GCV-IFV Concept

Introduction

The Brigade Combat Team (BCT) in current and future operations must operate continuously and simultaneously conducting full spectrum operations (offense, defense, stability and support operations), across the full Range of Military Operations (ROMO), in various environments. The Ground Combat Vehicle-Infantry Fighting Vehicle (GCV-IFV) is the fulcrum of the small unit tactical operations in the BCT, and provides higher echelon force commanders with a versatile, agile, lethal, and sustainable ground tactical capability.

The lowest tactical unit and the foundation of the Army's BCT is the infantry squad. Squads are the fundamental building block for combined arms maneuver and wide area security operations. Key to mission success at each echelon within the BCT—platoon, company, battalion and brigade—is a squad that can conduct fire and protected maneuver while mounted or dismounted or any combination thereof. Therefore, the GCV-IFV is the cornerstone of the Army's combat vehicle modernization strategy, providing employment options, flexibility, protected mobility, and the capability to conduct combined arms maneuver and wide area security in uncertain, complex, and ambiguous environments.

Future Tactical Operating Environment

The future operating environment for BCTs provides operating challenges ranging from conventional nation state armies to organized transnational terrorist groups to criminal factions to non-governmental organizations operating singularly or in various combinations. At the small unit level this environment manifests to ambiguity, confusion, dynamic transformations, and persistent conflict.

The potential for force-on-force conventional combat operations remains possible in various global regions. Brigade combat teams can expect to face well-trained and organized forces employing conventional capabilities—artillery, mechanized forces, anti-tank guided missiles, rocket propelled grenades, unmanned aerial systems (UAS)-supported targeting and intelligence, light infantry, and command and control.

A more likely scenario for future tactical operations involves hybrid threats. These are threats capable of exercising sophisticated tactics combining conventional, irregular, terrorists, and criminal methods to minimize internal their vulnerabilities and attack U.S. weaknesses. Hybrid threats will operate and leverage complex environments that affect BCT capabilities. BCT small units can expect to face dangers in confined urban areas, limiting all-round observation with restrictions to protected movement and maneuver capabilities. This places current small units at risk when executing tactical tasks. Threat behavior and tactics will include emplacing IEDs, employing ATGM/RPG ambushes, conducting harassing/sniper fire, attempting to disrupt movement and tempo using ambushes/obstacles for attrition, civilian clutter, dropping grenades from rooftops or

upper floor windows, and other tactics including simultaneous attacks on flanks, alleys, and subterranean positions such as basements converted into bunkers.

The combination of refugees, destroyed infrastructure, natural disasters, and failing states presents unique demands for tactical units restoring stability and security to local populations and governments. Disruptive behavior to defeat BCTs objectives include destroying facilities and ongoing construction, impeding or cutting lines of communication, attacks, sabotage, intimidation, and peaceful (passive/aggressive) competition with the objective of reducing/eliminating popular support.

Over the next several decades, the operational environment will be characterized by protracted confrontation among state, non-state and individual actors using violence to achieve their political and ideological desired end states employing tactics requiring US tactical units to be organized and equipped to support full spectrum operations across the spectrum of conflict conducting the full range of military operations.

Operational Context

In order for the BCT to accomplish the tasks of simultaneous offensive, defensive, and stability and support operations, the lowest echelon must possess the characteristics of combined arms team, capable of operating decentralized, employing mobile protection, fire and maneuver, mobility, and access to capabilities at higher echelons. The GCV-IFV's ability to operate on the tactical edge with the capacity to carry a complete infantry squad, survive direct fire and IED-like engagements, move on various terrains underpins the platoon's ability to employ squads in a decentralized mode across the area of operations increasing tactical tempo. The GCV-IFV's unique ability to deploy squads as integral units enables the immediate application of coherent mounted and dismounted combat power to the tactical situation, presenting multiple conundrums to the threat. As the construct grows from the lowest building block—the squad; the platoon, company, battalion, and brigade become operationally proactive, able to change patterns of operations faster than the enemy can respond, and adjust to enemy changes of operations faster than the enemy can exploit the situation; dominating adversaries or controlling civil situations. Combining the infantry squad with the GCV-IFV is the catalyst that generates a versatile mix of capability to close with and destroy the enemy by fire, maneuver, close combat, assault, and then transition to the next task.

The operational framework of platoons, companies, and battalions requires maneuvering squads to positions of advantage (close combat with the enemy, minimizing exposure) where they can engage with the proper effects key enemy or population elements at the time and place of the leader's choosing. GCV-IFV provides force protection and capacity to conduct close operations, exploit opportunities, form up squads under fire after dismounting, minimizing exposure, maximizing protection and firepower, and accept prudent risk without placing additional resource or control burdens on any echelon. The lethal, mobile, networked, sustainable, protected GCV-IFV enables squads to move, conduct patrols, occupy combat outposts, execute cordon and search, destroy forces, attack by fire, overwatch/support by fire, assault, recon by fire, neutralize enemy positions with direct fire, destroy enemy strong points with direct

fire, destroy obstacles, force entry of infantry in buildings, provide supporting fire, establish road blocks and barricades, occupy firing positions, employ fires and fire and maneuver to accomplish its tactical tasks.

The actions described above, enabled by the GCV-IFV, are critical components for the BCT to develop the situation through action, reducing uncertainty by making contact with the enemy from positions of advantage with confidence to fight and survive as a combined arms team in order to secure objectives, terrain, and populations.

A key task in both current and future operational concepts is executing stability operations effectively. This requires the squad, the platoon, company, battalion, and brigade to support and/or reestablish indigenous capabilities by assisting in restoring essential services (logistics and infrastructure), securing local civil authority, reinforcing civil law enforcement, training indigenous forces until civil control is functioning. In this context, GCV-IFV provides the squad a base of operations that facilitates, supports, and advances decentralized small unit operations reducing the dismounted Soldier load, varying the level of protection, which decreases logistical support while increasing mobility. The GCV-IFV squad employs sensors to provide information and local security, with the vehicle as a planning base and rally point, with networked access to a host of complementary resources to meet the specified military tasks. The more permissive the environment, the more decentralized the operation can develop into due to the adaptability provided by the GCV-IFV and the infantry squad. The scaleability and open architecture of GCV-IFV allows for rapid adaptation to changes in the operational environment; lowering or raising the levels of protection. The design also provides the common interfaces to incorporate emerging technology for specific threats or operating environments.

Future operating concepts and environments for BCT operations reemphasize the squad and its platform as the foundation for ground tactical formations. GCV-IFV provides the integrated capability for squads to conduct decisive combined arms operations across the spectrum of conflict.

Summary

To achieve the Army's future operational concepts, the squad must have the capability to operate on a distributed battlefield with protected mobility, crew and squad capacity, lethality, network access, and the capability to conduct full spectrum operations. The GCV-IFV is the critical enabler for the squad to operate decentralized, conduct combined arms maneuver, exploiting opportunities and mitigating risk against an assortment of adversaries (conventional, hybrid, irregular, terrorist, or natural) and achieve decisive results.