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ROMMEL'S DESERT WAR:  
The Impact of Logistics on Operational Art

by

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A paper submitted to the Faculty of the Naval War college in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the naval War College or the Department of the Navy.

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## ABSTRACT

ROMMEL'S DESERT WAR: THE IMPACT OF LOGISTICS ON OPERATIONAL ART,  
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This paper analyzes the German expedition in North Africa in World War II, with a specific focus on the impact of operational logistics. The central premise is that the German inability to properly assess the consequences of theater geometry, as well as the failure to respect the vast expanse of the African desert, yielded an operational design whose aims outpaced both available resources and the ability to sustain them. Specifically, the paper asserts that the Axis decision not to seize Malta resulted in a Theater sustainment plan that was tenuous and inconsistent. It further asserts that within the North African Area of Operations, Rommel's decision to exceed the scope of his mission, and his inability to achieve an effective balance between operations and logistics, contributed decisively to defeat.

This paper is offered for the modern Combined or Joint Force Commander, or Staff, who may be faced with conflict in a secondary and immature theater. It draws on history to underscore the significance of sustainment, and offers relevant considerations for the commander in the planning and conduct of operations. Among these considerations are: the significance of mission analysis; the imperative of SLOC control in a maritime dependent theater; the recognition of a secondary theater as an economy of force operation; and, the significance of an operational design that balances aims with sustainment capabilities.

## Introduction

“The more I see of war, the more I realize how it all depends on administration and transportation. It takes little skill or imagination to see where you would like your army to be and when; it takes much more knowledge and hard work to know where you can place your forces and whether you can maintain them there.” - General A. C. P. Wavell<sup>1</sup>.

In February 1941, Adolph Hitler sent a German expeditionary force, designated *Afrika Korps*, to Tripoli in order to reinforce the beleaguered Italian Army. Under the command of General Erwin Rommel, the mission was to join with the Italians in providing for the defense of Tripolitania.<sup>2</sup> For the next year and a half, Rommel's combined forces seized every opportunity to gain and maintain the offensive. Their successes were dramatic. They were, however, neither decisive, nor long lived. “Rommel failed to break the fabric of the British forces or destroy their will.”<sup>3</sup>

The German inability to properly assess the consequences of theater geometry, as well as their failure to respect the vast expanse of the African desert, yielded an operational design whose aims outpaced both available resources and the ability to sustain them. The Axis decision not to capture Malta resulted in a Theater sustainment plan that was tenuous and inconsistent. Within the North African Area of Operations, Rommel's decision to exceed the scope of his mission, and his inability as operational commander to achieve an effective balance between operations and logistics, contributed significantly to the final outcome. The failure to establish the preconditions for, or to subsequently prosecute, a logistically supportable campaign yielded hollow victories and decisive defeat. The German defeat in North Africa, and the theater strategic and operational decisions of her

commanders, offer enduring lessons to the Combined or Joint Force Commander who may plan for battle in a peripheral or immature theater.

### Strategic Setting

“Not a penny, not a single German soldier for Africa.”<sup>4</sup>  
(Adolph Hitler on being informed of the Italian offensive.)

At the close of 1940, Germany controlled all of Western Europe and Norway. The failure of the Luftwaffe to bring England to her knees had led Hitler to postpone indefinitely a cross channel invasion. Though the German eastern flank remained protected by its Russian alliance, Hitler had made the decision to break that treaty with an offensive planned for spring 1941. It was *Barbarosa* that was to be the focus of effort. The Mediterranean was a peripheral theater, and North Africa but an asterisk.

Italy, for its part, had occupied Libya in strength and attacked into Greece. In the fall of 1940, the Italian Army in North Africa had pressed west through Cyrenaica and into the Egyptian frontier, causing the retreat of weak British forces towards Alexandria.

Britain, though weak in ground forces in Egypt, maintained her naval control over the Mediterranean, as well as the Suez Canal and the Red Sea. Britain recognized the strategic need to control Egypt and the sea lines of communications (SLOCs) to ensure not only a supply line to mid-East oil, but also to prevent Axis control of the Suez, which would cut off British supply routes. Thus in December 1940, British forces in Egypt launched a counterattack, supported by air and naval forces, against the 300,000 strong Italian Army in North Africa. Italian forces were driven back 1,000 miles from Sidi Barrani to the outskirts of Tripoli in little more than a month.<sup>5</sup> The weakness of the Italian Army was laid bare. “The army was designed for colonial war against African tribesmen. Predominantly infantry, it was practically useless in a mobile desert environment. What armour forces it did possess were obsolete -- underpowered, underarmoured, and undergunned. It was in no way capable of modern mechanized warfare.”<sup>6</sup>

The consequence of this series of events was a directive issued by Hitler in January 1941 to “organize a defense unit capable of rendering valuable service to our allies in the defense of Tripolitania...”<sup>7</sup> This decision was wholly political. “He feared Mussolini might change sides unless he had a German stiffening.”<sup>8</sup> Thus Germany committed itself to a theater that three months prior Hitler was perfectly willing to concede.

