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AIR POWER IN NORTH AFRICA, 1942-43:
AN ADDITIONAL PERSPECTIVE

BY

Colonel F. Randall Starbuck
United States Air Force

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Colonel F. Randall Starbuck
United States Air Force

Colonel Jerome J. Comello
United States Army
Project Advisor

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The hastily mounted invasion of French Northwest Africa in November of 1942 was a gamble. It exposed American inexperience. That inexperience went from Roosevelt on down to the soldier in the foxhole. Half-trained men were pitted against Vichy France and didn't know whether to expect open arms or open fire. Later, those same inexperienced men would meet Rommel at the Kasserine Pass. This naivete was exhibited by both men and leaders. Torch was Eisenhower's first major operation--a gigantic airlift and sealift preceded by months of intrigue. The outcome of the campaign settled several air power issues and revealed many lessons. The battles fought by the United States forces during the North African Campaign of 1942 and 1943, particularly the Battle for the Kasserine Pass in February 1943, were a breaking and testing ground for much of the employment of those forces during the remainder of the Second World War. Three air power key lessons were learned on the North African battlefield. First was the need for coordination between air and ground forces. Second was the folly of sending untrained airmen into combat. Third was the importance of tactical air targeting by ground force commanders.

Preface

This paper provides a brief analysis of the lessons learned from the United States Army Air Forces involvement in the North African Campaign from 8 November 1942 to 13 May 1943. The paper outlines the state of training, command and control, and readiness of the U. S. Army and the U. S. Army Air Forces and their procedures for battlefield coordination.

The paper highlights some of the antagonisms between air and ground advocates, the impact on coordination, and the reorganization of January 1943 that led to centralized control of air power. It will show that the close coordination and affiliation developed between air and land forces in North Africa is a timeless doctrine. The joint warfare doctrine that we are developing now requires us to heed the lesson learned in North Africa.

This paper is not an in-depth historical account of the North Africa campaign. For that account I suggest you read George F. Howe's Northwest Africa: Seizing the Initiative in the West. William Breuer's Operation Torch and Martin Blumenson's Kasserine Pass provide easy reading accounts of some the personalities involved. Any of Nigel Hamilton's books about General Sir Bernard L. Montgomery provide an in-depth review of General Montgomery's influence on the campaign.

Also of significance, this paper does not provide "the big picture" of how the North African Campaign fit into the overall tactical maneuvers of World War II. "The tactical

maneuver big picture" is found in Brigadier General Vincent Esposito's The West Point Atlas of American Wars.

The paper is a broad brush of the campaign, it illustrates how the campaign influenced air and ground coordination, and concludes with lessons learned for AirLand Battle.

Introduction

The hastily mounted invasion of French Northwest Africa in November of 1942 was a gamble. It exposed American inexperience. That inexperience went from Roosevelt on down to the soldier in the foxhole. Half-trained men were pitted against Vichy France and didn't know whether to expect open arms or open fire. Later, those same inexperienced men would meet Rommel at the Kasserine Pass. The naivete of American leadership was shown beginning in December 1941 when the War Department began planning a cross channel invasion. This planning continued through the winter and into the summer of 1942.

In July 1942, President Roosevelt sent United States Army Chief of Staff George C. Marshall, Chief of Naval Operations Ernest J. King, presidential advisor Harry Hopkins, and a galaxy of Army, Navy, and Air Corps brass ". . .to London to 'sell' the British, particularly Winston Churchill, on the need for a quick thrust across the English Channel to gain a toehold on the continent, relieve the pressure on the red Army, and keep Russia in the war."¹ One of the group members, Lieutenant General Dwight D. Eisenhower, had been working on "Sledgehammer", the American offensive plan for a cross channel invasion, since December 15, 1941.

Churchill won the day, and Torch was born. It would be General Eisenhower's first major operation--a gigantic airlift and sealift preceded by months of intrigue.

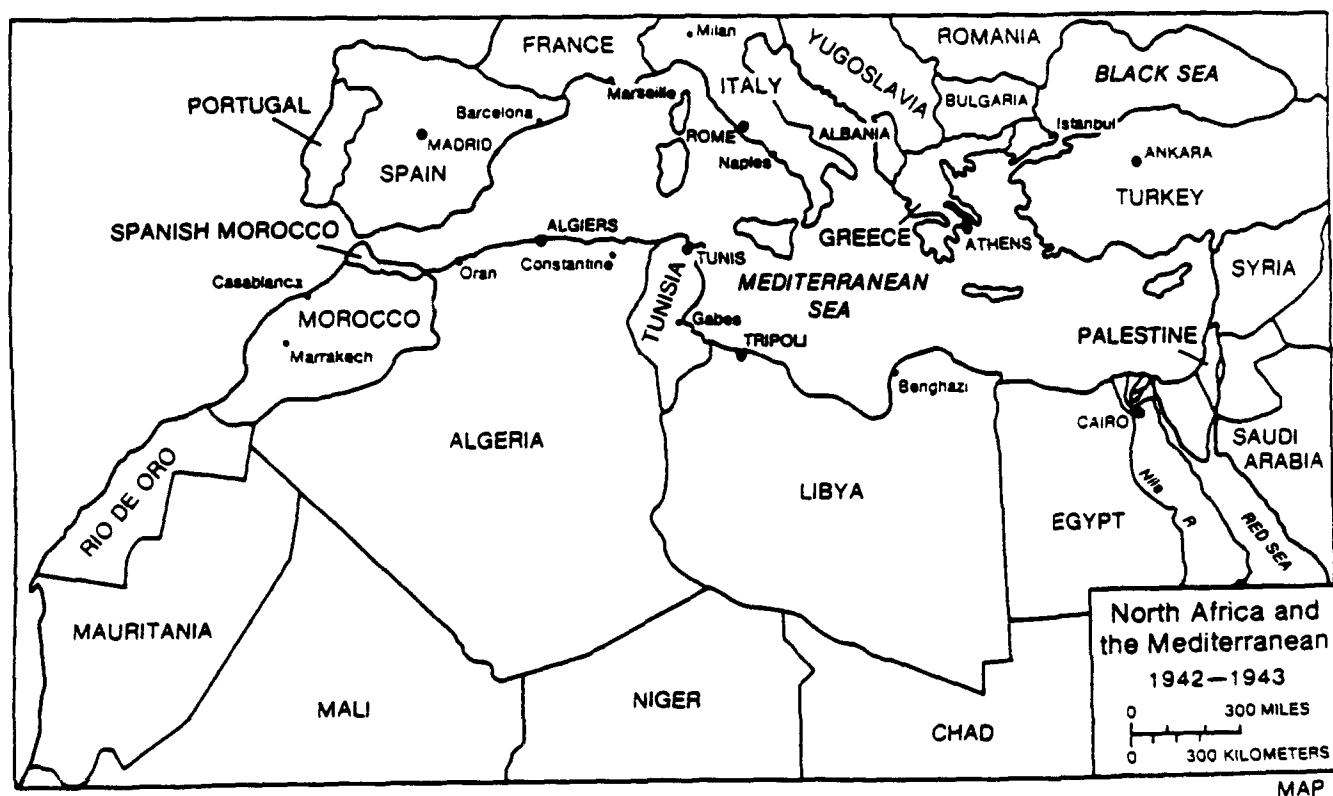
The outcome of the North Africa campaign settled several

issues and revealed many lessons. The battles fought by the United States forces during the North African Campaign of 1942 and 1943, particularly the Battle for the Kasserine Pass in February 1943, were a breaking and testing ground for much of the employment of those forces during the remainder of the Second World War. Three key lessons were learned on the North African battlefield. First was the need for coordination between air and ground forces. Second was the folly of sending untrained airmen into combat. Third was the importance of tactical air targeting by ground force commanders.

