

Defeating the Russian Battalion Tactical Group

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The Russian battalion tactical group (BTG) is a modular tactical organization created from a garrisoned Russian Army brigade to deploy combat power to conflict zones. BTGs were typically effective in combat operations in Ukraine from 2013-2015, but on several occasions, BTGs were tactically defeated by Ukrainian regular-army units despite Russian overmatch in firepower, electronic warfare (EW) and air-defense artillery (ADA).

This article researches the weaknesses that allowed Ukrainian Army units to defeat Russian BTGs and describes tactics that an American brigade combat team (BCT) can employ to create similar opportunities to tactically defeat a BTG if required in a future conflict.

Idea in brief

The BTG strategic imperative is to control¹ terrain to shape post-conflict negotiations. When possible, the BTG commander will employ his strike assets to cause casualties to pressure his opponent to negotiate a settlement, but he must also preserve his own strength because it cannot be regenerated operationally and casualties are strategically expensive. To preserve combat power, BTGs employ a force of local paramilitary units as proxy forces to secure² terrain and guard³ the BTG from direct and indirect attack. Although Russian tactical defeats were uncommon and typically ended in an operational stalemate rather than decisive defeat, Ukrainian regular-army successes exist in sufficient number to suggest that Russian BTGs present tactical vulnerabilities that can be exploited by BCT commanders:

- Shortages in ready maneuver forces, especially infantry, significantly limit Russian maneuver capabilities. BTGs cannot simultaneously mass for offensive operations and maintain flank and rear security, and they struggle to concentrate artillery against attacks on multiple simultaneous axes.
- Command-and-control (C2) limitations require the BTG commander to concentrate mission-command and intelligence assets to direct-fires and EW shaping efforts and strikes. These assets are employed selectively to substitute for offensive maneuvers, are not available across the entire BTG's battlespace and can be overloaded by aggressive dispersion and displacement tactics.
- BTGs cannot quickly regenerate combat power without cannibalizing other units in theater or garrison. Once teams and units are degraded by casualties, they will rapidly lose effectiveness until completely reconstituted. In the face of a credible threat, maneuver and support assets will likely be withdrawn and conserved for future use.

Idea in practice

Although some BTG systems are technologically superior to the corresponding U.S. equipment, the BTG doesn't have the capacity to observe, target and attack the BCT simultaneously across a broad front. Not only can a BCT sustainably maneuver three times as many formations, the decentralized nature of U.S. mission command allows each formation to maneuver simultaneously, independent of brigade-level direction.

BCT commanders can maneuver against BTGs' vulnerabilities by avoiding static deployments of forces that allow the BTG commander to select, prepare and execute limited strikes. BTG capabilities are extremely lethal when concentrated against individual units but diminish rapidly against high-tempo distributed maneuver or defense-in-depth because a BTG can't resource economy-of-force missions. In contrast, American BCTs have asymmetrical advantages in maneuver and sustainment, which can be leveraged against a BTG. To defeat a BTG, increase uncertainty and shape the battlefield by "[burning more calories](#)" to overload the BTG commander's most valuable systems and personnel. Once hostilities are initiated, attack on multiple fronts to destroy his maneuver force, displace his mission command, EW and fires assets, and seize his sustainment area.

Warfighting function	BTG vulnerability	BCT opportunity
Mission command	BTG C2 is centralized without a networked COP. Changes to the COP are difficult to disseminate.	Change the battlefield as often as possible through deception, repositioning and counterattacks.

Movement and maneuver	BTGs prefer to escalate contact after thorough reconnaissance from behind a proxy guard force to conserve regular forces and retain the initiative.	Penetrate proxy-force defenses and inflict casualties on the BTG regulars to force their withdrawal, then isolate and reduce paramilitary positions.
Intelligence	BTG collection concentrates narrow-FOV UAS, electronic listening and paramilitary HUMINT for detailed IPB of a single objective; little general coverage.	Use dispersion, camouflage and deception to reduce signatures; these increase the risk and resources required to gain adequate information.
Fires	BTGs concentrate artillery and observers to attack with overwhelming fires whenever contact is made.	Initiate contact at multiple locations to dissipate the BTG's fires superiority and overload their fire-direction center.
Sustainment	BTGs sustainment is <i>ad hoc</i> , under-resourced and overburdened by proxy forces. Medevac is extremely limited.	Add stress to the BTG's sustainment systems; cause battle losses to quickly degrade unit performance.
Protection	BTG soldiers and equipment are protected with modern armor and PPE, and use battle positions and fortifications.	Train precision marksmanship and gunnery, engage with HE rounds and grenades, train on breaching and trenches.

Table 1. Warfighting functions compared.

Control terrain

The Russian army deployed BTGs to control terrain. In the opening months of the 2013 Ukraine crisis, Ukrainian regular-army forces largely defeated the separatist militias in Donetsk and Luhansk in eastern Ukraine. To prevent the catastrophic defeat of the separatist movement, whole Russian Army units entered the theater, achieved tactical and operational surprise, and destroyed a large percentage of Ukraine's regular maneuver force. Russian military, intelligence and private contractors supported local militias. Ukraine mobilized its reserves and fought the Russian/separatist force to a geographic stalemate in 2014. In Spring 2015, both sides signed the Minsk II ceasefire protocol and fighting subsided to occasional sniper, artillery and EW attacks.

