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TABLE OF CONTENTS

Page

Index.......................................................................................... 1
Bibliography................................................................................ 2
Introduction.................................................................................. 3
The General Situation................................................................. 6
The Attack on the Gazala Line....................................................... 9
The Pursuit to El Alamein............................................................ 15
The Situation at El Alamein......................................................... 18
Gen Rommel's Attack at El Alamein (30 Aug - 6 Sept)............. 18
Analysis and Criticism............................................................... 20
Lessons....................................................................................... 23

Map A - The War in North Africa, General Situation
Map B - Gazala Line, 26 May, 1942
Map C - Gazala Line, Situation Night 27 May
Map D - Gazala Line, Situation Night 28 May
Map E - Gazala Line, Situation on 8 June
Map F - Gazala Line, Situation on 12 June
Map G - Fighting at El Alamein Line, 31 Aug - 6 Sept
Before entering into a discussion of this phase of the fighting in North Africa it is necessary that we briefly review some of the important events that led up to the fighting in this area and eventually to Rommel's second advance into Egypt in 1942.

World War II started in 1939 with Germany's conquest of Poland. By the end of June 1940 the Nazis had occupied Norway and Denmark and had completed their campaign against Belgium, Holland, and France, and were preparing to launch their aerial blitz on England (1).

As soon as it was evident that France was going to fall and that the time to reap the rewards was at hand, Italy joined the conflict on the side of Germany. This was on 10 June 1940. (2) Mussolini immediately struck outwards from his bases in East Africa against the British and by mid-August had overrun British Somaliland. (3) By 13 September Italy was ready to act against the British in North Africa so Gen. Graziani started his invasion of Egypt. This offensive was launched from inside the Libyan frontier and followed the coastal route eastwards. (Map 1) The British, because of being greatly outnumbered, withdrew according to plan to an organized defense line near Mersa Matruh. Gen. Graziani decided to rest on his laurels and halted at Sidi Barrani. (4)

In December 1940 the British under Gen. Nivell launched their attack on the Italians. (5) By early February 1941 the British forces had destroyed or captured practically the whole of Gen. Graziani's army and had advanced to El Agheila. Gen. Nivell's army was deployed in order to send assistance to the Greeks and he was therefore prevented from advancing on toward Tripoli. (6)

(1) A-1, p.1; (2) A-1, p.8; (3) A-1, p.9; (4) A-1, p.10; (5) A-1, p.38; (6) A-1, p.10
In order to prevent Italy from losing the Axis foothold in North Africa, it was now necessary for Germany to come to the aid of her weaker partner. Hitler quickly demonstrated his interest in keeping this theatre of operations active by sending two German light armored divisions and one of his most able commanders, Gen. Rommel, who took over the command of all Axis forces in the North African theatre. (7)

During March 1941 Gen. Rommel's Axis Army struck the British depleted forces and by April had forced them to withdraw to Mersa Matruh. On withdrawing from Tobruk, Gen. Wavell had left a garrison of some 10,000 men to hold that port and create a thorn in the side of Gen Rommel's long supply line. (8)

On 15 June 1941 Gen Wavell initiated his second offensive against the Axis forces in North Africa (9). After three days of bitter and costly fighting the attack expended itself with the two opposing forces occupying approximately the same position as when the attack was started. (10)

On 22 June 1941 Germany started her invasion of Russia. (11)

After Gen Wavell's unsuccessful second offensive he was relieved of his command of British forces in the Middle East. His successor was Gen Auchinleck, who immediately divided his command into the Eighth Army (North Africa) and the Ninth Army (Palestine and Trans-Jordan). The Eighth Army was placed under the command of Gen Sir Alan Cunningham. (12)

On 18 November 1941 Gen Auchinleck launched an offensive with his 8th Army, which had by early January 1942 carried the British to within a short distance of El Agheila (13). During this advance Gen Ritchie had replaced Gen Cunningham as commander of the 8th Army. (14)

Gen Rommel immediately carried out a short counter-offensive in late January which forced the British to retire to the vicinity of Gazala where they remained until Gen Rommel struck with his Second Offensive on 26 May 1942. (15)

