path</i> 	<ul style="list-style-type: none"> <i>One Right Path</i>
Unknown	<ul style="list-style-type: none"> <i>NTAT Modeler's Club</i> 				

Table 1. Threat groups in DATE 3.0 (new groups shown in italics)

Orders of Battle. The structure of some antitank brigades was modified significantly: all now consist of a brigade headquarters, four antitank battalions, a reconnaissance battalion, a man-portable air-defense system (MANPADS) company, a materiel support company, an engineer platoon, a signal platoon, and a medical company. All Arianian and Donovanian motorized infantry divisions now have three motorized infantry brigades instead of two. Some units were added to the military disposition maps in the Military variables and other units changed locations, as reflected in the same maps.

Events Section. Section Three was updated, with many events rewritten in whole or in part. Mission-essential task list (METL) tasks for all events were also updated to conform to the most recent version of the Army Universal Task List (AUTL).

Country-Specific Revisions

Ariana. The province of Alani was broken into two provinces: Alani (new borders) and Karaj. Mentions of Persian ethnicity and culture were removed and replaced with Arianian ethnicity and culture. Likewise, the Persian/Farsi language was replaced with Arianian. Three new country-specific threat groups were added: the Gentlemen's Purdah Society, Hacking for Ariana, and the NTAT Modeler's Club, as well as a new NGO. The 92nd Motorized Infantry Division was changed to a mechanized infantry division, and all motorized infantry divisions now have three motorized infantry brigades instead of two. Several subsections were added or rewritten, including Family Authority (Political); Army Doctrine and Tactics (Military); Internal Security Forces (Military); Foreign Military Presence (Military); Joint Capabilities (Military); and Special Considerations (Military).

Atropia. The country was changed from a dictatorship to an oligarchy, and was defined as consisting of provinces that are broken down into rayons and cities. Lower Janga, previously called a region, was clearly defined as a breakaway province of Atropia. Language in the Military variable was revised in places to make clear that the Atropian Army does not have any divisions. Ethnicities, religions, languages, and their relative percentages were modified. Three new country-specific threat groups were added: the National Social Media Foundation, the Pan-Muslim Relief Society, and the Amali Diners' Club. Information was added on techniques commonly used by Salasyl. Several subsections were added or rewritten, including Family Authority (Political); Army Doctrine and Tactics (Military); Internal Security Forces (Military); Reserves and Militia (Military); Foreign Military Presence (Military); Joint Capabilities (Military); and Relative Humidity (Physical Environment).

Donovia. The country's flag was added, as was the long form of its name (United Republics of Donovia). An explanation was added of the war in Gamrun Republic. Three new country-specific threat groups were added: the Pan-Donovian Law Enforcement Brotherhood, the National Inter-Business Cooperative, and the Pan-Caucasus Miner's League. Zabzimek and South Ostremek, previously referred to as regions or republics, were clearly defined as breakaway provinces of Gorgas. A breakdown of non-Donovian languages was added. The Physical Environment variable was extensively rewritten to expand it from the North Caucasus area to the entire country. In the OB, an Integrated Fires Command and an Integrated Support Command were added to the Donovanian Ground Forces Command. The 720th Motorized Infantry Brigade (forward deployed to Limaria) was also added to the Southern Army, and organizational structures were added for eight commands and divisions. Several subsections were added or rewritten, including Family Authority (Political); National Security Strategy (Military); Foreign Military Presence (Military); Research & Development Goals (Military); and Special Considerations (Military).