Russia's regular-army brigades usually deployed half their personnel and equipment to the Ukrainian theater as BTGs. A BTG had the entire brigade's support and enabling resources, but it had only one mechanized-infantry battalion, often supplemented by a tank company and additional rocket artillery.⁴ (Figure 1.) The remaining personnel and equipment stayed at the brigade's garrison. As many as a third of the deployed soldiers were high-quality contract (volunteer enlistment) soldiers who were recruited to be the noncommissioned-officer corps of a modernized and professional Russian Army. They served primarily in the combat, EW and fires roles.

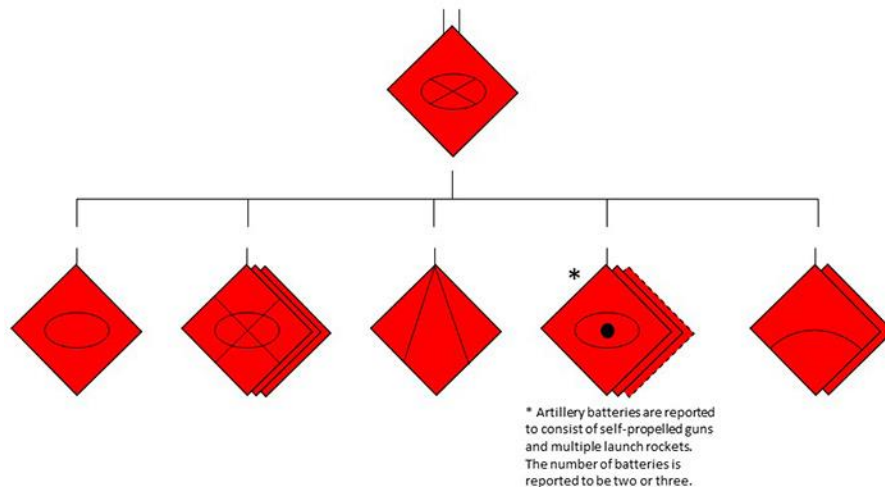


Figure 1. Task-organization of Russian BTG. (Graphic designed by MAJ Amos C. Fox and reprinted from his article published in *ARMOR's* July-September 2016 edition.)

The supporting units consisted primarily of lower-quality conscript soldiers. This distinction is important: conscripts must be supervised continuously for even the simplest of tasks and are rarely used in combat.

The second issue was that the Russian Army had too few contract soldiers to man the current and future force structure. High casualties in Chechnya and Georgia significantly depressed volunteer recruitment. Russian military leadership wanted to avoid a similar situation where high casualties in Ukraine might further depress recruitment. As a result, even though the BTG represents the best personnel a Russian brigade can deploy, two-thirds of the deployed personnel are unsuitable for close combat, and the third that is combat-ready is too valuable to risk unnecessarily.⁵

In hybrid-war doctrine, a nation commits regular military forces (officially organized, active and uniformed military units) to “resolve contradictions” during a conflict to shape the post-conflict resolution.⁶ In the 2014 Ukraine crisis, the contradiction was that both the Ukrainian national government and the separatist people’s republics claimed to administer the same geographical region. Although Russian intelligence, special-forces and small artillery units had supported separatist militias since the annexation of Crimea in 2014, regular forces organized as BTGs were not committed until Ukrainian tactical success in July and August threatened to completely defeat the separatists, restore the international border and resume local governance.

Similar to Russia’s expeditionary military interventions in Moldova (1990), Serbia (1998) and Georgia (2008), Russia committed a regular force organized as BTGs to the Ukrainian theater to ensure that Russia controlled enough terrain to shape a favorable negotiating position. Different from the previous campaigns, the BTGs sent to Ukraine had few maneuver forces and had to rely on paramilitary proxies to secure the necessary terrain.

Strike from behind

BTGs typically strike from behind a proxy guard force because their strategic imperative is to control terrain to shape post-conflict negotiations. When possible, the BTG commander will employ his strike assets to cause casualties, pressuring his opponent to negotiate the settlement, but he must also preserve his own strength because it cannot be regenerated operationally and casualties are strategically expensive.

Although the BTG deploys with a large complement of direct- and general-support units, only a reinforced battalion of maneuver forces are available to the BTG commander. To compensate for the shortage of maneuver forces, and to preserve combat power, BTGs employ a force of local paramilitary units as proxy forces to secure terrain and guard the BTG from direct and indirect attack. These units are comprised of local militia, Russian veteran volunteers and mercenaries who defend the line of contact and key infrastructure.

The guard force is also the source of the BTG’s freedom of maneuver – its presence frees up the BTG’s maneuver soldiers from security missions, protects them from attack and allows the BTG commander both free movement to his point of attack and time to prepare the battlefield for the attack. When opportunities to strike Ukrainian forces are identified or if the proxies are attacked, the BTG can employ indirect fires from behind the guard force to destroy its adversary with minimal risk to the regular force.