Let us make a brief study of the terrain over which these North African campaigns had been fought. (Map A) From Cairo to Tunisia, a distance of approximately twelve hundred miles is generally continuous desert. This desert extends southwards for almost one thousand miles. Only along the coastlines is there sufficient rainfall to sustain any vegetation and this vegetation consists of scattered drought-resistant weeds and bushes. From Alexandria to Salmum the coastline is a flat level plain inland for a distance of approximately twenty-five miles. This flat coastal strip is characterized by being either a desert bowl in dry weather or a quagmire after rains. Beginning about one hundred miles east of Salmum this coastal strip is separated from the inland desert plateau by a rugged rocky wall or escarpment. This escarpment varies in height and steepness but is generally considered an obstacle sufficient to prevent the consideration of movement of large bodies of troops and equipment to or from the inland plateau except through five or six passes. The coastal strip is generally much narrower westward of Salmum and in some spots the inland plateau closes in toward the sea and ends in a steep rocky wall against the water's edge. Westward of Salmum the escarpment is not so regular or well defined but is generally made up of a series of steps leading up to the inland plateau. Westward from Bonna to south of Benphasi in northern Cyrenaica is found the rolling hills of Jebel Ashur. This hilly country extends for about 186 miles and gradually levels off into an escarpment which curves to the southwest and gradually decreases in height until it is lost in the desert in the area slightly south of Benphasi. (18)

It can easily be seen that from the Nile to El Agbeila an army could organize a defensive line with its northern tip anchored on the Mediterranean. There are only two spots along this entire distance where natural southern anchorages can be found. These two terrain features are the Qubbata Depression in the east and the Wadi el Farough. (23) A-1, p. 49; (18) A-1, p. 49; (18) A-1, p. 45; (18) A-1, p. 4-5
Both of these areas are composed of salt marsh and terrain that can be traversed by man but prohibit the use of mechanized elements or large bodies of troops and their equipment. Both are of such size that it would be disastrous for an army to attempt to go around them. Therefore the areas between the Qattara Depression and the Mediterranean, and the area between the Wadi el Farag and the Mediterranean are the most favorable spots for a defensive line. (17) It must be remembered that in this vast North African area where the problems of supply are of such importance to any attacking force that it is generally not possible for the advancing force to bypass the major opposing force by a southern route and continue to advance. Possession of the desert ground in itself is of no importance. Clear supply lines are of such great importance that the opposing force must be destroyed. (18)

The primary route of land communication through this entire desert fighting area was a woody road following the coast from Alexandria to Tripoli. (19) By the time that Gen. Rommel launched his second offensive in May 1942, the British had extended the single line broad gauge railway westward from Mersa Matruh to the vicinity of Tobruk. (20) Between Alexandria and Tripoli, Benghazi is the only port capable of handling the supplies necessary to sustain an army operating in the field. There are a number of small harbors such as Tobruk, Derna, Bardia, Salum, and Sidi Barrani, but these have such poor harbors and facilities that each is capable of handling only a small portion of the needs of a major force. (21)

THE GENERAL SITUATION (7 February - 26 May 1942)

The early spring of 1942 was a period of intense preparation in North Africa by both the Axis and the British. Each side knew that the opposing force was putting forth the utmost effort to acquire the necessary replacements and equipment to enable it to launch its attack. Gen. Rommel’s supply line was much shorter than that of the British. He (17) A-1, p.6-7; (18) A-1, p.406; (19) A-1, p.5; (20) A-6, p.317; (21) A-1, p.6
was using Benghazi and Tripoli as ports to receive its shipments from across the Mediterranean. The British were forced to transport the major portion of their supplies by land across the desert from the Suez. It required a four months transit period for equipment to be transported from the factory to the front lines. The Axis forces required about four weeks (22).

During this period of awaiting supplies, each Army was re-grouping and building up their position. Gen. Ritchie realized that more than likely Gen. Rommel would be capable of attacking prior to the earliest possible offensive date of the British, therefore he was able to concentrate on choosing and strengthening the most suitable ground to defend. (23)

Since the strength of the British forces and their location must determine to a great extent Gen. Rommel’s plan of attack, let us take a look at the forces and equipment available to both commanders. At the time that Gen. Rommel attacked, the British had numerical superiority in both men and equipment. The 8th Army had approximately 740 tanks against 570 for the Axis, and 125,000 men facing Gen. Rommel’s 115,000. The British likewise had numerical superiority in aircraft and artillery. (24) These figures perhaps do not give a true accurate picture because in tanks, antitank guns, and aircraft it must be admitted that the Axis equipment as a whole was superior to that of the British. The only tanks that the British had that could fight the German Mark III and IV tanks on equal terms were the newly arrived U. S. “Grant’s”, and the British had only 180 of these against Gen. Rommel’s 230 Mark III and IVs. In antitank guns the German 38 mm self-propelled all-purpose gun was equal or superior to any antitank gun of the British, including the few recently acquired six-pounders (25). It was these 38 mm guns that were to play such a decisive role in the fighting of this campaign.