### Operation *Sonnenblume*

“Hitler intended the Afrika Korps to be a stone wall. Rommel made it an avalanche, moving under laws of its own.”<sup>9</sup>

The initial composition of the Afrika Korps was two Divisions, the 5th Light Mechanized and the 15th Panzer. It began deploying to Tripoli in February 1941.<sup>10</sup> Its size was tailored to both the defensive and combined nature of the assigned mission. “Hitler thought that the Italians were capable of holding their own in Africa with a little German help.”<sup>11</sup> Moreover, Hitler and the German High Command had previously weighed the prospects of an offensive strategy against the British in North Africa and determined the means not to be worth the potential gains. Nor were the requisite forces available in light of the decision to go forward with *Barbarosa*. In the fall of 1940, General Ritter von Thoma had been sent to Libya to report on the question of whether German forces could or should assist Italy in turning British forces out of Egypt. According to von Thoma:

“The supply problem was the decisive factor - not only because of the difficulties of the desert, but because of the British Navy’s command of the Mediterranean. I said it would not be possible to maintain a large German army there as well as the Italian army. My conclusion was that if a force was sent by us, it should be an armour force. Nothing less than four armoured divisions would suffice to ensure success. I calculated that this was also the maximum that could be effectively maintained with supplies...”<sup>12</sup>

Thus, the reinforcement of North Africa was directed as an economy of force measure. "It was not intended to lead up to a decisive, war winning campaign...this Hitler had now decided to conduct in Russia." <sup>13</sup>

"It should have been clear to Rommel that his instructions required him to tailor a campaign that would maintain a viable Axis presence in Tripolitania. The forces provided to him by Hitler were equipped to conduct an active defense around Sirte." <sup>14</sup> Rommel, for his part, did not share the limited intentions of his superiors - perhaps in part because of his natural inclinations, and perhaps in part because he was unaware of *Barbarosa*<sup>15</sup>. This friction would present itself even prior to the arrival of his main body of forces in Tripoli, and would be manifest in action shortly thereafter.

In mid March 1941, Rommel flew from Tripoli to Germany to present his plans to Hitler and the General Staff. Persuaded of British weakness by his initial reconnaissance reports, his emerging intentions were not the defense of Tripolitania, but the conquest of Egypt and the Suez, with a further eye toward German East Africa. General Halder, Chief of the German General Staff, related with more than a degree of disdain:

"I could not restrain a somewhat impolite smile, and asked him what he would be needing for the purpose. He thought he would need another two Panzer Corps. I asked him, 'Even if we had them, how are you going to supply them and feed them?' To this, I received the classic reply, 'That's quite immaterial to me. That's your pigeon.'"<sup>16</sup>

At the end of March 1941, with only half of his force yet in country, Rommel usurped both his orders and the direction of the Italian Commando Supremo, General Graziani, (to whom he was nominally subordinate) and launched an attack to the east. That he was consciously acting in contravention of his orders there can be no doubt. In a letter (3 April 1941) to his wife, Rommel wrote: "We've been attacking since the 31st (March) with dazzling success. There'll be consternation amongst our masters in Tripoli and Rome, perhaps Berlin too. I took the risk against all orders and instructions because the opportunity seemed favourable."<sup>17</sup> The British, caught overextended and offguard, had no intention of offering decisive battle to the Germans. What was begun as a probing

attack turned into a breakneck pursuit that covered over 1000 miles. By 10 April, the British had been vanquished from Cyrenaica (with the notable exception of the garrison at Tobruk), and the Afrika Korps stood astride Sollum on the Egyptian frontier. "Tobruk held out and repulsed determined assaults in April and May, but nevertheless, weak German forces had reconquered the whole of Cyrenaica in twelve days."<sup>18</sup>

The German High Command was as surprised as the British, and more than slightly exasperated. "General Halder, anxious to curb any action that might require reinforcement at the expense of the German forces in the main theater that were now preparing to invade Russia, sent his deputy, General von Paulus to Africa 'to head off this soldier gone stark mad'."<sup>19</sup> (Note: Rommel at this point still knew nothing of the impending invasion of Russia.<sup>20</sup>) Based on the von Paulus visit, and the pressing fact that his combat power had become dissipated and his supply lines overextended as foretold by Halder, Rommel consolidated his positions and launched but a limited (and unsuccessful) attack on the fortress at Tobruk. In June, the British launched a counteroffensive code named *Battleaxe*. It was repulsed under heavy fighting. Both sides exhausted, there ensued an operational pause from the end of June through November.<sup>21</sup> In November, significantly reinforced, the British launched the *Crusader* offensive that threw the German and Italian forces back to the western border of Cyrenaica. The year 1941 ended with the battle lines drawn essentially as they had been nine months earlier. (See Appendix A.)

1942 witnessed a series of offensives and counteroffensives that portrayed mechanized warfare in its purest form -- characterized by speed, shock, and firepower. "It was a war of swift movement - but see-saw movement, repeatedly tilting up and down."<sup>22</sup> (See Appendix B.) It also highlighted the increasing importance of sustainment. "Sustainment proved critical because as one force advanced and its supply line became tenuous, the other became stronger as it fell back on its base and repelled the weakened attacker."<sup>23</sup>



It January 1942, Rommel took the offensive. With his forces strengthened by virtue of significantly shorter supply lines, he was able to seize the initiative from the British, who were now overextended as a result of their *Crusader* advance. The now renamed *Panzer Armee Afrika*, supported by their Italian allies, swept the British back more than 250 miles before they could regroup. The front now formed itself at Gazala. At the end of May, Rommel resumed the offensive. "Again the British were driven to retreat - so far and so fast that they did not rally until they reached the Alamein line, the final gateway to the Nile Delta."<sup>24</sup> Though a resounding defeat for the British, this also resulted in a dangerous situation for Rommel. His operational supply line, confined to a single east-west road, via Balbia, stretched from Alamein back to the port at Tripoli - a distance of some 1300 miles. He attempted to press on, and was nearly destroyed in the process, before consolidating his perilously depleted forces at Alamein.

