Red Diamond
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by Rick Burns, TRADOC G-2 ACE Threats Integration (BMA Ctr)

To date, TRADOC G-2 ACE Threats Integration has published four products in its Threat Tactics Reports (TTRs) series: ISIL, Russia, and North Korea, and China. The next installment of this series focusses on Boko Haram.

With the largest economy in Africa, and projected to be one of the ten fastest growing economies in the world in 2015, Nigeria is a key to regional stability. Persistent ethnic, regional and religious divisions, corruption, and poverty, however, have given rise to one of Nigeria's greatest threats to stability, its home-grown paramilitary insurgency group Boko Haram. Boko Haram's increasing use of indiscriminate violence and alliance with the Islamic State in Iraq and the Levant (ISIL) are intensifying the threat to both Nigeria and the region. The forthcoming Boko Haram TTR provides an overview of Boko Haram's tactics, techniques, capabilities, and the implications of its continued operations. As with all TTRs, the report will also identify how the capabilities and tactics of Boko Haram can be replicated in training using opposing force/threat doctrine from the TC 7-100 series and conditions already present in the Decisive Action Training Environment (DATE).

RED DIAMOND TOPICS OF INTEREST

by Angela M. Wilkins, TRADOC G-2 ACE-Threats Integration, Editor, *Red Diamond* Newsletter (IDSI Ctr)

This issue of *Red Diamond* features two recently published Threat Tactics Reports—one on North Korea and the other on China. These reports demonstrate how these two actors would fight on a tactical level, and provide a clear connection between these real-world forces and established opposing force doctrine.

The article covering the recent MCTP Warfighter Exercise provides details on this corps- and division-level exercise, which was one of five occurring during the most recent fiscal year. The purpose of this 10-day exercises is to create a competitive and multi-echelon, component, joint training environment in order to provide commanders the opportunity to execute mission command in unified land operations. It is based on the principles and conditions in the Army Training Circular 7-100 series of publications and the Decisive Action Training Environment (DATE).

The tactical vignette featured in this month's *Red Diamond* newsletter is the fourth article in this tactical vignette series. Focusing on reconnaissance and counterreconnaissance as economy of force actions, the screen mission incorporates both tasks as integral to providing early warning and a degree of protection to the force main body. Other offensive tasks anticipated in a screen can include actions of an ambush and/or *raid* in order to accomplish the intent of the mission.

TRADOC G-2 ACE Threats Integration has been hosting the Threat Tactics Course twice a year, and the most recent class took place last month. Thirty –two students attended and received quality instruction from analyst who are the source of the TC -100 series and the DATE, on which the course is based. Photos and more information is available on pages 33 and 34 of this issue.

This month's WEG article features the VBL, which will be new to the 2015 WEG. The French Panhard Armored Carrier (known as the *Véhicule Blindé Léger* (light armored vehicle), abbreviated as VBL, is primarily a reconnaissance vehicle. It is a versatile, small, 4-wheel drive vehicle used in a variety of battlefield roles. The article on page 35 describes 19 variants. The VBL's WEG sheet is on pages 38–39.

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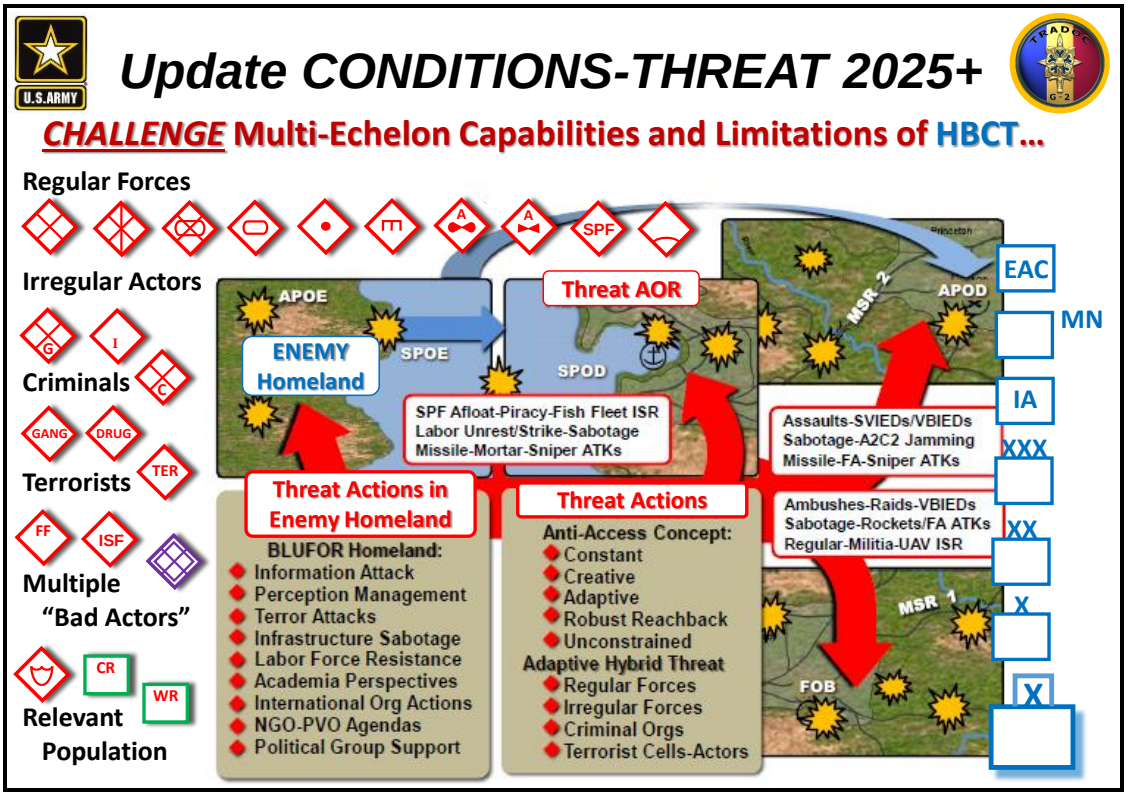
Director's Corner
Thoughts for Training Readiness

by Jon Cleaves, Director, TRADOC G-2 ACE Threats Integration (DAC)

The TRADOC G-2 ACE Threats Integration Directorate continues to refine a concept for conducting *Threat 2025+* in 2016. This TRADOC G-2 research and analysis wargame will validate realistic, robust, and relevant conditions of operational environments (OEs) and scalable representation of hybrid threat (HT) opposing force (OPFOR) as *requirements* for the TRADOC *Operational Environment Master Plan* (OEMP). The core group for this initiative resides in the ACE Threats Integration Directorate, and will collaborate with the many partners and expertise in HQDA G2, TRADOC, FORSCOM, ASCCs, and activities such as the NGIC.

As the US Army lead for designing, documenting, and integrating threat or OPFOR and OE conditions in support of all Army training, education, and leader development programs, ACE Threats Integration analyzes and recommends OE and challenging OPFOR capabilities to the TRADOC G-2 for integration of representative *CONDITIONS*. A primary *Threat 2025+* axis of inquiry includes how to challenge the capabilities and limitations of US Army brigade combat teams (BCTs) and enablers in decisive action operations.



Analysis will determine emergent threats—capabilities and limitations—of an OPFOR that exhibits the combat power combinations available to a hybrid threat: regular elements-forces; irregular elements-forces; criminal organizations; relevant population; and the physical and psychological effects of terrorism. The OEs will consider the comprehensive aspects of threats to home stations, deployment, operations in an AOR, and redeployment. The ACE Threats Integration Directorate will keep the *Red Diamond* readership apprised of *Threat 2025+* and recommendations supporting US Army readiness now and into the near-term era of persistent conflict.

JON

by H. David Pendleton, TRADOC G-2 ACE Threats Integration (CGI Ctr)

Recently, TRADOC G-2 ACE Threats Integration published a Threat Tactics Report (TTR) on the Democratic People's Republic of Korea (DPRK), more commonly known as North Korea. A TTR can examine either a country such as North Korea or an actor such as the Islamic State of Iraq and the Levant (ISIL). A TTR's primary purpose is to explain to the Army training community how a country or group fights, including its doctrine, force structure, weapons and equipment, and the warfighting functions. A TTR also demonstrates how members of the training community can replicate a North Korea-like threat using tactics and capabilities from the Training Circular (TC) 7-100 series and actor-specific conditions found in the Decisive Action Training Environment (DATE).

Organization

The North Korea TTR features five sections. The introductory section provides a historical overview of the DPRK; North Korea's political and military strategy/goals; key political and military leaders; important alliances; the organizational size and structure of the country's forces; and the military's strengths, weaknesses, and locations. Despite its relatively small population, the DPRK fields one of the largest militaries in the world with nuclear, biological, and chemical warfare capabilities. With a large reserve force and an economy geared to support the military, the Korea People's Army (KPA) is a significant threat to South Korea and potentially to regional stability.

Section 2 focuses on the tactics and techniques used by the KPA; KPA refers to all DPRK military services: army, navy, and air force. This section also traces a direct line from DPRK military ideology through its national objectives, military policy, military strategy, and the application of its principles of war in the creation of its tactical military doctrine. The discussion includes North Korea's military strategy, operational/tactical doctrine, and techniques. The same section also provides four examples of how the KPA might fight using the tactics directly from KPA doctrine and links them to opposing force (OPFOR) doctrinal tactics from TC 7-100.2, *Opposing Force Tactics* and Field Manual (FM) 7-100.1, *Opposing Force Operations*. Examples include: a divisional encirclement maneuver (doctrinal tactic: dispersed attack); a battalion thrust (doctrinal tactic: attack to gain freedom of movement); a division anti-tank defensive system (doctrinal tactic: maneuver defense); and a battalion anti-tank defensive position (doctrinal tactic: area defense). Two of these examples will be discussed later in this article.

Section 3 summarizes the KPA's weapons and equipment. This is not a laundry list of all the equipment that North Korea possesses, which is quite large, but rather a highlight of the most pervasive weapons systems used by the North Korean army, navy, and air force.

Section 4 covers the North Korean military organizational structure, including the locations of major units and their military capabilities in relation to the warfighting functions.

The final section provides a discussion of the application of the real-world conditions to training environments. It discusses what aspects of the DATE correlate most closely with the DPRK and also provides a list of FMs, TCs, *Red Diamond* articles, and other publications related to North Korea and the KPA. Lastly, two tables in this section demonstrate the connection between the TTR and ACE Threats Integration products. The first table provides real-world conditions in the DPRK/KPA with the relevant chapter/sections in threat doctrinal publications or the DATE. The second chart lists the equipment found in the Worldwide Equipment Guide (WEG) operated by the KPA. An exercise developer could use the TTR, the WEG, the DATE, and other publications to create an exercise that uses the DATE as a baseline while providing an OPFOR similar to the threat posed by the KPA.

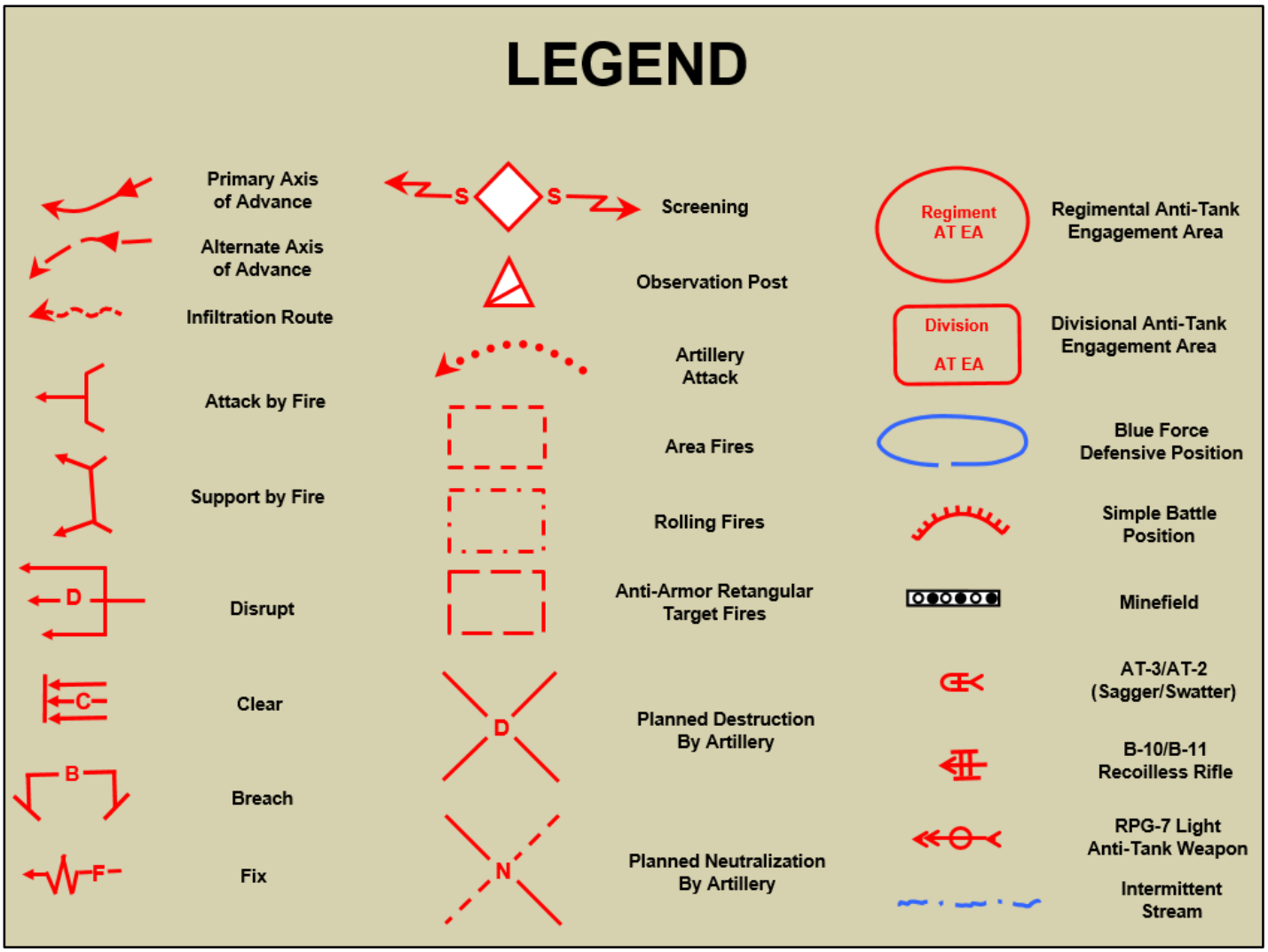


Figure 1. Symbol legend for the tactical diagrams that follow. Graphics by TRADOC G-2 ACE Threat Integration, 29 June 2015

Tactical Examples

While the North Korea TTR provides four examples of how the KPA may fight a ground battle, this article will only cover two of them—both fought at the battalion level—one on offense and the other on defense. The TTR, however, provides examples of a possible KPA division attack and defense.

