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The impact of terrain on British operations and doctrine in North Africa 1940-1943.

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The impact of terrain on British operations and doctrine in North Africa 1940-1943.

A thesis submitted to the Plymouth University

in partial fulfilment for the degree of

DOCTOR OF PHILOSOPHY

School of Humanities

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Plymouth University

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Abstract

This thesis focuses on the extent to which the physical terrain features across Egypt, Libya and Tunisia affected British operations throughout the campaign in North Africa during the Second World War. The study analyses the terrain from the operational and tactical perspectives and argues that the landscape features heavily influenced British planning and operations. These should now be considered alongside other standard military factors when studying military operations. This thesis differs from previous studies as it considers these additional factors from June 1940 until the Axis surrender in May 1943.

Until now it has been widely assumed that much of the North African coastal sector was a broadly flat, open region in which mobile armoured operations were paramount. However this work concentrates on the British operations to show they were driven by the need to capture and hold key features across each battlefield. At the operational level planning was led by the need to hold key ground in Libya and across the province of Cyrenaica during the crucial middle period of the campaign. A secondary theme of the thesis argues that British forces began to improvise some tactical doctrines, with the initial practice of combined arms altering into Infantry and armour fighting separated battles. Other new developments included the practice of unit dispersal to hold key ground and to engage the enemy using temporary units known as Jock columns. The two themes are inter-linked and contribute fresh insights to the debate on British methods of warfare.

The methodology has been to consult key primary documents, reports, war diaries and published memoirs, from major archives across the UK and compare these with the campaign historiography to develop the main arguments. These include the National Archives, the Churchill Archives Centre, the Liddell-Hart Centre for Military History, the National Army Museum, John Rylands Centre, Imperial War Museum at London and Duxford and London and the Tank Museum Archives at Bovington. The sources include unit war diaries, after action reports, along with many of the key

published and some unpublished memoirs. The analysis of these two themes will show that key terrain features were a significant influence upon all levels of military planning and operations throughout the campaign.

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AUTHOR'S DECLARATION

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award without prior agreement of the Graduate Committee.

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Glossary

1. Local names and terms

Deirs - Crater-like depressions with raised edges; the edges offered a defensive position and often overlooked the surrounding lower ground. Some were over a mile wide and therefore offered useful forming up places for vehicles.

Escarpments - Low limestone ridges, either sharply defined to one side, or broader in width. They were stony covered or with a thin layer of gravel/sand which proved difficult to dig into. They offered important artillery observation places and from which the surrounding ground could be dominated and were therefore the key features over which many of the battles were fought.

Trighs – Desert tracks, often up to 100 yards wide, which rapidly turned to fine dust or winter mud due to the volume of vehicles using them.

Wadis – ditch or wide river bed, mostly dry but often flooded by winter rains.

2. Military glossary

AGRA – Army Group Royal Artillery; a group of Regiments of Artillery, designed to give large concentrations of fire where needed.

Anti-tank gun – weapon designed to engage armour.

B-echelon – these were the British supply units for each Regiment. They moved constantly between the frontline units and the Field Supply Depots.

Barrage – Massed Artillery fire which targets an enemy position or unit.

Battalion – Army Infantry unit, usually of four companies and an HQ, averaging 400-700 men.

Battery – Artillery unit of 4-8 guns, often three to an Artillery Regiment, 250 men each.

Brigade – Army unit, usually of two to four Battalions or Regiments of Armour.

CinC – Commander-in-Chief Middle East. Successively held by Generals Wavell, Auchinleck and Alexander through the campaign.

CO – Commanding Officer, usually of a Regiment, Infantry Battalion or Brigade.

Corps – Army formation, usually of two or more Divisions and attached Brigades.

COS – Chiefs of Staff. The three Commanders-in-Chief for the Army, RAF and Royal Navy in London. They advised on plans and operations with the CinC Middle East.

Division – tactical Army unit, usually consisting of two or three Brigades, and supporting units of Artillery, Engineers, Signals and Supply units.

