

# Attack Helicopters, Modern Tactics, and the Maneuverist Approach

By MAJ Phillip L. Savoie



An AH-64E Apache Helicopter takes off from the U.S. Army Airfield at the Baumholder Maneuver Training Area (Germany). U.S. Army photo by Ruediger Hess.

An aviator observing recent attack helicopter operations—especially those coming out of Ukraine—is likely to come to two opposing conclusions. On one hand, the attack helicopter's future seems questionable, with commentators pointing to high Russian helicopters' losses in Ukraine. On the other hand, Russian attack helicopters played a role in defeating Ukraine's counteroffensive, and their bases are priority targets indicating the Ukrainians view aviation as a significant threat. To make sense of these opposing conclusions, attack aviators should understand two concepts: "Modern System" tactics and the maneuverist approach. This article will explain these concepts and apply them to attack helicopter operations in large-scale combat (LSC).

## Modern System Tactics and Aviation

Twentieth-century armies adapted to firepower proliferation with tactics that use cover, concealment, dispersion, small-unit maneuvering, suppression, and combined arms. Shrewd use of terrain could overcome the proliferation of firepower. Stephen Biddle, a historian, called these tactics the Modern System and argued armies' ability to employ Modern Systems has been the key determinant to success in modern conventional wars (Biddle, 2006). While Modern Systems tactics will seem obvious to most military members today, they were revolutionary when developed. Even today, they are often hard to employ and require a high degree of training at low levels.

The Modern System concept sheds insight into how Army Aviation successfully operates in LSC. While Biddle's Modern System describes ground combat, its concepts can also apply to aviation. Conventional adversaries can wield a 'storm of steel' against helicopters with small arms, anti-aircraft guns, anti-tank, radar-guided and infrared-seeking missiles, and more. This threat pushes helicopter operations to terrain flight altitudes where cover and concealment mitigate the threat. However, this comes with a tradeoff. It is more difficult to identify and engage a threat from lower altitudes.

## A Maneuverist Approach

Aviation is a maneuver branch, meaning it maneuvers in time and space to gain advantage over the enemy. Most aviators understand maneuvering around enemy strength to gain a spatial advantage, but maneuvering in time is less understood. Military units are in one of three postures at a given time: protected, moving, or striking. Protected units are stationary and in a strong defensive posture, often with deliberately prepared cover and concealment. Moving units are the most vulnerable and exposed while in transit. Striking units are similarly vulnerable, deliberately exposing themselves during their engagement sequence (Leonhard, 2017). A historical and easy to visualize example of these postures is Napoleonic-era infantry shifting formations between line—a strike posture, column—a movement posture, and square—a protected pos-

ture. At a given moment, a military unit will tend toward one of those postures.

Aviators must consider both their own posture and their opponent's posture. During an attack helicopter mission, postures change many times. At terrain flight altitudes, an attack helicopter moves and protects itself en route to a battle position. Terrain may not provide complete protection along the route, but movement speed reduces exposure time. Once masked in a battle position, a helicopter is in its most protected posture. When the helicopter unmask to make direct contact, it moves to a striking posture at the expense of protection. To identify and engage a target, an attack aviator completes the direct fire engagement process (DIDEA—detect, identify, decide, engage, assess) while remaining in the striking posture. After an engagement, the helicopter masks—returning to a protected posture—and moves to subsequent battle positions.

During an attack helicopter mission, enemy ground units are also in different postures. A well-protected enemy unit is concealed under camo nets or in a tree line where attack helicopters' sensors cannot easily acquire it. A striking enemy unit temporarily exposes itself—this exposure may be visual, electronic, or through direct or indirect fires—as it goes through its engagement sequence. A moving enemy unit is most exposed and while still capable of striking, it is less



A U.S. Army AH-64 Apache helicopter conducts a traffic pattern training flight at Katterbach Army Airfield in Ansbach, Bavaria, Germany. U.S. Army photo by Charles Rosemond/released.



AH-64 Apache attack helicopters launch from Katterbach Army Airfield for a battalion attack training mission. U.S. Army photo by MAJ Robert Fellingham.

effective. Air defense coverage is more difficult to provide for a moving force, leading to potential gaps in coverage. Enemy units will try to minimize exposure time by moving rapidly and maneuvering to new protected positions where they can better strike friendly units.

Attack helicopters are most effective against moving targets. Target acquisition is easiest against a moving threat because it minimizes the exposure time needed to complete the direct fire engagement process. Additionally, gaps in air defense coverage while a target is moving further increases attack helicopters' advantages against moving targets. Stationary units are problematic for attack helicopters. Any AH-64 front seater with experience at the combat training centers understands the difficulty of acquiring a target at standoff range hidden in trees or deliberately concealed with camo netting. Target acquisition is possible; however, it is usually accomplished after a more extended time searching from an exposed posture. This places a dilemma on an attack aviator—remain masked without the ability to successfully complete the direct fire engagement process—or adopt a more exposed striking position for a longer period to attempt target acquisition.