THE NORTH AFRICA CAMPAIGN

North Africa's Importance

"North Africa played an important role in (World War II). It was the only area, other than the British Isles, from where the Western Allies could approach the German-controlled continent. Its possession was necessary for the control of the Mediterranean, the vital Suez Canal, and the Middle East with its oil."²



The Mediterranean also held special importance for Mussolini. His dream was to return the Roman empire to its original state. His invasion of Greece brought Great Britain, already stretched thin in North Africa, into the fight in Greece.

Additionally, ". . .the British Eighth Army had been driven far into Egypt and had taken its stand on what was known as the El 'Alamein line."³ It was from El 'Alamein that Montgomery would build up his supplies and defensive positions, await Rommel's offensive attacks, and then counterattack.

American aviators, sent to Egypt to observe Montgomery, gained experience with the unique British air-ground cooperation system for the first time. The combined forces of General Montgomery's Eighth Army and the air units of Air Vice Marshal Sir Arthur Coningham's Western Desert Air Force shared a great victory in the desert west of Cairo. "Montgomery and Coningham mutually decided that ground and aviation command components functioned best as equal partners at the army level. Air and ground field staffs also had the same headquarters and living quarters."⁴ It was a true joint command, as neither Montgomery, the ground forces commander, nor Coningham, the air component commander, demanded final authority from the theater commander. More important, however, they trusted each other's judgment and respected each other's decisions.

Another important element of the British strategy was the use of Malta. Malta enabled the Royal Air Force to attack Axis shipping, disrupting the supply line from Italy to North Africa. The use of aircraft carriers from Gibraltar to ferry planes within flying distance of Malta aided as did the submarine attacks from Malta.⁵

The Torch Landing

An Allied landing in North Africa offered many advantages over a cross-channel invasion. First, and most important, the landings would not be directly opposed by seasoned German troops. "Victory would help to open the Mediterranean shipping lanes, facilitate the flow of supplies to Russia through the Persian Gulf, and might draw German strength away from the Russian front."⁶

For political reasons, President Roosevelt believed that American troops must fight the Germans on the ground in 1942. The United States was too weak to make a cross channel invasion on the continent. Because most of the force for Torch would be American, and with General Marshall's recommendation, General Eisenhower would be the overall commander-in-chief. Ground forces were organized into British and American task forces, supported by the Allied Naval Expeditionary Force, the British Eastern Air Command, and the American 12th Air Force.⁷

The land-based aviation in the Allied Force was first organized in two portions corresponding to the initial arrangement of task forces and to the prospective consolidation into British First and American Fifth Armies. The eastern Air Command consisted of Royal Air Force (RAF) units under the command of Air Marshal Sir William L. Welsh. A Western Air Command (12th Air Force) was put under Brigadier General James H. Doolittle.⁸

Twelfth Air Force Organization

The Eighth Air Force was the theater air force for the European Theater of Operations and was placed in general support

of Torch in July 1942. It was Eisenhower's intention to stand down the Eighth in Europe so that its full air power could be used in Africa--an intention that General Carl "Tooey" Spaatz (commander of Eighth Air Force) successfully resisted.

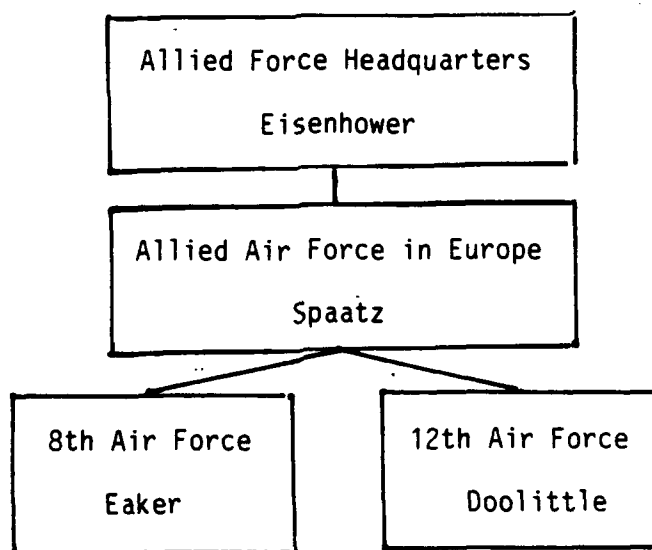
Eisenhower agreed not to stand down the Eighth Air Force and to support Spaatz's call for reinforcing units, thus allowing air support to both theaters. He did this by creating a second numbered air force in the theater, the 12th Air Force. However, this arrangement did not provide for a senior air commander subordinate to Eisenhower in the African Theater. In September 1942, this dilemma was eased when General Arnold told Spaatz to place his subordinate, Major General Ira C. Eaker, in command of Eighth Air Force and designated Spaatz as Commanding General, Allied Air Force in Europe. Arnold reasoned that Africa and England constituted only one air theater and that ". . .the strategic bombing effort (against Germany) could be protected by securing for one of its outstanding exponents a command position at theater headquarters."⁹

Spaatz initially rejected that advice, with Eisenhower's approval, since 12th Air Force was subordinate to him and he was in fact the senior air advisor to the commander-in-chief.

Eisenhower was not particularly receptive to the notion of an overall air force commander, although he appreciated the concept of an overall air theater throughout which assets could be flexibly employed. This latter appreciation led him to approve the theater air force concept in late October with Spaatz in command. Eisenhower intended to postpone the implementation

of this concept until Tunisia had been captured to ensure that sufficient air bases would be available to support it. He remained concerned about Axis air power and its capability to interdict naval forces in the Mediterranean. He was convinced that final success depended upon land advance and the establishment of a growing number of air support bases.¹⁰

But in mid-November, Arnold wrote Spaatz and Eisenhower of his concern that ". . . unless we are careful, we will find our air effort in Europe dispersed the same way we are now dispersed all around the world."¹¹ Thus the groundwork was laid for the merging of all air forces in Africa, and Torch was begun with the Twelfth Air Force in general support.¹²



Doolittle, fresh from the April 1942 raid on Tokyo, was selected to command the 12th Air Force. Planners expected him to command the 12th from Gibraltar during the first phase of Torch and then move East with the other forces.

According to the Torch plans, in subsequent phases the

12th's mission would be determined for various contingencies. It is important to note that the 12th had to be prepared for each of these contingencies. This included close air support missions for the race to Tunis, air superiority missions against the Luftwaffe, and strategic bombing missions against Rommel's supply lines in Italy and across the Mediterranean.¹³

"To gather enough resources for the 12th Air Force, General Arnold stripped the England-based Eighth Air Force of fighter, light bomber, and even some heavy bomber squadrons."¹⁴

For the U. S. Army Air Force, it was a time of confusion. The 12th had two headquarters--one in England and one in the States. "In England, Doolittle dealt with operational training. The other headquarters, in the states, had to get its subordinate units, the XII Fighter Command, XII Air Force Service Command, XII Air Support Command, and XII Bomber Command activated and ready to move from their bases in the United States."¹⁵ There was not enough time or resources to train the newly formed 12th Air Force for the primary and contingency missions it might encounter in North Africa.