south from Casale—a distance of some forty miles (Map 3). The southern end of the line was at Bir Hitchem. This entire line was protected by a heavy mine field extending from Casale south around Bir Hitchem and thence in a northeast-southwest direction to the vicinity of Bir Capurso. Instead of attempting to organize and defend the entire line, he organized certain areas or “boxes” for all-around protection. These boxes were reinforced with artillery and those in the most critical areas were enclosed with mine fields. The bulk of the British Armor and certain infantry units were held in mobile reserves in the rear of the line in the general vicinity of El Adem. (26) (27) The primary units which Ben Ritchie had and their original locations were: (Map 3) 1st South African Division with the 32nd Army Tank Brigade attached was occupying the northern sector; the 80th Infantry Division with the 1st Army Tank Brigade attached occupied the center sector and the Knightsbridge area; the Fighting French holding the box at Bir Hitchem the 2nd South African Division was in position at Tobruk; the 5th Indian Division located north of El Adem; the bulk of the British armor, the 1st and 7th Armored Divisions, was held mobile in the area south of Knightsbridge; the 7th Motor Brigade was located near Bir El Guld; and the 3rd Indian Motor Brigade and the 29th Indian Brigade were located south of El Adem. The purpose of the last three separate units was for the protection of that flank. (28) General Rommel’s Army was composed of the following: five Italian infantry divisions (Bologna, Sabrata, Trapani, Brizzio, and Pavia); one Italian motorized division (Trieste); one Italian armored division (Ariete); and the German Afrika Corps consisting of the 15th and 21st Armored Divisions and the 90th Light Motorized Division. (29) From Rommel’s plan of attack on the Casale line called for a frontal attack by the five Italian infantry divisions on the northern sector of the line to cover the main attack of the Afrika Corps which was to be a “short right hook” around the southern end of the British line. The Italian Trieste motor-(28) A-3, p.42; (27) A-6, p.500-501; (28) A-3, p.42; (28) A-1, Map 12
ized Division and Italian Ariete Armored Division’s to follow closely behind the Afrika Corps and destroy the Fighting French at Bir Hacheim. (30) The Afrika Corps, after enveloping the British left flank, was to destroy the British Armor in the area south of El Aden. The Italian Motorized Corps was to complete the destruction of the Fighting French at Bir Hacheim and join the Afrika Corps in a coordinated attack toward the west to destroy the remaining British forces in the Gazala - Trig Capuzzo area. Gen Rommel’s time schedule called for the offensive to begin on the night of 26 - 27 May and for the coordinated attack by the Afrika Corps and Italian Motorized Corps on the northern British forces to be launched on 28 May. (31)

THE ATTACK ON THE GAZALA LINE

During the afternoon of 26 May the British realized that the Axis offensive was about to be launched. Large movements of Axis tanks and troops were observed moving toward the southern sector of the line. (32) At the same time Gen Rommel was carrying out extensive movements in rear of his northern sector for the purpose of confusing the British as to the direction from which to expect the main thrust. (33) The Axis forces were successful in achieving the goal of confusing the British as to the direction of the main attack because it was not until the morning of 27 May that the British command fully realized that the main effort was being made to the south. (34) One fault in the British communication system was realized during the early phase of the operation. Gen Ritchie’s headquarters was the only command center tied in by radio with several of the smaller units under its direct control and with the R.A.F. and as a result, some of these smaller units who were protecting the southern flank were not informed of the latest information on movement of the Afrika Corps. (36)

By the morning of 27 May the Afrika Corps had reached Bir Hacheim, and by using the British minefield to protect their left flank and employing the 30th Lt. Inf. Division, which was heavy in antitank guns, to

protect their right flank, was headed in the direction of El Aden. (35) (Map C) It had already struck and destroyed the 3rd Indian Brigade and forced the 7th Motor Brigade to withdraw. (37)

Major elements of the British 1st and 7th Armored Divisions rushed into position to give battle to the Afrika Corps, and during the day a great tank battle was fought in a large area southwest of El Aden. This tank battle was very confused and quickly broke up into a number of fierce small unit engagements. The losses of armor on both sides was great. (38) (39)

The Italian Ariete and Trieste Divisions which had struck at Bir Hachem ran into a stone wall. The Fighting French simply closed the doors to their box and had stopped every attack the Italians threw at them. The minefields around Bir Hachem took a heavy toll on Italian armor (40). Likewise the Italian infantry divisions attacking on the southern sector were repulsed with too much difficulty by the British 1st South African and 50th Divisions. (41)

At the end of the first day of fighting the Afrika Corps, less the 90th Light Motorized Division was between the Knightsbridge box and El Aden. The 90th Light Motorized Division was three or four miles south of El Aden. The Italian Ariete and Trieste Motorized Corps had their hands full trying to dent the Fighting French stronghold at Bir Hachem. The bulk of the British Armor had withdrawn to the vicinity of El Aden and El Dula, with other smaller armored units to the south and east of the Knightsbridge area. (42) (43) In all the British position was not bad; they still had numerical superiority in all arms and equipment and the minefields had not been pierced. The British felt that they had a good chance to destroy the Afrika Corps if they could prevent reinforcements and supplies from reaching it, and could keep their minefield intact. (44)