Tactical Offense: Thrust (Attack to Gain Freedom of Movement)

At the tactical level, the KPA thrust maneuver is an example of one of the six offensive tactical missions found in TC 7-100.2—an attack to gain freedom of movement. The KPA most often uses the thrust maneuver at the regimental, battalion, or company level. An enabling force attacks the enemy position and once victorious, the exploitation force then passes through the cleared axis of advance to continue the attack in the enemy's rear area as the battalion or higher unit regains its freedom of movement. This example is conducted by a mechanized battalion without assistance from any light infantry personnel, but the mechanized battalion could possibly receive additional assets, if available.[1]

While the size of the operation may vary depending on the level of command involved, the actions are very similar. Initially, the KPA will use artillery or mortars from the Divisional Artillery Group (DAG) or Regimental Artillery Group (RAG) to support the operation by providing indirect fire on the enemy positions. For ease of clarity in this example, only one artillery attack is shown. The RAG's task is to neutralize the enemy platoons to allow the enabling elements to successfully assault and occupy the positions overwatching the minefield. Additionally, the artillery would be used as a fixing force to prevent any potential enemy forces from coming to the attacked unit's assistance. In this role, the artillery would neutralize the enemy artillery or enemy ground units that react to the attack. Special purpose forces (SPF), spies, or forward observers that infiltrated to observation positions would provide the call for fire on arriving units attempting to reach the attacked units. For a battalion level thrust, 110 to 150 tubes (artillery, mortar, or rocket) could be allocated to the unit making the attack. Even though this battalion will have adjacent friendly units, the battalion commander would still provide security on his flanks to avoid an enemy attack without warning. For this security, the KPA commander would most likely use observation posts on high terrain or likely avenues of approach composed of soldiers internal to his battalion or an attached light infantry company, to warn the main body.[2]

Due to the rugged terrain on the Korean peninsula, the KPA will likely use light infantry or possibly mechanized infantry operating dismounted to attack enemy units holding a physically difficult terrain feature. While the KPA would prefer a better force ratio, its ground forces will attack even if the assault force possesses only a 2:1 ratio advantage against the defenders. If possible, the KPA ground forces will use an indirect approach to attack the position from a direction the defensive unit least expects an assault. The enabling elements would eliminate the squad positions on either side of the road that are providing observation of the minefield for its breaching in order to give the attacking KPA battalion back its freedom of movement. While the attack by the enabling elements and the breaching occurs, additional security personnel would place observation posts on the most likely avenues of approach by enemy reserves that may come to the assaulted squads' assistance. Either the engineers, the infantry, or an attached obstacle removal company (only fielded in forward divisions) would conduct the breaching operation in order to continue the advance as rapidly as possible to gain the freedom of movement needed by the mechanized battalion. If the infantry that made the actual enabling assault on the enemy squad positions were dismounted mechanized or motorized infantry, the successful attackers would rejoin their vehicles as the battalion regains its freedom of movement down the primary avenue of advance or secondary avenue if that route proved easier to traverse.[3]

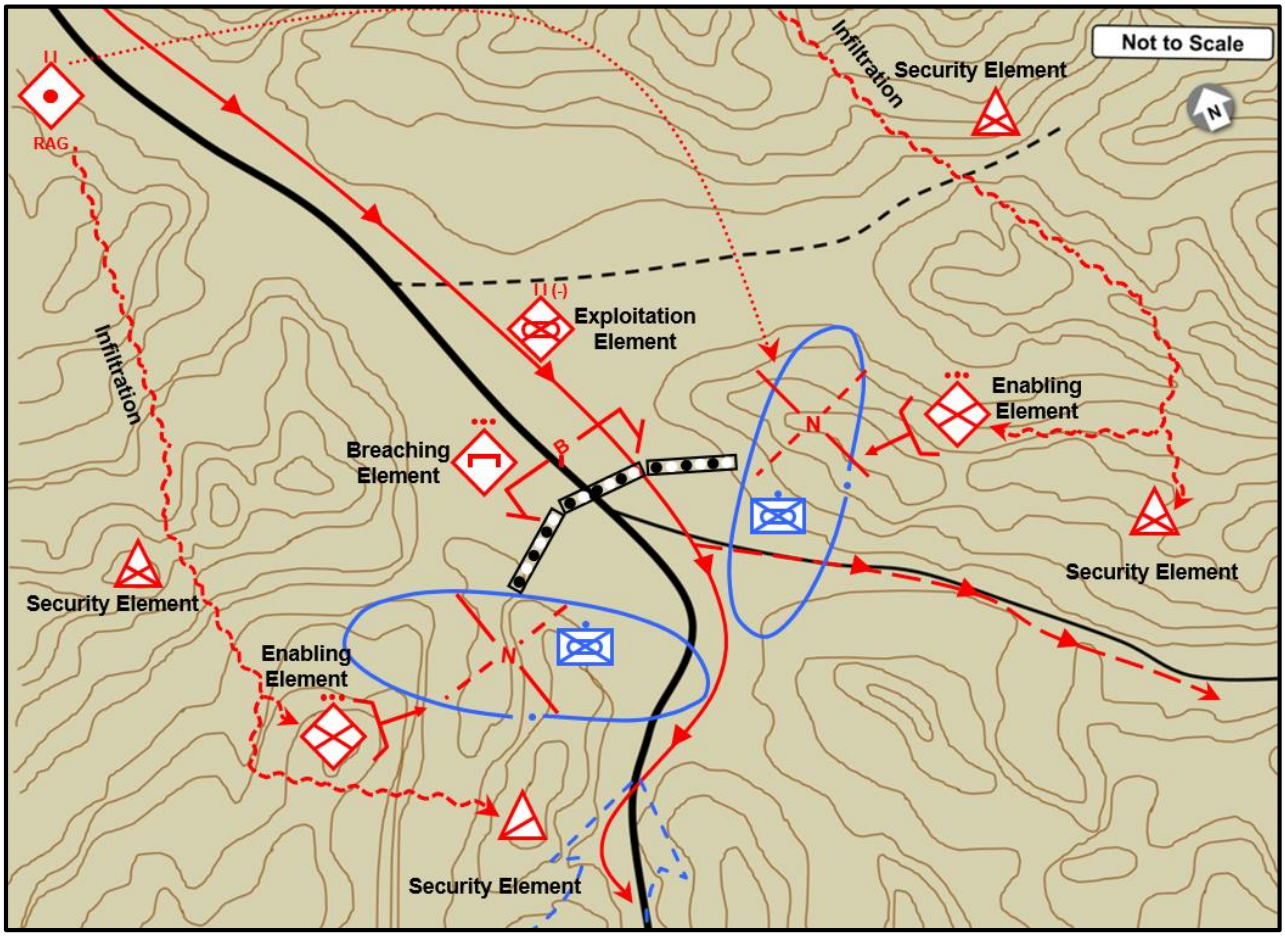


Figure 2. KPA Thrust Attack (Attack to Gain Freedom of Movement) of an enemy strong point. **Adapted from COL James M. Minnich from his book, The North Korean People's Army: Origins and Current Tactics, 2005, pp 82-83. Modified by TRADOC G-2 ACE Threats, 17 June 2015.**

Tactical Defense: Anti-Tank Defensive Position (Area Defense)

The anti-tank (AT) defensive position is phase three of the six phases of the KPA's defensive battle plan described in the anti-tank defensive system (maneuver defense) outlined in the TTR. The regimental commander designates and plans the main effort battalion's AT defensive position. The regimental commander will often select a parallel forward ridgeline so that the armor vehicles can be hit by a crossfire from two, if not three, directions. The battalion creating this defensive position will receive additional resources such as anti-tank missiles and/or recoilless rifles. The purpose of the area defense is to force the enemy's offensive operations to culminate before its objectives are obtained and to deny the enemy its objectives while preserving combat power until a decision in the KPA's favor can be reached through operational or strategic operations.[4]

The KPA considers enemy armor the most deadly ground threat and the elimination of the armor threat takes priority during defensive planning. When the enemy armor enters artillery range, the observation posts are to locate and observe the armor, to provide security for the main defensive position, and to call for indirect fire from the disruption force. The artillery is not shown in this example for simplicity. When the enemy armor is within range, the main defense force element, composed of tanks and AT guns, such as Saggers, engages the enemy with direct fire. The main defense force's

task is to attack by direct fire with a mission to destroy the enemy armor. As the enemy armor continues to advance, it will meet an anti-personnel/anti-tank (AP/AT) minefield where disruption elements with recoilless rifles and RPG-7s will engage as the vehicles become bogged down trying to breach the AP/AT minefield.

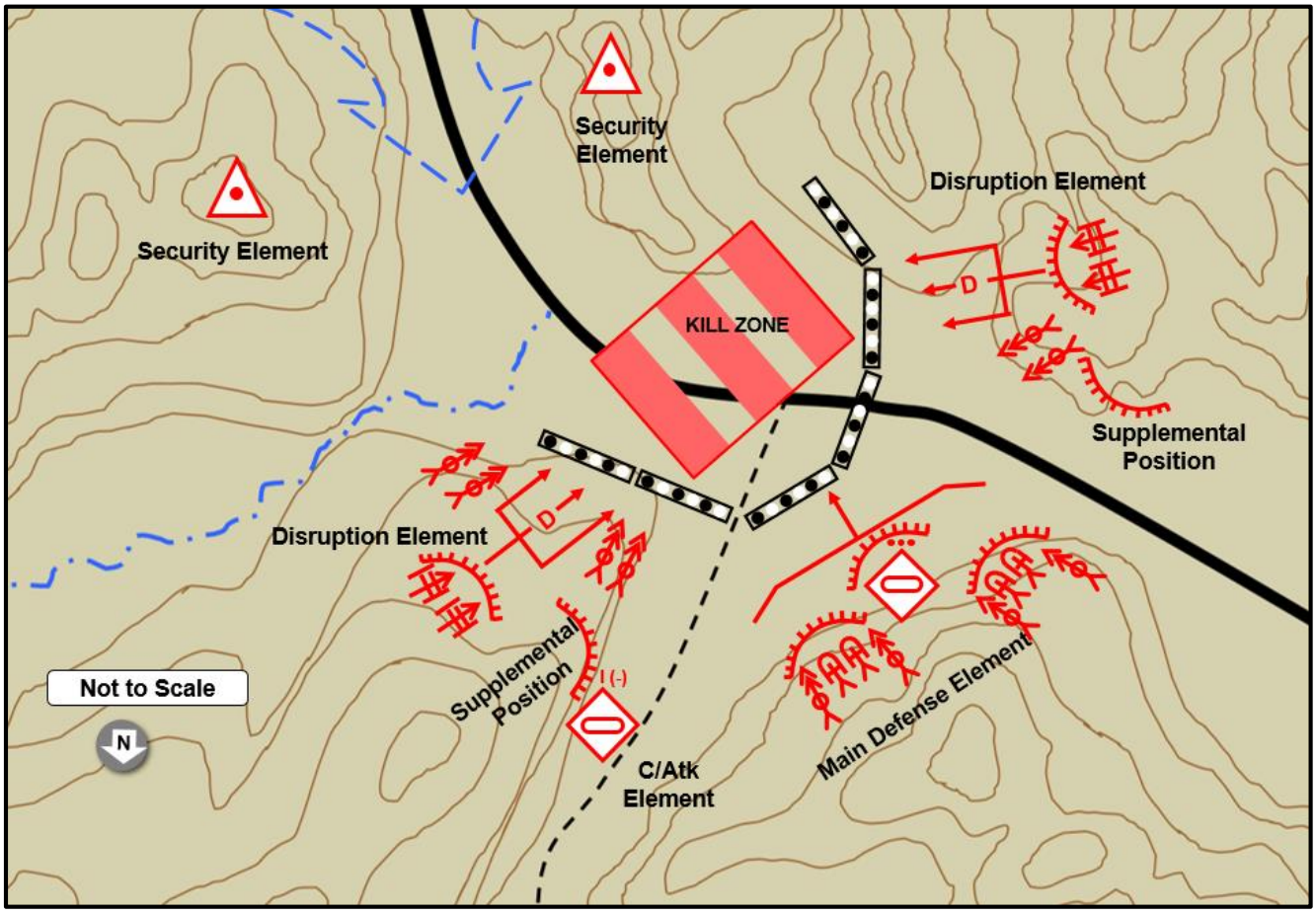


Figure3. KPA Battalion Anti-Tank Defensive Position (Area Defense). **Adapted from COL James M. Minnich from his book, The North Korean People's Army: Origins and Current Tactics, 2005, pp 96-97. Modified by TRADOC G-2 ACE Threats, 17 June 2015.**

The disruption elements' task is to support by fire with their purpose to contain the enemy within the kill zone and to prevent the armor from flanking the defensive battalion's position. During this time, the main defense force continues to engage the enemy in the kill zone. Any armor vehicles that make it through the minefield will be attack by additional RPG-7 teams of the disruption force with the task to support by fire and the mission to prevent the armor from escaping from the desired axis of advance. Any AT weapons from the forward positioned disruption forces still operational can relocate to supplemental positions to continue engaging the enemy armor that made it successfully through the kill zone. The KPA battalion commander will possess a counterattack element composed of armor and/or AT weapon systems, often hidden from view and shielded from direct fire on the reverse slope of a hill. On order, the counterattack element—composed of two tank platoons in this example—will maneuver and attack the enemy's flank with the purpose of destroying the remaining armor threat before the enemy escapes the AT defensive position. Even if some armor vehicles escape destruction through this first echelon AT defensive position, those elements could face other AT defensive positions, regimental AT engagement areas, or even possibly a division engagement area. Any surviving KPA soldiers and operational weapons systems will continue to engage the attackers, often as a stay-behind ambush force focused on unsuspecting enemy combat support or combat service support units that may later pass along this avenue of advance.[5]

Training Implications

North Korea is considered an actor capable of challenging US interests in the Asia-Pacific region. It has the potential to launch a massive military strike against South Korea, an ally of the US, which could in turn transform the region into a state of significant instability. As a result, the US armed forces must possess an understanding of the KPA's military capabilities. The North Korea TTR was written in an effort to provide an unclassified document that details elements of the KPA's capabilities relevant to the Army training community. At this time, no similar document exists so this TTR fills a void in the Army's unclassified documentation of North Korea's army.

The North Korea TTR is part of a series of documents published by TRADOC G-2 ACE Threats Integration on real actors. In addition to the North Korea TTR, there are currently TTRs for ISIL, Russia, and China available on the Army Training Network (ATN). Future TTRs will include Iran, Boko Haram, Syria, and Pakistan. As is the case with the North Korean TTR, these TTRs will fill a similar void in providing an unclassified description of potential threat ground forces for the Army training community.

Notes

[1] James M. Minnich. "North Korean Tactics." September 2001. United States Army Command and Staff College. Fort Leavenworth KS. pp 12-13; Department of the Army. "TC 7-100.2. Opposing Force Tactics." Approved Final Draft. August 2011. pp 3-9 to 3-13.

[2] James M. Minnich. The North Korean People's Army: Origins and Current Tactics. Naval Institute Press. 2005. pp 82-83; James M. Minnich. "North Korean Tactics." September 2001. United States Army Command and Staff College. Fort Leavenworth KS. pp 12-13; Department of the Army. "TC 7-100.2. Opposing Force Tactics." Approved Final Draft. August 2011. pp 3-9 to 3-13

[3] James M. Minnich. "North Korean Tactics." September 2001. United States Army Command and Staff College. Fort Leavenworth KS. pp 12-13. 29; Department of the Army. "TC 7-100.2. Opposing Force Tactics." Approved Final Draft. August 2011. pp 3-9 to 3-13.

[4] James M. Minnich. The North Korean People's Army: Origins and Current Tactics. Naval Institute Press. 2005. p 96; James M. Minnich. "North Korean Tactics." September 2001. United States Army Command and Staff College. Fort Leavenworth KS. pp 19. 21-23; Department of the Army. "TC 7-100.2. Opposing Force Tactics." Approved Final Draft. August 2011. pp 4-14 to 4-18.

[5] James M. Minnich. The North Korean People's Army: Origins and Current Tactics. Naval Institute Press. 2005. p 96; James M. Minnich. "North Korean Tactics." September 2001. United States Army Command and Staff College. Fort Leavenworth KS. pp 19. 21-23; Department of the Army. "TC 7-100.2. Opposing Force Tactics." Approved Final Draft. August 2011. pp 4-5 to 4-21. 8-13.

