The Role of Reconnaissance Forces in the Counterattack

by LTC Scott Pence

Following an enemy attack, reconnaissance forces must quickly acquire the information needed to define the new operational environment (OE). They may use satellite imagery and unmanned aerial systems (UASs) under ideal conditions to provide adequate situational awareness. Against a committed adversary, however, modern commanders must anticipate UAS feeds to drop; cellular reception to be inconsistent, exploited or absent; satellite communications to be lost; and radio communication to be degraded. In this environment, tactical reconnaissance provides the operational commander the information required to execute the counterattack at the right time, place and purpose.

Fighting from a position of relative disadvantage is foreign to our generation of officers and leaders. Without personal experience, leaders require doctrine and training. By understanding the risks and opportunities of the counterattack, military professionals become resilient amid the worst conditions.

Therefore this article uses two case studies – U.S. MG William B. Kean's 25th Infantry Division in the Korean War (1950) and Israeli MG Ariel Sharon's 143rd Armored Division in the Yom Kippur War (1973) – to demonstrate how ground-reconnaissance forces (or lack thereof) contributed to the success or failure of the counterattack in austere environments. The article concludes with three recommendations for future publications of Field Manual (FM) 3-90-1, **Offense and Defense,** and FM 3-98, **Reconnaissance and Security Operations**.

We'll start with a possible scenario from today and return to it at the article's end. We'll also examine the concept of counterattack in some detail and how reconnaissance forces benefit it.

Current possible scenario

A fictional MG Morris sits alone in his makeshift headquarters, set in an occupied savings bank in a remote Eastern European village. Days prior, enemy forces launched a vicious attack that decimated his sister division to the east. Deployed forward for a multi-lateral partnership exercise, MG Morris never expected the surprise assault. In his sector, everything electronic failed. Unmanned aerial vehicles (UAVs) dropped out of the sky. Enemy cyber-hackers exploited the few electronics that survived what Soldiers termed "the blackout." MG Morris's own secure iPhone now buzzed with an incoming message, obviously from enemy hackers, offering generous terms of surrender for individuals or unit commanders. With his forces arrayed in a hasty defense, Morris considered his options.[1] He gripped his secure phone, replied "Nuts" and crushed the phone under his feet.[2]

'Counterattack' examined

Few operations are as precarious as the counterattack. The defense has enough trouble surviving the enemy attack; when placed in the defense against his will, a successful commander must orient available forces to the critical time and place to wrest initiative from the enemy. Commanders who counterattack too soon risk meeting the enemy at his strongest. Acting too late risks the loss of surprise and finds a reinforced enemy.

How large is the force? What is the purpose – to destroy the enemy or disrupt the enemy's momentum? The commander must answer these questions quickly within the fog of war with intuition, creativity and precision. The cost of failure is loss of life and enemy advantage. To increase the probability of success, the commander needs timely and accurate information. Without it, he risks dangerously misunderstanding the situation.

Enter reconnaissance forces, which must quickly acquire the information required to define the new OE. Avenues of approach, once open, might now be closed due to enemy presence. Enemy forces might occupy flanks once secured by friendly units. Obstacles, once impermeable, might suddenly have crossings that provide enemy forces freedom of maneuver. The mission variables of enemy, terrain, time and civilian considerations all require reassessment due to the enemy's deliberately audacious actions. After a surprise attack, all previous facts become assumptions that require confirmation or denial.

Satellite imagery and UASs provide adequate situational awareness only under ideal conditions. FM 3-55, **Information Collection** (2013), provides guidance for operational commands to capitalize on the diverse capabilities provided by tactical, operational, joint and national assets. Technologically advanced sensors serve an

integral role in understanding the OE. Tactical-reconnaissance forces such as those organic to brigade combat teams (BCTs) add the human dynamic. Collection managers plan redundant coverage over critical targets and enable sensors to cue others to maintain contact throughout the depth of a sector.[3]

To complicate this effort, modern adversaries integrate their most sophisticated cyber and signals-jamming technology. For example, "Russia maintains an ability to destroy command-and-control networks by jamming radio communications, radars and Global Positioning Satellite signals," noted Laurie Buckhout, former chief of the U.S. Army's electronic-warfare division.[4] Against a committed adversary, modern commanders must anticipate UAS feeds to drop; cellular reception to be inconsistent, exploited or absent; satellite communications to be lost; and radio communication to be degraded. To assume otherwise would be irresponsible.[5]

Tactical reconnaissance provides the operational commander the information required to execute the counterattack at the right time, place and purpose. Only after regaining situational awareness can the commander make responsible decisions on the execution of the counterattack; no amount of audacity or élan can compensate for a poorly timed or insufficiently powerful counterattack. On the contrary, a failed counterattack can expedite defeat of the entire force. Therefore it is imperative that reconnaissance forces provide the commander with an accurate understanding of the OE to enable the most effective counterattack.

An example of why this is important comes from the Boer War (1899), when British Field Marshal Paul S. Methuen counterattacked with a 3,000-man force against what appeared to be 2,500 lightly armed Boers. He did so without reconnaissance. "Since he could not see the enemy, he wrongly assumed that no enemy was there," wrote Norman Dixon. "All went well until they were within easy range of the Boers, who had concealed themselves with what was subsequently described as 'fiendish cunning' below the deep banks of a river."[6] There were in actuality 8,000 Boers awaiting Methuen's advance.

Methuen would certainly have benefitted from tactical-reconnaissance forces, which are uniquely capable of discovering critical information to confirm or deny assumptions. The philosophy of mission command, coupled with robust communications and field-craft, allow scouts to provide all-weather information required for an accurate situational understanding of the new OE.

An understanding of the counterattack is only possible through study of the defense. Carl von Clausewitz, in **On War**, described three distinct phases of the defense. Phase 1 is the preparation of the defense in which "the defender waits for the attack in position, having chosen a suitable area and prepared it, which means he has carefully reconnoitered it." Phase 2 is the defensive battle. Phase 3 is the counterattack. As Clausewitz explained, "When the enemy has revealed his whole plan and spent the major part of his forces, the defender intends to fling his body against a part of the enemy forces, thus opening a minor offensive battle of his own … to produce a total reversal." To Clausewitz, the counterattack reversed the momentum and seized the initiative from the attacker.[7]

Mao Tse-Tung wrote extensively about the value of the active defense in his 1936 memoirs on the Chinese civil war. He noted that immature revolutionaries were reluctant to go on the defense because they equated the defense with defeat or retreat, "thus mentally disarming themselves in the matter of defense." Mao argued that the adverse political effects of the defense are strictly a problem for capitalist countries. He noted that the opposite effect occurs when revolutionary movements adopt the defense. He wrote, "The only real defense is the active defense, defense for the purpose of counterattacking and taking the offensive."[8]

The need for information collection and the presence of counterattacks has existed throughout military history. The role of tactical-reconnaissance forces, on the other hand, evolved with varying levels of technology and enemy capabilities. As theory, history and doctrine are all interrelated, the analysis in this article transitions to a review of the counterattack's doctrinal framework.