The fighting on the 29th May was very intense and confused. (Map D). The "Knightbridge Box" became the crucial point in the fighting. This well-organized high ground, heroically defended by elements of the British 50th Infantry Division, quickly became the focal point of the Axis attack. Gen Rommel realized that he must destroy this backbone of British resistance before attempting to proceed any farther with his Afrika Corps. The British moved their armor into position to give assistance to the "Knightbridge Box". The armored brigades moved in to attack from the west, while elements of the 7th Armored and 18th Armored attacked from area of El Adem - El Duda. The 7th Armored Division struck the 90th Light Motorized while it was in the act of reforming to strike the El Adem area and split it up into several fragments which withdrew to join the remainder of the Afrika Corps. The Ariete Armored Division started moving up from the south to join the Afrikia Corps but was struck heavily by a brigade from the 9th Armored Division and was also broken up into disorganized pieces which to fight their way up to a junction with the Afrikia Corps. (46)

The Italian Ariete Armored Division, less elements to contain the fighting French at Bir Hachelim, moved up west of the mine field to the vicinity south of Trig Capuzzo. Severe tank battles raged throughout the day around the Knightbridge position, and by the end of the day the British had lost 120 tanks and the Axis 90. (46)

A dust storm blanketed the area on 29 May but this did not stop the fighting. The British launched a coordinated attack from the east generally along the Trig Capuzzo, and succeeded in driving Gen Rommel's forces back toward the mine field, and compressing them into the area known as the Cauldon. (47)

Gen Rommel's position was rapidly becoming precarious. His supply line around the southern flank had been subjected to continuous attacks by the RAF. His supplies were running low and he realized that he could quickly lose his Afrikia Corps when exhaustion of fuel rendered it ine-

The duststorm which prevailed throughout the day allowed the Italian Tracts Motorized Division to make his position a bit less critical by opening two small gaps in the minefield at his rear. (40)

Fighting continued in the Cauldron area during 30 May with the British exerting maximum pressure from the east, with their armor, leaving their infantry in their organized positions. By the end of the day it was noticed that Gen Rommel had started a withdrawal of some of his forces back through the minefield. On the following day, 31 May, the fighting followed about the same pattern as on the preceding day with the British trying unsuccessfully to close the pocket. (50) It is interesting to note that on this day the British Armored Division Commanders engaged in the fighting strongly recommended that all available RAF planes be used to pulverize the Axis in the Cauldron, but this was not done. Instead the bulk of the RAF was used to raid Derna. (51)

By 1 June Gen Rommel had widened the gap in the minefield and he had set up a ring of 30 mm guns around the Cauldron which enabled him to successfully continue his withdrawal. The British continued to exert terrific pressure from the east, but on 2 June they observed that Gen Rommel's withdrawal had slackened and that he was bringing reinforcements eastwards into the Cauldron area. (52)

At this stage of the fighting the British position was still good. Although they had lost very heavily in armor during the fighting since 28 May, it was known that Gen Rommel had likewise suffered heavy losses. During the period of fighting the British had received considerable replacements in tanks and the 30th Indian Division had arrived from Iraq to strengthen the British forces. It was estimated that Gen Rommel now had 250 tanks against Gen Ritchie's 350. (53)

A blinding sandstorm raged throughout the battle area on 3-4 June and prevented either side from attacking, but both forces made vigorous (40) A-3, p.33; (49) A-1, p.54; (50) A-1, p.56; (51) A-11, p.6; (52) A-3, p.64; (53) A-1, p.64
preparations to stage the attack as soon as the weather permitted. Gen Rommel took advantage of the concomitant storms to widen the gap in the mine field; organize his position; and to strengthen his forces in the Cauldron by bringing in the Trieste, Brescia, and Pavia Infantry Divisions. (54)

On 5 June the sandstorm subsided and Gen Ritchie launched a co-ordinated attack to clear the Cauldron. (Map E) The infantry met with slight success at several points but the 8th Army suffered extremely heavy losses in armor and artillery. Gen Rommel had strengthened the ring of 88 mm antitank guns around the Cauldron, and these weapons took a terrific toll of British armor. Some of Gen Ritchie's infantry units were completely overrun. By the end of the day four complete regiments of British artillery had been overrun and destroyed or captured by Gen Rommel's Army. (55)

After bitter fighting on 5–7–8 June during which the Axis forces gradually pushed the British back, Gen Rommel decided he would make another effort to destroy the Fighting French at Sir Baniyas. He dis- patched the 90th Light Motorized Division to do the job. Although the heroic French withstood repeated attacks by the Germans just as they had withstood the efforts of the Italians, Gen Ritchie, because of his inability to supply the garrison at Sir Baniyas and his wise hesitancy to fall into Gen Rommel's trap by sending portions of his precious armor to their support, ordered the Fighting French evacuated. This evacu- ation was carried out on night of 10 June. (56)

Gen Rommel, his right flank now free, was ready to complete the job to be done around the "Knightsbridge Area".