Threat Tactics Report: China

by Jennifer Dunn, TRADOC G-2 ACE Threats Integration (DAC)

This month, TRADOC G-2 ACE Threats Integration (ACE-TI) released a Threat Tactics Report (TTR) on the People's Republic of China. A TTR examines the tactics and techniques of threat actors; TTRs on the Islamic State of Iraq and the Levant (ISIL), Russia, and North Korea have already been published also. While a TTR provides an overview of the tactics and techniques used by a particular actor, the primary purpose of a TTR is to provide a detailed look at the tactics of the actor and describe to the training community how it can use existing opposing force (OPFOR) doctrine to replicate actors of interest in any exercise.

The China TTR provides the information needed to be able to do this replication. Opposing force doctrine (the TC 7-100 Hybrid Threat series), the Decisive Action Training Environment (DATE), and the Worldwide Equipment Guide, provides the information needed for applying real-world conditions to training. The tactics, techniques, and equipment used by the Chinese People's Liberation Army's Army (PLAA) and elements of China's operational environment can be found in these documents.

Of the countries in the DATE, the one that can most realistically replicate China is Donovia. Like China, Donovia is a country intent on growing its national power through diplomatic and military means. Recent years of economic growth have enabled Donovia to focus on its military development and increase its capabilities. Donovia is not a complete representation of China, however, because Donovia's military technology is far more advanced. In order to portray China's ground forces in a training environment, Donovia's military equipment would need to be downgraded to tier 2 and tier 3 systems; Donovia's integrated air defense system (IADS) could remain tier 1.

Table 1. How to use DATE and doctrine to replicate China

Capability (What)	Actor/Order of Battle (Who)	Tactic (How)
INFOWAR	Donovia has an INFOWAR brigade (section 2C-9 of the DATE) that can be used to for INFOWAR replication.	TC 7-100.2 *Opposing Force Tactics* Chapter 7 FM 7-100.1 *Opposing Force Operations* Chapter 5 To replicate China: Highlight strategic INFOWAR operations discussed in the FM.
RISTA	Donovia has a robust RISTA capability with a dedicated command. The order of battle of this command can also be found in DATE section 2C-9.	TC 7-100.2 *Opposing Force Tactics* Chapter 8 FM 7-100.1 *Opposing Force Operations* Chapter 6 To replicate China: Place emphasis on satellite RISTA capabilities.
Fire Support	Donovia has a very powerful fire support capability. Its units are equipped with tier 1 fire support. To replicate China, a training center could use Donovia's fire support	TC 7-100.2 *Opposing Force Tactics* Chapter 9 FM 7-100.1 *Opposing Force Operations* Chapter 7 To replicate China: Make prolific use of "annihilation fire."

Capability (What)	Actor/Order of Battle (Who)	Tactic (How)
	orders of battle; however, the systems would need to be reduced to tier 2 capability.	
Air Defense	Donovia has a robust air defense capability made of primarily tier 1 systems. Donovian air defense units can be used to replicate China's air defense assets.	TC 7-100.2 *Opposing Force Tactics* Chapter 11 FM 7-100.1 *Opposing Force Operations* Chapter 9 To replicate China: Highlight missile systems.
SPF	China has placed great emphasis on growing its SPF capability in recent years and Donovia's SPF capability can sufficiently represent China's.	TC 7-100.2 *Opposing Force Tactics* Chapter 15 FM 7-100.1 *Opposing Force Operations* Chapter 13 To replicate China: Highlight amphibious and airborne operations discussed in the FM.

PLAA Tactics

The TTR also outlines specific information on China's tactics, both offensive and defensive actions, providing trainers with analytical assessments on how China's PLAA would conduct such actions. The TTR includes four examples of tactical actions, two of which will be showcased in this article.

Chinese doctrine holds that all tactics fall into two categories—offensive or defensive. It argues that while these two types of tactics are fundamentally different in nature, it is not possible to have one without the other. Thus, defensive actions only exist because there are offensive actions and conversely, with only the presence of defensive action and the absence of offensive action, the final objective of war can never be fully realized.[1]

This statement demonstrates that Chinese military philosophy necessitates offensive action in order to achieve victory in war. Because of this, a key tenant of Chinese military action is "gaining initiative by striking first."[2] This applies to local wars and is a means of gaining initiative on the battlefield. Chinese military thought holds that not striking first causes the loss of momentum and creates the possibility of decisive defeat. This concept holds true for both offensive and defensive missions. Chinese doctrine requires that all defensive actions be planned and conducted with the aim of transitioning to the offensive as quickly as possible.[3]

PLAA Offense

For the PLAA, the key purpose of offensive action is to annihilate the enemy's effectiveness and occupy the enemy's important terrain and targets. To accomplish this, Chinese doctrine divides offensive tactical actions into offensive *operations patterns*. These patterns, or actions, have a number of basic tasks, the most important of which is annihilating the enemy.[4]

One operations pattern identified in Chinese doctrine is *offensive operations toward the enemy on the move,* or annihilation ambush according to US threat doctrine. Figure 1 is an analyst's rendition of this tactic using US threat doctrine terminology to describe the various elements of the tactical action. In this diagram, the PLAA red force battalion is conducting an offensive action against a blue force company on the move. The red force comprises three infantry companies with two artillery platoons, a MANPAD platoon, and close air support tasked from a higher headquarters (HHQ). The battalion is conducting an annihilation ambush, in order to destroy the blue company's headquarters and combat service support.

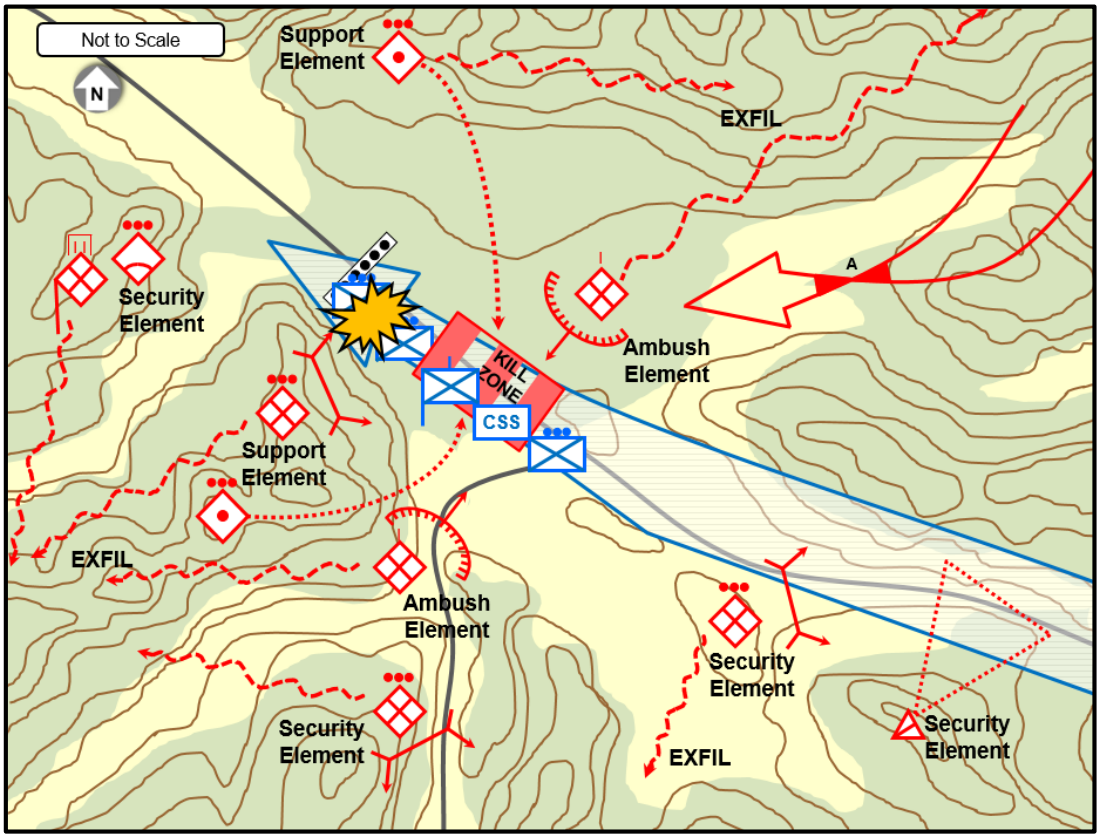


Figure 1. Tactical Offense: Offensive operations toward the enemy on the move (annihilation ambush)

Graphic Sequence of Events: The blue force company, as part of a larger maneuver, is traveling along a main avenue of approach. The red force battalion, aware of the maneuver in advance, ambushes the company in order to destroy the headquarters element and the combat service support element. An observation post established to the east acts as an early warning system for the battalion. As the blue company moves west, the ambush element—two infantry companies and an attack helicopter—move into position and prepare to attack. When the headquarters element enters the kill zone, the ambush elements begin the attack. The ambush is supported by two support elements, an infantry platoon that engages the lead vehicles and an artillery platoon that targets the convoy with indirect fire. To stall reinforcements and protect the ambush elements, the battalion has three security elements, namely two infantry platoons and an air defense platoon equipped with MANPADS.

This graphic demonstrates that it is possible to replicate offensive tactical actions of the Chinese PLAA at battalion level and below using existing threat doctrine. See table 2 below for more information on this offensive tactic as outlined in TC 7-100.2.

Table 2. Excerpt from TC 7-100.2, *Opposing Force Tactics*

Offensive Operations toward an Enemy on the Move **(Annihilation Ambush)**	3-151. The purpose of an *annihilation ambush* is to destroy the enemy force. These are violent attacks designed to ensure the enemy's return fire, if any, is ineffective. Generally, this type of ambush uses the terrain to the attacker's advantage and employs mines and other obstacles to halt the enemy in the kill zone. The goal of the obstacles is to keep the enemy in the kill zone throughout the action. Using direct, or indirect, fire systems, the support element destroys or suppresses all enemy forces in the kill zone. It remains in a concealed location and may have special weapons, such as antitank weapons.

PLAA Defense

Chinese doctrine views defensive tactics as a means of transitioning to the offense in order to secure victory. The PLA Army will assume the defense in order to: preserve friendly force strength, gain time, economize forces, consolidate captured objectives, hold key terrain, and cover a withdrawal.[5]

The main purpose of defensive actions is to cause the enemy casualties, protect a key area or target, delay or foil the enemy's offensive, race against time, or preserve combat strength to set the stage for transition to the offense.[6] To accomplish this, Chinese doctrine divides defensive actions into three operations patterns.

One operations pattern identified in Chinese doctrine for defensive actions is a *mobile defense*, called maneuver defense in US threat doctrine. Figure 2 is an analyst's rendition of this tactic using US threat doctrine terminology to describe the various elements of the tactical action. In this diagram, the PLA red force, a motorized infantry battalion, is in the defense. The blue force is conducting an offensive action, attacking from two avenues. The red force elects to conduct a maneuver defense in order to inflict as many casualties as possible while preserving its own forces.

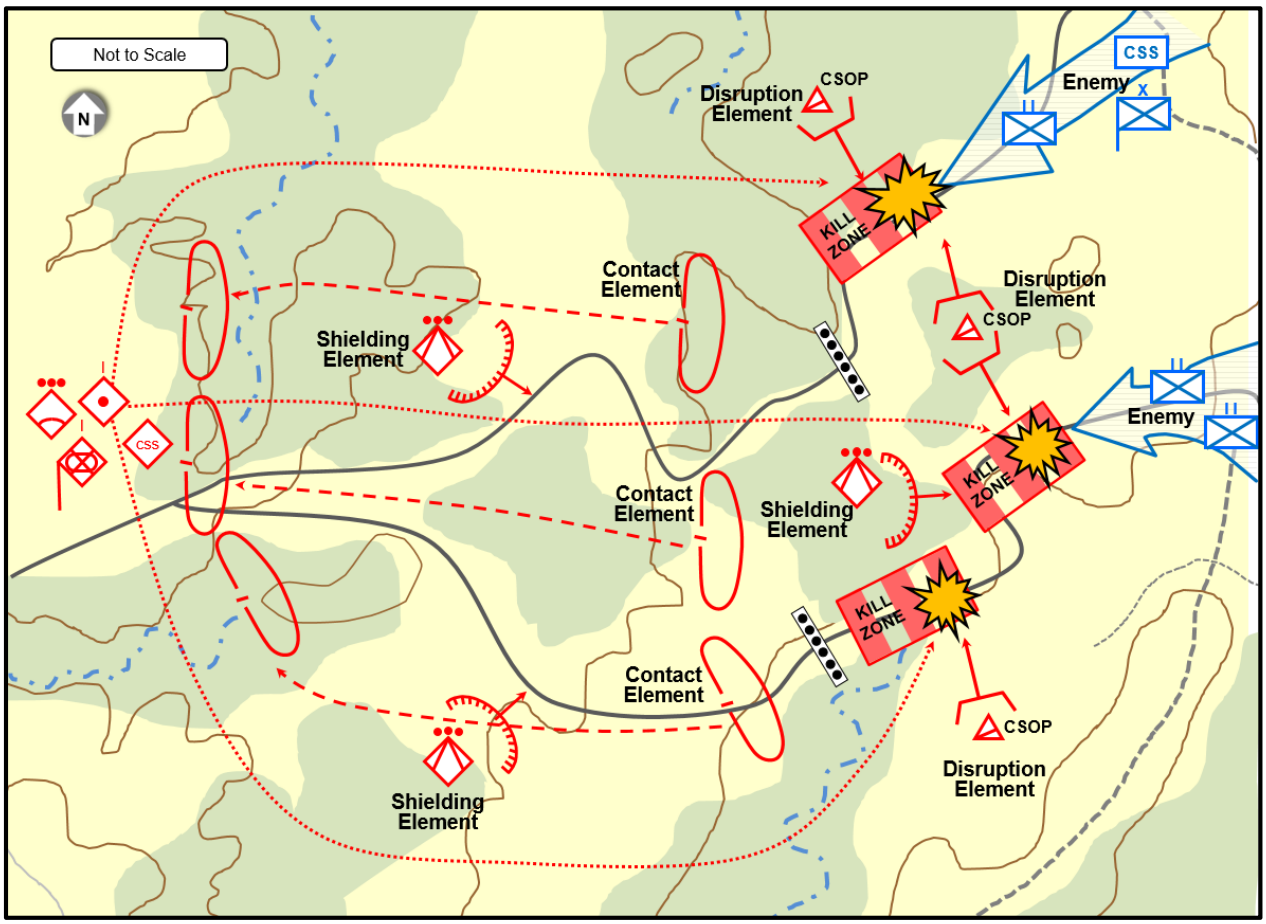


Figure 2. Tactical Defense: Mobile defense (Maneuver defense)

Graphic Sequence of Events: A red force motorized infantry battalion is in the defense. In order to preserve its forces for a follow-on counterattack, the battalion elects to use the terrain to its advantage and conduct a maneuver defense. As the enemy approaches from the east, it will be engaged by the battalion's disruption elements (three combat security outposts (CSOPs), concealed in the forested terrain. While the disruption element is engaging the enemy, the battalion's artillery (tasked down from HHQ), fires on the enemy, targeting key components of the enemy's combat system. The artillery barrage and disruption element provide an opportunity for the main defense elements to engage the enemy. After hitting the enemy with maximum firepower, the contact element, on order, moves to preplanned defensive positions to the west. The main defense's shielding elements conduct ambushes along the enemy's route in order to delay the enemy and provide the necessary cover for the contact element's maneuver.