In August, after refitting and rearming, Rommel again attempted to regain the offensive. But the British had been more heavily reinforced, and were further supported by a far shorter supply line. "Under a new team of commanders, headed by General Alexander and General Montgomery, Rommel's thrust was parried."<sup>25</sup> Although he had obviously exceeded his operational reach, Rommel held at Alamein. This proved critical, as his sustainment situation remained tenuous. By the time he realized his operational disadvantage - that he could not regain his strength in his present dispositions - it was too late. "Rommel realized that he had gone too far - with his limited forces and difficult supply line - but his success had caused such a sensation that he could not draw back. Hitler would not let him. The result was that he had to stay there until the British had gathered overwhelming forces to smash him."<sup>26</sup>

In October, the British struck back, and Rommel, rather than conduct a fighting withdrawal, offered decisive battle. The result was defeat so significant that organized retreat was no longer possible. The German Panzer Army had been essentially destroyed, stripped bare of its armoured striking arm. An organized defense could not be constructed

until Rommel's forces had been driven back to Beurat, nearly 1,000 miles west of Alamein. "Even that was only a halt in a retreat that ended at Tunis, in the following May, with the complete extinction of the German and Italian forces in Africa."<sup>26</sup>

### Logistics as a Critical Vulnerability

"The supply problem remained the joker in the pack as far as North Africa was concerned." -Field Marshal Albert Kesselring<sup>27</sup>

Logistics was a critical factor in the North African campaign, and it played out on two distinct levels. The first was at the Theater level, focused on the trans-shipment of supplies and materiel from Italy to North Africa. The second level was within the North African Area of Operations, focused on the organization and distribution of supply. The responsibility for sustainment from Italy to North Africa fell to the Italians, in consultation with Field Marshal Kesselring, German Commander in Chief, South. The responsibility for sustainment within the North African Area of Operations initially fell jointly to the Germans (Rommel) and Italians (Graziani). After July 1941, however, the responsibility for area logistics and operations rested with Rommel, upon his designation as overall commander of both German and Italian forces.<sup>28</sup>

The central logistics issues at the Theater level of operations centered on: the availability of supply; the availability of shipping; port handling capacity in North Africa; and the threat to Axis shipping. Of these, the threat represented by the British domination of the Mediterranean, and most specifically by air and naval forces based at Malta, was preeminent in the minds of Theater planners and decision-makers.

It was a widely held position by leaders on both sides that the continuing British presence on Malta played a major role in the North African campaign. Its significance was evident from the outset, for the most fundamental of reasons. "A strategic position represented by an island, or several islands, situated in close proximity has always been one of the main elements of control of any narrow sea."<sup>29</sup> This tenet is precisely applicable

to Malta, as it sits astride the sea line of communication (SLOC) from Italy to Libya - fifty nautical miles from Sicily, and two hundred nautical miles from Tripoli. (See Appendix C.)

The German decision to merely neutralize forces on Malta in support of Italian convoy operations may at first seem consistent in light of the designation of the Mediterranean as a secondary theater and the limited campaign envisioned for North Africa. However, the decision looms as a critical error in light of the logistical immaturity of the North African area of operations. Even a limited, economy of force campaign required continuous sustainment - and that sustainment would necessarily have to come by sea. "Since all the tools of warfare were required to be brought into theater, the means of transport were matters of operational import."<sup>31</sup>

The decision to neutralize, vice capture Malta, produced a number of operational ramifications. The decision to forego the attainment of SLOC control in a campaign where the sea was the operational theater lifeline resulted in a campaign built on a dangerously weak foundation. Sustainment in the area of operations was subjected to uncertain ebb and flow, dependent on the success of the neutralization mission. Moreover, each successive convoy was exposed to the same degree of risk as the one previous, as neutralization, by design, produces only temporary results. The decision not to capture Malta built a fundamental, unpredictable flaw into the North African campaign. "A plan for a campaign can not succeed if not accompanied with a soundly based plan of logistics...sustainability is often the dominant factor in determining the nature and tempo of operations."<sup>32</sup> This implies sustainment not only in quantity, but based as well on reasonably assured timelines in order to properly plan for and synchronize combat operations. The lack of such consistency of delivery was evidenced by the record of cargo tonnage shipped to Libya, and the fluctuating amount of tonnage that actually arrived. It can also be seen that as interdiction rates increase, the response to the increased risk yields a lower amount of cargo shipped.

### Italy to North Africa SLOC Interdiction<sup>33</sup>

Month	Tonnage Disembarked	Tonnage Lost	Tonnage Lost %
June 1941	125,076	5,695	4.4
July	62,700	15,190	19.5
August	83,900	13,090	13.5
September	67,400	26,210	28.0
October	73,600	18,400	20.0
November	30,000	48,950	62.0
December	39,000	8,560	18.0
January 1942	66,000	-	-0-
February	57,000	5,000	8.5
March	50,000	5,590	10.5
April	150,000	-	-0-
May	86,000	6,470	7.0
June	32,300	9,130	22.0
July	91,500	5,830	6.0
August	51,600	25,360	33.8
September	77,200	19,300	20.0
October	46,000	36,146	44.0

The ongoing requirement for neutralization of the SLOC threat also resulted in the inefficient use of assets, creating a permanent dedication of significant forces to perform the mission. It required major elements of the German 10th Air Corps to remain based on Sicily, diluting its ability as a potential force multiplier, and undermining the ability to weight the effort of the Air Corps to other assigned tasks as the campaign progressed. Among these assigned tasks were: "...to protect sea transport...eliminate British air forces at Malta...attack British supply shipments along the African coast...combat enemy ground forces..."<sup>34</sup> The continuing need to remain focused on Malta minimized Air Corps impact in North Africa.