Operations in a BTG physically and geographically center on the group commander. He requests information, decides the course of action and then personally directs employment of forces, often using a physical map. This geographic concentration of leadership has the added benefit of reducing the BTG headquarters’ electronic signature and traffic, but it will create a physical signature that can be observed through overhead reconnaissance.

Once the plan is issued, the lack of common operating picture (COP) technology at the platoon level limits the BTG’s flexibility and its commander’s ability to quickly disseminate enemy updates, change sub-units’ orders and communicate with adjacent units. Communications between the BTG and paramilitary forces are particularly tenuous. Paramilitary commanders said they use cellular phones, satellite phones or unencrypted radios to communicate with the BTG headquarters.⁷

There were no reports of permanently assigned liaison teams. The BTG's C2 structure thus has excellent unity of command but may be vulnerable to raids, counterattacks and other surprise movements because reliance on analog C2 limits subordinate units' ability to understand and react to changes of circumstance.

BTGs are adept at combining high-end collection assets such as unmanned aerial systems (UASs), electronic listening and partisan human intelligence (HUMINT), but all these platforms have a limited capacity, so the BTG conserves and concentrates them to conduct intelligence preparation of the battlefield (IPB) for attacks. To coordinate these assets, BTG C2 requires co-location of maneuver companies and intelligence, surveillance and reconnaissance (ISR) personnel in tactical-assembly areas (TAA), which become high-payoff targets. The physical co-location also limits the geographic area these high-end assets can affect on the battlefield based on their range from the TAA. Consequently, ISR coverage outside the focus area is limited, and ISR assets are not usually used in a general protection role for the paramilitary guard force.⁸

BTGs field a brigade complement of artillery that outrange and outgun U.S. BCTs, but the BTGs only have a reinforced battalion of maneuver detectors. This is important because a BTG does not have the normal complement of mounted and dismounted personnel that would normally serve as forward observers. The ISR platforms must either serve double duty as forward observers, or maneuver personnel must move forward to the line of contact (LoC) to coordinate indirect fires. BTGs assume that fires and air-defense superiority gives them the freedom to employ long-range strikes whenever visual or electronic contact is made, regardless of infrastructure and civilian damage. Local fires superiority gives BTG artillery the confidence to remain in place, and it provides the BTG with constantly available indirect-fire support.

The BTG's four maneuver companies may not be required for flank and rear security, but they still must provide local and convoy security for the enabling and supporting units. BTGs deploy from garrison with about 200 infantrymen in four maneuver companies. According to Russian Army manuals, in the field as many as 50 percent of infantry soldiers can be required for local security and routine administrative tasks. This leaves relatively few infantrymen available for mounted squads. Squads are usually organized *ad hoc* and are less than fully manned, which makes them less effective and less independent. For opponents, it also means that it requires fewer casualties to neutralize the Russian squads. Tank and *Boyeva Mashina Pekhoty* (BMP) (a Russian armored fighting vehicle) availability is less effected, but routine maintenance still reduces the readiness of the BTG's force of 50 armored combat vehicles.

The lack of infantry causes BTG commanders to prefer to isolate urban infantry strongpoints for prolonged sieges instead of assaulting to reduce them in the mode of Grozny (1999) or the American clearance of Fallujah (2004).⁹ BTGs address this shortfall by incorporating light-infantry militia from the local area. Unfortunately, militia are difficult to coordinate, move and sustain in the offense — even in the defense, coordinating, supporting and sustaining the militia taxes mission-command and sustainment resources. For these practical reasons and the strategic issues discussed previously, Russian commanders in Ukraine were risk-averse in the employment of both regular infantry and mechanized fighting vehicles. Instead of executing combined-arms maneuver (CAM) to overpower inferior Ukrainian forces, Russian BTGs preferred to escalate contact, employ fires when possible and commit tanks only after thorough reconnaissance.

In many ways, BTGs epitomize modern individual vehicle and soldier protection. BTG tanks and BMPs are equipped with multiple active-protection systems and explosive reactive armor, rendering U.S. individual shoulder-fired anti-tank systems ineffective. The Ukrainian Army reported success using teams of tanks to destroy Russian T-72B3s on several occasions, but multiple hits were required to defeat the tanks' reactive armor.

BTG infantry has modern body armor and personal protective equipment (PPE) — even paramilitary units were equipped with basic helmets and torso protection. Russian forces also used terrain and entrenchment for physical protection. In 2014, battles focused on controlling mass-construction urban infrastructure, where small infantry teams relied on rubble-based simplified battle positions for effective protection against small-arms and artillery fire. As the LoC solidified in 2015, excavated fighting positions with overhead cover, communications trenches, bunkers and protective obstacles became the norm for both sides of the conflict.