'Counterattack' in Army doctrine

Current U.S. Army doctrine provides sparse and conflicting guidance to assist commanders and staffs who find themselves involuntarily transitioned to the defense. Definitions for *counterattack* and *counteroffensive* do not exist in the Department of Defense's dictionary (Joint Publication (JP) 1-02). *Counterattack* appears there only as part of the definition for *active defense*: "The employment of limited offensive action and counterattacks to deny a contested area or position to the enemy."

JP 1-02's definition is insufficient and misleading because it unnecessarily scales the counterattack as a limited offensive action and needlessly restricts the focus of the counterattack on terrain (an area or position) when the purpose could be the enemy force itself.[9]

The Army's definition is more descriptive. Army Doctrinal Reference Publication (ADRP) 1-02, **Terms and Military Symbols** (2013), lists counterattack as "[a]ttack by part or all of a defending force against an enemy attacking force for such specific purposes as regaining ground lost, or cutting off or destroying enemy advance units, and with the general objective of denying to the enemy the attainment of the enemy's purpose in attacking. In sustained defensive operations, it is undertaken to restore the battle position and is directed at limited objectives."[10]

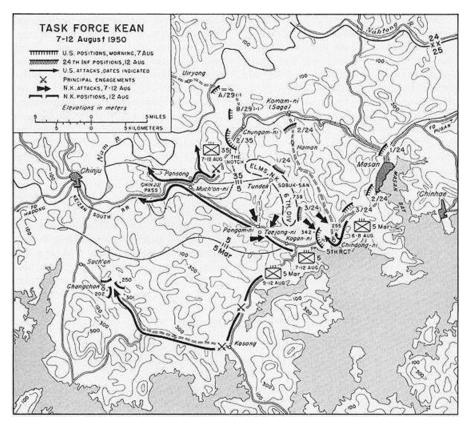## Case Study 1: Task Force Kean's counterattack, 1950

Situation: North Korean attack

Following World War II, the Union of Soviet Socialist Republics and the United States divided Korea into north and south occupation zones. The Soviets invested in a strong North Korea, while the United States focused elsewhere, withdrawing all but a small number of military advisers from Korea in 1949. On June 25, 1950, with full Soviet direction and backing, the North Korean People's Army (NKPA) attacked south against an unprepared and underequipped Republic of Korea Army (RoKA). By June 28, the NKPA captured the South Korean capital of Seoul. The action surprised the U.S. government, and President Harry S. Truman authorized GEN Douglas MacArthur to commit ground forces to prevent the South Korean government's overthrow.[11]

Among his four divisions in Japan, MacArthur, then General of the Army,[12] chose 24th Infantry Division for the mission due to its location in southwest Japan and its capacity for rapid deployment. On July 1, 24th Infantry deployed Task Force (TF) Smith, a reinforced two-company team (406 riflemen) named after LTC Charles "Brad" Smith to defend about 25 kilometers south of Seoul, near Osan.

Unfortunately, the lethality and pace of the North Korean advance surprised the TF Smith defenders. Their anti-tank weapons failed to destroy the enemy's T-34 tanks, and their defensive position failed to stop the North Korean force. TF Smith withdrew south after a few hours of fighting. Throughout July 1950, 24th Infantry Division attempted a series of counterattacks against the advancing NKPA to no avail. Their experience was so chaotic that Soldiers popularized the term "bug-out" for the first time.[13]

By August 1950, the remaining RoKA and U.S. Army contingent resided in what came to be known as the Pusan Perimeter. Then in late July, the Eighth (U.S.) Army arrived, and with it 25th Infantry Division. From Washington, DC, the Army G-3 Planning Section devised a 25th Infantry Division counterattack directly west toward Chinju between Aug. 5 and 10. This southwest part of the perimeter, between the Naktong River and the sea, was significant because there were no major obstacles separating the North Koreans from the critical port of Pusan. TF Kean, named after 25th Infantry Division commander MG William B. Kean, was ordered to counterattack to relieve pressure on other parts of the perimeter.[14]

Map 1. Map of the TF Kean counteroffensive, Korean War, 1950, along the Pusan Perimeter.

In 1950, each U.S. Army division had an organic reconnaissance company. The 25th Reconnaissance Company was Kean's organic reconnaissance element. Like many U.S. Army forces garrisoned in Japan, the company was not manned to full strength and found little time for reconnaissance training. A July 17, 1950, log report states that 25th Infantry Division immediately committed 25th Reconnaissance Company to defenses along the Pusan Perimeter.[15]

Opposing TF Kean was the NKPA's 6th Infantry Division. Composed of mostly veterans of the Chinese civil war, the NKPA 6th Infantry Division was among the units that skillfully advanced to the southern end of the Korean peninsula. The unit had fought pitched battles in and around the Chinju region in July. Also, unknown to Kean or his staff, the NKPA 6th Infantry Division maintained a salient of forces on the rugged slopes of Sobuk-san Mountain within TF Kean's defenses. Even though forward elements traded small-arms fire with the enemy forces on Sobuk-san, the information never reached TF Kean's headquarters.[16]

Counterattack

TF Kean was comprised of 20,000 men: two U.S. Army infantry regiments, one U.S. Marine regiment and various artillery elements. It seemed more than adequate to face the NKPA 6th Infantry Division that had an estimated strength of 7,500 men. TF Kean began the counterattack Aug. 6 with three brigade-size elements. The division attacked along two main axes with 35th Infantry Regiment to the north and 5th Regimental Combat Team in the center. The 5th Marine Regiment, with Marine aviation assets in direct support, advanced along the coast in the south. Each of the three axes of advance converged on the town of Chinju.[17] After 10 days of fierce fighting marked by capturing, losing and recapturing key hills, the division returned to its initial defensive positions.

In a battle that would come to be known as the Battle of the Bloody Gulch, without situational awareness of the enemy force, TF Kean inadvertently bypassed the lethal enemy salient on Sobuk-san Mountain. As TF Kean's lead elements attacked west, NKPA forces descended from Sobuk-san and destroyed 555th Field Artillery Battalion (FAB) and Battery A of 90th FAB. The howitzers were destroyed, and the North Koreans later massacred field artillerymen who survived the attack.

Eighth Army commander GEN Walton W. Walker dissolved TF Kean Aug. 16 and apportioned the units to other areas along the perimeter. The loss of 555th FAB as a combat-effective artillery battalion and the destruction of Battery A, 90th FAB, negated any combat successes of the effort.[18]

Pertinent facts from this case study are:

- The reconnaissance company, fighting as regular infantry, failed to provide early warning. On Aug. 6, 1950, the same day as TF Kean's counterattack, the NKPA 6th Infantry Division began its own attack on the Pusan Perimeter.
- FM 100-5, *Operations* (1949), advises commanders to consider the enemy's intentions carefully before launching a counterattack. Had TF Kean's reconnaissance company screened forward of the main body, it could have detected the NKPA 6th Infantry Division lead elements as they advanced directly toward the lead brigade's apex.
- In *On War*, Clausewitz advised defenders to wait and absorb the blow of the initial attacks until the defender's strength is at its zenith relative to the attacker. To ascertain when this level of relative strength is optimum for the counterattack, the commander depends upon accurate intelligence collected by his reconnaissance forces.[19]
- In 1954, MG James Gavin, the first commander of 82nd Airborne Division, wrote a scathing report on the lack of reconnaissance in the Korean War. "The situation begged for cavalry, but we lacked the contemporary kind of cavalry to do the job," he said.[20] Gavin argued that cavalry forces were too wedded to the roads due to their heavy-tank force structure and called for what would later become known as airmobile cavalry in the Vietnam War.
- Gavin's observations coincide with the shortcomings observed in this article. During TF Kean's counterattack, the operational commander treated his division reconnaissance company as another maneuver force, yielding any advantage that tactical-reconnaissance forces could provide. TF Kean's experience demonstrates the need for tactical-reconnaissance forces to provide early warning while gaining and maintaining contact with enemy forces ahead of the main body.