This graphic demonstrates that it is possible to replicate defensive tactical actions of the Chinese PLAA battalion and below using existing threat doctrine. See table 3 below for more information on this defensive tactic as outlined in TC 7-100.2.

Table 3. Excerpt from TC 7-100.2, *Opposing Force Tactics*

Mobile Defense **(Maneuver Defense)**	4-62. In situations where the OPFOR is not completely overmatched, it may conduct a tactical *maneuver defense*. This type of defense is designed to achieve tactical decision by skillfully using fires and maneuver to destroy key elements of the enemy's combat system and deny enemy forces their objective, while preserving the friendly force. Maneuver defenses cause the enemy to continually lose effectiveness until he can no longer achieve his objectives. They can also economize force in less important areas while the OPFOR moves additional forces onto the most threatened axes.

Training Implications

The training community can use the China TTR to replicate Chinese PLAA tactics for all echelons of tactical actions. While this article only shows the graphics for battalion-level and below actions, the China TTR includes analytical renderings of actions for operational actions at brigade and above.

For more information on how-to replicate a variety of real-world threat actors in training environments, check out ACE-TI's other TTRs on the Army Training Network (ATN).

Notes

[1] Cui Yafeng. "Science of Army Operations." PLA Press. June 2009.
[2] Nan Li. "The PLA's Evolving Campaign Doctrine and Strategies." RAND. 1999.
[3] "Handbook of the Chinese People's Liberation Army." Defense Intelligence Agency. November 1984.
[4] Cui Yafeng. "Science of Army Operations." PLA Press. June 2009.
[5] "Handbook of the Chinese People's Liberation Army." Defense Intelligence Agency. November 1984.
[6] Cui Yafeng, "Science of Army Operations." PLA Press, June 2009.

Mission Command Training Program (MCTP) Warfighter Exercise (WFX) 15-5
by Patrick Madden, TRADOC G-2 ACE Threats Integration (BMA Ctr)

MCTP WFX 15-5 was a distributed, simulation-supported, corps-level, command post exercise. WFX 15-5 was held in Texas (Fort Hood), Indiana (Camp Atterbury), and Kansas (Fort Leavenworth) from 4–12 June 2015. WFX 15-5 was one of five corps- and division-level exercises conducted by MCTP, Operations Group X-Ray during fiscal year 2015. The majority of WFXs are based on the Decisive Action Training Environment (DATE) and the Army Training Circular 7-100 series of publications.

The purpose of these exercises is to create a competitive and multi-echelon, component, joint training environment in order to provide commanders the opportunity to execute mission command in unified land operations. If available, multinational coalition units also participate. Each WFX is approximately 10 days in length which includes a comprehensive list of tasks in order for units to accomplish specific training objectives. Based on this timeline, the following discussion describes the scenario design, training units, and unique features of WFX 15-5 and the WCOPFOR execution of this DATE-based exercise.

Scenario Design

The "road to war" scenario leading up to the start of the exercise involved a dispute between Ariana and Atropia. Ariana accuses Atropia of stealing its oil reserves and threatens military reprisals. This is followed by the United Nations (UN) imposing two rounds of sanctions on Ariana and the US evacuation of its embassy in Baku. Ariana responds by deploying its military units along the Ariana/Atropia border under the guise of conducting training exercises. Without warning, Ariana responds by invading Atropia with an operational-strategic command (OSC) composed of four division tactical groups (DTGs). Ariana is partially successful in seizing most of Atropia with the exception of the western half of the country and a small area in the northeast, which includes the capital of Baku (see figure 1 on the next page). In response, the US and the UN passed resolutions authorizing military force.

As a result of UN and US military force authorizations, Combined Joint Task Force (CJTF) 12 is created to intervene on behalf of Atropia. Led by US forces, CJTF 12 deploys to Gorgas and then moves east from the Black Sea Port of Poti into western Atropia, in order to attack, defeat, and force the withdrawal of the OSC back into Ariana. Also located in Atropia are remnants of brigades from Field Group Atropia defending terrain, in order to buy time for CJTF 12 forces to arrive. In the northeastern portion of Atropia, remnants of the Capital Defense Command (CDC) also remained to defend against OSC attempts to capture Baku. When the exercise began, ground forces from CJTF 12 completed a forward passage of lines (FPOL) with two Atropian Army brigades following the shaping operations against OSC forces. Initially, the main effort was led by the US 29th Infantry Division in the north and supported by the 36th Infantry Division in the south.

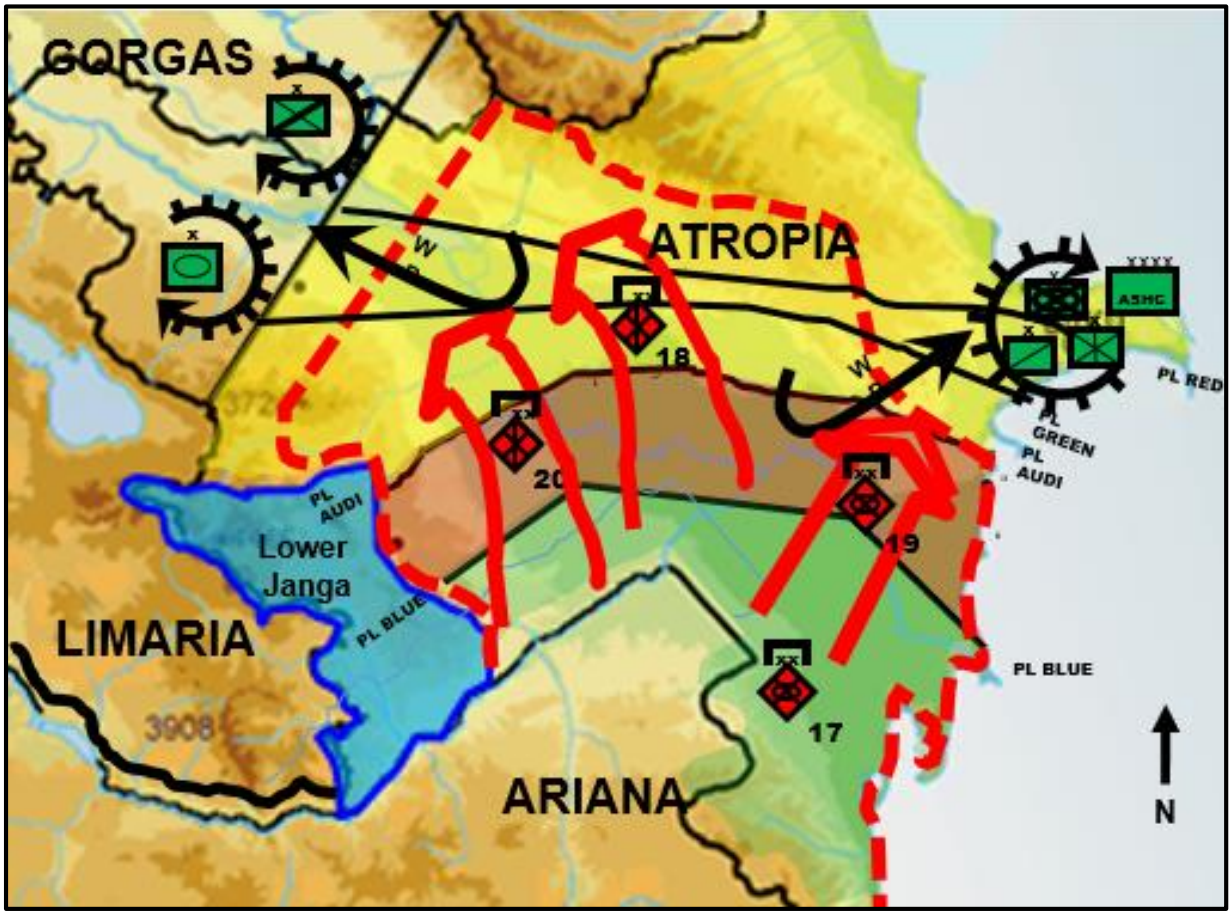


Figure 1. Post invasion

Training Units

The evaluated training division for this exercise was the 36th Infantry Division (ID) from the Army National Guard. Supporting the 36th were three brigade combat teams (BCTs). Also supporting the 36th was an Atropian armor brigade and three additional US brigades consisting of artillery, maneuver enhancement, and rotary wing aviation. Training objectives for the 36th were the following:

- Exercise mission command using the operations process to employ forces in decisive action (combination of offense, defense and stability tasks) by means of combined arms maneuver.
- Plan, prioritize, synchronize, and employ joint fires and effects using the division targeting process (including implementing the Joint Air Ground Integration Center).
- Provide intelligence analysis to support the maneuver and the division targeting process.
- Execute the division sustainment processes.
- Establish a Tactical Information Network and System.
- Lead, support, and collaborate with joint, interagency, intergovernmental, multinational (JIIM), and coalition partners to provide common understanding, facilitate unity of effort, and achieve common objectives.

The training division's higher command was VII Corps represented by the 35th ID. VII Corps was portrayed as the Coalition Joint Forces Land Component Command (CJFLCC) of the notional CJTF 12. The 35th ID's staff participation also provided an invaluable training experience in preparation of their formal evaluation for WFX 16-5. Other evaluated units supporting VII Corps consisted of a battlefield surveillance brigade, air defense artillery brigade, sustainment brigade, and an expeditionary support command. These evaluated brigades were also competitive, had training objectives, and were also

part of the formal after action review process. In addition to these units, VII Corps was also supported by seven additional brigades and two battalions which included an artillery brigade, two maneuver brigades and a combat aviation brigade. These additional units all operated as competitive response cells but were not part of the evaluated training audience. In total, there were 11 brigades and two battalions which operated as response cells.

Other units which were part of the larger simulated, scripted supporting force for the overall exercise design were the 29th ID which included the 2nd Canadian Mechanized Brigade Group (CMBG) and remnants of Atropian forces. These notional forces and their subordinate units were scripted and controlled by MCTP. Also part of CJTF 12 were the Combined Forces Air Component Command (CFACC), Joint Force Special Operations Command (JFSOCC), and a notional Joint Force Maritime Component Command (JFMCC). Response cells from these respective commands replicated the associated subordinate commands.

The exercise for training units was planned in three phases (see figure 2). Phase II, Seize the Initiative, focused on setting the conditions to enable coalition forces to conduct successful offensive operations during Phase III. Phase II also included shaping operations from the CFACC and other long-range fires. This phase concluded with the 29th and 36th IDs in battle positions and prepared to initiate offensive operations. Phase III was divided into three sub-phases. Phase IIIA, Access, began with the initiation of offensive operations in order to defeat OSC disruption zone forces. Phase IIIA included a continuation of shaping operations. Phase IIIA ended with the changeover of the main effort from the 29th ID to the 36th ID and the commitment of the CJFLCC reserve. Phase IIIB, Gain Position, continued with offensive operations in order to defeat OSC divisions located in the battle zone. As part of this phase both the 29th and 36th would conduct wet gap crossings of the Agshu and Aras Rivers respectively. Phase IIIB ended when OSC division-level units were defeated. Phase IIIC, Defeat, continued with the offensive in order to link up with Atroprian forces in Baku in the northeast to include offensive efforts in the southeast to restore the Atropia/Ariana border. Phase IIIC ended with OSC 2 forces withdrawing to Ariana followed by CJFLCC forces transitioning to the defense and a zone of separation established along the Atropia/Ariana border. The final phase was titled Stability, which included the cessation of combat operations, the beginning of large scale humanitarian assistance, and the reestablishment of the Atropian-Ariana border.

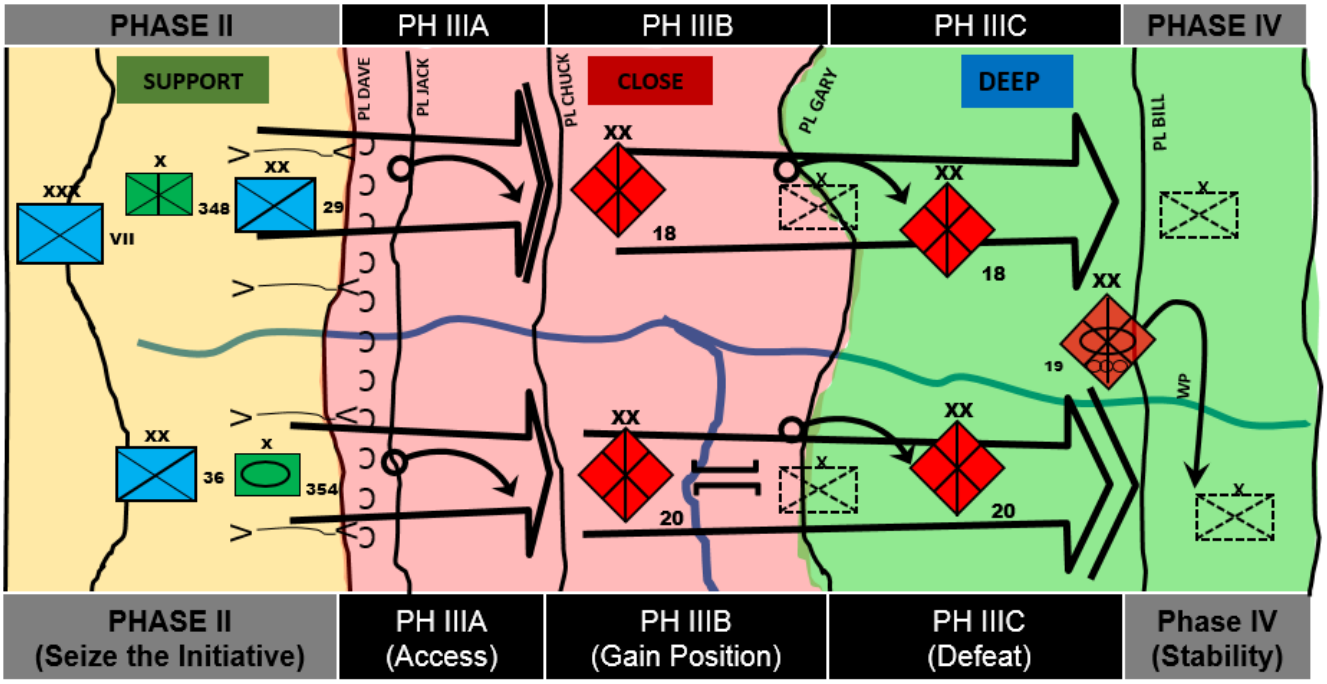


Figure 2. CJFLCC Concept of Phases

Unique features of this exercise were the 174th ADA Brigade and the WCOPFOR integrated support command (ISC) as well as their reserves. The 174th and its supporting command, 10th Army Air and Missile Defense Command (AAMDC), was the first comprehensive, joint theater air defense exercised during a DATE warfighter. Comprehensive planning documents such as area air defense and airspace control, to include well-developed operations orders, provided a good foundation for training. Also part of the planning process was the development of an air defense mission command structure which included the joint and combined commands as part of CJTF-12. Training units from these commands participated in a theater missile operation board as part of mission analysis in order to provide outputs such as an adjusted defended assets list (DAL), alert status, and missile distribution.

During the exercise there was a theater ballistic missile (TBM) kill chain for engagement authority from CJTF-12 to the CFACC and then to the Army firing battery. The CFACC delegated responsibility for setting the air defense warning within the CJFLCC's area of responsibility to the 10th AAMDC. Another part critical to this training was the WCOPFOR theater and tactical missile planning and execution. Early on in the planning process, the WCOPFOR specified the types and amount of their surface-to-surface missiles. This information was coordinated with the exercise planners in order to facilitate accomplishment of the 174th's training objectives. During the exercise WCOPFOR missile systems, such as the SS-26, were targeted against airfields, seaports, and logistics sites in an effort to deny access to coalition forces. Together, the planning process, realistic missile command structures, and WCOPFOR "free play" missile strikes contributed to a beneficial training event.