Finally, the king of all Russian protection assets is their integrated air-defense system. Although Russian ADA was not employed against warplanes or bombers, the Ukrainian Army lost six helicopters and a transport plane early in

the conflict to well-coordinated Russian ADA systems. Also, shoulder-fired missiles are ubiquitous at all levels of regular units.

There were no reports of chemical, biological, radiological and nuclear warfare (CBRN) protective gear deployed to Ukraine and no reports of CBRN use in the conflict.

BTG sustainment was typically *ad hoc* and conducted over large distances. Replacement personnel, equipment and parts were primarily drawn from the already reduced units that remained in garrison, which could be more than 500 kilometers away from the BTG's field site. This allows the brigade to surge replacements to the BTG, but it is not conducive to long-term regular sustainment. Consumable supplies arrived at depots from the Western Military District Headquarters (two echelons above brigade, similar to a U.S. corps headquarters) and were then delivered directly to the BTG deputy commander for distribution.

BTGs rapidly deploy from garrison by rail. However, for field logistics, the BTG requires a road and bridge network because its light trucks do not have the same mobility characteristics as its combat vehicles. Paramilitary proxies distribute supplies using private vehicles of varying (limited) mobility. A lack of tactical logistics support may have prevented Russian BTGs from pursuing defeated Ukrainian units, which were often able to reconstitute less than 50 kilometers from the old LoC. Medically, BTGs have very limited professional medical-evacuation (medevac) and field-treatment resources. Their inability to quickly get wounded soldiers advanced care increased deaths due to wounds, which had a large psychological effect, made their commanders more adverse to dismounted risk and reduced a BTG's ability to regenerate combat power.

In summary, a BTG is not a maneuver formation in the traditional sense; it will not close with its enemy to destroy them through firepower and maneuver. Instead, it is an asset provider to relatively static paramilitary units who, in turn, act as a guard force for the BTG and deny adversary personnel access to the geographic areas the BTG is assigned to control. However, the BTG is capable of extremely lethal strikes against its adversary and will execute those strikes whenever both assurance of success is high and the risk to BTG personnel and equipment is low. With that in mind, U.S. BCTs should employ tactics that make one or both of those criteria uncertain at best.

BTG's vulnerabilities

American BCTs, or at least American-led brigade-sized task forces of coalition units, may be deployed in the future to deter¹⁰ or defeat¹¹ a BTG (in other words, keep the BTG from controlling territory through regular or irregular forces). The BCT will probably receive orders to execute both tasks, in order, depending on the operation's phase. If a conflict occurs in the near future, technology to overcome Russian ADA is unlikely to be available; therefore it is unlikely that the conflict will start with a high-intensity CAM attack. Instead, the conflict will open with Russian BTGs and American BCTs maneuvering in proximity to each other, with opposing allies and proxy forces deployed in between, but regular forces not yet in direct contact.

The BTG will presume fires, EW and ADA superiority in the anticipated fight, but numerically the BCT fields many more combat systems and has a much better sustainment reach. These two factors become the BCT's asymmetric advantage; the BTG knows it has to destroy four times more Americans than it takes in casualties¹² (Table 2) to consider an engagement a tactical success. The BTG commander will go to great lengths to only plan attacks that are certain to cause large enough numbers of American casualties to preclude an American counterattack.

The essential task for the American commander is to ensure there is a credible threat to deter the BTG. The BTG commander must be convinced that the expected benefit of attacking the BCT will be outweighed by a certain and unacceptably costly American counterattack. The American brigade commander must simultaneously decrease the certainty that a Russian strike will successfully defeat the BCT and increase assurance that the counterstrike will defeat the BTG. These two critical tasks are sides of the same coin: if more platoons survive a Russian artillery attack, they can conduct a stronger counterattack. The task then is to convince that Russian commander that no matter how well the BTG executes its strike, too few platoons will be destroyed to prevent a counterattack, and that counterattack will cause unacceptable casualties to the BTG.

Assume that the BTG strike will disrupt the U.S. C2 needed to coordinate a brigade-level attack. The attack may also neutralize the brigade reserve and fires batteries. Therefore, every U.S. battalion and company should have a ready-to-execute attack planned and rehearsed, including authority to initiate if communications are lost in an

attack. The BCT must plan to counterattack on a broad front to assure that the threat is dangerous, because if the BCT counterattacks on a narrow front, the BTG will be able to mass to defend effectively.

	U.S. ABCT		Russian BTG		Ratio (# of U.S. losses required to # of Russian losses required)
	Available	Losses required for "destruction"	Available	Losses required for "destruction"	
Tanks	90	30	10	3	10x
IFVs	140	47	40	12	4x
Squads	60	20	36	11	2x
Aggregate		97		26	4x
A Russian BTG must destroy four times as many targets to tactically "destroy" a U.S. ABCT than an ABCT must destroy to "destroy" the same BTG.					

Table 2. "Battlefield math," using a destruction threshold of 30-percent casualties.