Gorgas. The country's flag was added, as was the long form of its name (Democratic Republic of Gorgas). Gorgas was defined as consisting of provinces that are broken down into districts. Provincial borders were revised, with the addition of three new provinces (Rissi, Ornli, and Kura). Language in the Military variable was revised in places to make clear that the Gorgan Army does not have any divisions. Gorgas' militia battalion is now the National Guard, and the Critical Infrastructure Security Service was added



Figure 2. Gorgan provinces

to the OB under the Ministry of the Interior's State Security Directorate. Zabzimek and South Ostremek, previously referred to as regions or republics, were clearly defined as breakaway provinces of Gorgas. Three new country-specific threat groups were added: the Gorgan Tourist Association, the Hawala Assistance Brotherhood, and Pan-Caucasus Petrol Distributers. Many Zabzimeks now possess Limarian heritage, with ancestors having migrated there centuries ago. Due to border changes, the port city of Hopa was eliminated. Several subsections were added or rewritten, including Corruption (Political); Army Doctrine and Tactics (Military); Reserves and Militia (Military); Foreign Military Presence (Military); Joint Capabilities (Military); INFOWAR (Military); Chemical, Biological, Radiological, and Nuclear (Military); and Wind (Physical Environment).

Limaria. The long form name of Limaria was added (Democratic Republic of Limaria). Lower Janga, previously called a region, was clearly defined as a breakaway province of Atropia. The country's religion was defined as Limarian Apostolic. Language in the Military variable was revised in places to make clear that the Limarian Army does not have any divisions. Several subsections were added or rewritten, including Military Authority (Political); Army Doctrine and Tactics (Military); Reserves and Militia (Military); Joint Capabilities (Military); Command and Control (Military); INFOWAR (Military); Chemical, Biological, Radiological, and Nuclear (Military); and Wind (Physical Environment).

Training Implications

The purpose of the Decisive Action Training Environment (DATE) is to provide the US Army training community with a detailed description of the conditions of five operational environments (OEs) in the Caucasus region; specifically the fictional countries of Ariana, Atropia, Donovia, Gorgas, and Limaria. It presents trainers with a tool to assist in the construction of scenarios for specific training events but does not provide a complete scenario. The DATE offers discussions of OE conditions through the political, military, economic, social, information, infrastructure, physical environment, and time (PMESII-PT) variables. This DATE applies to all US Army units (Active Army, Army National Guard, and Army Reserve) that participate in an Army or joint training exercise. DATE 3.0 and a comprehensive list of changes to the five OEs are available on the [DATE page](#) of [ACE-TI's webpage](#) on the [Army Training Network](#).

Never accept a friend request from someone you don't know, even if they seem to know a friend of yours.

Don't share information that you don't want to become public.

Limit the personal information in your profile.

Be cautious when listing your professional details.

Pay attention to your Privacy Settings.

Disable Geotagging.

Beware of location-based social networking services.

The devil is in the details. **Avoid** them.

Remember OPSEC

What does the THREAT Know?

The graphic features a list of OPSEC rules on the left, a central image of a laptop with a red devil icon on its screen, and a close-up of a soldier's eyes on the right. A red arrow points from the text 'What does the THREAT Know?' to the laptop, and a blue arrow points from the text 'Remember OPSEC' to the laptop.

What ACE Threats Integration Supports for YOUR Readiness

- ◆ Determine Operational Environment (OE) conditions for Army training, education, and leader development.
- ◆ Design, document, and integrate hybrid threat opposing forces (OPFOR) doctrine for near-term/midterm OEs.
- ◆ Develop and update threat methods, tactics, and techniques in HQDA Training Circular (TC) 7-100 series.
- ◆ Design and update Army exercise design methods-learning model in TC 7-101/7-102.
- ◆ Develop and update the US Army *Decisive Action Training Environment (DATE)*.
- ◆ Develop and update the US Army *Regionally Aligned Forces Training Environment (RAFTE)* products.
- ◆ Conduct Threat Tactics Course resident at Fort Leavenworth, KS.
- ◆ Conduct Threat Tactics mobile training team (MTT) at units and activities.
- ◆ Support terrorism-antiterrorism awareness in threat models and OEs.
- ◆ Research, author, and publish OE and threat related classified/unclassified documents for Army operational and institutional domains.
- ◆ Support Combat Training Centers (CTCs) and Home Station Training (HST) and OE Master Plan reviews and updates.
- ◆ Support TRADOC G-2 threat and OE accreditation program for Army Centers of Excellence (CoEs), schools, and collective training at sites for Army/USAR/ARNG.
- ◆ Respond to requests for information (RFIs) on threat and OE issues.

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