Martin van Creveld, in Supplying War, conducts a thorough analysis of the SLOC control issue and its impact on sustainment. Among his well-supported conclusions are that the Axis managed to ship sufficient quantities of supply to Libya throughout the campaign. He further asserts that sustainment was more impacted by the limited capacity of Libyan ports than by British interdiction. However, Van Creveld does not emphasize the issues of timeliness and predictability. More specifically, consistency of quantity and

types of supply, as well as the quantity and types of forces required to ensure such sustainment, is integral to the application of operational art.

Van Creveld's central assertion on the issue of sustainability in the North African campaign is that "Rommel himself was largely to blame."<sup>35</sup> Of this, there is little room for doubt. Rommel continually advanced beyond his operational reach - "the distance over which military power can be concentrated and employed decisively - it is influenced by the length, efficiency, and security of the line of communication (LOC)."<sup>36</sup> The dominant sustainment factors impacting on Rommel were three: 1) Tripoli, as intended by Theater planners at the outset, would remain the main port of debarkation throughout the campaign; 2) the coastal road, via Balbia, was the sole east-west LOC, and; 3) "German doctrine considered 200 miles the limit for effective transport by motor vehicle."<sup>37</sup>

From March of 1941 when the Afrika Korps first deployed around Sirte, 300 miles east of Tripoli, Rommel's forces were extended well beyond doctrinal sustainment range. And beyond that range they would remain until they were finally destroyed in the aftermath of Alamein. This critical fact would not be appreciably altered even when secondary ports of debarkation were opened at Benghazi and Tobruk. Due to the lack of capacity at these ports, their use provided but minor relief to the distribution system dependent on Tripoli and the Via Balbia.

LOC Distances from Axis from Sustainment Bases (in miles)<sup>38</sup>

	Tripoli	Benghazi	Tobruk
Sirte	300	-	-
El Agheila	470	-	-
Benghazi	700	-	-
Gazala	9000	200	-
Tobruk	1000	300	-
Sollum	1100	400	100
Alamein	1350	800	350

The ground distances to be covered remained Herculean. The result was logistics practices that were literally "hand to mouth."<sup>39</sup> The fact that these practices permitted the bold

operational strokes employed by Rommel over eighteen months is a testament to the staff more than the commander.

Prior to the Alamein offensive of 1942, the Italian Commando Supremo asked Rommel how he intended to keep his army supplied. "Rommel confessed that he did not know - 'the logistic services would somehow have to adapt themselves to the tactical situation.'"<sup>40</sup> This approach had met with success for Rommel when he commanded the "Spook" Panzer Division in France at the outset of the war. "His division sometimes advancing so fast that it became detached from the main fist of Kluge's Fourth Army...and continued to race along its throughway on its own, with only the most tenuous connection in the rear to its logistical support."<sup>41</sup> This continued expectation, however, was fundamentally flawed. In North Africa, unlike in France, Rommel was an operational commander. A less than concerted approach to sustainment could only offer negative consequences. "Logistics is one area of warfare where there is a clear distinction between the tactical and operational level of war. The operational commander is both in charge of, and the user of logistics."<sup>42</sup> By continually seeking to press his advantage without regard for his supply situation, offensives resulted in pursuing the enemy with decreasing strength, rather than consolidating, regrouping and resuming the attack with a more balanced force. While this approach gained considerable ground, the gains were transitory. The campaign was punctuated by offensives whose gains could not be held in the face of determined counter offensives.

A particular case in point was the series of attempts to seize Tobruk at the culmination of the 1941 offensive. Successive attempts were made with the forces immediately at hand: first with the Italian Brescia and Trento Infantry Divisions; then with reinforcements from the 5th Light Division; then also with the Italian Ariete Division. These attempts at reducing a dedicated strongpoint, all unsuccessful, were not the product of an orchestrated operational plan. "He learned the hard way - by bloody tactical biopsies - just how strong the defenses were."<sup>43</sup> They seemed to reveal more the product of

Rommel's impatience and the lack of planning. Consideration was not given to the difficulties of maintaining effective combat strength 1000 miles from the base of supply, with only motor transport assets and a single LOC to bridge the gap. In consequence, already depleted combat power was further reduced. At the end of a thin logistics tether, the gains of the Sollum offensive crumbled with the onset of the *Crusader* counter offensive.

This operational overreach would repeat itself during the 1942 offensive. The difference this time was that Tobruk fell to Rommel. Moreover, the capture of significant stores - "2,000 vehicles, 5,000 tons of supply, and above all, 1400 tons of fuel" <sup>44</sup> - provided an operational spark to a dying supply line. Rather than consolidate, however, Rommel continued to press the attack. "It was captured stocks that took the Panzer Army to Alamein." <sup>45</sup> But once depleted, he could no longer sustain his force. These "borrowed" stocks yielded an offensive that continued on equally "borrowed" time. Even the two month pause that ensued between the end of the German offensive and the British counterattack in October could not yield a functional refit and rearming of the Panzer Army. Although the more eastern coastal ports of Benghazi and Tobruk provided some relief, the central issue of sustainability was governed by the continuing requirement to move 80% of Axis supplies overland from Tripoli to Alamein.