Fundamentals of reconnaissance

TF Kean failed to observe the first fundamental of reconnaissance: *ensure continuous reconnaissance*. FM 3-98 explains that reconnaissance units perform continuous reconnaissance to "identify and seize key terrain, confirm or deny enemy composition, disposition, strength and courses of action." Instead, TF Kean advanced without reconnaissance forces capable of providing intelligence on enemy positions. An account of 2nd Battalion, 5th Marines, summarized the situation: "They ran head-on into the North Koreans, who had come around to the front of the spur during the night."[21]

TF Kean observed the second fundamental, *never keep reconnaissance assets in the reserve*, but failed to employ the scouts as information collectors. With reconnaissance employed as infantry, MG Kean failed to observe the third fundamental, *orient reconnaissance on the reconnaissance objective*. The objective was enemy-focused, but Kean did not task his reconnaissance forces to identify the NPKA 6th Infantry Division either ahead of the U.S. 35th Infantry or on the hills of Sobuk-san.

The fourth fundamental, *report timely and accurately*, did not occur. The fifth fundamental, *retain freedom of maneuver*, was not observed, but casualty records suggest 25th Reconnaissance Company was not decisively engaged – casualty records show that 25th Reconnaissance Company only sustained two casualties during the period of TF Kean's counterattack.

TF Kean neglected the sixth fundamental, *gain and maintain contact with the threat*. The enemy's routine ability to appear at unexpected locations with unanticipated strength indicates poor basic operational reconnaissance and security discipline throughout the task force. Finally, TF Kean failed to observe the seventh fundamental, *develop the situation rapidly*. Without committed reconnaissance forces to develop the situation, TF Kean moved forward blindly with its infantry brigades.[22]

Table 1 provides an overview of TF Kean's employment of reconnaissance fundamentals.

U.S. 25th Infantry Division (TF Kean) 1950 Korean War		
Fundamental of reconnaissance	Observed	Not observed
1 Ensure continuous reconnaissance		X
2 Do not keep reconnaissance forces in the reserve	X	
3 Orient on the reconnaissance objective		X
4 Report all information rapidly and accurately		X
5 Retain freedom of maneuver		X
6 Gain and maintain contact with the threat		X
7 Develop the situation rapidly		X

Table 1. Observed fundamentals of reconnaissance in TF Kean's counterattack.

My research found that TF Kean's experience might have been representative of the U.S. Army during this period of the Korean War. An inspection of the indexes of three of the most popular books on the Korean War resulted in zero references to reconnaissance forces.[23]

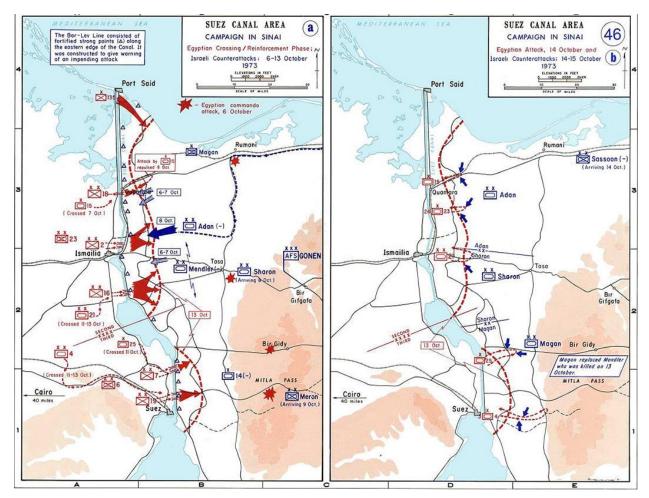## Case Study 2: Sharon's counterattack, 1973

Situation: Egyptian and Syrian attack

By the time of the 1967 Arab-Israeli War, the Israeli army assigned a battalion-size reconnaissance element per division and witnessed success. This next case study occurs six years later as Israel sustained a debilitating surprise attack. The study is relevant as it highlights the ability of tactical-reconnaissance forces to collect information in an austere environment and provide accurate information on the post-attack OE. In this study, the reconnaissance force identified one of the best battlefield opportunities in history.[24]

Clausewitz asserted that war is an instrument of policy: "The conduct of war … is therefore policy itself, which takes up the sword in place of the pen." Egyptian President Anwar Sadat proved this maxim through his execution of a limited war to achieve what other forms of policy could not. After the Israelis dealt their Arab neighbors an embarrassing defeat in the 1967 Arab-Israeli War, the Israeli leadership refused to return its occupied territories. Sadat conspired with Syria, who also lost territory in the 1967 war, to compel the Israelis to negotiate the return of the Golan Plateau and the Sinai Peninsula. To do so, the Arab attack needed to "inflict the highest losses possible on the enemy in men, arms and equipment."[25] Sadat also sought to increase the prestige of Egypt and himself by leading an Arab coalition against Israel. Arab strategy called for limited offensives to secure terrain within the occupied territories to enable the Arabs to exploit wartime gains in international negotiations.

On Oct. 6, 1973, during the Jewish holiday of Yom Kippur, Egypt and Syria launched a surprise attack on the Sinai Peninsula and the Golan Plateau.[26] The Egyptians defeated the local defenders, bypassed Israeli strongholds and occupied positions just three miles on the east side of the Suez Canal. Historian John J. McGrath postulated that the Egyptian crossing of the Suez was possibly the "most successful river-crossing operation in military history."[27]

Nothing in Israeli doctrine or strategy prepared them for an attack of this magnitude. The shock of the attack took a psychological as well as physical toll. One senior officer described the moment as "the most shattering experience in the history of Israel." The success of the 1967 Arab-Israeli War was a benchmark that had established an internal narrative of battlefield superiority for the Israeli Defense Force (IDF) vs. their Arab neighbors. In addition, Israelis generally had a poor view of Arab capabilities as strategists and believed neither Egypt nor Syria capable of coordinating a major offensive.[28]

Map 2. Suez Canal action: Egyptian attack and Israeli counterattack, Oct. 6-13, 1973. *(Department of History, U.S. Military Academy)*

Counterattacks

Conditioned to seize the initiative and emboldened by the success of the 1967 Arab-Israeli War, on Oct. 8, 1973, two IDF divisions mounted a hasty counterattack to restore control of the Suez Canal and rescue the trapped defenders. The Israeli 143rd Armored Division under MG Ariel Sharon and the Israeli 162nd Armored Division under MG Avraham Adan launched the initial counterattack in the Battle of El Firdan. The result was horrific. Soviet-supplied surface-to-air missiles destroyed the Israeli air force's first sorties, denying air interdiction as well as air reconnaissance. Moreover, Israeli maneuver units failed to lead with reconnaissance forces forward of their main bodies.