Prior to the beginning of this exercise, the WCOPFOR enhanced their ISC as part of the OSC 2. In addition to the normal logistical support units, four dedicated militia brigades and one motorized infantry brigade from OSC 2 were added to the ISC. The purpose for this modification was to prevent disruption from direct action Special Forces units and joint fires. The results of this change were very helpful in assisting the ISC in protecting the OSC support zone. This also allowed ISC logistical support operations to operate without significant losses experienced during previous exercises. In addition to this change was the commitment of the strategic reserve from the supreme high command (SHC). The normal commitment toward the end of the exercise is an SHC division-size unit that reinforces the OSC in in order to continue being a viable force toward the end of exercise (ENDEX). Unlike previous exercises, the OSC 2 was able to continue operating throughout the exercise without the need the for SHC reserves.

Opposing Force (OPFOR)

WCOPFOR continues to plan and operate competitively as an OSC during WFXs with approximately four subordinate divisions and three separate brigades. The SHC is part of the MCTP Exercise Control Group (ECG) and is not a simulated unit with the exception of its strategic reserves. The SHC writes and publishes their OPORD for WCOPFOR implementation. They also operate as a "white hat" organization that attends exercise White Cell meetings, receives guidance from MCTP leadership, and coordinates with the OSC. The OSC and SHC are intentionally separated during exercises since the WCOPFOR is competitive.

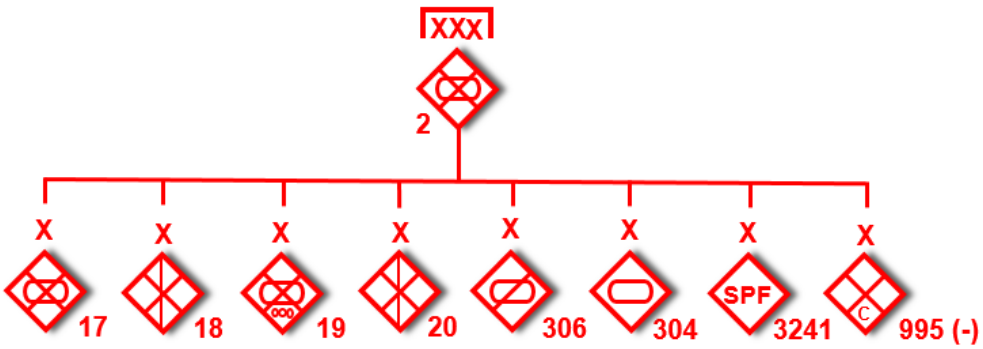


Figure 3. OSC 2 Maneuver and Support Forces

During this exercise, OSC 2 opposed VII Corps and their two divisions. Constituent maneuver units from OSC 2 were four division tactical groups (DTGs) consisting of the 17th, 18th, 19th, and 20th. Also constituent was the 306th Reconnaissance Brigade as well as the 304th Tank Brigade which was used as a designated strike force, and OSC reserve. The 3241 Special-Purpose Forces (SPF) Brigade and 995th Commando Brigade (-) were supporting units from the SHC (see figure 3).

The mission of OSC 2 was to defend area of responsibility (AOR) Sheyer in order to defeat coalition forces, isolate Baku, and retain key terrain as well as infrastructure. Operational success was defined as destroying coalition forces west of phase line Reno, establishing control over the Trans-Caucus Petroleum Pipeline and Sangachal Oil Terminal, defeating remaining Atropian ground forces, and seizing Baku with follow-on control from internal security forces.

At the beginning of the exercise, the overall strength of OSC 2 units was approximately 60–70%, resulting from previous attrition from the invasion of Atropia. OSC 2 maneuver units used defensive tactics throughout most of the exercise since the coalition forces were attacking with units at approximately 100% strength. However, given the availability of complex terrain, OSC 2 did plan and execute counterattacks in attempts to block or stall the coalition offensive.

OPFOR Defense

In order to defend their captured territory, the OPFOR divided their OSC AOR into disruption, battle, and support zones and assigned key tasks. The key task for the 306th Reconnaissance Brigade in the OSC 2 disruption zone was to disrupt and delay coalition forces, as well as conduct counter-reconnaissance. To the far south of this zone was the 995th Commando Brigade which was tasked to report coalition activities with an "on order" task to conduct battalion level offensive operations. To the east of the 306th disruption zone was the 18th and 20th DTGs. Both divisions were tasked to conduct a maneuver defense, conduct limited objective counterattacks and deny coalition wet gap crossing sites. Located to the east of the 18th battle zone was the 19th DTG. Positioned southwest of Baku, the 19th DTG was operating as a fixing force. The 19th's tasks were to fix coalition forces, prevent link-up between the 29th ID and Atropian forces in Baku, and a "be prepared" mission to conduct limited objective attacks. Located south of the 19th and east of the 18th and 20th was the 304th Tank Brigade strike force. The 304th was located near the center of the battle zone to facilitate counterattacks, as required, throughout the OSC AOR.

> *AORs normally consist of three basic zones: the battle zone, the disruption zone, and the support zone. An AOR may also contain one or more attack and/or kill zones. Zones may be linear or nonlinear in nature.*
>
> *These zones have the same basic purposes within each type of offensive and defensive operation. The size of these zones depends on the size of the OPFOR units involved, engagement ranges of weapon systems, the terrain, and the nature of the enemy's operation.*
>
> FM 7-100.1, *Opposing Force Operations*

To the south of the units described above was the 17th DTG and the ISC 2. The 17th, located in the battle zone, was tasked to conduct an area defense in order to hold key terrain, and disrupt coalition attack formations. South of the 17th was the ISC 2 which was tasked to secure the OSC support zone. This task included securing bridging sites, lines of communications, and major supply routes in order to prevent coalition Special Forces from interdiction and targeting.

In addition to the WCOPFOR regular forces described in previous paragraphs, there was an extensive effort to use SPF and irregular forces throughout the VII Corps area of operations. Irregular warfare also continues to be a very effective asset to WCOPFOR. The most effective organization is the South Atropia Peoples' Army (SAPA). WCOPFOR uses its SPF or commando units to support SAPA and closely coordinates their operations. SAPA attacks are focused on soft targets, such as logistical units along major supply routes, airfields, forward arming and refueling points (FARPs), all of which have a significant impact on training unit's ability to conduct wide area security. These attacks were planned and executed throughout Gorgas and Atropia during the exercise. This support enabled OPFOR to focus on the maneuver units attacking them. It also enabled SPF or commando units to focus on other missions without having to be used exclusively for direct action missions.

OPFOR Defensive Operations

At the beginning of the exercise, the scripted 29th ID attacked as the main effort in the north. Like previous exercises, the MCTP-controlled division advanced at a faster pace than the training division in the south. This lead to the creation of gaps between the two division boundaries. Contributing to the gap during this exercise was the considerably slow advance of the competitive 36th ID. This was further complicated by a major power outage at Camp Atterbury and computer/simulation challenges during the exercise. Nevertheless, the gap problem between the two divisions was anticipated by MCTP and was not as significant relative to previous exercises. The WCOPFOR was also not allowed to exploit the gap. However, the delayed attack of the 36th ID allowed the WCOPFOR time to reposition its defensive forces for maximum impact as well as reinforce its defenses with obstacles and minefields.

As the exercise continued, the 36th in the south finally began its attack and started to close the gap that was developing between the two divisions. The 36th also conducted a series of rotary wing attacks in advance of their maneuver forces consisting of three brigade combat teams (BCTs). In the north, the 29th restarted its advance with three brigades. One of the lead brigades was the 2nd CMBG. The 2nd CMBG closed in on seizing the city of Yevlak while the other BCTs continued to attack east. In eastern Atropia there was no change to the composition or disposition of the Atropian Capital Defense Command (CDC) which continued to defend Baku.

The shaping operations of OSC fires were somewhat successful with significant damage to power generation facilities in Baku and Yevlak from surface to surface missiles. In addition, the 142nd Battlefield Surveillance Brigade also suffered heavy losses from OSC fires to include the 36th ID artillery units which were initially placed too far in front of their maneuver forces. In addition, OSC rotary wing, attack missions were very successful during hours of limited visibility. They were so successful that MCTP ordered them grounded for 24 hours due to a "system-wide maintenance issue." However, TU-22 fixed wing air strikes on airfields in Gorgas were destroyed by coalition fixed wing air interdiction attacks.

During this same period the 306th Reconnaissance Brigade's tank battalion was ordered to conduct a limited objective against a battalion of artillery from the 36th ID. Unfortunately, they were spotted by coalition fixed wing reconnaissance and later destroyed by Apache, rotary wing aircraft. This loss, as well as intensifying coalition fires, significantly damaged the 306th. Their percentage of strength was reduced to 30% and subsequently absorbed by the 20th DTG. The 20th DTG boundaries were then increased as a result of the collapse of the 306th and the associated OSC disruption zone. The 20th was also given the new mission to delay west of the Aras River and defend to hold terrain on the east bank of the river. In addition, the 304th Tank Brigade, originally the OSC Strike Force, was dedicated to the 20th in order to assist in defending this enlarged AOR. The 194th Tank Brigade from the 19th DTG was then designated the as the new OSC reserve.

Toward the end of the exercise, attempts by the 29th and 36th Divisions to cross their respective rivers were initially repulsed by OSC 2 which forced the two divisions to halt, reorganize, and reconstitute. At the same time, VII Corps-level units, including their reserve, began moving south to support the 36th ID advance, indicating that the 29th was no longer the main effort. However, the OSC 2 units suffered heavy causalities and loss of equipment from increased long range fires. These effects began to take their toll from fires of both divisions, VII Corps, and USAF fixed wing assets. Many of the subsequent OSC 2 losses were also specifically due to long range fires from the high mobility artillery rocket system (HIMARS) and Patriot missiles. As a result, all remaining SSMs were moved south near the Ariana border in order to move them out of range of long-range fires.

As the 29th and 36th continued to advance to the east, the OSC 2 continued to delay and began increasing the consolidation of their units. In the northeast, the 19th DTG was ordered to move 50 kilometers south of Baku in order to retain control of the Sangachal Oil Terminal. The Ariana Naval Regiment, dedicated to the 17th DTG, was already in this location and assisted in the defense of this key infrastructure.

To the west of the 19th DTG, the 18th DTG was reduced to combat ineffectiveness by the 29th. It was ordered to withdraw to assembly areas near Ariana in order to rebuild combat power with a "be prepared mission" to assume responsibility for defense of the Ariana/Atropia border. The 181st BTG and 300th Motorized Infantry Brigade were formed into TG Osprey. They moved north to occupy the southern Caucus Mountains in order to counterattack units from the 29th to prevent

attempts to link up with Atropian units in Baku. The 17th was ordered to shift its forces to the west to defend against future 29th ID crossing attempts of the Agshu River by conducting limited objective attacks.

> *A limited-objective attack seeks to achieve results critical to the strategic campaign plan (SCP) by destroying or denying the enemy key capabilities through primarily military means. The results of a limited-objective attack typically fall short of operational decision on the day of battle, but may be vital to the overall success of the SCP. Limited-objective attacks are common during adaptive operations in which the objective is to preserve forces and wear down the enemy, rather than achieving a military decision.*
>
> FM 7-100.1, *Opposing Force Operations*

During the last two days of the exercise both the 29th and the 36th Infantry Divisions succeeded in conducting wet gap crossings with battalion size elements. However, their success was due in part to the decision by MCTP that the WCOPFOR could not oppose their crossings, originally designed to be competitive, until they had crossed. Nevertheless, the WCOPFOR was allowed to conduct a series of counterattacks once lead units had successfully crossed and secured the far side.

The counterattacks were a series of two separate attacks designed to prevent coalition forces from conducting successful wet gap crossings and forcing the OSC 2 withdrawal from Atropia. The first counterattack was complex and divided into five phases. Phase I involved counterattacks by TG Osprey and the 172nd BTG against the 29th ID units east of the Agshu River, in order to divert the focus of coalition fixed and rotary wing assets from the 36th ID sector. Phase II was designed to use the 20th DTG and by-passed units west of the Aras River, including SAPA elements, to attack 36th ID units near Barda and begin interdicting their major supply routes east of Barda. Phase III was a counterattack by the 20th DTG against units crossing the Aras River. Phase IV consisted of an integrated fires command (IFC) and combined air attacks against the Tiblisi airfield complex. Phase V was conducted during phase IV and consisted of airborne commando forces conducting a series of company-size attacks on coalition high value targets throughout the AOR.

Results of the attacks were mixed. Both the 17th and 20th DTGs met with significant resistance resulting in failure to repulse the 29th and 36th wet gap crossings. However, TG Osprey and the 17th were able to successfully withdraw to the southeast in order to secure key terrain. Also successful were attacks from SAPA which succeeded in taking over Barda in the 36th ID sector. The IFC was successful in removing coalition aircraft for a limited time, but were unable to prevent Patriot batteries from firing. The most effective were commando, company-size units that were successful in damaging an array of fixed sites.

The second counterattack was the final OSC 2 attack of the exercise. It consisted of all four OSC 2 DTGs as well as the 194th BTG. The 19th was designated as the OSC 2 assault force with the mission of turning the 36th ID's focus to their northern flank as well as fixing their specified division and supporting corps enablers. The 194th mission, reinforced with additional OSC forces, was to counterattack in order to destroy the 36th division support area. The 20th, reinforced with the two militia brigades from the ISC, would fix 36th ID units in the south in order to prevent any reinforcement efforts. The 17th and 18th DTGs remained in defensive positions to retain key terrain in the north and south of the OSC AOR. As the exercise concluded, OSC forces involved in the counterattacks suffered heavy losses but succeeded in stalling the VII Corps offensive. However, had the exercise continued, the WCOPFOR would have run out of OSC 2 units rendering them incapable of retaining terrain seized in Atropia.

In conclusion, the WCOPFOR was successful in challenging training units throughout the exercise. The slow progress of the 36th ID attack provided critical time for the WCOPFOR to reposition and reinforce their forces. This also enabled the WCOPFOR, for the first time, to use their existing force structure throughout the duration of the exercise without strategic reinforcements. As these training exercises continue to grow in complexity, MCTP's WCOPFOR will continue efforts to adapt as it engages in an ever-changing and challenging training environment.

Threats Terrorism Team
T3 ADVISORY FY15 Review

TRADOC G-2 ACE Threats Integration

Know the Threats — Know the Enemy

We are Combating Terrorism

Threat Tactical Vignette
Recon and Raid

by Jon H. Moilanen, TRADOC G-2 ACE Threats Integration (IDSI Ctr) Part 4 in RZ-CRZ Series

The September 2015 *Red Diamond* newsletter article is the fourth article in this tactical vignette series. Focusing on reconnaissance and counterreconnaissance as economy of force actions, the screen mission incorporates both tasks as integral to providing early warning and a degree of protection to the force main body. Other offensive tasks anticipated in a screen can include actions of an ambush and/or *raid* in order to accomplish the intent of the mission.

Situation Update

From previous *Red Diamond* newsletter articles, the rapid advance of the encirclement operation continues deep into the enemy's rear zone toward the KRONATZ river line. Mechanized and motorized forces organized as division tactical groups (DTGs) are maneuvering to linkup and close the encirclement. One divisional reconnaissance company with a flank screen mission has intermittent contact with its task-organized platoons across a wide zone. The platoon in this tactical vignette, task-organized as an *independent reconnaissance patrol* (IRP), continues its mission tasks after unexpected contact with lead enemy dismounted elements resulted in an ambush that temporarily disrupted enemy maneuver. The ambush was successful even though two scouts were wounded in the engagement. The more significant loss was destruction of one BTR on Hill 21 from enemy indirect fire. No BTR crew members survived.