On the morning of 12 June the opposing forces were in position as indicated on Map F. It was quickly apparent to Gen Ritchie that it was Gen Rommel's plan to envelop the British right by sending the 90th Light Motorized and the Trieste Motorized Divisions around the El Adem area, and that the mission of these two units would be to cut off the 6th South (64) A-1, p.64; (55) A-3, p.48; (56) A-5, p.48; 13
African and the 5th Infantry Divisions. In order to allow these two units time to withdraw Gen Ritchie decided to attack from the line along the Trig Capuzzo in order to pin down the Axis forces. Gen Rommel used his 88 mm guns and his tanks masterfully during this engagement. Because of being outranged by Axis armor, the British tanks had to depend upon rapid movement in order to get within effective range of Gen Rommel’s tanks. Repeatedly the Axis tanks would retire drawing British tanks onto 88 mm guns hidden among wrecked vehicles and in dug-in positions. These 88’s took a heavy toll on Gen Ritchie’s tanks.

When the British remained in position and refused to attack, Gen Rommel would send forward one or two of his tanks which would veer back and forth just outside effective range of British guns. This would create a heavy screen of dust and by the time the cloud of dust had finally settled 88 mm guns would have been rushed forward and would open their deadly fire on the British. (67)

By 14 June the British had, under great pressure by the Axis forces, begun their gradual withdrawal from the Trig Capuzzo line, and by 16 June, only a rearguard force consisting of elements of the 1st Armored Division remained in position around Aroma. Meanwhile the 1st South African Infantry Division had withdrawn east of Tobruk. On 14 June the 60th Infantry Division, finding itself cut off, split up into small units and under cover of darkness struck toward the west and broke through the surprised Italians and finally rejoined the remnants of the 8th Army during their withdrawal along the coast. This unit suffered heavy losses during this operation. (68)

Gen Ritchie had not made definite plans to attempt the retention of Tobruk by leaving a garrison there as Gen Wavell had done in the spring of 1941, but there were sufficient supplies in Tobruk to sustain a large garrison for several months. The withdrawal of the 8th Army from the Gazala Line was made under very difficult conditions, transportation (67) A-1, p.65-66; (68) A-1, p.66.

14
was scarce, and British higher headquarters was exercising terrific pressure on Gen. Ritchie and Gen. Auchinleck to duplicate the actions of the heroic Tobruk garrison of 1941. Finally Gen. Ritchie was ordered to leave the garrison (50) composed of the 2nd South African Division, supplemented by a tank brigade and two separate infantry brigades. This garrison totaled over 35,000 men. It was felt that this force would be able to hold out until the British could reinforce the 9th Army and launch another offensive from the east. Gen. Hommel had learned from his expensive experience of the preceding year. After sending his armoured divisions in pursuit of the British for some thirty miles, he left a skeleton force to maintain contact with the 9th Army rearguard and quickly struck at Tobruk with an overbearing force. He launched the attack on the morning of 20 June with the support of pulverizing bombardment from the air. By mid-afternoon Tobruk had fallen. (50) In addition to the 25,000 troops, he captured vast quantities of supplies including gasoline and vehicles. (81)

THE PURSUIT TO EL ALAMEIN

Gen. Hommel quickly turned to the pursuit of the depleted 9th Army. A comparison of the strength of the two armies at this point gives a clear picture of the results of the fighting. Gen. Hommel now had approximately eight divisions in fairly good fighting condition, and the British had about four divisions of disorganized and poorly equipped troops. The Axis had over 100 tanks and were adding to this number at the rate of a dozen per day from their repair shops. The British armor strength was so inferior in numbers and in quality that it could hardly be considered. (82) To complete the picture of Gen. Hommel's victory at this stage of the campaign, it is interesting to note that Gen. El Alamein had received between 26 May - 8 June over 400 tanks to replace his losses at the front. (83)

The RAF rendered gallant service to the 8th Army during its retreat, retarding Gen. Rommel’s pursuit and covering the long British bumper-to-bumper columns. The British decided to retire to Mersa Matruh before making a stand. (Map A) By 24 June practically all of Gen. Ritchie’s depleted forces had reached Mersa Matruh and were hastily getting in defensive positions prepared during preceding campaigns. On 25 June Gen. Rommel’s forces made contact with the British covering forces and immediately prepared to attack. (64)