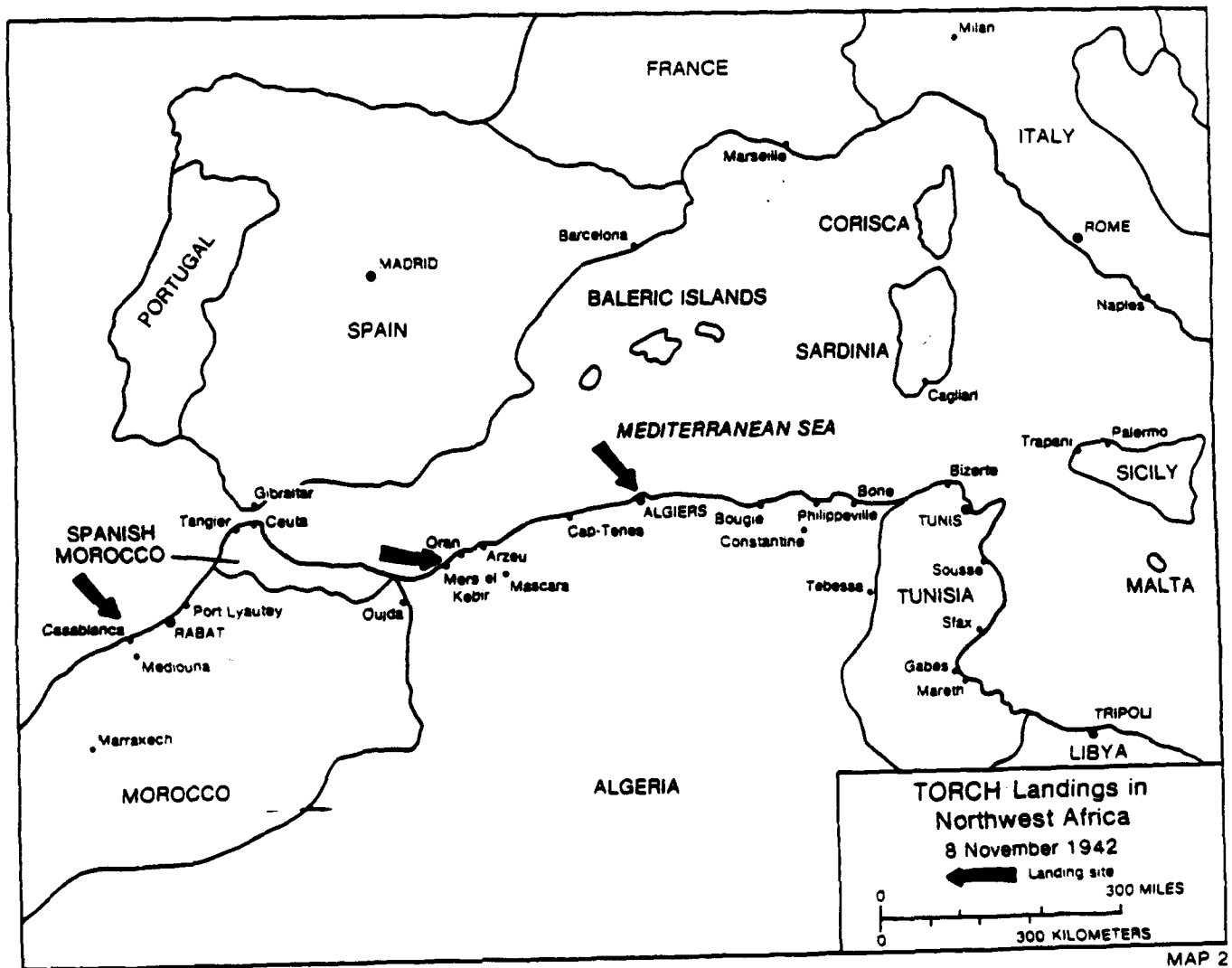
A key resource problem was the limited number of U. S. air power assets. These limited assets were stretched too thin. The U. S. was building up aerial superiority in Alaska, Hawaii, the Southwest Pacific, Australia, India, the Near East, and England. Both the War Department and the Navy had to disperse their forces all over the world to plug gaps in the defenses of the Allies. "The Army Air Forces were the hardest hit since theirs was the ready power that could be most promptly applied

at the danger points."¹⁶

Also, air power doctrine at the time stated that strategic bombardment was the means to almost every end. The primary tool used to bring about the destruction of hostile will was strategic bombardment. The concept of strategic bombing flowed from the ideas of the Italian airman Giulio Douhet and the American soldier-airman Major General Billy Mitchell. Although Mitchell was forced out of the service in 1925, his disciples promulgated a doctrine of strategic bombing to destroy the enemy's industrial centers and thus destroy his ability to support warfare.¹⁷ Through the ". . .continuous application of massed air power against critical objectives."¹⁸ Doolittle said he could achieve his desired result.

Eisenhower's Plan for Torch

Eisenhower planned a three pronged invasion of North Africa. One prong into Morocco and two into Algeria. With the Air Force command relationships cited in the previous pages, American ground forces and supporting air forces would be split into three elements; one for the invasion at Oran, Algeria; another to land in French Morocco; and another, a combined British and American force under British Lieutenant General Sir Kenneth A. N. Anderson, to invade Algiers.



As envisioned by Eisenhower's planners, the 12th Air Force would provide communications equipment and personnel necessary for the command and control of air units. Twelfth Air Force air support parties attached to infantry divisions and armored columns would relay air support requests to an air support control center, which would be set up next to the task force command post. After the task force commander approved requests for air support from the subordinate units, the request would be transmitted to the appropriate air force headquarters. The XII Air Support Command, for example, would then allocate missions to the appropriate subordinate fighter, bomber, or observation unit.¹⁹

Command and control of the air was not coordinated. The two air commanders, Welsh with the Eastern Air Command, and Doolittle with the Western Air Command that supported American task forces, were not connected. They made their plans in isolation of one another. Planning for aviation was flawed by the separate tasking and areas of responsibilities for the ground and air support forces for the invasion.

The Invasion

To allow for the element of surprise, the 8 November 1942 ". . . amphibious landings in North Africa took place without benefit of prolonged preliminary bombardment. The landing flirted with disaster."²⁰

Two weeks earlier, on October 24, 1942, 700 ships sailed from British ports and New York Harbor. "They carried 22 million