The result was a series of piecemeal attacks on unknown enemy dispositions. Knowing the Israelis' offensive psychology, the Egyptians lured the IDF's tanks into their Sager anti-tank guided-missile engagement areas along avenues of approach to the Israeli strongpoints. The initial IDF counterattack rapidly lost 70 veteran tank crews on the first day and another 49 tanks on the next day with nothing to show for it.[29]

The failed counterattacks at El Firdan further shattered pre-existing mindsets and led to an operational pause by the Israelis. During the respite, LTG Haim Bar Lev came out of retirement to lead the IDF response and quickly decided to end the piecemeal counterattacks. Bar Lev adjusted the defensive perimeter, reorganized forces and adjusted tactics to survive the lethal Egyptian anti-armor capabilities. The pause also allowed the Israelis to integrate a mass of reserve units arriving in the Sinai, one of which was 87th Armored Reconnaissance Battalion.[30]

On Oct. 8, MAJ Yoav Brom assumed command of the unit, which was equipped with 24 M-60A1 tanks, 36 M-113 armored personnel carriers and about 20 jeeps.[31] Brom was exactly the leader the Israeli army sought to develop.

Israeli army doctrine, even before 1967, introduced a command-and-control philosophy called "operational control." Adopted from Helmut von Moltke's system of *weisungen* (directives),[32] higher commands avoided detailed orders and only interfered to change a major axis of advance or prevent unacceptable risk. Operational control allowed subordinate commanders maximum independence. This command system, similar to the U.S. Army's current philosophy of mission command, required "highly intelligent junior commanders, mutual trust and shared understanding."

Social prestige and culture blessed the IDF with highly intelligent and talented officers. The challenge in October 1973 was how to create a shared understanding out of the chaos of the Arab attacks.[33]

Sharon directs recon advance

On Oct. 9, 1973, Sharon directed 87th Armored Reconnaissance Battalion to advance and report the disposition of Egyptian forces. Brom's two companies spent hours observing the Egyptian positions north of the Great Bitter Lake. While observing, however, they noticed a curious lack of activity between the two Egyptian armies. The Egyptian Second Army was clearly dug in and alert, evident by Egyptian direct fire on any IDF movement in that sector. Brom's company commanders, however, could not detect any reaction from the Egyptian Third Army, which was templated on the north shore of the Great Bitter Lake. Brom hypothesized there was a seam between the two Egyptian forces.

To confirm or deny his hypothesis, Brom asked permission to advance farther west. Yitzhak Agam, Brom's company commander, recalled: "We moved toward the canal, keeping up a constant shooting match with the Egyptian positions to our north. This way we pinpointed their southernmost positions. We advanced over dunes to the Great Bitter Lake without any serious difficulty. It was by this route that we, a week later, guided the forces that established our bridgehead across the canal."[34]

In this manner, 87th Armored Reconnaissance Battalion balanced the responsibility for reconnaissance forces to gain and maintain contact with the enemy while simultaneously maintaining their freedom of maneuver. After reaching the canal, Agam's scouts concealed their tanks in an abandoned Israeli strongpoint. Adan, to the north, recalled in his memoirs: "The unit discovered the open seam between the Egyptian Second and Third armies."

With this information, Sharon's division planners designed a counterattack to exploit the gap and envelop the Egyptian line. The next day, Sharon argued for an immediate counterattack to exploit the seam. Cooler heads prevailed, however, and the IDF decided to launch the counterattack once enough canal-crossing resources were on hand for exploitation. While deliberate planning began, Sharon recalled the scouts from the canal.[35]

On Oct. 15, 1973, in a literal interpretation of "reconnaissance pull," Brom led the lead elements of Sharon's division along the same path that he and his scouts had discovered six days prior. The lead brigade encountered no opposition and reached the Suez at dark. Later elements then made contact with surprised Egyptians and battle ensued. In the early morning hours of Oct. 16, Israeli paratroopers bypassed the firefight and linked up with Brom's scouts at the crossing site. They unpacked their inflatable rafts and began crossing the Suez into Egypt. By daylight, 750 infantrymen were on the west bank, along with 10 tanks ferried by Gilowa rafts.[36]

The Israeli breakthrough wrested the initiative from the Egyptian attackers. At the time of the U.N. ceasefire Oct. 24, 1973, Israeli forces west of the canal threatened the Egyptian flank. However, Sadat had succeeded in his limited aims of bringing Israel to the negotiating table, using war as an extension of policy that succeeded where other initiatives could not – but at great risk. Without the intervention of the United States and the Soviet Union, the Israeli counterattack might have pushed even deeper into Egyptian territory.

Fundamentals of reconnaissance

The actions of its tactical-reconnaissance battalion directly enabled the IDF division's operational counterattack and exemplified several fundamentals of reconnaissance as written in FM 3-98.

First, the division employed the battalion in a manner that allowed for continuous reconnaissance. By doing so, 87th Armored Reconnaissance Battalion discovered the gap in the Egyptian lines.

Second, reconnaissance assets were not kept in the reserve. Sharon directly tasked 87th Armored Reconnaissance Battalion for area and route reconnaissance.

Third, the battalion oriented on the reconnaissance objective. In this case, the objective was enemy-focused on the Egyptian Second and Third Armies and prompted 87th Armored Reconnaissance Battalion to investigate when lead elements failed to gain contact with the Egyptian Third Army.

Fourth, the battalion reported all information rapidly and accurately. The 87th Armored Reconnaissance Battalion allowed Sharon's division staff to make timely recommendations based on accurate conditions on the ground.

The 87th Armored Reconnaissance Battalion observed the fifth fundamental, *retain freedom of maneuver*, as it traded directed fire with the Egyptian Second Army without becoming decisively engaged.

The 87th Armored Reconnaissance Battalion failed to observe the sixth fundamental, *gain and maintain threat contact*. Even though Brom persistently advanced in search of the Egyptian Third Army, Sharon deliberately decided to extract 87th Armored Reconnaissance Battalion scouts from the area to prevent detection. This lapse of physical presence retained the element of surprise, but it left Egyptian forces unobserved. During the lapse in threat contact, the enemy repositioned forces that later harassed Israeli forces as they moved to the crossing site.

Sharon observed the last fundamental of reconnaissance, *develop the situation rapidly*. Once 87th Armored Reconnaissance Battalion identified the gap in enemy forces and the route to the crossing site, Sharon's staff immediately began planning a counterattack to gain and exploit the initiative.[37]

Table 2 provides an overview.

Israeli 143rd Armored Division (MG Ariel Sharon) 1973 Arab-Israeli War			
	Fundamental of reconnaissance	Observed	Not observed
1	Ensure continuous reconnaissance	X	
2	Do not keep reconnaissance forces in the reserve	X	
3	Orient on the reconnaissance objective	X	
4	Report all information rapidly and accurately	X	
5	Retain freedom of maneuver	X	
6	Gain and maintain contact with the threat		X
7	Develop the situation rapidly	X	

Table 2. Observed fundamentals of reconnaissance in Sharon's counterattack.