Conducting visible rehearsals and publicly committing to massive retaliation will further increase the credibility of the counterattack threat to the BTG commander, just as dispersion and frequent displacements will decrease the expected effectiveness of an artillery attack. In the face of penetrations on multiple axes, the BTG must withdraw to protect its fires and sustainment assets, which would abandon the paramilitary guard force. American coalition forces can then surround, isolate and reduce them to seize their terrain. The combination of sustaining casualties, losing valuable equipment and abandoning territory would significantly erode the Russian negotiation position to an extent unacceptable to the BTG chain of command.

Before shooting starts

Before shots are fired on the battlefield, a key task is to shape the battlefield by overloading the BTG's critical systems. The BTG will attempt to defeat a BCT by concentrating effects on individual U.S. sub-units in sequence. Although several of the BTG's high-end systems are technologically superior to the corresponding U.S. equipment, the BTG doesn't have the capacity to observe, target and attack the BCT simultaneously across a broad front. Not only can a BCT maneuver three times as many formations, the decentralized nature of U.S. mission command allows each formation to maneuver simultaneously and independent of brigade-level direction. Therefore, the BTG must track, analyze and counter each movement. Unfortunately, the BTG is not resourced for a burden of that magnitude, and it doesn't have formal reachback protocols to use higher levels of analysis.

An aggressive BCT can sustainably maneuver three times more platoons on the battlefield, increasing its survivability and also increasing the BTG's effort required to track it. For the BTG to maintain contact and an accurate situational awareness, assets must fly more hours; analysts must examine more footage and photography; and targets must be constantly updated. The Russian commander must either burn out his people and systems or accept risk to his recon assets and uncertainty in his reconnaissance picture. In effect, by executing high-tempo dispersion maneuvers, the BCT can sustainably burn more calories than its adversary — if the BTG tries to keep up, its systems will degrade rapidly before the first shots are fired.

Finally, it is worth highlighting that the BTG commander is as risk-adverse as American commanders, although for different reasons. American tactical leaders know that loss of life can erode public support at home and in coalition-partner countries, but they are willing to accept more risk to equipment because they are confident that it will be repaired or replaced. Similarly, Russian tactical leaders are concerned with the impact that casualties have on public support and recruitment; the major contrast is that Russian leaders cannot accept as much risk to equipment because there is no assurance of speedy replacement. Even inexpensive, off-the-shelf equipment such as quadcopter unmanned aerial vehicles (UAV) are only available in limited quantities and take time to acquire. High-end EW platforms are rare, expensive and crewed by small numbers of specialized personnel. Therefore, BCTs should make it harder for BTG systems to perform their function, not only to avoid detection but also to force the BTG commander to expose his reconnaissance platforms to risk of attack.

For example, a Russian UAS uses narrow-field-of-view (FoV) cameras to recon the battlefield. Dispersed platoons that reposition regularly require more recon missions to maintain contact. Adding to that idea, dispersed and camouflaged units are harder to find. They require more flight hours, UAS to fly at lower altitudes and closer to adversary ground-to-air defense systems. This combination accelerates the BTG assets' burn rate unless more recon assets can be brought to bear from elsewhere in theater.

Also, the reduced signatures are harder to detect and classify, so the BTG commander must either accept more risk to his UAS to conduct reconnaissance to the same standard, or he must accept more uncertainty. In other words, each repositioning of an American platoon requires an additional BTG flight to reacquire it, increasing the load on the aircraft, its flight team, the analysts and the tracking headquarters. Finally, if a UAS is lost — either shot down or out of action due to a maintenance problem — the future load must be borne by even fewer platforms and, at the same time, the BTG commander's tolerance for risk will decrease. He must accept even more uncertainty or even more risk to his remaining recon platforms (which will now be even more overworked), and the cycle repeats.

Conclusion

Will a BCT ever fight a BTG? This article discussed the reason Russia deployed its ground forces in a BTG configuration, described why and how BTGs fight, and proposes a tactical framework that BCTs can use to exploit BTG vulnerabilities. Would Russia deploy ground forces as BTGs in a conflict with U.S. ground forces that are organized as BCTs, given that one BTG is numerically inferior to an American BCT? Military experts on Russia at the Foreign Military Studies Office (FMSO), Fort Leavenworth, KS, believe that BTGs are an intermediate construct, temporarily employed to push modernization into Russia's current force, and that at the end of the modernization program, the Russian Army will return to a divisional structure with fully manned, equipped and deployable brigades — especially if faced with a peer competitor such as the United States.¹³ There are, however, several reasons to predict that the return to a divisional structure could be several years away. In the meantime, the BTG may remain Russia's deployable organization of choice.

The most important reason to believe that the Russian Army will continue to deploy as BTGs is that the structure worked. It was effective at translating tactics and weapons into successful national strategy. Once the paramilitary guard force was established, the BTG's utility has proven extremely cost-efficient (in terms of minimizing casualties and lost equipment). Similar tactics and organization are currently being used in Syria. The Syrian army and pro-Assad militias serve as a guard force to allow Russian regular forces to deliver devastating artillery and armor strikes to reduce rebel strongpoints. The same military strategy is also being used: deploy regular forces if needed to control terrain as necessary to shape a favorable negotiated settlement.