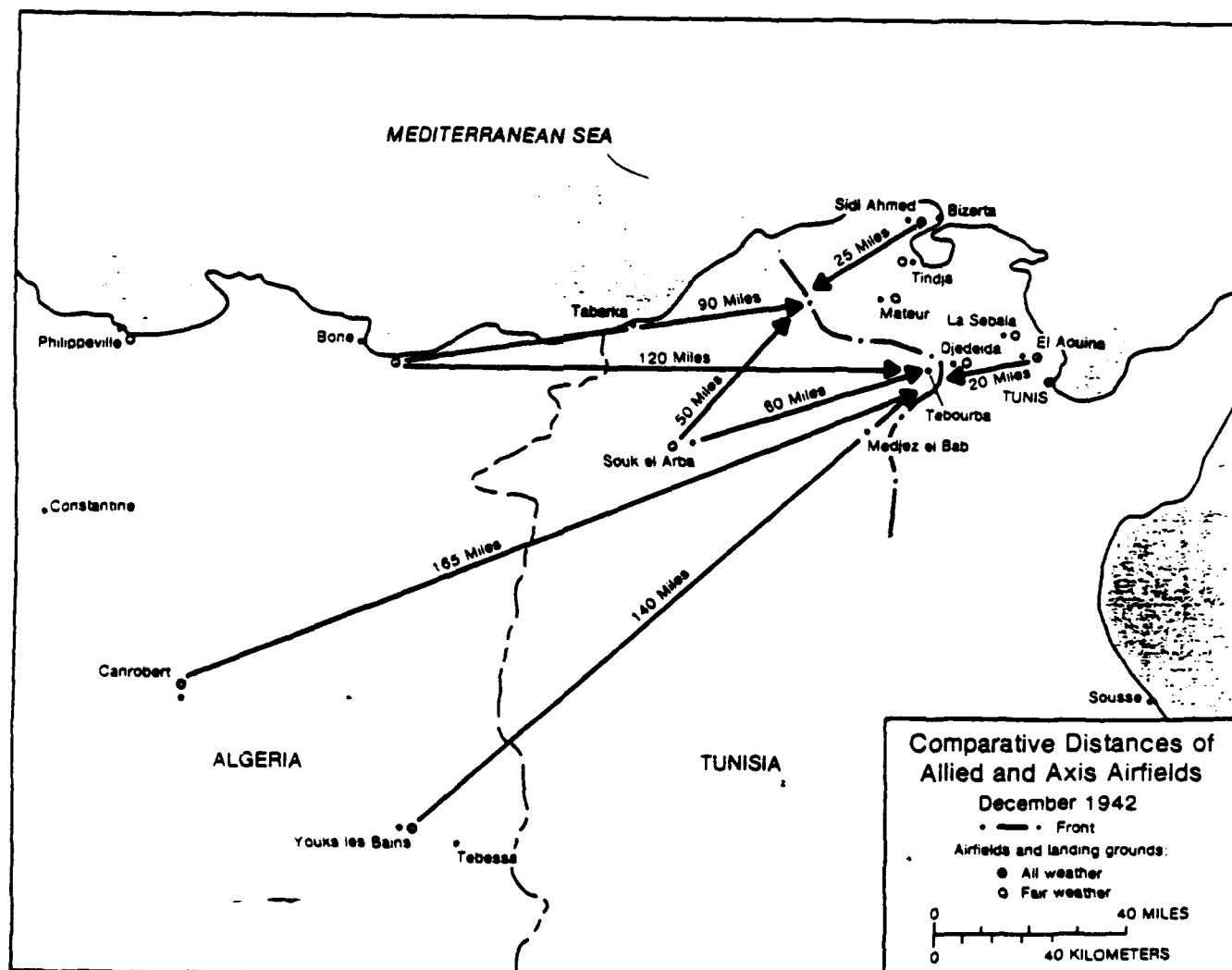
pounds of food, 38 million pounds of clothing, 10 million gallons of gasoline, and guns, tanks, bulldozers, and trucks by the hundreds."²¹

American and British troops went ashore at Casablanca, Oran, and Algiers and achieved the minimum results from the operation. They effected the landings without stirring up excessive French resistance and without large casualties, and the North African French soon, for the most part, came over to the Allied side. The landings secured a firm base for further operations eastward against Tunisia.²²

Additionally, the air power contribution to the invasion was only partially successful. "The operation was not entirely successful due to three factors: first, misinformation received from political advisors; second, unfavorable weather en route; and third, inadequate communications."²³ Because the U. S. Army Air Force was far more oriented toward the strategic bombardment role than they were to the close air support role, poor communication penalized them the most. They had to learn on the job because no one in the whole Army Air Force had had much experience in close air support.

More important, air superiority was little more than an untested theory. Air commanders were immersed in the doctrine of long range strategic bombardment with little regard for the air and ground threats to strategic bombardment. Many ground commanders, on the other hand, did not have the vision to fight the battle 60 to 100 miles in front of their formation. Additionally, "air and ground leaders did not make a great effort to absorb the lessons of mobile warfare, including the revival of the principle of mass dictated by Montgomery's Eighth Army experience."²⁴

Ground commanders did not know how to employ air power, and the cumbersome air support request apparatus did not allow timely response for air support. A great weakness was the "on call" air support by which requests went up through the various levels of army command and down through the air force echelons. The method was too slow. Likewise, the distances from Allied air strips to the front lines created additional challenges for Doolittle's fliers.



Another problem was the inefficient use of limited air power assets. One example, relayed by General Doolittle, was

the incident where a ground commander ask him to provide a fighter to cover a Jeep that was going out to repair a broken telephone line. He refused. The plane that would have wasted its time on that mission shot down two German Me-109s.²⁵ More often than not, however, limited air power assets were squandered away for inefficient missions such as "air umbrellas" for ground forces. According to Doolittle, if each ground commander had his own "air umbrella" overhead to use defensively, there would have been little or none to use offensively."²⁶ Some ground commanders used air power in an artillery role. Although this is an inefficient use of air power, it was used very successfully by the Germans in Poland as a combat multiplier when the mobil forces out ran their artillery.

Time for Change

Eisenhower was concerned about the readiness of his troops. In fact, in January, 1943, he sent a circular to his subordinate commanders telling them about "deficiencies in training." He also espoused that the lack of discipline resulted in men dying needlessly.²⁷ At that time the II Corps, commanded by Major General Lloyd R. Fredenhall, consisted of the 1st Armored Division, the 1st Infantry Division, and the 34th Infantry Division, with the 9th Infantry Division in Reserve. None of these divisions had had any combat experience beyond a one- or two-day fire fight with the French back in November. "They were complacent, poorly disciplined, unprepared for what they would have to face."²⁸ On one inspection trip, Eisenhower was dismayed to find that a unit had been in position for two days and still had not laid a minefield.

With a severe lack of discipline at the troop level, a misunderstanding of air power employment at the division level, and very little coordination between the British and the American forces at any level, Eisenhower established a new headquarters in January, 1943.

It was Allied Air Forces, with Lieutenant General "Tooey" Spaatz in charge. Thus, the 12th Air Force, Eastern Air Command (RAF), and some French air units were brought together under one commander. The staffs of the subordinate headquarters would be made up of a mixture of British and American officers.²⁹ The commanders of the 12th and Eastern Air Command were each

given clear and distinct operational responsibilities.

Later that same month, President Franklin D. Roosevelt and Prime Minister Winston Churchill met with the combined Chiefs of Staff in Casablanca.

The Battle for the Kasserine Pass

After securing a toehold in Morocco and Algeria, the Allied Armies began the campaign to eject the Axis from North Africa. Montgomery's Eighth Army moved westward through Egypt and Libya while the British First Army, commanded by General Anderson, led the Allies eastward from Algiers.

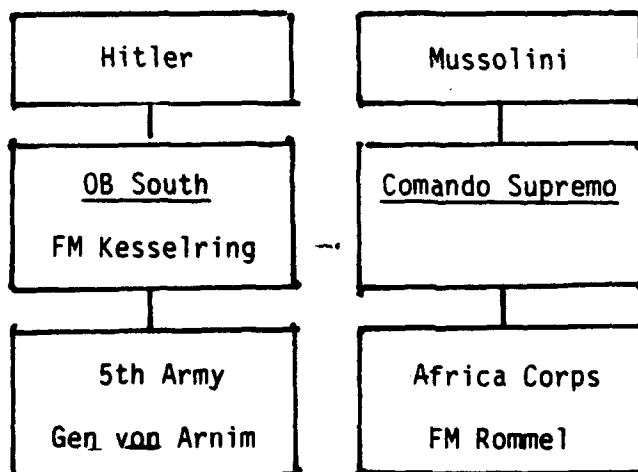
In moving against northeastern Tunisia, the Allies were faced with an area of great topographical complexity. Bizerte and Tunis are situated in coastal flatlands fringed by hills which project to the seacoast from high and irregular mountain masses lying to the west. . . . The plain adjacent to Tunis is separated from that of Bizerte and is bounded on the northwest, west, and south by the eastern extremities of high mountain ridges. Lower hills rim the Tunis plain.

The terrain in central Tunisia is characterized by highly eroded rocky plateaus cut sharply by stream beds flowing from the northwest to the southeast. These plateaus, with mountains rising to add to the stark relief of the region, sharply fall to near sea level desert plains. Sharp passes link the plateau heights to the coastal plains. The three critical defiles of Tunisia which facilitate movement across the region are at Sbiba, Dernaia, and Kasserine.