Comparing case studies

By comparison, Kean observed one of the seven fundamentals of reconnaissance, while Sharon demonstrated six of the seven fundamentals of reconnaissance. The checklist is inconclusive by itself, but the number of reconnaissance fundamentals observed by the successful counterattack gives credence to the value and timeless nature of modern doctrine.

Both divisions faced a cunning enemy with a record of success. Kean's reconnaissance company, used as infantrymen, failed to provide information on the OE that his headquarters required. Twenty-three years later, Sharon's reconnaissance battalion proactively discovered a vulnerable point in the enemy's defenses. The observation of modern reconnaissance fundamentals, combined with a leadership philosophy that rewarded subordinate initiative, contributed to the success of Sharon's counterattack.

Table 3 compares the observations from each counterattack.

Table 3.

	Comparison, U.S. 25th Infantry Division (Kean) and Israeli 143rd Armored Division (Sharon)		
	Fundamental of reconnaissance	Kean, 1950	Sharon, 1973
1	Ensure continuous reconnaissance		X
2	Do not keep reconnaissance forces in the reserve	X	X
3	Orient on the reconnaissance objective		X
4	Report all information rapidly and accurately		X
5	Retain freedom of maneuver		X
6	Gain and maintain contact with the threat		
7	Develop the situation rapidly		X

Comparison of observed fundamentals of reconnaissance.

Recon enables decision

Understanding the OE, enhanced by the reconnaissance force, enables the decision to transition to the offense. When conditions allow for information dominance, commanders optimize all resources to allow for cognitive dominance. When the adversary lacks the ability or fails to degrade the U.S. Army's superior technological advantages, the tactical-ground-reconnaissance commander, in coordination with the senior intelligence officer, proactively optimizes information collection.

The principles of cueing and redundancy, both of which appear in more detail in Chapter 1 of FM 3-55 provide guidelines for maximizing reconnaissance assets.[38]

The analysis in this article doesn't prove good reconnaissance is a direct cause of successful counterattacks. Rather, the research highlights how operational commanders who employ (and allow their reconnaissance subordinates to employ) the fundamentals of reconnaissance achieve advantages in information collection that can enhance the likelihood of success.

Meanwhile, operational commanders must also integrate other warfighting functions and branches. Engineers must plan for and execute timely breaches of enemy obstacles. Signal professionals support the counterattack through planning for redundant communication throughout the course of the defense. Aviation units, when available, provide direct-fire lethality and sustainment opportunities.

All these warfighting functions and branches require integration and synchronization to maximize effectiveness. To do so, the U.S. Army needs to provide a common framework for the counterattack.

Recommendations

Insights into counterattacks exist in history, theory and U.S. Army doctrine. However, no doctrinal publication organizes them in a method conducive to a smooth cognitive recall. A doctrinal review of the counterattack should review the definition of the counterattack, overlay the roles of warfighting functions along the stages of the defense and identify distinct forms of counterattacks. Each of the following recommendations is a product of the historical, doctrinal and theoretical research conducted for the purposes of this analysis.

Recommendation 1. A future publication of ADRP 1-02 should simplify the definition of the counterattack. A possible definition is "the transition from defense to offense by part or all of a defending force against an enemy attacking force." This definition is much shorter than the current U.S. Army definition and avoids elaboration, which unnecessarily limits the counterattack.
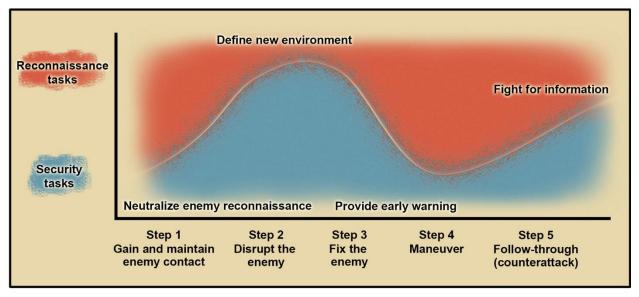
Another section in the next release of FM 3-90-1 should elaborate on the diverse range of the counterattack's purposes, guidance based on historical events and considerations of whether to launch the counterattack. The

"employment of the reserve" section of the 1949 version of FM 100-5 provides many of these topics but not in a cohesive organization. In the modern body of U.S. Army doctrine, this guidance should appear in each warfighting function's applicable field manuals.

Recommendation 2. A future publication of FM 3-98 should overlay the roles of reconnaissance onto the five stages of the defense in FM 3-90-1. The dual nature of reconnaissance forces – their responsibility to reconnoiter at some times and provide security at others – provides an opportunity for illustration.

Research has clarified a general cycle of reconnaissance roles during stages of the defense. The role of reconnaissance forces fluctuates from detecting opportunities through more information (reconnaissance), providing early warning and protecting the main body during the execution of the counterattack (security).

Figure 1 displays a visualization of the transition between reconnaissance and security roles during the steps of the area defense.[39]

Figure 1. Reconnaissance and security roles during the defense's five stages. *(Based on steps of the defense from FM 3-90-1)*

Historical review
A review of historical counterattacks and comments of major military theorists yields the following insights on the role of ground-reconnaissance forces during each of the defense's five stages.

Step 1, *gain and maintain contact with the enemy*, is when reconnaissance forces detect the enemy's composition and disposition to anticipate future actions. Reconnaissance forces use advanced optics and patrols to detect enemy reconnaissance elements. The reconnaissance commander relays this information to maneuver commanders to enhance the disruptive effects of their limited counterattacks. It also assists the operational-intelligence section as it consolidates reports from enemy contact to ascertain the OE. During this step, the focus is on neutralizing enemy reconnaissance and protecting the main body, so security roles are high and reconnaissance roles are lower.

Step 2, *disrupt the enemy*, is when the operational commander uses indirect fires, aviation assets and obstacles to reduce the enemy's combat power and stymie the enemy's momentum. Reconnaissance forces employ fires and destroy enemy elements within their capability. During this step, timely and accurate reports define the new OE. Therefore, reconnaissance roles are higher relative to security roles.

Step 3, *fix the enemy*, constrains the enemy from his most dangerous courses of action. Obstacle planning and emplacement is used to fix, turn or block the enemy into preplanned defenses. Reconnaissance forces – often tasked to overwatch obstacles – employ indirect fires on attackers as they attempt to bypass or breach prepared

obstacles. Reconnaissance forces confirm or deny assumptions. During Step 3, security roles begin to take precedence over reconnaissance roles.

Step 4, *maneuver*, is when reconnaissance forces protect the striking force from detection and engagement. On the other front of the 1973 Arab-Israeli War (at the Golan Heights), one counterattack was tragic when an Israeli captain began his immediate movement. Unfortunately, in the interest of speed, he failed to employ scouts or flank protection. The result was one of the worst disasters ever inflicted on Israel's armored corps. The captain's tank was the first to be destroyed; his company never regained control of the situation; and all 10 of the company's Centurion tanks were destroyed in less than two minutes.[40]

The lack of reconnaissance forces prevented early warning and situational awareness. During Step 4, missions require security roles more often than reconnaissance roles because protecting the striking force is tantamount.