At this point, Gen. Auchinleck took personal command of the 8th Army. He decided to leave the 2nd New Zealand Division, which had just joined the 8th Army, to act as a rearguard force, and to withdraw his forces to El Alamein. The New Zealanders, a great fighting division, stopped the Axis assault for two days before retiring, thus enabling the 8th Army to hastily organize a defensive position at El Alamein. (66) The situation was grave for the British and ripe for the Axis forces, but the bitter and continuous fighting at the Qasaba line and Tobruk, the forced pursuit under continuing bombardment and strafing by the RAF, and the fighting at Mersa Matruh had rendered Gen. Rommel’s Army incapable of effective attack. His Army was exhausted. He had the necessary troops and equipment, but his men had reached their limit of endurance. Gen. Rommel would not let this great opportunity slip by without an attempt and during the early days of July tried several piecemeal attacks on the British position. These attacks were without power and by the end of July both sides had settled down to an intense but short period of bringing up reinforcements and supplies, and in improving their defensive positions. (66)

**THE SITUATION AT EL ALAMEIN**

Both sides realized that the period of inactivity would be a short one. Each side wanted to attack as soon as it felt that its forces were strong enough to promise victory. It was another race for supplies. (64) A-1, p.261; (66) A-3, p.54; (66) A-3, p.59.
Even though Gen Rommel's supply lines (factory to front line) were still shorter than those of the British, he realized that the British were now close to their big bases at Cairo and Alexandria and that supplies were reaching the 5th Army in great quantities. He therefore realized that in order to have the best chance of victory he was going to have to attack before he was fully prepared. Also, the RAF was growing rapidly and from its nearby bases was concentrating on his supply lines with very effective results. (67)

On 13 August Gen Bernard L. Montgomery became the new commander of the 8th Army. (68)

By the middle of August Gen Montgomery's forces were in fair condition. The 8th Army had been very rapidly re-equipped and reinforced. The 44th British and 9th Australian Divisions had arrived. (69) Most important, replacements of tanks and antitank guns had been received. In the next battle the British were going to be able to fight the Axis with greatly improved weapons. They had received a large shipment of "Gen Grant" and the more improved "Gen Sherman" tanks from the U.S. and their replacements of antitank guns consisted primarily of the British six-pounder. (70)

Gen Montgomery felt that he either had the choice of attacking before he was fully ready and with the force he felt was necessary to completely destroy Gen Rommel's Army or to build up a strong defensive position and allow his opponent to attack. He felt that his 8th Army was now strong enough to stop any attack it might receive. The terrain they were defending was the choice defensive terrain from Alexandria to Tripoli. It had the necessary southern anchor which necessitated the enemy forces making a penetration. He decided to allow Gen Rommel to do the attacking. (71)

Gen Montgomery had at his disposal the equivalent of two armored divisions and six infantry divisions. They were: the 9th Australian, (67) A-3, p.68; (68) A-3, p.68; (69) A-4, p.1; (70) A-3, p.68; (71) A-1, p.63
1st South Africans, 5th Indian, 2nd New Zealand, 10th and 15th Infantry Divisions, and the 7th and 10th Armored Divisions. (72) His plan of defense of the El Alamein line was to occupy with troops the strongly organized infantry defenses from El Alamein to Ruweisat Ridge. (Map 0) He placed his prized 2nd New Zealand Division on the dominating approaches to Ruweisat Ridge. The southern sector of the line was protected by two parallel mine fields which were patrolled by motorized infantry and light armor. The bulk of the British armor was held in rear of this sector. (89) Gen Montgomery considered the high ground of Alem El Hafsa to be the key terrain of the entire defense line. He reasoned that Gen Rommel would make his main effort with his armor between Ruweisat Ridge and Quarat El Hmesimat and if he succeeded in making a penetration that this high ground would be the controlling terrain for the backbone of the British positions along Ruweisat Ridge. He therefore placed his 22 Armored Regiment, which was the battle tested backbone of his armored strength, in excellent hull-down positions on the important southwestern slope of Alem El Hafsa, and placed the 44 Infantry Division in organized position on the ridge. (74)

Gen Rommel had also received reinforcements since he last attacked. He had received the German 10th Infantry Division and the Italian Littorio Armored Division. (Map 0) His plan of attack was to make the major effort on the southern sector and, after passing through the mine fields with his armor, to destroy the British Armor when it came out to meet his thrust to the east. (76)

GEN ROMMEL’S ATTACK AT EL ALAMEIN (30 Aug - 8 Sept)