There were four critical factors regarding the overburdened LOC whose significance was amplified with each successive mile of advance to the east. First, the extension of the LOC generated an increasing motor transport requirement to haul supply. Even with captured stocks put into service, available assets were required to drive longer and farther. Second, with the increasing time and distance requirements came a corresponding increase in fuel consumption. "It is a reasonable guess that thirty to fifty percent of all fuel landed in North Africa was wasted between Tripoli and the front." <sup>46</sup> Third, the overextended LOC generated increased maintenance requirements of the motor transport assets servicing the front. "Thirty-five percent of the vehicles were constantly out

of service.”<sup>46</sup> Fourth, the never-ending cycle of convoys on the single LOC presented a lucrative target that became more accessible to the enemy with every eastward mile. “British aircraft and armoured cars inflicted heavy losses on the lorry columns, simultaneously reducing their capacity by half, by restricting movement to night time only.”<sup>47</sup> This interdiction fell as well on the eastern port facilities prompting references to Tobruk as the “graveyard of the Italian navy.”

It should have been apparent that the supply distribution system was broken. It should have been equally apparent that only a drastic reduction of the LOC would bring it, and in consequence, the Panzer Army, back to health. No amount of determination could alter these facts. General von Thoma, author of the 1940 North Africa feasibility report, who was subsequently captured at Alamein, offered a succinct operational assessment: “Rommel’s forces were never strong enough to attempt the conquest of Egypt. But he could not resist the temptation to push on in the flush of victory. That was his undoing.”<sup>48</sup>

### Considerations for the Modern Commander

“Operations and logistics are inseparable facets of war. Neither can claim primacy; each is integral to the other.”<sup>49</sup>

Establishing control over the Sea Lines of Communication is an operational imperative. In a theater of war where sustainment must be provided over the sea, the inability to dictate the safety of SLOCs results in the surrendering of the operational initiative to the enemy. In a secondary theater, moreover, the governing factors of sustainment are not only ensuring sufficient quantity, but in providing for quantity by type and timeliness. It is generally understood that “logistics resources are always constrained.”<sup>50</sup> Reasonable predictability, however, in terms of adequacy and frequency, is required for the effective integration of operations and logistics. Reasonable predictability is a product of SLOC control.



Mission analysis remains the foundation of operational art. This is so precisely because history records that commanders can, and do, "get it wrong." When the process of mission analysis remains preeminent in operational planning, a guaranteed check and balance both up and down the chain of command is achieved. Once set in motion, the ebb, flow, and pace of battle will often determine the degree of detail in the continuous planning process. Ensuring the mission is clearly understood, precisely analyzed, and succinctly restated will serve as a Polar Star with the onset of friction. It will also serve as a foundation to effectively integrate aims with forces, and the ability to sustain them.

A secondary theater is *de facto* an economy of force operation. It must be thoroughly understood that minimal requirements for mission accomplishment will often translate into the maximum allowance. Success, or the possibility of decisive action beyond the scope of mission, will not be reinforced. Nor, conversely, should it be anticipated that failure will be reinforced. The operational commander should be viewed, prophetically, as the master of his own destiny. The conservation and judicious exploitation of combat power is, in and of itself, a decisive factor in a secondary theater.

"The operational commander is both in charge of and the users of logistics."<sup>52</sup> How the commander organizes and provides for the distribution of supply will significantly impact the operational reach of forces. It is essential that this relationship be recognized and respected by the command in the planning phase. Left until the execution phase, the bounds of operational reach are reduced from considered judgment to uncharted experimentation. In a secondary theater, this forfeiting of initiative by an operational commander can yield decisive defeat.

There is little space in a secondary theater for a strategic ego. Understanding the relationship and role of the secondary theater to the main effort may be considerably less difficult than tempering the natural inclination of a commander to produce more than what is expected. In a secondary theater, it is a more effective approach to focus on ruthless