The First Army suffered significant disadvantages which proved costly in the ensuing battles. Command and control was made particularly difficult due to the Allies' practice of subordinating American combat commands (brigade-equivalent maneuver commands of World War II Army divisions) to the major commands of other nationalities. American forces were generally untested and had never been in night combat. The encounters

with Axis forces through the end of 1942 had resulted in the mixing of Allied forces of differing nationalities. Of particular significance was the inability of either the Luftwaffe or the Allied air forces to gain air superiority.

The axis forces in Tunisia similarly suffered from command and control difficulties but of a very different nature. These difficulties proved to be tactically debilitating but they were strategically disastrous. General Juergen von Arnim commanded the Fifth Army during the Allies advance across Algeria and Tunisia on the western front in North Africa. Arnim's superior commander was Field Marshal Albert Kesselring of OB South, the German theater headquarters located in Italy. Rommel commanded the Africa Corps fighting the British Army on the eastern front in North Africa and reported to Mussolini in Rome through the Italian Comando Supremo.



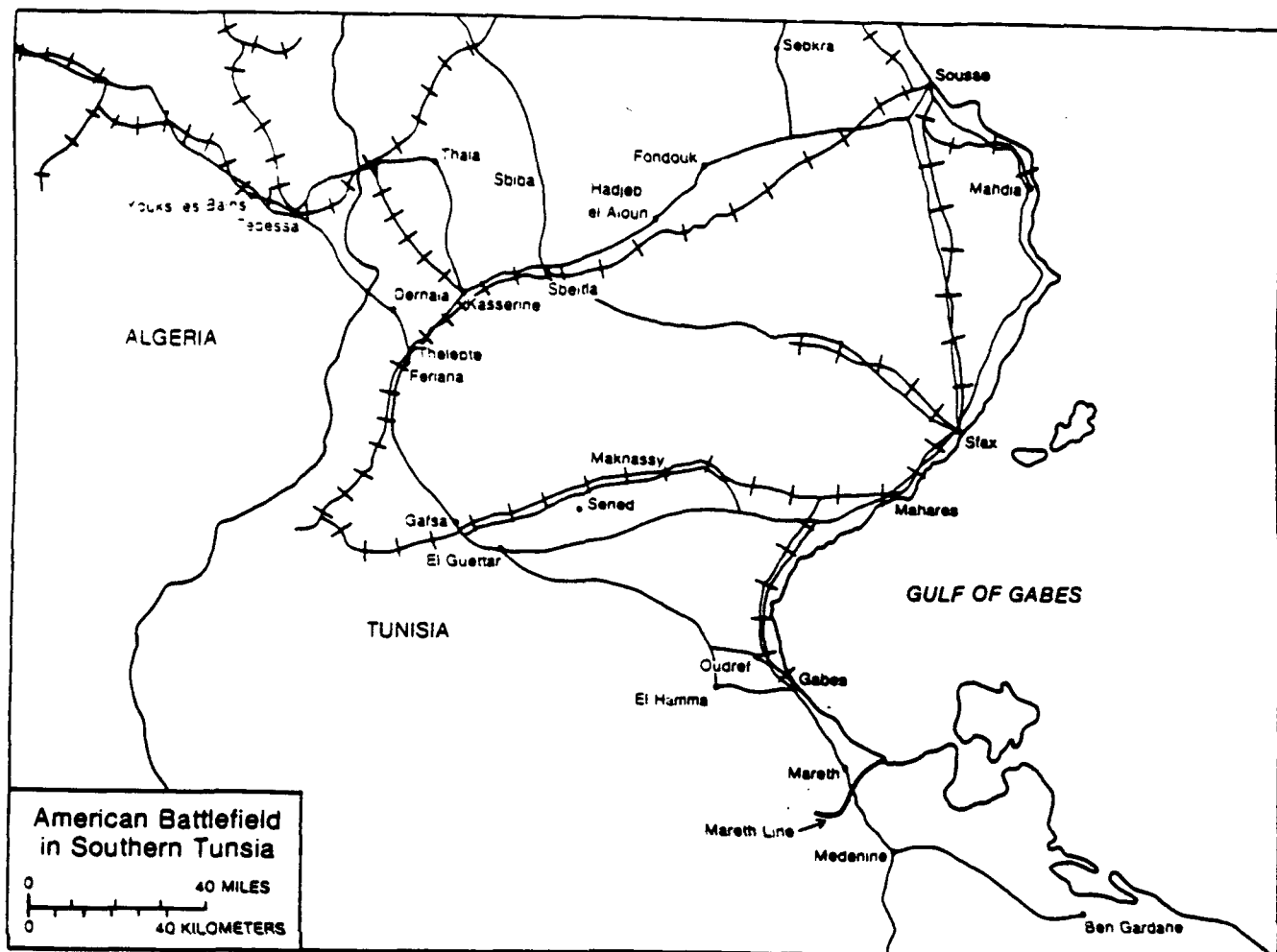
As the two major Axis forces retreated toward Tunisia, there was no superior-to-subordinate relationship between Arnim and Rommel and there was no similar relationship between OB

South and the Comando Supremo. The Axis had plans to establish a unified commander when von Arnim's forces and those of Rommel converged, but the execution of those plans came too late to affect the outcome in North Africa.³¹

Rommel, after being forced from Egypt and Libya, saw an opportunity in Tunisia to seize the initiative. His forces were strong, resupply across the short stretch of the Mediterranean Sea between Sicily and Tunisia was possible, his forces were within range of ground-based air units, and the Fifth Panzer Army was largely intact.

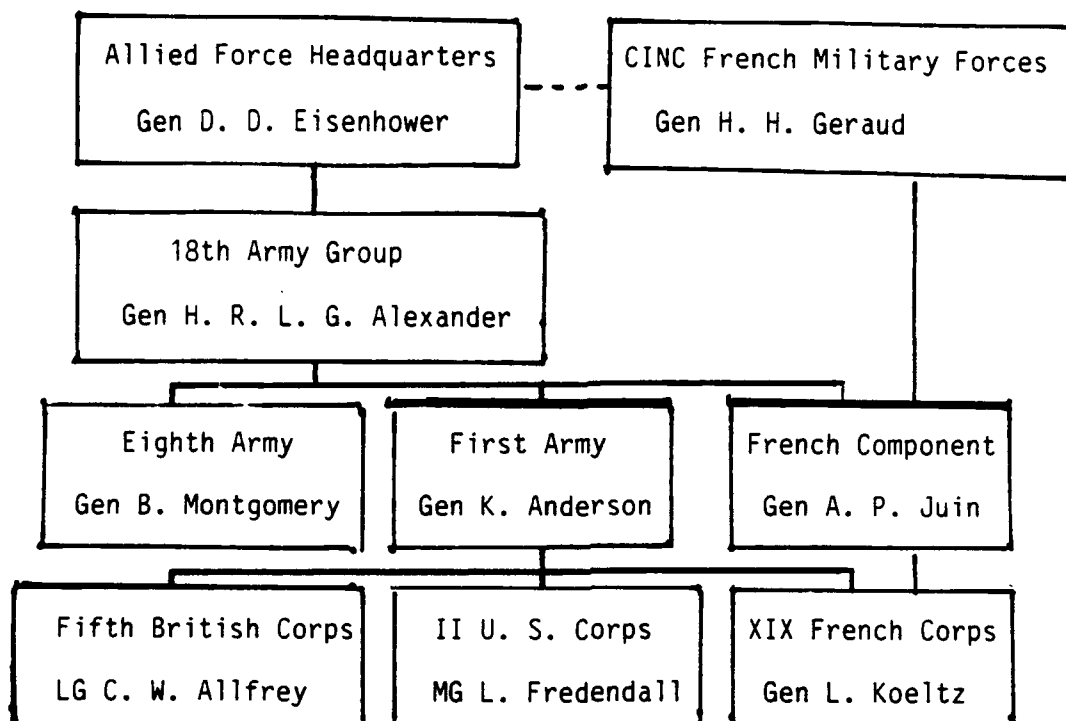
He proposed attacking to the northwest, through Tebessa, in a vast turning movement to envelop the Allied First Army which had advanced from Algeria before Montgomery's arrival on the Tunisian battlefield. The central position of Rommel's forces would then permit him to turn on Montgomery as he reached the Tunisian battlefield and then he could attempt Montgomery's defeat in detail. If successful, Rommel predicted, the Axis would win control of the air facilities of Tebessa, capture the large Allied supply depot there, instill within the green American troops an inferiority complex not easily overcome, and drive the Allies from North Africa.³²

Fortunately for the Allies, General von Arnim did not have Rommel's vision for delivering a coup de grace. Von Arnim's Fifth Army had been successful in delaying actions against Anderson's advance eastward and, in his view, the army should continue dealing these blows.