Step 5 is the *follow-through (counterattack)*. The most mobile reconnaissance elements accompany the striking force through the point of penetration. At times, as in the case of 87th Armored Reconnaissance Battalion in the Yom Kippur War, the reconnaissance force both discovers and pulls the striking force through the axis of advance. Reconnaissance forces identify post-counterattack reconnaissance objectives, which provides early warning to the main body and identifies opportunities for exploitation.

Units must plan for success. As Moltke notes, "It is the cavalry's duty, after a successful battle, to take up pursuit immediately, without further orders, and to maintain contact with the fleeing enemy." After the striking force breaks through, reconnaissance forces must ascertain the position and disposition of threat forces beyond the initial counterattack objectives. The consequences of neglect are onerous. During this final step, reconnaissance roles rise relative to security roles.

Recommendation 3. The final recommendation in editing Army doctrine is to identify three forms of the counterattack. As described earlier, the terms "local" and "major" are insufficient. More descriptive identification allows warfighting functions to identify their responsibilities within each of the three forms. Research suggests that three distinct forms of the counterattack exist: hasty, deliberate and a new term, baited.[41]

The *hasty counterattack* resembles what FM 3-90-1 describes as a "local counterattack." A defender chooses to execute a hasty counterattack when the defender lacks time or terrain favorable to the defense. In this situation, Clausewitz's maxim, "the defense allows greater attrition and intelligence of the enemy," does not necessarily apply. Reconnaissance forces in the hasty counterattack need foremost to retain freedom of maneuver. When the commander lacks the ability to disrupt enemy forces through the static defense, offensive action in the form of a hasty counterattack could be the solution.

During the hasty counterattack, the operational commander assigns follow-on reconnaissance objectives for the reconnaissance force. The reconnaissance element must maneuver ahead or nearby the main body to prevent surprise. It also needs to identify fleeting opportunities for the commander to exploit. The hasty counterattack is less lethal than a deliberate or baited counterattack because of the lack of pre-planned indirect fire targets, unrehearsed avenues of approach and time to prepare. Despite its relative lack of lethality, under many circumstances, the hasty counterattack is an appropriate option for the commander.[42]

The *deliberate counterattack* resembles what FM 3-90-1 describes as a "major counterattack," although in other sections, it appears as a "decisive counterattack."[43] The deliberate counterattack represents Clausewitz's ideal defense: the defender destroys lead enemy elements from prepared positions and, once the attacker's effort has culminated or his combat power has sufficiently dropped relative to the defender, the defender commits the striking force to defeat the enemy. The reconnaissance force supporting this type of counterattack selects the best possible ground for the defense, sets in observation points with advanced optics to employ fires and attaches mobile reconnaissance forces with the striking force to follow the lead maneuver force.

Mobile reconnaissance continues along diverse avenues of approach to confirm or deny their suitability for follow-on attacks. The deliberate counterattack allows greater lethality through pre-planned fires, greater synchronization and mutual support.

Research for this article identified a third type of counterattack observed in historical events but not in doctrine. A *baited counterattack* is one in which the defender entices the attacker into a salient or inopportune position and

then commits a striking force to destroy the attackers. This type of counterattack exploits the attacker's momentum into a preplanned area ideal for the striking force.

FM 100-5 (1949) hints at it in an introductory paragraph on the defensive: "He may take up a position and invite attack as part of a deliberate plan to win the battle by a counteroffensive."[44] Napoleon used this method at Austerlitz in 1805 when, feigning weakness, French forces defended until the Allies were enticed to overstretch their right flank onto the deceptively weak French left. Napoleon's deception lured the Allies into a salient so his forces could counterattack a vulnerable flank.[45]

Another example of a baited counterattack occurred during the American Revolutionary War Battle of Cowpens in 1781. At Cowpens, American BG Daniel Morgan led two distinct forces: Continental regulars and militiamen. The militiamen had a reputation of fleeing prematurely in battle. To exploit this perception, Morgan ordered his militia Soldiers to fire only two volleys and then withdraw. When this occurred in battle, British COL Banastre Tarleton took this as a sign of panic and pursued the militiamen. Unknown to the British, Morgan's finest Continental Soldiers awaited them with disciplined musket fire at close range. Meanwhile, as planned, the militiamen returned and mounted a decisive bayonet charge on the flank of the surprised British.

The reconnaissance force supporting this type of counterattack establishes observation points to gain and maintain contact with the attacking enemy and integrates redundant observation over the trigger line for the striking force's commitment. This form of the counterattack provides maximum lethality as the operation deliberately lures the adversary into pre-planned direct, indirect and joint fires.[46]

In each of the three forms of the counterattack, reconnaissance forces integrate with the striking force. Scouts relay known enemy positions, which remain under visual contact, and describe all the patterns of life, unique signatures and habits observed of the enemy. Mobile reconnaissance forces move forward of the defenses, avoiding decisive engagement and identifying routes for the striking force. They discover gaps and bypasses and identify crossing points.

The Israeli 87th Armored Reconnaissance Battalion exemplified this role in the 1973 Arab-Israeli War. Following the Egyptian surprise attack, the unit provided opportunities for the operational commander when they discovered a functional enemy-emplaced bridge site and a weak point in the Egyptian line. They subsequently led the mechanized force along reconnoitered routes to enable operational surprise in the Israeli counterattack.

Return to current possible scenario

Returning to the fictional MG Morris in the introduction, the enemy attack made it difficult for him and his staff to know even the positions of his own forces. His military education prepared him for integrating and synchronizing the vast capabilities of U.S. joint forces but prepared him little for information management at the speed of courier. Fortunately, he had trained his force relentlessly on operations without digital enablers. A philosophy of mission command also allowed his junior leaders to take prudent risks within a culture of mutual trust. Each of his maneuver commanders transitioned from his primary to alternate and contingency communication networks after the communications blackout to arrange their forces in the defense. Tactical staffs had supplies on hand for analog planning and soon were able to establish a general awareness of the situation.

Morris soon heard from his lead brigade commander. Due to a culture of disciplined initiative, one of the reconnaissance squadrons arrayed his forces in concealed forward positions within visual contact of the enemy. Their reports, sent by courier, revealed enemy forces within the division's defense and relayed the information to the division artillery for suppression and to an attached armored force for engagement.

The scouts' initiative prevented the disastrous rear-guard attacks that TF Kean sustained in 1950. Another proactive squadron sent scouts forward undetected to discover a gap in the enemy's line. As Brom's scouts achieved in the 1973 Yom Kippur War, they discovered a viable axis of approach for a counterattack force. A third squadron of Morris's, advancing in another direction, discovered that bridges across a major waterway had been destroyed by the U.S. Air Force, temporarily cutting off lead enemy forces from their main body.

More reports allowed an understanding of the post-attack OE. Through tactics honed by austere training and initiative sanctioned by mission-command principles, tactical-reconnaissance forces influenced the timing, locations and purpose of the operational counterattack.