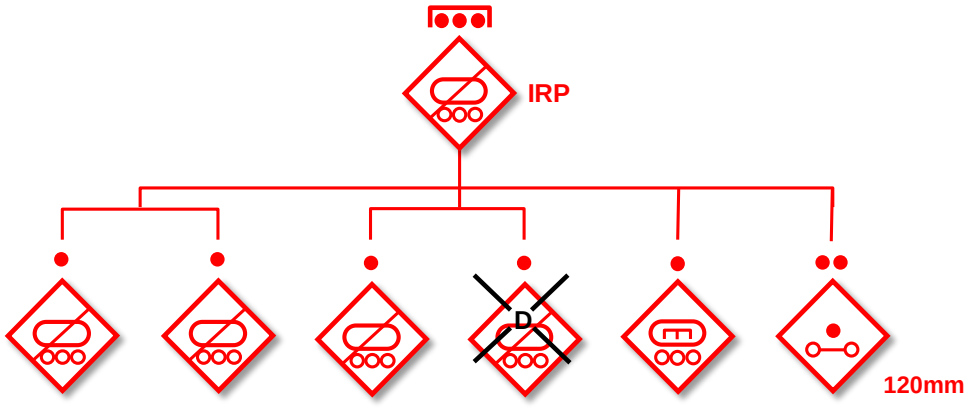


Figure 1. Independent reconnaissance platoon and current combat losses (example)

The platoon leader on site in the east part of the zone and the senior sergeant on the western axis are updating each other on their respective situations oriented on probable enemy locations (PELs) in zone. Casualty care in the rally point verifies that the two injured scouts are not life threatening wounds. One injury is a scalp graze and the shoulder wound did not shatter any bone.

Note. Descriptions throughout the vignette use threat terms from the TC 7-100 series.[1] The task-organized platoon is best understood by knowing the unit and weapon system capabilities as presented in US Army TC 7-100.4 and its TRADOC G-2 Threat Force Structure e-folders of units. Another source for equipment and weapon capabilities is the TRADOC G-2 *Worldwide Equipment Guide*.

Screen

A screen is a form of security operation that provides early warning to the protected force. (ADRP 1-02)

Raid

A raid is an attack against a stationary target for the purposes of its capture or destruction that culminates in the withdrawal of the raiding force to safe territory. Raids can also be used to secure information and to confuse or deceive the enemy. (TC 7-100.2)

Ambush

An ambush is a surprise attack from a concealed position used against moving or temporarily halted targets. (TC 7-100.2)

Security Operations Continue North of KOLTE

The platoon leader positions at Hill 21 and reviews his ongoing security task. He is to obtain tactical intelligence as far south as KOLTE and provide early warning of enemy advances in zone.

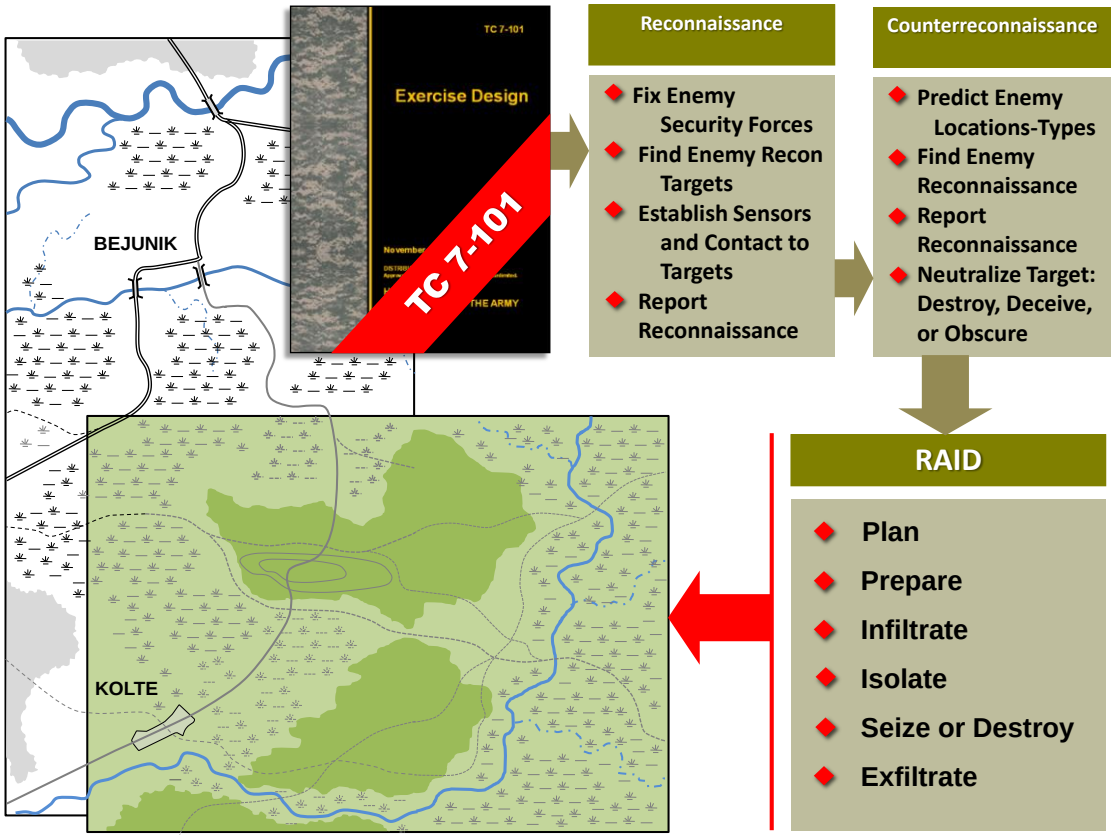


Figure 2. Terrain appreciation in zone for raid to obtain tactical intelligence

The platoon leader reviews his current combat readiness and risk assessment, and considers future operations to not become decisively engaged by the enemy. His current situation is as follows:

- The platoon leader (PL) assesses what he knows about the enemy based on the ambush success. Recognizing that a small number of enemy soldiers are probably maneuvering to the northeast of his current positions toward Hill 21, he is planning a *raid* to kill or capture enemy soldiers in order to identify what unit or units he is confronting in zone.

- One scout squad and BTR remain at the southern slope of Hill 21 observing for enemy movements in the vicinity of KOLTE. The wheeled armored carriers previously reported as stationary at the northern outskirts of KOLTE have not moved north; however, the squad leader reports a wheeled vehicle with a turreted main gun appeared on the main road in KOLTE but withdrew out of site into the village buildings.
- The senior sergeant (SS) starts his movement from BEJUNIK, links up and recovers one of the OP teams south of the river, and moves southwest along the main roadway toward PEL 23.
- The combat engineer squad at the MIN River reports no enemy activity from the operational bridge site to the destroyed bridge as it patrols along the northern bank of the river at BEJUNIK. The observation post (OP) south of the river reports no movements to the south.
- The scout squad at the destroyed bridge continues to man a defensive position in BEJUNIK and conducts dismounted patrolling in conjunction with the engineer squad. The OP forward of the simple battle position (SBP) and south of the river continues to orient south.
- The mortar section remains in position on the outskirts of BEJUNIK ready to assist the platoon with on-call indirect fires and reports nil civilian movement among buildings or in the streets of BEJUNIK.

If the enemy occupies Hill 21, this terrain provides good visibility north all the way to BEJUNIK. The platoon leader decides that a raid with limited objectives is worth the risk, and directs his squad and team leaders on site in a brief rock drill rehearsal. A *raid* is an attack against a stationary target for its capture or destruction that culminates in the withdrawal of the raiding element to safe territory (TC 7-100.2). Raids can also secure information, individuals, equipment or systems, and/or deny a capability to an enemy. A raid can be executed to confuse or deceive an enemy. Several keys to successful accomplishment of a raid are surprise, massed combat power, and rapid conduct of mission tasks. Exfiltration is the final action of a raid. A raid does not necessarily have to be focused on a stationary target.[2] The raid is a basic form of OPFOR tactical offensive combat. Raids at any OPFOR level of command and with any type elements and/or forces have the same basic subtasks.

Decisions and Movements for the Raid

The platoon leader uses a key piece of terrain situational awareness in planning the raid. Based on patrolling by his scouts now manning his flank security observation post, he knows that any enemy movement to the north must cross as open grassy slope before reentering the wooded area. The slope in this area descends to swamp and a river that restricts any wider flanking actions. The scout team in the rally point confirms that the treeline is heavy thicket with the one trail as the only quick entry into the woods.

The BTR near the main road continues to orient and observe south toward KOLTE. The squad leader reports that a total of 15 to 20 dismounted enemy soldiers entered the treeline after the ambush. He sees no additional soldiers between KOLTE and his position at the Hill 21 woodline. The observation post at the west slope of Hill 21 reports no activity, and the OP to the east on the hill trail reports only a farmer and cart on the east side of the river.

Platoon elements act quickly and effectively to position for their respective raid functions while security elements maintain observation of the woodline to the south. The scout team designated as a *fixing* element also sets two antipersonnel mines in a daisy-chain for command detonation when the lead enemy elements enter the kill zone. The other scout team moves to the north into a concealed position as the *raiding* element. The platoon leader and his BTR are a *support* element that will provide coax machinegun fire down the trail into the kill zone once the mines detonate.

On order of the platoon leader, the mortar section will fire a target in the south treeline to assist the fixing element in isolating the lead enemy elements from any reinforcement or other support. The mortar section sergeant will displace to an alternate firing position after firing several rounds, and notify the platoon leader when he is ready for another fire mission. The fixing element will engage with area direct fires to suppress enemy near the southern treeline as well as prevent any withdrawal of enemy elements back across the open grassy area.

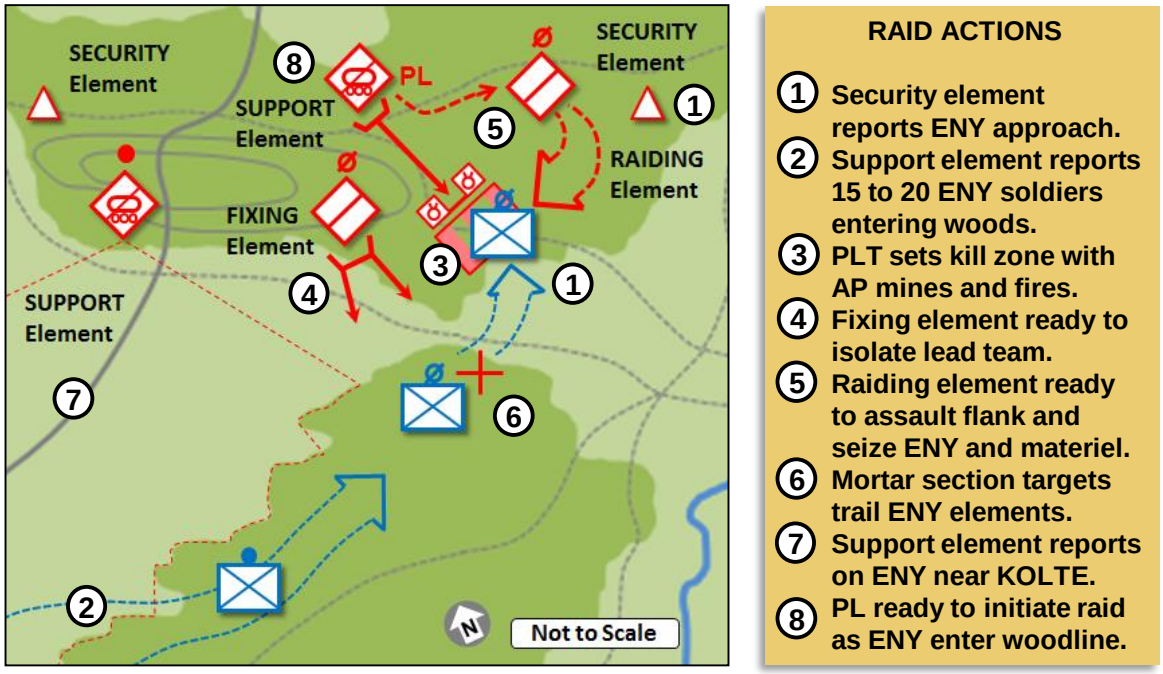


Figure 3. Tactical plan for the raid northwest of KOLTE (vignette)

The Raid

Security elements report that six soldiers dashed across the open grassy slope and into the woods at the trail. The fixing element identifies the enemy soldiers moving slowly parallel to the trail. The team sergeant triggers the daisy-chain and the mines cut a swath across the kill zone. The platoon leader levels his BTR coax machine gun fire into the kill zone. The return fire from the enemy indicates one or two enemy soldiers may be wounded or killed. Most of the return fire from the enemy in the kill zone points primarily up the trail in the direction of the BTR.

When the mines detonate, the fixing element rakes the southern treeline with controlled semiautomatic and automatic rifle fire. One PKM adds to the direct fires. Enemy return fire hits high into the treeline. Branches and leaves clipped by the gunfire fall on the scout team but none of the scouts are injured.

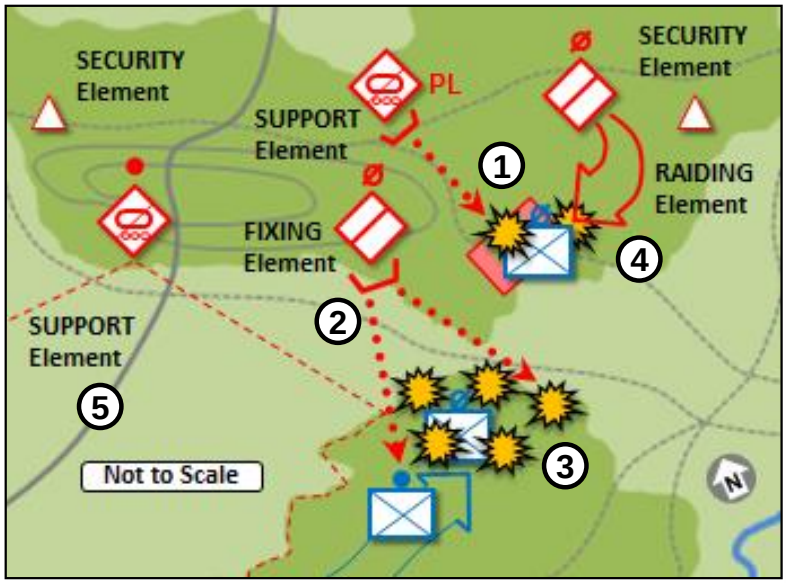
The platoon leader orders the mortar fire mission and receives an immediate “Shot, Over” followed by a "Splash, Over” from the mortar sergeant. In quick succession, several mortar rounds land inside the treeline. Enemy gunfire is sporadic after these mortar detonations, but the fixing element maintains a controlled grazing pattern of automatic and semiautomatic gunfire into the woods.

Back in the northern treeline, an enemy soldier throws a smoke grenade on the trail and starts to run back down the trail. Machinegun fire hits him in mid-stride and he topples over. The final mortar rounds are still landing when the platoon leader shifts and lifts his direct fires, and orders the raiding element to assault into the kill zone.