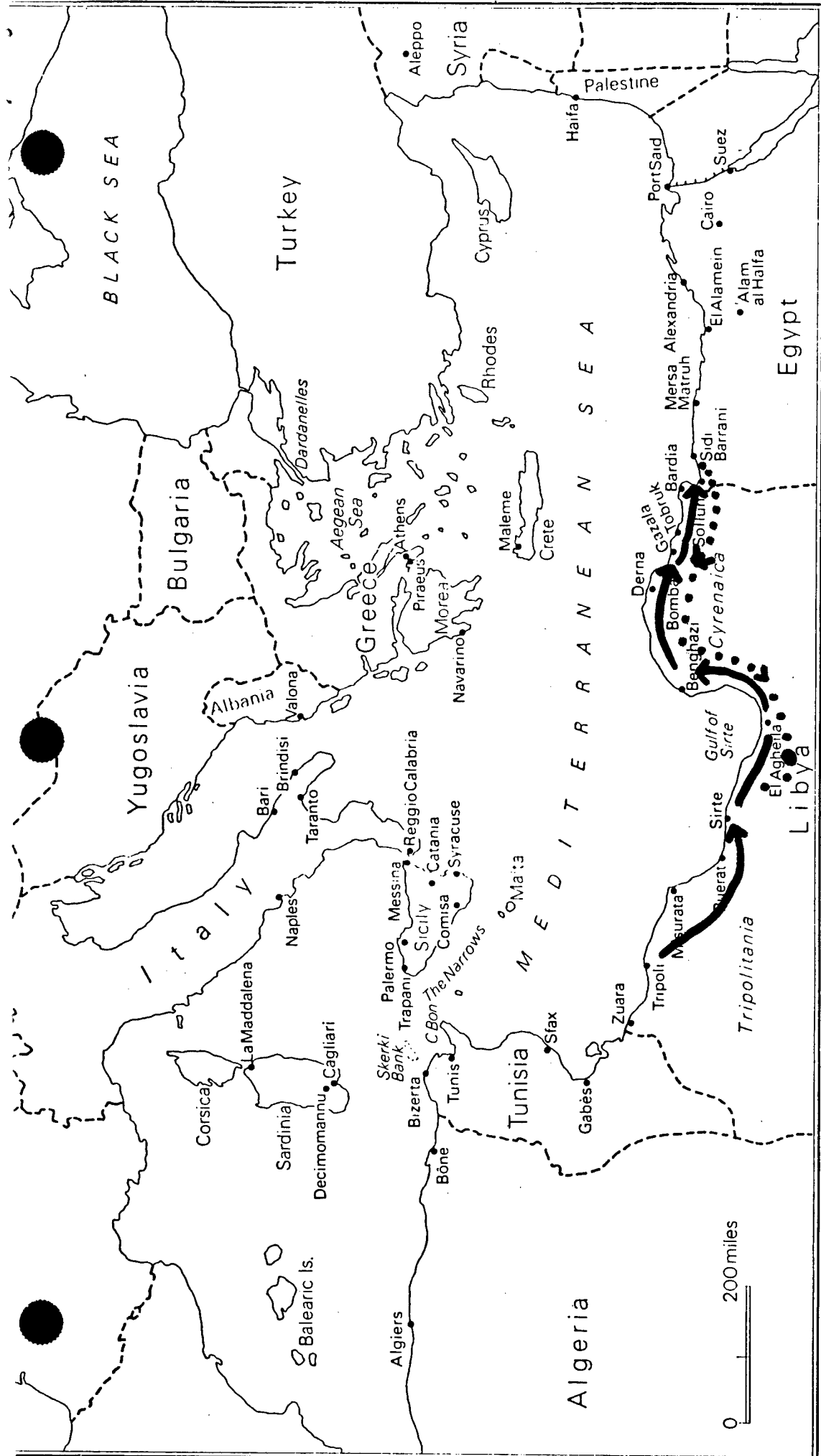
efficiency - not accomplishing more than the goal, but on accomplishing the defined mission with less.

### Conclusion

“The soldier and the civilian pay more attention to the battles and their outcome, for these make history. The more warfare is governed by technical achievements, the more diligently must a conscientious command apply itself to the invisible and thankless task of securing supply.”<sup>53</sup>

The exploits of Rommel in the North African Desert continue to merit professional study and respect. In many ways, the sense of admiration that his name yet evokes is a result of his desert duels with the British. The fact that he accomplished what he did over an eighteen month period, with an uncertain Mediterranean lifeline, and a single hard surface supply route that stretched in excess of 1300 miles from his logistics port, is ample measure of a unique commander. His aggressive determination, inclination and