Gen Rommel launched his attack on the night of 30 - 31 August. The attack took the form of three simultaneous thrusts; one against the northern sector, one in the central sector, and the major effort in the south. The northern thrust was easily repulsed. The effort in the center made some gain but was driven back by a counterattack. The major thrust (72) A-4, Map 1 (p.6-6); (73) A-1, p.60; (74) A-4, p.6; (75) A-4, p.6;
in the south was made by the Afrika Corps and the Italian Armored Corps (Map 6). By 1000 hours on 31 August, the German 15th and 21st Armored Divisions had penetrated the mine field near Qaret El Halfa and by mid-afternoon, the German 20th Light Motorized Division had breached the mine field near Roweisat Ridge. The Trieste Motorized Division was the only Italian division that ever penetrated the mine field. (76) During the afternoon of 31 August mobile elements of the British 7th Armored Division had been hit by elements of the German 15th Armored Division and had withdrawn to the east according to plan. The German 21st Armored Division had turned toward the northeast after passing through the mine field and had run into the British 22nd Armored Brigade located in their prepared position on the southeastern slopes of Alem El Halfa. This German unit suffered heavy losses and withdrew after dark.

During the night Gen Rommel’s spearheads were hit hard by the RAF. (77)

On 1 Sept the 15th and 21st German Armored Divisions attacked the Alem El Halfa position, and as soon as Gen Montgomery decided that this was the main armored thrust he moved elements of the 10th Armored Division from the east and the 23rd Armored Regiment from the north alongside the 22nd Armored Division. (78) British armor had learned their lesson at the Gazala line. This time they fought from their well prepared positions under the protection of their artillery and antitank guns. (79) The Germans suffered heavy losses in armor, and during the next two days General Rommel seemed undecided as to where to attack with his tanks. The refusal of the British armor to leave their positions was an action he had not contemplated, and the longer range of the new British tanks and antitank guns presented a different problem than the one he had solved so effectively at the Gazala line. The mobile British armored units on the south continued to deliver harassing attacks from that direction and the RAF was hitting him continuously. (80)

On 3 September the British launched an attack to the south with (76) A-4, p.62; (77) A-6, p.62; (78) A-1, p.83; (79) A-12, p.33; (80) A-6, p.7
the 2nd New Zealand Division that was successful in advancing a short distance but was not successful in closing the gap in the mine field. (61)

This attack by the British seemed to be the final factor that convinced Gen Rommel that his offensive had failed. On 4 September he began his withdrawal to the west. The British continued to press home attacks with the 2nd New Zealand Division and mobile armored units from the south, but the bulk of the British armor remained in position along Alan Riba Hellsa ridge. (62)

The Axis bitterly contested each yard of their foothold east of the mine field. On 8 September they still retained a small area thru the mine field, and Gen Montgomery decided to allow them to keep it as it had no material effect on his own position. After having allowed Gen Rommel to expand his precious supplies and equipment, Gen Montgomery was now ready to make his final preparation for the offensive that was to end in the destruction of the Axis forces in North Africa. (63)

ANALYSIS AND CRITICISM

The primary reason that prompted Gen Rommel to attack the Gazala Line on 26 May 1942 undoubtedly was that he was ordered to do so by Hitler. The British captured German documents that proved that Gen Rommel had planned to conduct an offensive during this period that would carry him as far as Tobruk, and that he was surprised that he was able to almost destroy the 4th Army. It must be remembered that Gen Rommel and the Afrika Corps were in North Africa for definite reasons that fitted in to Hitler's plan for world conquest. The Germans had their hands full with the Russians in the Spring of 1942, and Hitler realized that the surest way for him to delay the Allies in an attempt at opening a second front on the European Continent was to have Gen Rommel keep the British forces in the desert actively engaged. (61) A-1, p.65; (62) A-4, p.8; (63) A-4, p.9
It is obvious that neither Gen Rommel's nor Gen Ritchie's pre-battle intelligence was too accurate. The British were effectively surprised by the strength of the Axis armor and antitank guns. Gen Rommel's forces were stunned by the fire power of the newly arrived British six-pounder guns and the Gen Grant tanks. Probably the one factor that came near resulting in the total destruction of Gen Rommel's armor was the strength and fighting ability of the Fighting French at Mr Nachheim. If the British had been able to keep their minefields intact a few days longer, or if they had made a successful concentrated air-ground attack on this small gap in the minefield on 31 May and 1 June, Gen Rommel's armor would have undoubtedly been rendered immobile because of exhaustion of gasoline. It is interesting to note how the element of luck played on the side of the Axis forces. It was under the cover of a sandstorm that the Italians were able to breach the minefield, and it was under the cover of another sandstorm on 3-4 June that Gen Rommel was able to re-supply and reinforce his forces in the Cauldron area.

In a study of the Axis attack on the British at the Gazala line, one is immediately impressed by the boldness and daring of Gen Rommel's plan of attack. By sending his armor over the long route around the southern flank in order to hit at the British armor in the Knightsbridge area instead of first opening a gap in the mine fields to insure his being able to supply his forces, he risked the grave danger of losing his armor because of lack of gasoline and ammunition. The elements of the Axis forces that enveloped the British left carried water sufficient for a four-day operation. We must also remember that he did not have aerial superiority, in fact the British had numerical superiority in the Air and that they were able to cause heavy destruction on his seventy mile supply line around Mr Nachheim.