The Axis' lack of unity of command permitted this ineffective use of combat power until the opportunity to be decisive was lost forever to the Axis Powers in Africa.

The Allied ground forces organization was somewhat muddled by the wavering French political situation. As that situation stabilized, however, the organization became clearer--although not entirely unified due to French reluctance to serve under British command. Eisenhower was the Allied Commander-in-Chief with General Henri-Honore Giraud the Commander-in-Chief of French military forces.³³ Alexander was made the ground forces commander on 19 February 43 but his authority did not extend to the French.



Source: Howe, Northwest Africa, P. 486.

France's ground forces were subordinate to the French component commander, General Alphonse Pierre Juin. Subordinate to Alexander were Anderson (British First Army) and Montgomery (British Eighth Army). The British First Army included the 5th British Corps, the II U. S. Corps, and part of the XIX French Corps. At the XIX French Corps originated two command lines: one to Anderson (just discussed) and the other to Juin. None of these commanders mentioned here (nor their subordinates) commanded subordinate air forces.³⁴

In Egypt, Montgomery's Eighth Army operated with support from the RAF-Middle East. After the defeat of Rommel at El 'Alamein, the command of the skies over Egypt was established and maintained.

With the establishment of the RAF and Twelfth Air Force over northeast and northwest Africa, respectively, the campaign

to deny the Axis any bases on the continent continued. The final Axis bastions existed in eastern Tunisia and Tripoli and their environs.

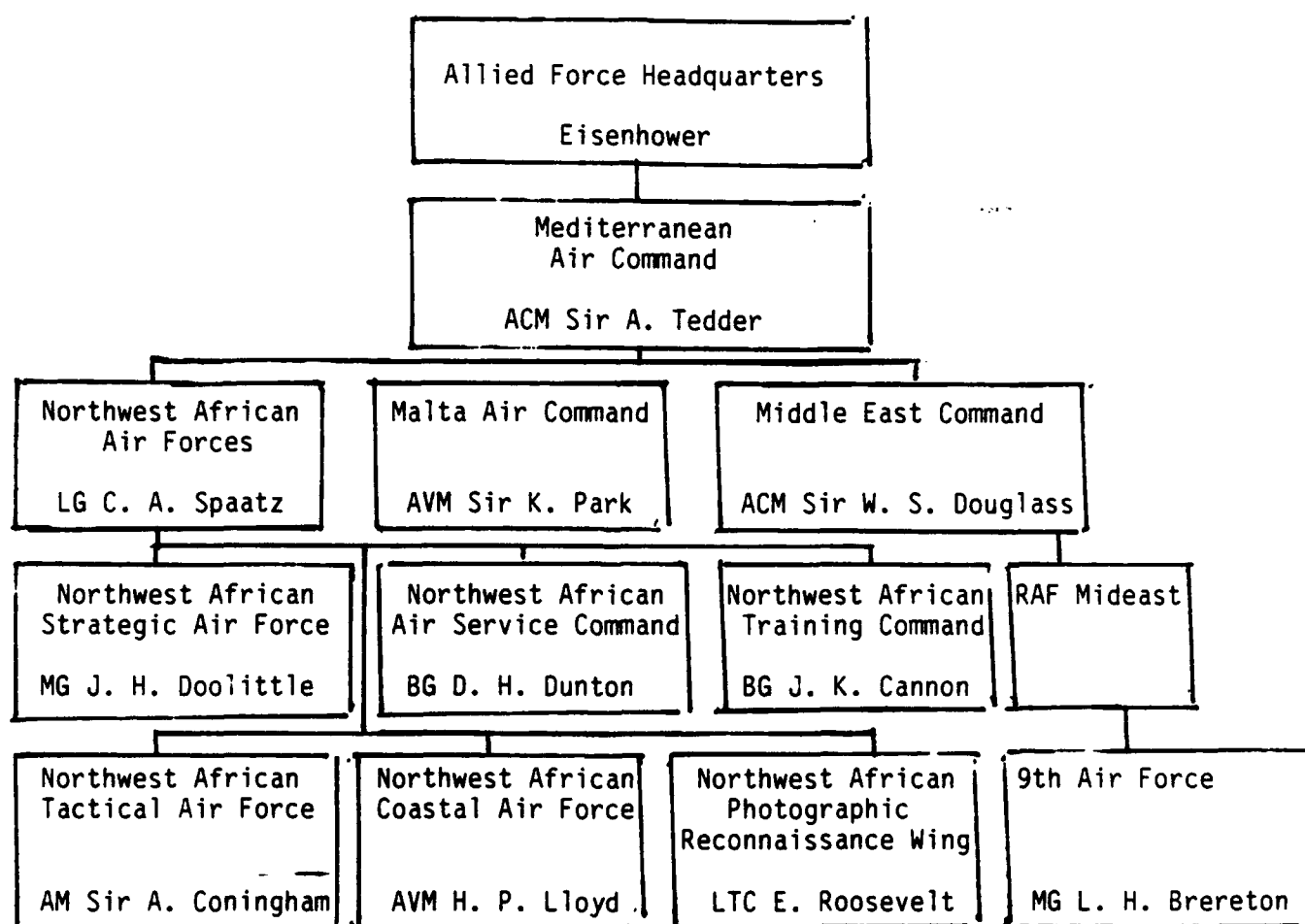
In January 1943, the Combined Chiefs of Staff met at Casablanca and ratified Eisenhower's approved concept for the theater air force. Air Chief Marshal Sir Arthur W. Tedder was designated as commander-in-chief of theater air forces with principal subordinates Spaatz (northwest Africa) and Air Chief Marshall Sir Sholto Douglas (Middle East.)³⁵ The organizations would become effective in February of 1943.³⁶

Rommel's attacks in mid-February 1943 were directed toward Le Kef, however, and not to Tebessa as he initially proposed. The change in direction (and thus the possibility of a strategic result) was caused by the previously mentioned discontinuities in the Axis command structure in the theater. This direction played into the hands of the Allies who expected Rommel to seek tactical victory and not a strategic decision. This anticipation caused General Alexander to place the U. S. 34th Division in the vicinity of Kasserine and its pass.³⁷ On 20 February, Rommel forced the Americans to abandon the Kasserine Pass, but only after bringing the 10th Panzer Division into the fight and only after severe hand to hand fighting. Much equipment and many prisoners were captured during the American withdrawal. As Rommel noted in his reflections on this historic battle:

Although it was true that the American troops could not yet be compared with the veteran troops of the Eighth Army, they made up for their lack of experience by their far better and more plentiful equipment and their tactically more flexible command.³⁸

Rommel further notes that the poor weather during the battle precluded the application of air power by either side. It was during his withdrawal from Kasserine that his forces experienced "hammer-blow air attacks. . . of a weight and concentration hardly surpassed by those we had suffered, earlier at El 'Alamein. The attacks. . . gave an impressive picture of the strength and striking power of the Allied air force."³⁹

During the Kasserine battle, Tedder began the reorganization



Source: Howe, Northwest Africa, p. 486.

of the air force commands that had been earlier ratified at Casablanca. He dissolved many existing major air organizations

and formed the Middle East Air Command, the Malta Air Command, and the Northwest African Air Forces. The latter air forces included a coastal air force, troop carrier command, strategic air forces under Doolittle and tactical air forces under Coningham. Coningham formed his tactical forces based on successful operations in the Egyptian-Libyan desert.