### Applying the Concepts

Army Aviators should understand these concepts and adopt a maneuverist approach to apply strength against enemy weaknesses. Planning that considers when an enemy is most vulnerable can maximize advantageous situations. Identifying when and where the enemy

is moving or in a vulnerable position is key. Intelligence preparation of the operational environment can identify possible avenues of approach and times when the enemy is likely to move. A well-designed information collection plan—potentially incorporating the unmanned aircraft system (UAS) Gray Eagle's moving target indicator capability—can assist attack helicopters in arriving at engagement areas at the same time as the target, minimizing their exposure.

Aviation operations should seek opportunities when friendly ground maneuver compels the enemy to leave its protected posture, achieving the multidomain imperative of imposing multiple dilemmas on the enemy. For example, attack helicopters can remain in reserve until friendly forces capture an objective and then come forward to defeat an enemy counterattack. Similarly, friendly ground maneuver, such as an envelopment or turning movement may compel an enemy to displace setting the stage for a pursuit. Historically, attack aviation finds enemy units exposed and without adequate defense in a pursuit. During the Gulf War, the Highway of Death provides a classic example when aviation units inflicted heavy losses on Iraqi units caught in the open while retreating from Kuwait (Atkinson, 1993). Similarly, during the Normandy campaign, German units hastily retreating through the Falaise gap suffered heavy casualties from Allied aircraft (Atkinson, 2013).

Sometimes, the mission dictates targeting stationary units despite the desirabil-

ity of attacking moving targets. Aviators must understand the disadvantages of this situation and take mitigating steps. The first disadvantage is the difficulty in finding an enemy in a protected and concealed posture. The multidomain imperative to make initial contact with the smallest element helps mitigate this risk with attack aviators relying on UAS or ground forces to make initial contact. The second disadvantage is that the attack sequence takes longer due to the difficulty in establishing direct contact. Aviators can mitigate this risk through conducting remote *Hellfire* engagements, thus eliminating the attack helicopter's need to conduct the direct fire engagement process.

If the mission still requires attack helicopters to gain initial contact and complete the direct fire engagement process, aviators mitigate risk through fire support coordination and suppression of enemy air defense. Fires enable maneuver and are an imperative for exposed maneuver. In this case, fires are needed to enable attack helicopters to unmask or maneuver in exposed positions to gain contact and complete the engagement sequence successfully.

### Evidence in Current Operations

A cursory overview of Russian helicopter operations in Ukraine from open-source media confirms the previous concepts (Bronk et al., 2022, pp. 21-23). The initial air assault on Hostomel airport saw many helicopters operating without the use of terrain called for by the Modern System, with attack helicopters operating in the open shot



down by man-portable air-defense system teams (WarLeaks-Military Blog, 2022). Adjusting to the lethal conditions, additional videos show attack helicopters firing rockets blindly while masked behind friendly lines. Russian aviators appear to have adapted to the lethal conditions by maximizing protection but with a degraded ability to strike (Newdick, 2022). Likewise, further videos show exposed Russian helicopters attempting to strike Ukrainian positions with anti-tank missiles. The lengthy exposure time while the Russian helicopter attempts to complete its engagement sequence results in its shootdown by a Ukrainian missile team (Retro Foto House, 2023). When Russian helicopters did achieve success during the Ukrainian summer 2023 counteroffensive, they attacked moving Ukrainian vehicles that did not have coordinated air defense coverage (Roblin, 2023).

## Conclusion

Modern System tactics and a maneuverist approach provide insight on the

opposing conclusions about attack helicopters' viability in LSC. Aviators must be canny about both when and where they are employed. A maneuverist approach allows aviation to fight from an advantageous situation or take deliberate steps to avoid an unfair fight if required to fight at a disadvantage. This means attack helicopter operations in LSC will be more sparing and more deliberate. Preferencing attack helicopter use against moving targets requires commanders to husband them until the enemy moves. If the mission dictates attack helicopters' use against stationary targets, it requires deliberate planning and execution, meaning these operations will be slower-paced and unlikely to result in decisive engagements with high enemy casualties. Understanding the conditions that disadvantage attack aviation allows more deliberate decision-making regarding employment.

The days of operating at altitude with easy battlefield visibility and relative invulnerability from threat systems—as done in Iraq and Afghanistan—are

gone. Army Aviation's inherent mobility, speed, range, flexibility, lethality, precision, and persistent reconnaissance capabilities provide the combined arms team with a formidable capability. Even the mere presence of aviation complicates enemy planning and potentially fixes the enemy while friendly ground forces maneuver against it. The current force structure is heavily reliant on manned attack helicopters. Bringing those assets to bear requires dialogue between aviators and ground commanders on how best to utilize attack aviation. Fortunately, tactics involving the Modern System and a maneuverist approach to fighting are the ground forces' language. Aviators better versed in these concepts will be better members of the combined arms team during LSC.

### Biography:

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