The raiding element sweeps into the kill zone from the flank and shoot two soldiers who turn to return fire. One soldier is killed and the other soldier, unwounded, raises his hands and is taken prisoner. One of the other enemy soldiers is badly wounded and propped against a tree trunk. He dies as a scout is applying emergency aid to the chest wound. Three other enemy soldiers at the far end of the kill zone are dead from the antipersonnel mines. The soldier who attempted to run down the trail is also dead.

The scout team exploits the site for maps and documents, cuts several collar insignia and shoulder patches from uniforms, and blindfolds the prisoner and zip-ties his hands together. The team leader contacts the platoon leader that he is departing the kill zone and moving on the trail toward the BTR with one prisoner. A smoke haze lingers under the tree canopy from the grenade the enemy soldier had thrown.

As the raiding element rallies at the Platoon leader's BTR, the scout squad observing KOLTE reports three wheeled vehicles emerged north of the village houses moving parallel to the road toward Hill 21. Two more vehicles, one is the turreted main gun vehicle, slowly approach along the main road bank.



RAID ACTIONS

1. **Support element detonates AP mines as team enters kill zone.**
2. **Fixing element provides support by fire to isolate lead team.**
3. **Mortar section neutralizes trail team.**
4. **Raiding element assaults and seizes prisoner and materiel.**
5. **Support element reports ENY advance from KOLTE.**

Figure 4. Execution of raid northwest of KOLTE (vignette)

The fixing element returns to the platoon rally point and has two scouts act as rear security maintaining awareness for any enemy movement up the trail. The OP on the north trail is now at the BTR too. The platoon leader directs the scout squad at the road to recover his OP to the west and linkup with his BTR on the northern military crest at the road and trail junction.

Probable Enemy Location 23

Concurrently, the senior sergeant on the western road reports that he is entering PEL 23 and continuing south on his reconnaissance. The senior sergeant rises higher in his BTR cupola as the morning mist suddenly starts to clear and visibility extends well south of the trail intersection and road at PEL 23. He senses something is not normal as he visually scans the road and woodline south of the trail intersection. Scouts start to dismount from the BTR.

The squad leader near the eastern road departs his position viewing KOLTE and maneuvers his BTR around the crest of Hill 21. He collects his OP and they upload into the BTR. No sooner has the hatch closed on the BTR and enemy indirect fire starts to land along the road at the southern woodline, on the hillcrest, and on the northern slope.

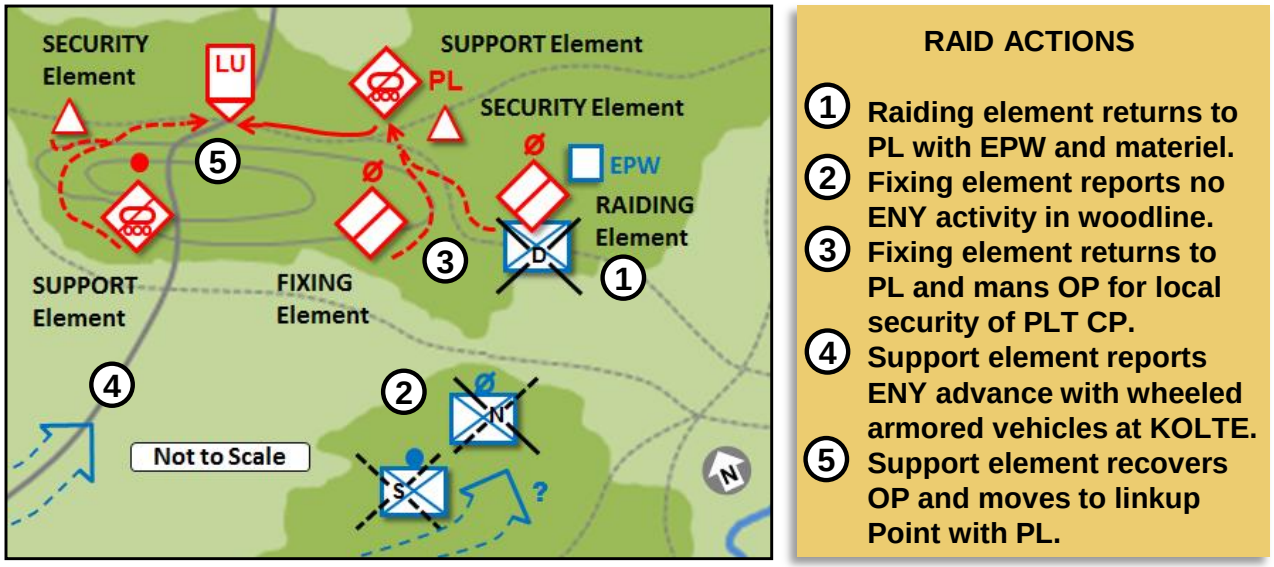


Figure 5. Raid actions and IRP reorganization (vignette)

What Next?

A tactical opportunity required a trained response to imminent enemy contact. The next article in this tactical vignette series will address tasks of delay, breaking contact, and/or linkup with an OPFOR

The platoon leader adapted quickly to the changing tactical conditions that emerged so far in his screen mission. The actions of IRP noncommissioned officers were instrumental to successful execution of a raid. Decentralized command and control (C2) of a threat/OPFOR demands leader initiative with prudent risk-taking and willingness to act, but also demands experienced judgement.

Training Implications

This article illustrates the value of individual skills proficiency and effective execution of small unit drills and tactical tasks based on quality training, teamwork, and leadership. Hill 21 was clearly the commanding terrain south of the MIN River and as far south as KOLTE. Continuous security and use of dismounted scouts allowed the IRP platoon leader to surprise and defeat the vanguard of an approaching dismounted enemy element in a raid using immediately available weapons systems of his task organization—semiautomatic and automatic rifle fires, antipersonnel mines, hand grenades, machinegun fire, and mortar indirect fires.

Surprise and deception are enablers to confuse the enemy and limit enemy response to a raid. The reconnaissance and counterreconnaissance tasks are a normal complement to each other unless constraints are placed on a mission to preclude counterreconnaissance actions. Using available cover and concealment with camouflage during an engagement provide a degree of protection, as well as supporting the coordinated withdrawal actions directly after the raid to a rally point.[3]

Preparations for this raid included mission brief and rehearsal, cover and concealment measures, interlocking sectors of fire among fighting positions of the fixing element, camouflage, improving fields of fire without overtly disturbing the natural foliage or terrain appearance, and integrating antipersonnel mines with natural obstacles. Assigned directions of fire, targets, and fire control measures for the raiding element and support elements enhanced massing combat power effects with a rapid and violent group of primary and enabling actions near and in the kill zone.

The OPFOR is not necessarily restricted by law of war protocols or international conventions on armed conflict. The US Army defines an opposing force (OPFOR) as 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.[4] The OPFOR can represent a particular threat, hybrid threat, and/or adversary that can morph in capabilities and influence within a relevant population and operational environment.

In threat/OPFOR training, executing a raid mission task and outcomes can include but not be limited to:

- Destroy or damage key systems or facilities (such as command posts (CPs), communication facilities, supply depots, radar sites), providing or denying critical information, or securing hostages or prisoners.
- Destroy, damage, or capture supplies or lines of communications (LOCs).
- Support the information warfare (INFOWAR) plan.
- Establish C2 method to link raiding force and sensors.
- Distract attention from other OPFOR actions, keep the enemy off balance, and/or cause the enemy to deploy assets to a location that creates enemy vulnerability elsewhere.[5]

In expedient planning for a raid when a tactical opportunity emerges, reconnaissance and decisions typically consider aspects of:

- Movement and/or maneuver routes from positions, an assembly area, or start point to the raid objective or kill zone.
- Security locations and elements to the frontage, flanks, and rear of the raid objective or kill zone.
- Support element locations and tasks.
- Tactical actions of the raiding element prior to and in the objective or kill zone.
- Exfiltration routes for raiding, security, and support elements.
- Actions in the rally point.

A raid is typically organized into three elements: a raiding element, security element(s), and support element(s).[6]

- The *raiding element* executes the major task as the *action* element ensuring the success of the raid. This element accomplishes its task with rapid, violent combat action, and combines surprise and deception to overwhelm the enemy.
- The *security elements* in a raid are *enabling* elements and are primarily focused on fixing enemy security and response forces or the enemy's escape from the objective area. The security element is typically equipped and organized to detect enemy forces and prevent them from contacting the rest of the targeted enemy element. The security element also protects the withdrawal of the raiding element
- The *support elements* provide several types of support and are *enabling* elements. Support capabilities can include reconnaissance, armor, fire support, air defense, engineer, logistics, and INFOWAR. The command and control element typically positions with a support element unless a different location provides an improved ability to direct the raid.

Conduct of a raid has several primary tasks and numerous subtasks. Planning and preparation precede mission execution of a raid. Key tasks during execution include infiltration and positioning of the mission elements, and isolation of the enemy target or objective. The primary action seizes or destroys the target in the objective. The concluding action of exfiltration moves or maneuvers the mission elements to the next tasks and/or continuation of the mission. Tasks and subtasks to consider in conducting a raid are as follows:

PLAN

- Identify enemy element or force capabilities and limitations to be raided.
- Conduct analysis to determine the type of raid to be conducted.
- Identify raid objective and/or objectives.

- Analyze action and enabling functions that must be performed to achieve mission success, and consider tasks to deceive, disrupt, suppress, fix, contain, breach, defeat, and/or destroy.
- Determine the functional tactics to be applied by action and enabling elements.
- Identify situational understanding requirements for collection and analysis.
- Task-organize elements or forces for the raid task by function in accordance with TC 7-100.2 and TC 7-100.3.
- Determine how and when functional elements act or enable the raid, and/or transition to other tasks-subtasks.

PREPARE

- Conduct continuous reconnaissance and surveillance to provide situational understanding of enemy and operational environment required for success.
- Conduct continuous counterreconnaissance to prevent the enemy from obtaining situational understanding of OPFOR intentions.
- Conduct mission and task rehearsals.
- Execute INFOWAR.

INFILTRATE

- Conduct undetected and sequenced movement by *security* elements through and/or into an area occupied by enemy elements to occupy a position(s) in order to fix enemy security or response elements.
- Conduct undetected and sequenced movement by *support* elements through and/or into an area occupied by enemy elements to occupy a position(s) in order to isolate the raid objective.
- Conduct undetected and sequenced movement by *support* elements through and/or into an area occupied by enemy elements to occupy an indirect fires position(s) in order to suppress, disrupt, or contain enemy at raid objective.
- Conduct undetected movement by a *raiding* element(s) through and/or into an area occupied by enemy elements to occupy a position(s) in order to seize or destroy enemy and/or enemy materiel in the raid objective.
- Determine if current tactical conditions require an adjustment to the raid.

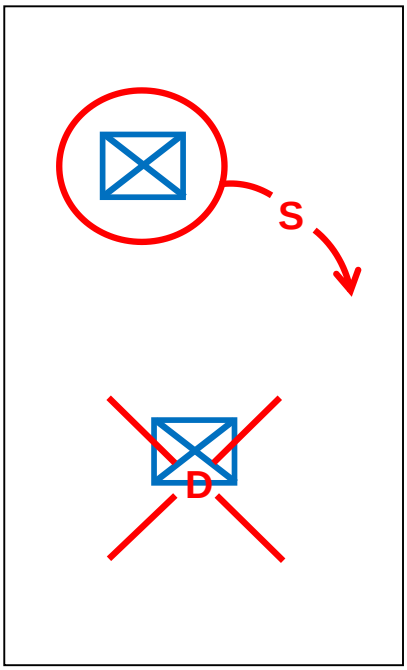
ISOLATE

- Employ reconnaissance and surveillance with security elements to sustain situational understanding and provide early warning of enemy activities that can influence the raid.
- Employ continuous counterreconnaissance with security elements to prevent the enemy from obtaining situational understanding of OPFOR intentions.
- Influence (deceive, degrade, disrupt, deny, and/or exploit) enemy tactical decisionmaking before and during execution of the raid through information warfare (INFOWAR) technical and psychological capabilities.
- Isolate the enemy in the raid objective with support element(s) using indirect fires, nonlethal suppression means, and/or direct fires.

- Fix enemy security element(s) and/or response elements to prevent or slow support to enemy at the raid objective.

SEIZE or DESTROY

- Attack with sudden and massed combat power of raiding [action] elements and support [enabling] elements to contain enemy at the raid objective and suppress effective defenses.
- Assault to breach enemy obstacles with a breaching [enabling] element, if required, when seizure is required in the raid mission task.
- Assault to penetrate into raid site perimeter with an assault element(s), when taking possession of a designated area is required in the raid mission task.
- Attack with sudden and massed effects of raiding, security, and support elements, to *destroy* enemy elements and/or combat systems, without seizure of the raid site, when physical control of the raid objective is not assigned in raid mission purpose and intent.
- Support the raid with appropriate enabling task functions that may include but are not limited to: deception, disrupt, suppress, fix, breach, clear, and/or employment of reserve elements.
- Assault with fires and maneuver as sudden and massed combat power of the raiding, security, and support elements to *seize* the raid objective.
- Secure selected information, equipment or materiel, and enemy prisoners.
- Consolidate the objective in its temporary seizure and defend while the site is exploited by OPFOR elements.
- Exploit the raid objective site when designated in the mission task and intent.
- Reorganize OPFOR elements to minimize the impacts of combat losses and functional capabilities.



EXFILTRATE

- Distribute the reorganized OPFOR elements quickly into small elements for exfiltration along designated exfiltration lanes.
- Conduct timely undetected movement from areas under enemy control by stealth, deception, surprise, or clandestine means.
- Execute tasks after raid success with stay-behind elements, when required, that can include but is not limited to: surveillance, disrupt, delay, suppress, neutralize, defend, defeat, and/or destroy tasks.
- Continue the mission.

Note. Knowing the threat/OPFOR is essential to planning and combating the capabilities and limitations of an enemy or adversary in a training mission. When a specified threat exists in a deployment order, the actual threat force is represented or replicated in training and pre-deployment 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. This regulation is a 2015 update on the operational environment (OE) and 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.[7] OPFOR tactical doctrine, tactics, and techniques are in Army Training Circular 7-100.2 and Army Training Circular 7-100.3.[8]

Note. 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 [or opposing force (OPFOR)] and operational environment (OE) conditions in support of all Army training, education, and leader development programs.

In 2015-2016, the Threats Integration Directorate (ACE-TI) is reviewing and revising the threat/OPFOR tasks found in TC 7-101. 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.

Notes

[1] 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. 8-83—8-86.

[2] Headquarters, Department of the Army. Army Doctrinal Reference Publication 1-02, Terms and Military Symbols. 2 February 2015. p. 1-70.

[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. para. 3-117.

[4] 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.

[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. para. 3-175.

[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. para. 3-177—3-185.

[7] Headquarters, Department of the Army. Army Doctrinal Reference Publication 1-02, Military Terms and Symbols. 2 February 2015. p. 1-42. Also, see ADRP 3-0.

[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. See also, 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.

by Angela Wilkins, TRADOC G-2 ACE Threats Integration (IDSI Ctr)

The most recent iteration of the Threat Tactics Course, taught at Fort Leavenworth, took place the week of 24–28 August. This time, ACE Threats Integration (ACE-TI) hosted 32 students served by four instructors. Some students were local to Fort Leavenworth, by others came from Ft. Irwin, Ft Rucker, Ft. Hood, Ft. Stewart, Ft. Benning, Camp Murray, and Ft. Shafter. Additionally, four international student from Canada were in attendance.

Figure 1. Students and instructors from Classroom 102

Figure 2. Students and instructors from Classroom 104

The Threat Tactics Course provides students with information based on the TC 7-100 series of products on opposing force doctrine. Instructors define and explain the concepts of threat tactics, threat actors, and operational environment conditions. The Decisive Action Training Environment is included in the course materials. Methodologies include lecture, video, discussion, and practical exercises.