It is also important that we note the difference in the concept of the use of air power by the two forces as demonstrated by the type
The use of tank guns by Gen. Rommel's forces was excellent during the fighting at the Gazala Line. Especially was this true when he used the 75 mm guns and thereby prevented the British from eliminating the pocket. Also, his employment of those guns as a protection for his armor during the severe fighting on 5 June and 12-13 June resulted in heavy loss of armor by the British. The Axis forces always used their 88's for strong frontal and flank protection during halts for re-fueling or when forced to halt by enemy action. When the armor was advancing, any potential armored threat from the flank was met by strong anti-tank protection while the armor continued on its mission. A good example of this is noted during the early stage of the campaign when the Afrika Corps circled Bir Machlin and started north. Their right flank was protected by the 90th Light Motorized Division which was exceptionally heavy in 88 mm guns.

In looking back over the three weeks fighting at the Gazala Line it is felt that Gen. Ritchie waited about one week too long to decide to withdraw. After the fighting on 5 June, with the Gazala Line definitely split, and with the Axis forces rapidly achieving numerical superiority in all areas, it is my opinion that he should have immediately initiated steps to withdraw his forces on the Gazala sector, and the Fighting French at Bir Machlin. If the British had started their withdrawal at this time, the forces around the Tripoli Cape would have been strong enough to hold the opposing forces and the bulk of the 8th Army (including the Tobruk Garrison) could have been successfully withdrawn to the east. It must be remembered that the possession of the desert itself was of no importance, but that the deciding factor in this area of fighting was the destruction of the enemy's armor. The problem of supply was so great that it often dictated the battle decision, and had in the past campaigns decided the victor. By withdrawing to a defensive position much closer to his base of supplies, Gen. Ritchie would have robbed Gen. Rommel of this great advantage and would have forced Gen
Rommel to contest with a long desert supply line subjected to RAF attacks. Most important he would have had his previous 8th Army intact to fight again.

The decision to hold Tobruk, regardless of whether the decision was made by Gen Ritchie, or by higher authority, was an unseemly one. The RAF and the Royal Navy, on whose shoulders the burden of protection and supply would fall, advised against the decision. The garrison left to defend Tobruk was sufficiently strong in numbers, but they did not have time to organize the defense, and did not have the necessary artillery and antitank guns for its defense.

The support rendered by the RAF to the 8th Army, during its rapid withdrawal to the east, was superb. All roads were jammed with vehicles, but due to the air cover provided by the RAF, the 8th Army suffered only minor losses from the enemy's attempted air attacks.

Gen Montgomery's plan for the defense of the El Alamein line and the execution of this plan was certainly proof that the British had profited by experience. It is acknowledged that the equipment, especially in tanks and antitank guns in the possession of the British during the fighting at El Alamein (31 Aug - 5 Sept) was much superior to the great bulk of that at their disposal on 26 May, but the use of the equipment and the plan for battle was much better. Gen Montgomery employed his tanks in a concentrated effort and with the maximum support of other arms. Air-ground cooperation showed much improvement. His employment of tanks in the defense from a previously chosen and organized position proved very effective as well as confusing to Gen Rommel.

LESSON

1. Armor should be employed in a concentrated effort and within close support of antitank guns, infantry, artillery, and air.

2. The employment of a large armored thrust around the flank of a strong enemy defensive position involves great risks. If the attacker does not have complete aerial superiority the problem of supply

84
3. A force in a position properly organised for all-round defence, can withstand the attacks of vastly superior forces for a considerable time. (Sir Haigain)

4. Close coordination at high level is necessary in order for the Air arm to most effectively fulfill the mission of close support to the Ground forces.

5. Units of brigade and regimental size should be fought under Division and Corps control and not under direct Army control.

6. When the organized defensive line is effectively penetrated by the enemy and chances for re-establishing the line are not favorable, the commander of the defensive position should immediately consider withdrawing his forces to a new defensive line, rather than risk destruction of his forces by fighting the attacker on ground not of his own choosing.

7. In fighting over vast desert terrain, normally possession of any portion of the desert is of no importance; the opposing force must be destroyed.

8. In fighting over vast desert terrain, the ability to recover and repair damaged equipment can easily mean the difference between victory and defeat.

9. In the defense it is possible to employ tanks effectively from prepared positions.

10. Numerical superiority in weapons and equipment can be quickly overcome by the enemy if he has equipment that is superior in quality.

11. Troops subjected to extreme desert conditions can, if properly trained and supplied, maintain a high standard of fighting efficiency over long periods of time.