He stressed the "marriage" of the air and ground, and he affiliated his major subordinate organizations to the First Army, the Eighth Army, and the U. S. II Corps. Coningham advocated a close union between air and ground forces.⁴⁰

Soon after the battle for the Kasserine Pass, Rommel departed the battlefield and the Middle East and Northwest African theaters of war were merged by the Allies. Although not contingent on Rommel's departure, Eisenhower completed the organizational changes necessitated by the closure of the two armies and their supporting tactical air forces.⁴¹

and formed the Middle East Air Command, the Malta Air Command, and the Northwest African Air Forces. The latter air forces included a coastal air force, troop carrier command, strategic air forces under Doolittle and tactical air forces under Coningham. Coningham formed his tactical forces based on successful operations in the Egyptian-Libyan desert.

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With the withdrawal of Rommel from the battlefield, the Middle East and Northwest African theaters of war were merged by the Allies. Eisenhower completed the organizational changes necessitated by the closure of the two armies and their supporting tactical air forces.⁴¹

Lessons Learned

Kasserine is billed as the place where the U. S. Army lost its innocence. However, Kasserine should be considered an Axis tactical victory in only the most limited sense. Rommel succeeded in temporarily capturing the pass but he did so with significant losses. The weather during Rommel's assaults played a key role in keeping Allied air power on the ground.⁴² In fact, the entire First Army's race to Tunis ". . . had been lost in large part because of the unseasonable rains which turned the fields into a morass. . . ."⁴³

Rommel was not able to continue his advances toward Le Kef and Tebessa, though, due to the increasing strength and resistance of the First Army, particularly the U. S. II Corps. Allied counterattacks in the days immediately following the loss of Kasserine Pass achieved complete success and forced the withdrawal of Rommel from the battlefield. The weather during those counterattacks permitted, once again, Allied air forces to take to the skies and to dominate them. In fact, ". . . the Allied (ground) units were in such disorder and their commanders so shaken that only aircraft could strike at the enemy in retreat."⁴⁴ Many weaknesses were discussed by Allied commanders in their on-the-scene post-mortem.

According to Doolittle, some of the problems in North Africa were the unhealthy concentration of aircraft at points where they couldn't be dispersed or adequately protected and the considerable distances and unfavorable weather through which

fighters must be flown in theater. These problems were the direct result of the short time allowed to organize, plan, and train; the shortage of experience personnel; the unavailability of essential equipment, especially communications; the shortage of suitable airports in the theater; the unfortunate necessity of marrying ground and air units that had not had previous training together in the field; and the shortage of transport aircraft.⁴⁵

Some weapon systems were not well-suited for battle, among them the light tank and half-track. The commanders agreed that the Army's combat division structure must not be subdivided in combat but should be fought intact.⁴⁶ Some commanders were relieved of command due to their unimaginative and poor performance. But ". . . Kasserine produced the commanders who would gain the victory (for the Allies.)⁴⁷

More importantly, the battle of Kasserine reflected just how untrained and not ready the U. S. Forces were. None of the major components of the U. S. Army, to include the Army Air Forces, had been prepared in doctrine, organization, tactics, and training when the Germans demonstrated their Blitzkrieg against Belgium and France in 1940. Not only was the Army required to correct these deficiencies quickly, but training in air support coordination could not begin formally until equipment required (such as communications systems) was obtained.⁴⁸

Large scale testing of the emerging doctrine, organizations, and procedures did not begin until the Fall of 1941. Preliminary

results, as drawn and surfaced by ground commanders and bureau chiefs, included the issue of centralized control of and efficient use of scarce air power assets.⁴⁹ This issue was not new. The Air Corps and the ground forces had been engaged in a struggle over command and employment since before the end World War I.⁵⁰

Other important issues pointed out in the maneuvers were the ineffectiveness of air-ground coordination procedures and the disregard of ground commanders for the air threat.⁵¹ In the intervening time between the field testing and the North African Campaign, modifications to doctrine and procedures were instituted but the test of combat with the German Armed Forces was required to validate or further modify the corrections.⁵²

That intervening time, however, had been insufficient to conduct required training across the army and to institutionalize the process.

General Eisenhower attributed the Allied difficulties to the hastiness with which he tried to capture Tunis, faulty intelligence work, failure to understand the capabilities of the enemy, and the greenness of his soldiers--particularly the commanders.⁵³ He also recognized the importance of air superiority saying, "When the enemy has air superiority the ground forces never hesitate to curse the aviators."⁵⁴

Rommel wrote, of his advance through Feriana on 17 February 43, that "The Americans seemed to be pulling back to Tebessa. Their command appeared to be getting jittery and they were showing the lack of decision typical of men commanding in battle

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for the first time in a difficult situation."⁵⁵ He achieved considerable success with the Africa Corps, even without air superiority. He made up for such inferiority in boldness and risk-taking, although Rommel was quick to point out that air parity, at least, is an essential condition for successful combat.⁵⁶

Eisenhower understood the importance of unity of command, especially as it applied air power. One of the reasons he used to explain why the Allied air forces were merged in North Africa, was that when air forces are operating in proximity with one another and ground forces, there is a need for daily coordination.⁵⁷ Significantly, Eisenhower expressed no disappointment in effectiveness or efficiency of the air forces during the Africa campaign. His only concern, even in the period leading to the Casablanca Conference of January 1943, was for unity of command.

Eisenhower expressed some regrets over the manner in which the air forces were constituted to support Operation Torch. His description is of air units hastily assembled, trained and retrained with missions being redrawn, and with some units being equipped with British Spitfires.⁵⁸ Clearly, there were growing pains even within the air forces. Greenness was not confined to the ground armies and lessons born in combat were to be learned by organizations large and small. As an example of such learning, Eisenhower cites a bombing mission by B-17s over the Kasserine Pass. Navigating purely by dead reckoning, the bombers unleashed their loads more than 100 miles from the Pass

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onto a town within Allied lines.⁵⁹

There are many other examples pointing out the inexperience of the air forces in accomplishing their assigned tasks. Some were directly the result of air commanders and their chains of command and the structure of those chains of command. Until January 1943, ". . . Army Air Force close support operations in the active sector of the North African front were directed by a command (XII Fighter Command) which was neither specifically trained for nor had the necessary equipment for the job of close support."⁶⁰

Montgomery, a very successful commander in North Africa, drove Rommel from Egypt and Tripoli. His use of air power in support of his Eighth Army was extensive and positive. He understood how the RAF evolved and he also understood the very delicate air ground coordination system which the British had built in the Middle East.