ability to not only see, but to seize the initiative, knows few peers in modern warfare. Fewer still have exhibited his ability to turn apparent weakness into strength on the battlefield. This paper, however has not focused on Rommel as battle leader, but has concentrated rather, on Rommel as operational commander. In this regard, the North African desert highlights Rommel's missteps with respect to operational design and the organization and planning of sustainment for his forces. His failure to achieve a balance between operations and logistics proved his Achilles' heel.

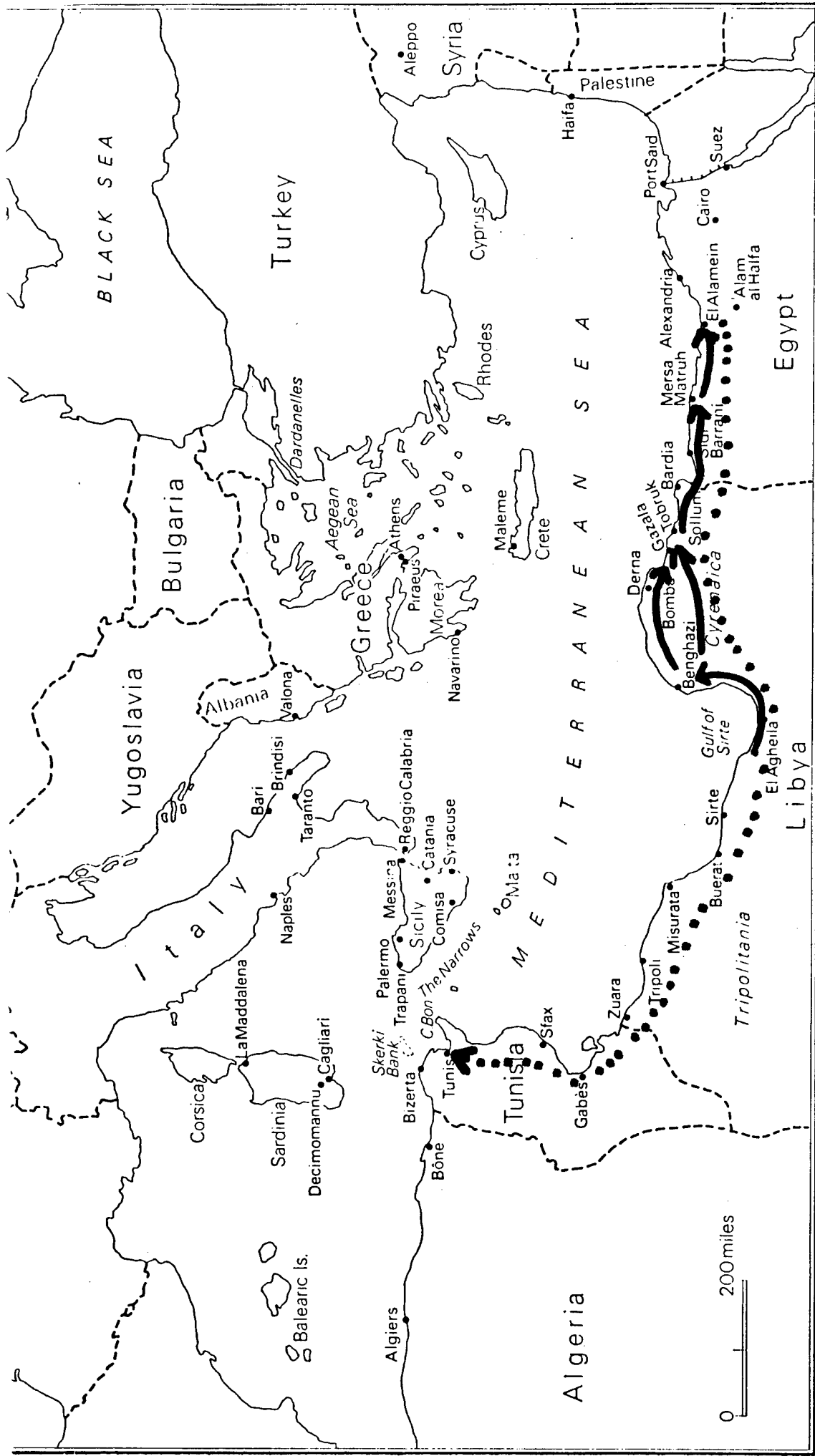
It has been stated that it is far easier to criticize than it is to execute. It is also true, however, that it is far more effective to learn from the mistakes of the masters. Offered in that light, “Rommel's experience in North Africa is an excellent example of what can happen if operational design and sustainment are not synchronized.”<sup>54</sup>