Conclusion

This fictional situation is within the realm of realism. The 2015 Russian National Security Strategy included this passage: "The buildup of the military potential of the North Atlantic Treaty Organization (NATO) … the further expansion of the alliance and the location of its military infrastructure closer to Russian borders are creating a threat to national security."[47] Meanwhile, NATO and U.S. Army Europe continue to increase the size and scope of multinational exercises in Eastern European states. In addition, the 2015 U.S. National Military Strategy noted, "Attacks on our communications and sensing systems could occur with little to no warning, impacting our ability to assess, coordinate, communicate and respond."

A surprise attack on forward U.S. units would be reckless and would garner international retribution. However, history shows that reckless attacks are part of the human experience.[48]

A focus on the counterattack admits a degree of vulnerability and prevents operational hubris. Whether the subject is the U.S. forces in the Korean War or the Israelis in the Yom Kippur War, great militaries suffered due to their enemy's cleverness and persistence. The Tet Offensive of 1968 is the last time U.S. Army commanders faced a conventional attack that surprised and disoriented U.S. Army forces. In 2015, after 12 years of counterinsurgency experience, no determined attacker has stripped a U.S. force from its technological enablers. And none since the Korean War has forced an operational force into an involuntary defense. To prepare for this uncommon yet catastrophic event, training, doctrine and professional education must compensate for the dearth of personal experience.

If military professionals never study counterattacks, their ability to execute one in the fog and friction of warfare will be limited. Daniel Kahneman, winner of the Nobel Prize in economics, differentiated between what mental frameworks are best for conditions of urgency (thinking fast) vs. those that require deliberation (thinking slow). The reaction to a violent surprise attack calls for thinking fast. Kahneman would argue that, in such a situation, commanders are susceptible to the concept of availability bias. Availability biases are "short-cuts" the brain subconsciously makes based on the information most readily recalled from memory. To mitigate this cognitive phenomenon, military professionals must build a readily accessible memory through study and forethought.[49]

Although counterinsurgency operations are complex problems, U.S. Army leaders from 2001 to 2014 executed them from positions of technological, equipment and firepower advantage. As I said in the introduction, fighting from a position of relative disadvantage is foreign to our generation of officers and leaders. Without personal experience, leaders require doctrine and training. Leaders possess a cognitive advantage when they exploit opportunities to outwit and frustrate enemy attackers.

Clausewitz, in a chapter called "Critical Analysis," introduced the concept of "tyranny of fashion." He noted that Napoleon ended his siege of Mantua in 1796 because an army of 50,000 Austrians was coming to relieve the town. Clausewitz noted, however, that Napoleon did not think to defend his siege lines (a tactic known as resisting a relieving army behind lines of circumvallation). "And yet in the days of Louis XIV, it had so often been successfully employed that one can call it a whim of fashion that 100 years later it never occurred to anyone ***at least to weigh*** its merits," Clausewitz wrote.[50]

Clausewitz's reasoning complements Kahneman's: when certain practices are not in fashion, commanders unnecessarily restrict their creativity to practices that are. By studying the defense and its culmination, the counterattack, leaders increase their capacity to act creatively and effectively against a determined enemy.

The study of counterattacks waged in the 1950 Korean War and the 1973 Arab-Israeli War highlight the role modern reconnaissance forces play in setting conditions for the counterattack. Through a review of the theory and doctrine available, it is clear the current U.S. Army body of doctrine has value, but it lacks a single source for guidance on counterattacks.[51]

U.S. Army combat-training centers (CTCs) already recognize the modern OE and integrate degraded cyber- and electronic warfare into training scenarios. Going further, the broader scenario should replicate a successful enemy attack that leaves the brigade command in a communications blackout. This would force the commander and staff to balance their time between defending against a persistent enemy and planning for a decisive counterattack.

Scenario writers at the CTCs already create a crucible experience for leaders and Soldiers alike. The centers integrate more cyber- and electronic-warfare variables in each rotation.[52]

The 2014 Army Operating Concept noted that "Army forces will have to support joint operations through reconnaissance, offensive operations or raids to destroy land-based enemy space and cyberspace capabilities." Implied is a responsibility for defending units to possess the knowledge and maturity to be able to transition from the defense to the offense. The U.S. Army has all the tools necessary to bolster its body of doctrine on the counterattack and, within it, the role of reconnaissance.[53]

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Notes

[1] What Soldiers referred to as "the blackout" would be a high-altitude nuclear detonation, which would propel an electromagnetic pulse (EMP) hundreds of kilometers from the blast. A 2004 report to Congress explains the capabilities of a militarized EMP. Source: U.S. House of Representatives' Committee on Armed Services, "The Report of the Commission to Assess the Threat to the United States from [EMP] Attack," 108th Congress, 2nd Session, 2004, HR Rep. 108-37. The instance of UAVs "dropping from the sky" occurred in 2014 to Ukrainian UAVs as a result of Russian jamming platforms and targeting of ground-control stations. Source: Patrick Tucker, "In Ukraine, Tomorrow's Drone War is Alive Today," *Defense One*, March 9, 2015; accessed Jan. 3, 2016, http://www.defenseone.com/technology/2015/03/ukraine-tomorrows-drone-war-alive-today/107085/. The hacked secure iPhone is imagined by the author to represent an unprecedented level of cyberwarfare.

[2] Surrounded by German forces Dec. 22, 1944, BG Anthony C. McAuliffe, acting commander of 101st Airborne Division, responded to the German forces with one word: "Nuts!"! In S.L.A. Marshall, *Bastogne: The First Eight Days*, Washington, DC: Infantry Journal Press, 1946.

[3] FM 3-55, *Information Collection*, Washington, DC: Government Printing Press, 2013.

[4] Joe Gould, "Electronic Warfare: What the U.S. Army Can Learn from Ukraine," *Defense News*, Aug. 4, 2015; accessed Nov. 25, 2015, http://www.defensenews.com/story/defense/policy-budget/warfare/2015/08/02/us-army-ukraine-russia-electronic-warfare/30913397/.

[5] For more information on unclassified threat capabilities, see U.S. Joint Irregular Warfare Center, *Irregular Adversaries and Hybrid Threats: An Assessment – 2011*, Washington, DC: Government Printing Press, 2011, and Paul McLeary, "Russia's Winning the Electronic War," *Foreign Policy*, Oct. 21, 2015; accessed Nov. 19, 2015, http://foreignpolicy.com/2015/10/21/russia-winning-the-electronic-war/.

[6] Norman Dixon, *On the Psychology of Military Incompetence*, London: Pimlico Books, 1994.

[7] Carl von Clausewitz, *On War*, translated and edited by Michael Howard and Peter Paret, Princeton, NJ: Princeton University Press, 1984.

[8] Mao Tse-Tung, "Problems of Strategy in China's Revolutionary War," *Selected Military Writings of Mao Tse-Tung*, Bejing, China: Foreign Language Press, 1967.

[9] JP 1-02, *Department of Defense Dictionary of Military and Associated Terms*, Washington, DC: Government Printing Press, 2015.

[10] ADRP 1-02, *Terms and Military Symbols*, Washington, DC: Government Printing Press, 2015.