Second, the pace of modernization slowed dramatically when the price of oil fell in May 2014. Recently the price of oil has recovered somewhat, but the revenue provided is 40 percent of the revenue Russia enjoyed from 2007-2014 (Table 3). At the same time, Russia's combat operations in Syria consume resources at the expense of modernization. Until the price of oil returns to 2010 levels and Russia increases modernization expenditures, triage in modernization funds will prevent the Russian Army from modernizing its entire force and then reorganizing them into deployable brigades and divisions.

	2008-2014	Present
Average price of energy	\$100	\$55
Cost to extract, sell and deliver ¹⁴	\$20	\$20
Net revenue to the Russian state	\$80	\$35
Bottom line: Current Russian state net revenues from energy cannot fund the same modernization period as before.		

Table 3. Energy prices, using the price of oil in \$/barrel as a proxy.

Finally, in addition to monetary expense, there is a sunken psychological cost to breaking from the BTG construct. The current military and political leaders are the same leaders who introduced the BTG structure; their reputations and careers are closely tied to its success. Instead of moderating BTG rollout and keeping a portion of the Russian Army in a divisional structure to train for high-intensity CAM, Russia's leaders are accelerating the rate that units convert into BTGs. In a Sept. 14, 2016, press conference, Russian GEN Valery Gerasimov stated that the army will

increase the number of BTGs from 96 to 125 in 2018, with a significant effort to man them with contract soldiers instead of conscripts.¹⁵ This comment indicates that Russia's military leadership is committed to investing in BTGs during the next two years, perhaps longer. If faced with a peer-competitor threat such as the U.S. Army, it is likely that Russia will simply deploy more BTGs to the battlespace so that each BCT may face more than one BTG.¹⁶

At the end of January 2017, skirmishes and artillery strikes flared up again in eastern Ukraine after almost two years of relative calm. Similar tactics as before are reported in the media, indicating that similar organizations are involved. If the BTG construct continues to prove its utility in Ukraine, Syria and future conflicts, and American and Russian ground forces find themselves on opposing sides in a conflict, it is likely that BCTs will have to defeat Russian Army units organized as BTGs in the near future (before 2025). Major technology fielding is not expected prior to 2025, so in such a conflict, the BCT will deploy with a table of organization and equipment similar to the current modified table of organization and equipment – and the BCT can expect similar adversary overmatch in fires, EW and ADA. The BCT's asymmetric advantage in this fight is its maneuver and sustainment capacity, which can be leveraged to shape the battlefield, deter the BTG from striking first and, if necessary, overwhelm and defeat the BTG through dispersed CAM.

BTG battle summaries

Following are some summaries of battles to show tactics deployed against Russian BTGs.

Zubrowski's Raid: In early August 2014, Ukraine's 95th Air Assault Brigade (Mechanized) conducted the largest and longest armored raid behind enemy lines in recorded military history. The 95th was comprised of two mechanized-infantry battalions, one tank battalion and a battalion of self-propelled artillery. The brigade attacked on multiple parallel axes of advance, and combined-arms company-sized teams penetrated the thinly defended separatists' positions and regrouped in the rear. The brigade then penetrated in depth along the two separatist regions' internal border and maneuvered 200 kilometers east along the southern border of the Donbass. They destroyed and captured Russian tanks and artillery, relieved several isolated Ukrainian garrisons and, finally, returned to their starting position near Sloviansk. They marched 450 kilometers behind enemy lines and brought back captured Russian armor and heavy artillery as well.¹⁷ The raid achieved its objective of relieving Ukrainian forces in the separatist provinces, and it proved that Russian regular units were operating in Ukraine. However, the gains were undone in November 2014 when Russia deployed BTGs to the conflict in overwhelming numbers to support the separatists directly.

- **Lessons for a BCT:** Look for opportunities to penetrate and inflict maximum damage. Even though 95th was inside enemy lines for days, the unit consistently surprised enemy units, including Russian regulars. This suggests the absence of theater-level battle tracking, cross-unit communication and a difficulty transmitting orders to create a coordinated response to the marauding Ukrainian brigade.



Figure 2. Separatist and Ukrainian regular-army forces' movements in February 2015. (Map by Goran tek-en, used as licensed under the Creative Commons Attribution-Share Alike 4.0 international license)

Battle of Mariupol: Toward the end of the war in February 2015, separatist militia attacked Mariupol from the east with only limited success. A Russian tank battalion was committed to the fight to capture the town before the Minsk II ceasefire was signed, but a company(-) of Ukrainian Army tanks were able to defeat them.¹⁸ The infantry attack continued for three more months, with support from Russian artillery and multiple-launch rocket systems (MLRS), but the separatists were unable to penetrate the city's eastern outskirts. Ukrainian volunteer infantry, backed by army tanks and long-range artillery, prevented a Russian success because there were insufficient local separatists, and Russia was unwilling to commit enough regular infantry.¹⁹