The Threat Tactics Course represents 40 hours of instruction, and students who complete the course receive a certificate. It is also available as an MTT. To receive information about future course offerings or to request an MTT, please contact Angela Wilkins at angela.m.wilkins7.ctr@mail.mil or 913-684-7929.

ACE Threats Integration products are all available on the Army Training Network, as is the information presented in the Threat Tactics Course. Please visit the TRADOC G-2 ACE Threats Integration page on ATN at https://atn.army.mil/dsp_template.aspx?dpID=377.

TRADOC G-2 *Worldwide Equipment Guide*: Panhard *Véhicule Blindé Léger* (VBL) Light Armored Vehicle

by H. David Pendleton, TRADOC G-2 ACE Threats Integration (CGI Ctr)

The ACE-Threats Integration Team is in the process of updating the 2015 *Worldwide Equipment Guide* (WEG) and is making a number of changes to the WEG's format, deleting some entries, and adding new ones. One of the new vehicles that will be added is the French Panhard Armored Carrier (known as the *Véhicule Blindé Léger* (light armored vehicle), abbreviated as VBL. While primarily a reconnaissance vehicle, the VBL is a versatile, small, 4-wheel drive vehicle used in a variety of battlefield roles.

Figure 1. VBL

Base Vehicle Characteristics

First introduced in 1985, the base VBL is a wheeled 4 x 4 all-terrain vehicle that can travel up to 95 km/h on land and is fully amphibious with a top speed of 5.4 km/h in the water. Road range is up to 800 km. The rear door swings open and there are top hatches for the crew to use for visual observation. The crew consists of three personnel: driver, commander, and gunner. While the VBL is the lightest of the French reconnaissance vehicles, some variants can carry more personnel than just the crew. The VBL is 3.7 m in length, 2.02 m in width, 1.7 m in height, and weighs 3.55 metric tons. The VBL's armor reaches NATO Standard Agreement (ATANAG) Level 1 protection standards with run-flat tires. The primary weapon is the American M2HB .50 caliber (12.7-mm) machine gun with a maximum effective range of 2,000 meters. The normal basic load is 1,200 rounds of ammunition and comes in a variety of types including ball, tracer, and armor piercing.[1]

Other Available Weapons

A number of weapons can operate from the VBL. The primary anti-tank (AT) variant uses a Milan anti-tank gun missile (ATGM) and carries 6 rounds for reloading. The Milan is a medium-size portable ATGM with a range up to 3,000 meters for the Milan-ER (extra range). An optional ATGM system available for the VBL is the LRAC (*Lance-Roquettes AntiChar de 89 mm modèle* F1), a shoulder-launched weapon with 12 missiles. In lieu of the .50 caliber main gun, some VBLs may carry

a single 7.62-mm machine gun with a basic load of up to 3,000 rounds. In addition to the primary weapon system on some variants, some VBLs can also carry a secondary 7.62-mm machine gun, usually on a ring mount, with up to 3,000 rounds of ammunition.[2]

Variants[3]

- VBL with PL127 turret: This version, also called the VBL Reco 12.7, comes equipped with a 12.7-mm turret-mounted machine gun. The same turret could also operate a 40-mm automatic grenade launcher (AGL).
- VBT: This variant's wheel base is stretched to carry five soldiers operating a remote weapon station with an M2HG machine gun and smoke launchers.
- VAP Deep Penetration Vehicle: Another extended wheel-base version is called the *Vehicule d'Action dans la Profondeur* (VAP) and is used for long-range reconnaissance missions. The VAP uses a more powerful engine, giving it a top speed of 120 km/h, but the range is reduced to 700 km. The VAP can operate a variety of weapons including machine guns, cannons, or AT missiles.
- VBL AT: This ATGM version features either the HOT or TOW AT turret, but the turret can also operate using the Kornet or Ingwe ATGM systems.
- VBL TOW: This ATGM carrier variant is only found in the Greek army. It carries a single TOW tube with a range to 3,750 meters and four missiles within the vehicle. The secondary weapon is a 7.62-mm machine gun with 2,000 rounds of ammunition.
- VBL Milan: This VBL carries six Milan ATGM missiles with a range of two km from its single launch tube.
- VBL Eryx: This variant's ATGM can only reach targets out to a maximum range of 600 meters. The vehicle carries one ERYX firing unit with four reloads. The secondary weapon is a 7.62-mm machine gun on a ring mount with 1,400 rounds of ammunition.
- VBL AT4CS: This extremely short-range AT variant uses the A54CS 84-mm missile effective out to only 250 m. There is also a secondary armament of a 7.62-mm machine gun with 1,400 rounds of ammunition.
- VBL Canon: This VBL carries a remote 20-mm turret that improves the survivability of the gunner.
- Wasp Milan ER: This variant also operates a remote weapon station contains both a one-tube anti-tank guided missile (ATGM) launcher and a 7.62-mm machine gun.
- VBL *Tourelle Fermee*: This has another remote-controlled turret that can house a variety of weapons including a 12.7-mm machine gun, a 7.62-mm machine gun, or a 40-mm automatic grenade launcher.
- VBL Ingwe: This export version, only found in South African units, features an armed long range reconnaissance turret with four Ingwe ATGM launchers.
- Multi-Purpose Combat Vehicle (MPCV): This extended chassis is outfitted with a four-rail missile launcher turret with eight missiles as well as a 12.7-mm machine gun as a secondary weapon.
- Samantha: This VBL operates the Griffon surveillance radar that designates targets for short range surface-to-air missiles (SAMs) or anti-aircraft (AA) artillery targets. Maximum radar range is 8–10 km for helicopters and 16–20 km for fixed wing aircraft.
- VBL Albi-Mistral: This version carries the Albi AA twin missile platform firing the Mistral or Mistral 2 SAMs. Basic load is six missiles with a secondary 7.62-mm machine gun with 1,200 rounds on a semi-circular rail system.[4]
- ULTRAV M11: This is another stretch BTR variant for NBC reconnaissance missions.
- VBL Information: This VBL features improved target designation capabilities including the SOPHIE camera system.

- VBL SOURCE: VBL with the *Systeme Optronique Unique de Renseignement* (SOURCE) upgrades to the optical observation and detection systems. The SOURCE is compatible with an integrated digital network.
- VB2L *Poste de Commandement*: Command version with extra radios, map board, and folding table with 7.62-mm ring mounted machine gun and 1,400 rounds of ammunition.

At least 17 countries operate no fewer than 1,948 VBLs, many of them in Africa. Countries confirmed with the VBL include: Benin, Botswana, Cameroon, Djibouti, France, Gabon, Greece, Indonesia, Kuwait, Mexico, Niger, Nigeria, Oman, Qatar, Rwanda, Togo, and the United Arab Emirates. France, however, is still the largest operator of the VBL with approximately two-thirds of the vehicles fielded.

More and more VBLs or vehicles similar to the VBL can be found on the battlefield. Knowledge of the capabilities or the limitations of the VBL will be beneficial to others on the battlefield, whether they are friend or foe.

NOTE. See corresponding WEG sheet on pp 38–39.

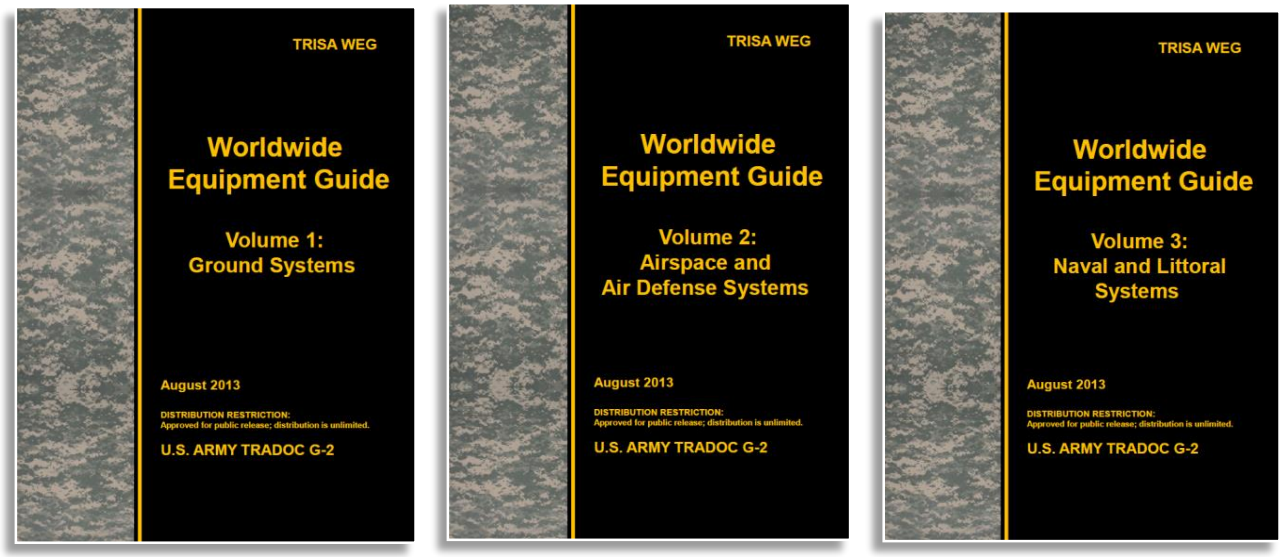
Notes

[1] Military Periscope. "VBL (Vehicule Blinde Leger) (4 x 4)." 1 October 2014; Army Recognition. "VBL Panhard 4x4 Light Armoured vehicle." Undated; Global Security. "Véhicule Blindé Léger (VBL)." Undated; Armored Vehicles. "Panhard VBL – Light Scout Car." Undated; Defense Update. "VBL: Panhard." Undated; Tanks Encyclopedia. "Panhard VBL." Undated.

[2] Military Periscope. "VBL (Vehicule Blinde Leger) (4 x 4)." 1 October 2014; Military Periscope. "Milan anti-tank guided missile." 1 March 2012; Army Recognition. "VBL Panhard 4x4 Light armoured vehicle." Undated; Global Security. "Véhicule Blindé Léger (VBL)." Undated; Armored Vehicles. "Panhard VBL – Light Scout Car." Undated; Defense Update. "VBL: Panhard." Undated; Tanks Encyclopedia. "Panhard VBL." Undated.

[3] Military Periscope. "VBL (Vehicule Blinde Leger) (4 x 4)." 1 October 2014; Military Periscope. "Milan anti-tank guided missile." 1 March 2012; Army Recognition. "VBL Panhard 4x4 Light armoured vehicle." Undated; Global; Defense Update. "VBL: Panhard." Undated. Security. "Véhicule Blindé Léger (VBL)." Undated; Armored Vehicles. "Panhard VBL – Light Scout Car." Undated; Tanks Encyclopedia. "Panhard VBL." Undated.

[4] Deagel, "VBL equipped with Mistral missiles and a machine gun." 2006.



FRENCH ARMORED CARRIER/TACTICAL UTILITY VEHICLE VBL

VBL with open rear

VBL with 7.62-mm machine gun (MG)

VBL with Milan Anti-Tank Weapon

VBL with M2HB MG behind protective plates

SYSTEM	SPECIFICATIONS	AMMUNITION	SPECIFICATIONS
Alternative designations:	Vehicule Blinde Leger, Ultrav, M11	Name:	M2HB
Date of introduction:	1984	Caliber/length:	12.7-mm (.50 caliber)
Proliferation:	1948+/at least 17 countries	Type:	Machine Gun
Description:	4 X 4 armored vehicle carrier serves in a variety of roles. Some variants can carry more than the crew.	Ammo:	1200 Rounds: Ball, Tracer, AP, API, API-T, AP Hardcore, Multipurpose, SLAP, SLAPT
Crew:	3 (driver, commander, gunner)	Maximum Effective Range:	2000 m (day), INA (night)
Combat weight (mt):	3.55	Armor penetration:	AP: 11 mm at 30° at 1500 m Ball: 20 mm at 100 m
Chassis length overall (m):	3.70	Muzzle velocity (m/s):	M33 Ball: 890 SLAPT (Tracer): 1215
Height overall (m):	1.70 (2.14 to top of MG)	Name:	Milan (on some variants)
Width overall (m):	2.02	Caliber/length:	115 mm
Ground pressure (kg/cm²):	INA	Type:	Anti-Tank Missile
Automotive performance:	XD 3T	Ammo:	Tandem Heat-SACLOS (6 Rounds on some variants)

Continued on next page.

Engine type:	Peugeot liquid-cooled, turbo-charged, in-line, 4-cylinder diesel	Maximum Effective Range:	Milan: 2000 m (minimum 25 m) Milan ER: 3000
Cruising range (km):	600 (max fuel variant to 800, 1000 with external tanks)	Armor penetration:	Milan 3: 1000 mm of ERA or 3 m of reinforced concrete
Speed (km/h):	Max road: 95 Max off-road: INA Average cross-country: INA Max Swim: 5.4	Muzzle velocity (m/s):	200
Fording depths (m):	Amphibious		
Radio:	INA	VARIANTS	SPECIFICATIONS
Protection:		VBL Samantha	Griffon surveillance radar to designate SAM missile & AA artillery targets
Armor, turret front (mm):	5-11.5	VBL Anti-Tank	Equipped with the HOT or TOW turret, but also can be integrated with Kornet or Ingwe missile systems
Applique armor (mm):	No	VBL Albi	Fires Mistral/Mistral 2 SAMs
Explosive reactive armor(mm):	No	VBL with PL127 Turret	12.7-mm MG or 40-mm AGL
Active Protection System:	No	VBL SOURCE	Upgraded optics
Self-entrenching blade:	No	VBL Information	Improved target designation
NBC protection system:	Collective	VAP Deep Penetration Vehicle	Long wheel-base for deep reconnaissance missions
Smoke equipment:	Available	ULTRAV M11	Stretched for NBC detection
Survivability equipment:	Increased mine protection; Kevlar blankets	Wasp Milan ER	Remote weapon station with a 1-tube ATGM launcher & 7.62-mm machine gun
VBL AT4CS	A54CS 84-mm ATGM carrier with range only to 250 m with ring-mounted 7.62-mm machine gun	VBR	Stretch variant can carry 5 soldiers; remote weapon station with M2HB MG & smoke grenade launchers
VBL Eryx	Short-range (600 m) AT carrier with secondary 7.62-mm machine gun	VBL Ingwe (South Africa)	Armed Long Range Reconnaissance Turret with 4 Ingwe ATGM launchers
VB2L Poste de Commandement	Command version with extra radios, map board, & 7.62-mm MG for self-protection	MPCV (Multi-purpose Combat Vehicle)	VBR chassis with 4 rail missile launcher turret with 8 missiles & 12.7-mm machine gun
VBL TOW (Greece)	Single tube with 4 rounds with range to 3,750 m	VBL Milan	1 Milan firing unit with 6 missiles with range to 2 km
VBL Tourelle Fermee	Remote turret that can fire a 12.7-mm MG, 7.62-mm MG, or 40-mm AGL	VBL Canon	20-mm remote turret
NOTES SOURCES: 2014 WEG, ARMY RECOGNITION, AND MILITARY PERISCOPE. SOME VBLS WILL CARRY A 7.62-MM MACHINE GUN AS A SECONDARY WEAPON. THIS COULD BE COAXIAL MOUNTED ON AN ATGM PLATFORM SYSTEM OR ON A RING MOUNT. LRAC ANTI-TANK LAUNCHERS ARE ALSO AVAILABLE AS AN OPTION			

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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