The centralization of command and control in the RAF followed patterns which would be duplicated in the development of United States Air Force basic doctrine. The British Army, suffering painfully after its experiences in France, Belgium, and the Mediterranean in 1940, demanded its own component of ground support aircraft under Army control. They lost. Air Marshal Sir Arthur Barret and others assumed the task of satisfying both the British Army and the RAF. They identified four essential problems:

(1) the Army required an air formation for direct support, but under air force control;

(2) air and ground liaison officers must serve on army and air staffs to ensure understanding by the Army and the RAF of each other's point of view;

(3) a joint command post staffed by air and army officers must be established at the headquarters of the field army or army corps; and

(4) a communications network linking every client was essential to solving the other three problems. This network began deploying to North Africa in December 1941 and was fully functional by late 1942.⁶¹

Montgomery's innovations and success in applying air power is often cited as a model for command, control, and employment of that power. Army Air Force air power doctrine was outlined in FM 31-35, Aviation in Support of Ground Forces. By its prescription, the air support command (close air support) functioned under the army commander, and aircraft were specifically allocated to the support of subordinate ground units. According to the manual ". . . the most important target at a particular time will usually be that target which constitutes the most serious threat to the operations of the supported ground force."⁶²

However, it's important to note that, at this time, although Montgomery was an army commander, and not a component or theater commander, he was the only army being supported by RAF-Middle East, so there was no competition for air power resources.

FM 31-35, stated in its 1942 edition that "when the operation requires, aviation units may be specifically allocated

to the support of subordinated ground units (but that) such designation . . . does not imply subordination to the supported ground unit, nor does it remove the combat aviation unit from the control of the air support commander. It does permit, however, direct cooperation and association between the supporting aviation units and the supported ground unit. . . ."63

FM 31-35 created ambiguities in tactical air doctrine that were not well received by air power advocates. It created a perception among land force commanders that there was, perhaps, a "normal" amount of aviation which would be parceled among their forces. To clear this misperception, Training Circular 37 was issued by General Headquarters of the Army on 29 June 1942. It stated that there was a "requirement (for) maintaining combat aviation under central control to be employed in mass as each situation dictates."64

During the Axis attacks on French positions in late January, there were instances where the XIIth Air Support Command did not fly any missions in its area of responsibility. "It became clear after about four days. . . that unified air support along the broad Tunisian front had proved to be as essential as a single command over the ground forces. . . ."65

Further documented is at least one case where the U. S. II Corps disapproved a reconnaissance mission in another sector because that corps had ". . . no responsibilities or interest in that area."66

Incidents such as these caused General Spaatz to accelerate the air reorganization planned in Casablanca.67

Additionally, there was misuse in the degree of control over target selection for air assets that army commanders held. This degree of control impeded the massing of large air units when, and if, required. The Army Air Forces disagreed with this decentralized control but could not overcome the ground forces insistence without combat experience to validate the Army Air Force position.⁶⁸

Concurrent with the Spaatz reorganizations, Coningham arrived to assume command of the Allied Air Support Command. Among his first actions, he reviewed the operations summaries describing the employment of air forces during the developing Kasserine battle. He was appalled at the proportion of sorties that had been defensive in nature and cabled his command that "umbrellas were being abandoned unless specifically authorized." and that ". . .an air force on the offensive automatically protected the ground forces."⁶⁹

The campaign in Tunisia left air and ground commanders in disagreement over the proper relationship between air and ground forces. Air advocates insistence on air supremacy was certainly shared by the ground component; but how to deliver effective support to ground forces remained in dispute.⁷⁰

Commanders and aviators within the Allied air forces were similarly frustrated that the Luftwaffe dominated the skies for as long as they did in Algeria and Tunisia. Ports in Sicily and Italy were being bombed, particularly in the opening days of Torch, but Axis tactical airfields were not impeded by Allied air power.⁷¹ The separation of strategic bombing and close

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air support air forces within the theater created an organization where coordination of objectives was hampered.

This also pointed out the importance of target selection. Ground commanders little understood the potential of air power. However, that is understandable given the doctrinal and training voids that existed prior to Torch. The insistence on defensive air umbrellas over land forces required that the meager air assets could not be employed against more profitable targets such as enemy airfields and formations. This insistence left the Wehrmacht generally free to reinforce its ground and air bases and to move freely against limited opposition.⁷²

The North Africa campaign and, specifically, the battle for the Kasserine Pass proved the need for many modifications of doctrine, procedures, organizations, leadership, training, and equipment. Given these lessons learned in North Africa, we must look to the future as we build down the U. S. military and insure we don't have to learn these lessons again.

Ground commanders need to understand the employment of air power, command and control systems need to be in place and exercised in peacetime, and, most important, we should never send untrained men and leaders into combat.

The New Aerospace Doctrine

Field Manual (FM) 100-5, Operations, says "The airland battle reflects the structure of modern warfare, the dynamics of combat power, and the application of the classical principles of war." In other words, airland battle is an initiative oriented military doctrine that emphasizes maneuver and firepower balance, moral factors and the human dimension of combat, and the fundamental principles governing victory in battle.

Likewise, Air Force Manual (AFM) 1-1, Basic Aerospace Doctrine, says that air power doctrine, and indeed, aerospace power grows out of the ability to use a platform operating in the air for military purposes. The inherent speed, range, and flexibility of aerospace power combine to make it the most versatile component of military power.

The basic tenets of the Army's airland battle doctrine are initiative, agility, depth, and synchronization. All four of these are characteristics of air power. The basic pillar of aerospace doctrine is control of the skies. AFM 1-1 says ". . . aerospace control assures the friendly use of the environment while denying its use to the enemy." FM 100-5 highlights the need for air superiority several times. For example, it says, ". . . the first consideration in employing air forces is gaining and maintaining the freedom of action to conduct actions against the enemy." The manual also says "control of the air environment enables land forces to carry out a plan of action without interference from an enemy's air

forces."

Both AFM 1-1 and FM 100-5 speak to the importance of "unity of command." AFM 1-1 points out that aerospace capabilities are most effectively employed by the joint force air component commander." (JFACC)

AFM 1-1 says that "close air support is the least efficient application of aerospace forces yet close air support, at times, may be the most critical application of aerospace power because it may be the deciding factor that ensures success or survival of surface forces." FM 100-5 says that "while the urgency of enemy actions may require direct attacks against forces in contact, air forces are normally more efficiently used to attack in depth those targets whose destruction, disruption, or delay will deny the enemy the time and space to employ forces effectively."

Both AFM 1-1 and FM 100-5 talk about joint warfare. Joint warfare is most efficient when there is unity of command through a commander in chief (CINC). Important is that the CINC can, if required, adjudicate disputes between the ground and air component commanders regarding the allocation of limited aerospace assets.

Aerospace power, and, more importantly, the value of the joint force air component commander were never more evident than during Operation Desert Storm.

Operation Desert Storm opened with the most awesome and well-coordinated mass raid in the history of air power. Tomahawk cruise missiles, launched from several different ships, all were timed to hit their initial targets at precisely three in the morning. Immediately after the

Tomahawks hit, Air Force F111F and F-15E fighter bombers and F-117 Stealth attack aircraft based in Saudi Arabia, along with Navy and Marine A6E attack bombers from carriers 600 miles away, took advantage of the confusion the missiles created in the Iraqi air defenses to pound high-priority targets. B-52 heavy bombers, some of which flew nonstop for more than 12 hours from Louisiana, carpet-bombed priority targets in lightly defended areas.

During Desert Storm the predictions of the great aerospace visionaries, Douhet, Trenchard, Arnold, Lemay, and Mitchell occurred. The principles of war, as well as the lessons learned from North Africa were ably demonstrated during the opening engagement of the Desert Storm air campaign. However, Operation Desert Storm should not be considered "a textbook war." Saddam Hussein slapped our face, then he allowed us to go home, get as many weapons as we wanted, get our friends and their weapons, take as much time as we wanted, and then he let us throw the first punch. We may not be so fortunate next time.

In this time of reduced budgets, reminiscent of the inter war years, proponents of each of the three pillars of military strategy (land, air, and sea) believe their pillar should be first among equals. However, we learned in North Africa the importance of joint and combined operations and mutual trust. Let us not forget these lessons.

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