- **Lessons for a BCT:** The Russian regulars involved in the attack to capture Mariupol were operating without the level of paramilitary support they enjoyed in the eastern parts of Donbass Province. Without these light infantry, even armored forces were unable to overcome the city's defenders. Articles and reports also comment on extensive use of MLRS rockets to bombard the attackers, but the defenders were not destroyed the way other Ukrainian units had suffered catastrophic casualties in other battles. This indicates that the forward observers had trouble calling for effective fire in an urban environment; perhaps the targeting was inaccurate due to fewer ISR or HUMINT assets, or perhaps the munitions were not as effective against dispersed targets using mass-construction urban terrain as cover. Ultimately, the Russian commander operated without enough paramilitary infantry and effective indirect fires, and he was unwilling to risk his regular forces to press the attack and overcome the defenders. The concurrent fighting at Donetsk Airport may also have consumed key assets and manpower that otherwise could have been used to support the Mariupol offensive, suggesting that the Russian theater headquarters could not coordinate and sustain multiple simultaneous offensives.

Siege of Donetsk Airport (September 2014-January 2015): From the outbreak of the war, both sides battled for control of Donetsk city. Much of the fighting centered at the Donetsk airport, but Ukrainian Army regulars had so far successfully defended from the airport terminal. As the conflict drew to a close, the separatists renewed their attack on the Donetsk airport, defended by a company(+) of light infantry. For months, buildings changed hands as first one side, then the other, would capture the four-story structures that comprise the airport. Both sides had supporting artillery and, after months of shelling, the airport was ruined. It was still partially in government hands when, in January, Russia broke the stalemate by driving tanks onto the runway and engaging Ukrainian positions at ranges of 400 meters. The defenders were forced to retreat, and the separatists were able to breach the final building and seize the airport before Minsk II was signed.

- **Lessons for a BCT:** Similar to Mariupol, Russian artillery was not as effective in urban areas, and Russian infantry was not committed to the fight. Even the tanks Russia used to support the final approach were only brought up when all other options were exhausted and the separatists had cleared enough of the structure to guarantee the tanks' safety. This is further evidence of risk aversion and over-reliance on artillery and proxy infantry. Video the defenders posted on-line shows the mass-construction building they defended held up remarkably well despite nearly constant suppression by artillery and heavy machineguns.²⁰ The target-tracking radar (TTR) report specifically commented that simple battle positions made of rubble were excellent cover against both types of fire,²¹ but the tank-fired high-explosive (HE) rounds were extremely effective. Videos of separatist assaults do not show use of smoke grenades, fragmentary grenades or 40mm grenade launchers.²² Therefore, extensive use of these weapons by American infantry may also be effective in similar environments.

Battle of Debaltseve (July 2014-February 2015): A reinforced Ukrainian Army mechanized brigade defended the key road-rail junction of Debaltseve for five months, even though it was slowly being encircled by Russian-supported separatist units. Russian President Vladimir Putin used this as leverage in the ongoing Minsk II ceasefire negotiations, which only reinforced Ukrainian determination to hold it. Finally, Russia concentrated massive artillery strikes and armored assaults (including the use of T-90 tanks), which finally broke into the town of Debaltseve. Cut off, the Ukrainian brigade exfiltrated through the wooded countryside on foot, leaving behind their heavy equipment and supplies. Despite this, the brigade was able to reconstitute a new defensive line 30 kilometers to the rear because Russian and separatist forces were unable to exploit the success.²³

- **Lessons for a BCT:** Russian forces were unable to pursue the brigade as it retreated on foot (slowly and in winter), even though the Russians were mechanized. Without heavy equipment, the brigade was able to reconstitute itself, form a new line and deter further attack from the superior force. This suggests an inability of the Russian Army to sustain a pursuit over 30 kilometers despite time to prepare and resource the maneuver. This may have been due to the difficulty of moving paramilitary units at the same pace as Russian regular units and an unwillingness to attempt a follow-on attack without sufficient paramilitary presence. This battle also fits the strategic pattern of last-minute Russian-led and resourced attacks, both here and at the preceding locations. Their objective was to gain territory and conclude the Minsk II negotiations with the most favorable conditions.

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Notes

¹ "Control," Field Manual (FM) 3-90-1, **Offense and Defense Volume 1**: A tactical mission task that requires the commander to maintain physical influence over a specified area to prevent its use by an enemy or to create conditions necessary for successful friendly operations.

² "Secure," FM 3-90-1: A tactical mission task that involves preventing a unit, facility or geographical location from being damaged or destroyed as a result of enemy action.

³ "Guard," FM 3-90-1: A security task to protect the main force by fighting to gain time while also observing and reporting information and preventing enemy ground observation of and direct fire against the main body.

⁴ Dr. Lester W. Grau and Charles K. Bartles, **Military Review**, Fort Leavenworth, KS: FMSO, 2016. Pages 49-53 discuss the formation of BTGs and analyze mission-command and strategy behind a BTG in-depth.

⁵ Ibid. Pages 20-23 discuss the differences between contract (volunteer enlisted) soldiers and conscript (drafted) soldiers in the Russian army.

⁶ Charles Bartles, **Military Review**, FMSO, article on the Gerasimov doctrine, http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20160228_art009.pdf.