[11] There were about 500 U.S. advisers remaining at the time of the attack, per William Robertson, published in *Leavenworth Papers, No. 13: Counterattack on the Naktong, 1950*, Fort Leavenworth, KS: Combat Studies Institute, 1985. The circumstances of the surprise appeared in Roy Appleman, *South to the Naktong, North to the Yalu* (June-November 1950), Washington, DC: U.S. Army Center of Military History, 1992.

[12] GEN of the Army Douglas MacArthur was the five-star U.S. general who commanded the United Nations Command during the early part of the Korean War.

[13] In Appleman. Dean's story as told to William L Worden, New York: Viking Press, 1954.

[14] Arrival timelines appear in T.R. Fehrenbach, *This Kind of War: The Classic Korean War History – Fiftieth Anniversary Edition*, Washington, DC: Potomac Books Inc., 2001, and Uzal W. Ent*, Fighting on the Brink: Defense of the Pusan Perimeter*, Nashville: Turner Publishing Company, 1998. These references recount the inclusion of 2nd Infantry Division in the plan.

[15] 25th Infantry Division Association editorial review, ***25th Infantry Division, Tropic Lightning, Korea 1950-1954***, Paducah: Turner Publishing Company, 2002.

[16] Appleman.

[17] Ent.

[18] Ent and Appleman.

[19] Clausewitz.

[20] MG James Gavin, "Cavalry, And I Don't Mean Horses," ***Harper's Magazine***, April 1954.

[21] Appleman.

[22] Doctrinal quotations appear in FM 3-98, ***Reconnaissance and Security***, Washington, DC: Government Printing Press, 2015.

[23] The author's research searched the indexes of the following three authorities on the Korean War: ***The Coldest War: A Memoir of Korea*** by James Brady (New York: Thomas Dunne Books, 1990), Fehrenbach's ***This Kind of War*** and Appleman's ***South to the Naktong, North to the Yalu*** for the following terms: "recon," "scout," "cavalry" or "reconnaissance." None of them contained any of the four words. A digital search resulted in more hits, but each led to passages about "commander's reconnaissance," a different type of mission. "Cavalry" appeared only as a unit descriptor for 1st Cavalry Division and other units of cavalry heraldry.

[24] COL Harry Summers, ***Korean War Almanac***, New York: Facts on File, 1990.

[25] Anwar al-Sadat, ***al-Bahth 'an al-dhat: qissat hayati***, Cairo: al-Maktab al-Misri al-Hadith, 1985.

[26] Mohamed Abdel Gahni El-Gamasy, ***The October War***, Cairo: American University in Cairo Press, 1993.

[27] John J. McGrath, ***Sinai, 1973: Israeli Maneuver Warfare Organization and the Battle of the Chinese Farm***, Fort Leavenworth: Combat Studies Institute Press, 2005.

[28] Avraham Tamir, ***A Soldier in Search of Peace***, edited by Joan Comay, New York: Harper & Row, 1988.

[29] Avraham Adan, ***On the Banks of the Suez: an Israeli General's Personal Account of the Yom Kippur War***, London: Arms and Armour Press, 1980; McGrath; El-Gamasy.

[30] McGrath; El-Gamasy.

[31] McGrath, ***Scouts Out!***, Fort Leavenworth: CSI Press, 2008.

[32] Helmuth Graf von Moltke, ***Moltke on the Art of War: Selected Writings***, translated and edited by Daniel J. Hughes and Harry Bell, New York: Presidio Press, 1993.

[33] Martin Van Creveld, ***Command in War***, Cambridge: Harvard University Press, 1985.

[34] Zeev Schiff, ***October Earthquake: Yom Kippur 1973***, London: Transaction Publishers, 2013.

[35] McGrath, ***Sinai, 1973***.

[36] *Reconnaissance pull* is defined in FM 3-98 as a reconnaissance technique in Section 5-11: "Reconnaissance pull is used when commanders are uncertain of the composition and disposition of enemy forces in their areas of operation, information concerning terrain is vague, and time is limited. ... As they gain an understanding of enemy weaknesses, they then 'pull' the main body to positions of tactical advantage." Gilowa rafts were wheeled ferry vehicles capable of transporting two tanks across the canal at a time. Egyptian artillery had destroyed the initial pontoon bridge. Despite heavy damage by shrapnel, the rafts succeeded in transporting more 120 tanks across the canal during two days. In Abraham Rabinovich, ***The Yom Kippur War: The Epic Encounter That Transformed the Middle East***, New York: Doubleday, 2007.

[37] Doctrinal quotations appear in FM 3-98, ***Reconnaissance and Security*** (2015).

[38] FM 3-55, ***Information Collection***, Washington DC: Government Printing Press, 2012.

[39] FM 3-90-1, ***Offense and Defense***.

[40] Oakland McCulloch, masters of military arts and science thesis, "The Decisiveness of Israeli Small-Unit Leadership on the Golan Heights in the 1973 Yom Kippur War," Fort Leavenworth, KS: Government Printing Office, 2003.

[41] FM 3-90-1.

[42] Ibid.

[43] Paragraph 3-150 of FM 3-90-1 states that "the two levels of counterattacks are major and local counterattacks." However, the previous paragraph, 3-149, refers to a "decisive counterattack."

[44] FM 100-5, ***Operations*** (1949).

[45] David Chandler, ***The Campaigns of Napoleon***, New York: Macmillan Publishing, 1966; Frank McLynn, ***Napoleon, A Biography***, New York: Arcade Publishing, 2011.

[46] Lawrence Babits, ***A Devil of a Whipping: The Battle of Cowpens***, Chapel Hill: University of North Carolina Press, 1998.

[47] Center for Strategic and International Studies, ***Unpacking Russia's New National Security Strategy***; accessed Jan. 22, 2016, http://csis.org/publication/unpacking-russias-new-national-security-strategy.

[48] U.S. Department of Defense, ***The National Military Strategy of the United States of America: The United States Military's Contribution to National Security***, Headquarters Department of Defense, Washington, DC, June 2015.

[49] Daniel Kahneman, ***Thinking, Fast and Slow***, London: Penguin Books, 2012.

[50] Italics appear in Paret and Howard's translation.

[51] MG Michael T. Flynn's 1994 School of Advanced Military Studies monograph expands on the counterattack as the culmination of the defense. Michael T. Flynn, *Climax or Conclusion: Culmination in the Defense*, Fort Leavenworth, KS: U.S. Army Command and General Staff College, 1994.

[52] U.S. Army Office of the G-3/5/7, "Minutes and Taskings from Chief of Staff, Army [CTC] Huddle," Dec. 8, 2015.

[53] U.S. Army Training and Doctrine Command Pamphlet 525-3-1: *The U.S. Army Operating Concept: Win in a Complex World, 2020-2040*, Headquarters Department of the Army, Washington, DC, October 2014.

Acronym Quick-Scan

ADRP – Army doctrinal reference publication
BCT – brigade combat team
CTC – combat-training center
EMP – electromagnetic pulse
FAB – field-artillery battalion
FM – field manual
IDF – Israeli Defense Forces
JP – joint publication
NATO – North Atlantic Treaty Organization
NKPA – North Korean People's Army
OE – operational environment
RoKA – Republic of Korea Army (South Korea)
TF – task force
UAS – unmanned aerial system
UAV – unmanned aerial vehicle