NORTH AFRICA - 1941

ROMMEL OFFENSIVE (April - June): —————→

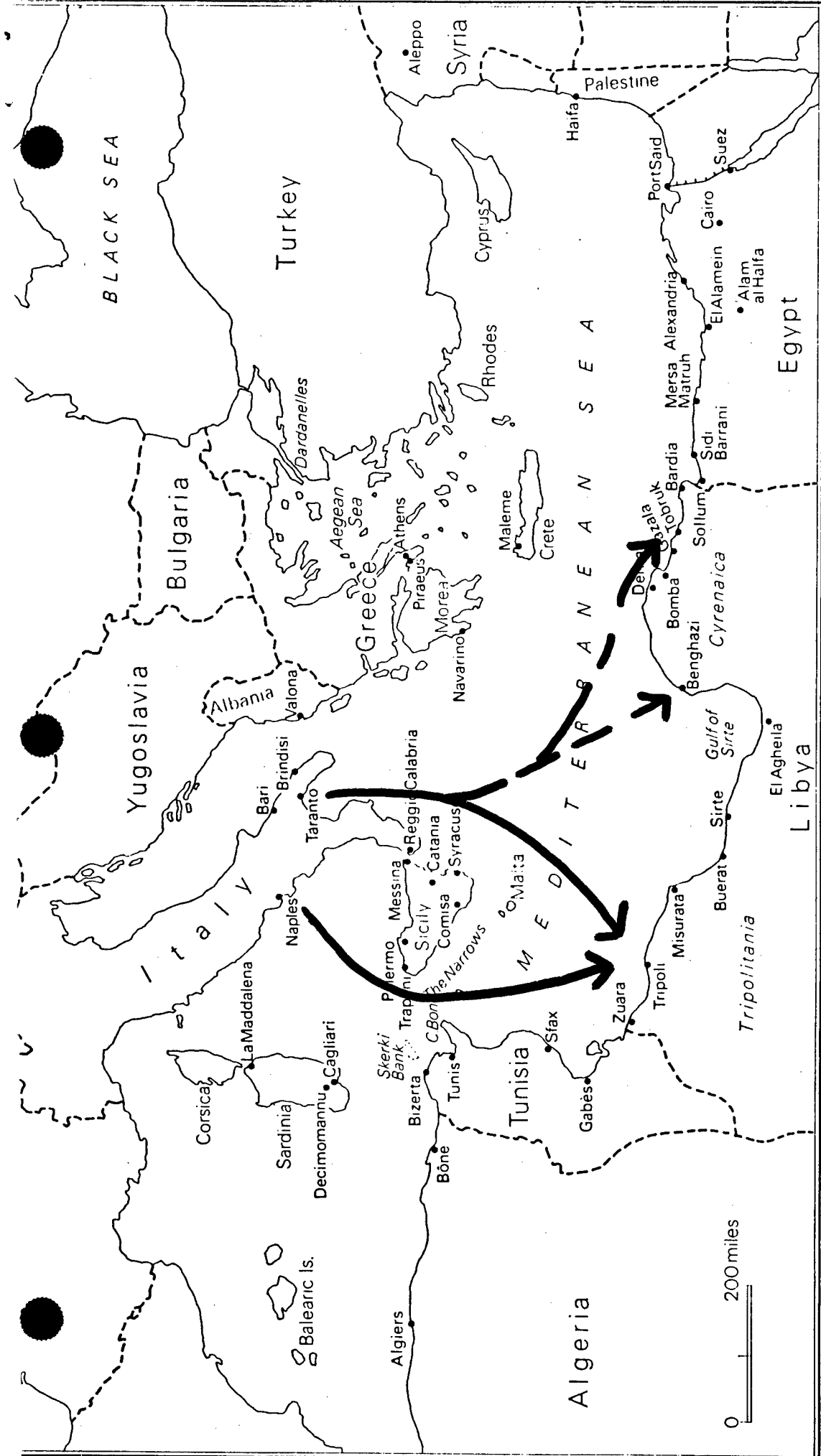
BRITISH COUNTER OFFENSIVE (NOVEMBER - DECEMBER): - - - - - ←



NORTH AFRICA - 1942-1943

ROMEL OFFENSIVE (January - August): —————→

BRITISH COUNTER OFFENSIVE (October '42 - May '43): ←-----



AXIS SEA LINES OF COMMUNICATION

PRIMARY: ———→  
 SECONDARY: - - - - ->

## Notes

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- <sup>1</sup> Joint Publication 4-0: Doctrine for Logistic Support of Joint Operations (US Government Printing Office: 1995), IV- 1.
- <sup>2</sup> Fuhrer Directives and Other Top-Level Directives of the German Armed Forces 1939 -1941 (Washington DC: 1948), 132.
- <sup>3</sup> Douglas W. Craft, "Operational Art in the Western Desert", (Alexandria, Virginia: Defense Technical Information Center 1987). 26.
- <sup>4</sup> David Irving, The Trail of the Fox (New York: Avon Books 1977) 73.
- <sup>5</sup> B. H. Liddell Hart, ed., The Rommel Papers, (New York: Harcourt, Brace and Company 1953) 93.
- <sup>6</sup> Ibid., 91.
- <sup>7</sup> Fuhrer Directives, 132.
- <sup>8</sup> B. H. Liddell Hart, The German Generals Talk, (New York: Quill 1979) 156.
- <sup>9</sup> Ronald Lewin, The Life and Death of the Afrika Korps, (New York, 1977), 16.
- <sup>10</sup> Fuhrer Directives, 135.
- <sup>11</sup> Liddell Hart, The German Generals Talk, 156.
- <sup>12</sup> Ibid., 155.
- <sup>13</sup> F. H. Hinsley, Hitler's Strategy, (Cambridge, England: The University Press 1951) 145.
- <sup>14</sup> John J. Twohig, "Playing Second Fiddle: Conducting the Operational Art in a Secondary Theater of War with a Passive Aim" (Alexandria, Virginia: Defense Technical Information Center 1987) 22.
- <sup>15</sup> Irving, 84.
- <sup>16</sup> Irving, 84.
- <sup>17</sup> B. H. Liddell Hart, ed., The Rommel Papers, 111.
- <sup>18</sup> F. W. Von Mellenthin, Panzer Battles, (New York: Ballantine Books 1984) 53.
- <sup>19</sup> B. H. Liddell Hart, History of the Second World War, (London: Pan Books, Ltd. 1983) 181.
- <sup>20</sup> Irving, 84.
- <sup>21</sup> Von Mellenthin, 54.
- <sup>22</sup> Liddell Hart, History of the Second World War, 178.
- <sup>23</sup> Craft, 26.

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- <sup>24</sup> Liddell Hart, History of the Second World War, 277.
- <sup>25</sup> Ibid., 277.
- <sup>26</sup> Liddell Hart, The German Generals Talk, 163.
- <sup>27</sup> Liddell Hart, History of the Second World War, 278.
- <sup>28</sup> Albert Kesserlring, A Soldier's Record, (New York: William Morrow & Company 1954) 124.
- <sup>29</sup> Martin Van Creveld, Supplying War: Logistics from Wallenstein to Patton, (Cambridge, England: Cambridge University Press 1977) 187.
- <sup>30</sup> Milan Vego, On Operational Art (Draft), (Newport, Rhode Island: Milan Vego 1977) 43.
- <sup>31</sup> Craft, 26.
- <sup>32</sup> Vego, 209.
- <sup>33</sup> Philip L. Idiart, "Sustainment in a Secondary Theater: An Analysis of the Effect of Transportation on Campaign Execution in North Africa, 1941 - 1942, and Its Relevance to Southwest Asia", (Alexandria, Virginia: Defense Technical Information Center 1987) 27.
- <sup>34</sup> Fuhrer Directives, 139.
- <sup>35</sup> Van Creveld, 200.
- <sup>36</sup> Joint Publication 4-0, IV-6.
- <sup>37</sup> Idiart, 23.
- <sup>38</sup> Ibid.
- <sup>39</sup> Van Creveld, 186.
- <sup>40</sup> Van Creveld, 194.
- <sup>41</sup> Irving, 53.
- <sup>42</sup> Vego, 185.
- <sup>43</sup> Irving, 103.
- <sup>44</sup> Van Creveld, 196.
- <sup>45</sup> Idiart, 25.
- <sup>46</sup> Van Creveld, 190.
- <sup>47</sup> Idiart, 25.
- <sup>48</sup> Van Creveld, 190.

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<sup>49</sup> Liddell Hart, The German Generals Talk, 158.

<sup>50</sup> Joint Publication 4-0, II-4.

<sup>51</sup> Joint Publication 4-0, II-7.

<sup>52</sup> Vego, 185.

<sup>53</sup> Donald S. Detwiler, ed., World War II German Military Studies, vol. 14, (New York: Garland Publishing, Inc. 1979) 56.

<sup>54</sup> David F. Tosch, "German Operations in North Africa.", (Arlington, Virginia: Defense Technical Information Center 1987) 32.