⁷ These videos interview two separatist commanders on the front line, Motorola and Givi, and are valuable for observing Ukrainian separatist organization, equipment and tactics, techniques and procedures: https://youtu.be/xP_ozv0qgXU, and https://www.youtube.com/watch?v=OEriH_M6AI.

⁸ Disclaimer: Much of this analysis is my opinion on "reading between the lines." The idea that BTG assets are not used to protect the guard force comes from reading common Ukrainian narratives along the lines of "We were guarding our position and heard a UAV – all of a sudden the radios stopped working and we started receiving artillery fire." What I never read or saw was a narrative along the lines of "Here we are under constant surveillance – Russian UAVs check on us every day or so and occasionally direct fire on our position." Thus, I conclude that ISR is not used regularly for routine surveillance but intentionally to support specific attacks.

⁹ U.S. Army Training and Doctrine Command (TRADOC), **G-2 ACE Threats**, "[TTR] Report on Russia," July 2015. The report describes Russia's current military and analyzes combat operations in Georgia, Crimea and Ukraine. The Ukraine section specifically reports on the battle for Donetsk airport.

¹⁰ "Deterrence," Joint Publication 3-0, **Joint Operations**: The prevention of action by the existence of a credible threat of unacceptable counteraction and/or belief that the cost of action outweighs the perceived benefits.

¹¹ "Defeat," FM 3-90-1: A tactical mission task that occurs when an enemy force has temporarily or permanently lost the physical means or the will to fight. The defeated force's commander is unwilling or unable to pursue his adopted course of action, thereby yielding to the friendly commander's will, and can no longer interfere to a significant degree with the actions of friendly forces. Defeat can result from the use of force or the threat of its use.

¹² A U.S. BCT fields 600 riflemen and 250 armored fighting vehicles compared to 200 and 50 in a Russian BTG. Thus, to destroy a BCT requires destruction of 180 and 75, whereas destruction of 60 and 15 will force a BTG to withdraw and reconstitute.

¹³ Grau and Bartles discuss the reasons the Russian Army may return to a divisional structure.

¹⁴ Although this data is a year old, it shows the relative cost of extraction per barrel of oil in April 2016:
<http://graphics.wsj.com/oil-barrel-breakdown/>.

¹⁵ GEN Gerasimov's comments were translated on <https://russiandefpolicy.blog/category/order-of-battle/>, referring to a report on <http://militarynews.ru/story.asp?rid=1&nid=425709>.

¹⁶ For perspective, as many as 33 BTGs may have been deployed to Ukraine (<https://burkonews.info/identification-units-russian-armed-forces-deployed-fight-eastern-ukraine>). If they were all there simultaneously, deployed linearly along the 500-kilometer front line, each BTG would have been responsible for 15 kilometers of front, roughly the same as a U.S. combined-arms battalion. It is unlikely, however, that all 33 BTGs mentioned were in the Ukraine theater at the same time, and it's also unlikely that all were simultaneously on the front. If 1/3 of that force was deployed to the theater, and 2/3 of it was operating with 1/3 in reserve, an average BTG would have been responsible for 60 kilometers of front – roughly equivalent to a U.S. BCT.

¹⁷ Dr. Phillip Karber, *Lessons Learned from the Russo-Ukrainian War*, Potomac Foundation and the Army Capabilities and Integration Center, July 8, 2015. ("Zubrowski's Raid" is recounted.)

¹⁸ Oleg Mysko, *UA Press*, Sept. 6, 2014, <http://uapress.info/uk/news/show/37882>.

¹⁹ Karber. The 2015 offensive to capture Mariupol is described.

²⁰ TRADOC, *G-2 ACE Threats*, "TTR Report on Russia," reports on the battle for Donetsk airport.

²¹ Ibid. Discusses cover-and-concealment lessons learned.

²² Separatist paramilitary commander Givi leads an attack on the Donetsk airport and then breaks contact
https://youtu.be/xP_ozv0qgXU.

²³ Karber. He describes the Battle of Debaltseve.

Acronym Quick-Scan

ABCT – armored brigade combat team

ADA – air-defense artillery

BCT – brigade combat team

BMP -- *Boyeva Mashina Pekhoty*

BTG – battalion tactical group (Russian Army)

C2 – command and control

CAM – combined-arms maneuver

CBRN – chemical, biological, radiological and nuclear (warfare)

COP – common operating picture

EW – electronic warfare

FM – field manual

FMSO – Foreign Military Studies Office

FoV – field of view (camera)

HE – high explosive (rounds)

HUMINT – human intelligence

IFV – Infantry Fighting Vehicle

IPB – intelligence preparation of the battlefield

ISR – intelligence, surveillance and reconnaissance

LoC – line of contact

Medevac – medical evacuation

MLRS – multiple-launch rocket system

PPE – personal protective equipment

TAA – tactical-assembly area

TRADOC – (U.S. Army) Training and Doctrine Command

TTR – target-tracking radar

UAS – unmanned aerial system

UAV – unmanned aerial vehicle