Flash-spotting – method of observation of enemy gunfire by Artillery spotters

Forward Supply Depots (FSDs) – British supply depots sited in the desert.

GHQ – General Headquarters, Cairo, for the Middle East Theatre. This developed into numerous departments with hundreds of personnel.

Heavy machine guns – Infantry weapon designed for firepower in defensive positions.

Jock Columns – formed by Lieutenant-Colonel J.C. Campbell in 1940, to utilize his artillery batteries more offensively against Axis positions, when holding a front-line position. They usually consisted of one battery of Artillery, protected by a company of Infantry, 3 anti-tank-guns and 3 Bofors AA guns, plus detachments of signals, engineers. A full discussion of their influence on the campaign is in Chapter 9.

LRDG – Long Range Desert Group; formation originally set up by Major Ralph Bagnold for reconnaissance and raiding duties behind the lines. It used the deeper Oases and desert routes to traverse to its operations.

Matilda – British Infantry or 'I' tank, slow moving with a 2pdr gun and thick 78mm frontal armour.

2nd NZ – New Zealand; The 2nd New Zealand Division, or elements of - which became one of the leading Dominion formations of Eighth Army, along with the 9th Australian Division.

Patrolling – doctrine of sending out small units to watch or engage enemy positions

Recce'd- short or slang for reconnoitred or made a reconnaissance of ground or an enemy position.

Reconnaissance in force – a powerful raid into enemy territory often designed to destroy supply dumps or individual positions and gain intelligence intentions.

Royal Horse Artillery (RHA) – British Artillery Regiment, with three batteries of eight guns.

RTR - Royal Tank Regiment. British Armoured Regiment consisting of numerous units. Each one – 1st / 2nd etc was classed as a 'battalion' of the regiment. Each had a three squadron structure, like the Cavalry Regiments which had been converted to armour.

Squadrons – Armoured Unit of 13-17 tanks, or Armoured Cars. RAF unit of 12 aircraft.

WDAF – 'Western Desert' Air Force; The frontline RAF unit in Egypt and Libya, although 'Western' was hardly used, it was referred to as the Desert Air Force. Other RAF formations contributed to the air support provided throughout the campaign.

Western Desert Force – WDF, the original British frontline Corps which invaded Libya in 1941.

British Corps formation which held the frontline in 1940 and became 13th Corps from January 1941.

3. Axis formations and terms

Deutsches Afrika Korps (DAK) - the first German units sent to North Africa. The force became a *Panzergruppe* in 1941 and part of *Panzerarmee Afrika* from January 1942.

5th Light Division – An early form of Panzer Division with one battalion of tanks and supporting arms. This converted to the 21st Panzer Division in 1941.

90th Light Division - This unit originated from a mixed group of regiments and became the *Zur Besonderen Verfügung* (Special Services) Division during Crusader, before being named 90th Light Division from 15 December 1941, see Chapter 6.

Luftwaffe – German Air Force

Panzer Division – the three deployed were the 15th, 21st and later the 10th Panzer Divisions. They consisted of two battalions of Panzers, each of 60-72 tanks, and supporting Infantry, anti-tank and artillery units.

Panzergruppe – Axis forces designated and Armoured Corps in 1941.

Panzerarmee – Axis forces designated an Army in January 1942.

Raggruppamento – Italian Armoured Group in 1940.

Italian Divisions: Ariete was the Armoured Division, Trieste a Motorised Division and the remainder were standard Infantry Divisions. In late 1942 reinforcements included the Folgore Parachute and Littorio Armoured Divisions.

Chapter 1 Introduction and Literature Review

This study sets out to consider the impact of terrain on British land operations throughout the whole campaign in North Africa. Previous studies have described the campaign narrative in terms of military factors including command, supply and equipment issues of the British forces. They have also considered the importance of the air and sea war in terms of closing the Axis supply routes. In most of these studies, the effect of terrain on operations by both sides has always been treated as a relatively minor factor. This thesis will consider the effect of terrain at both the operational level and the tactical level throughout the British campaign between June 1940 and May 1943. It will show that the outcome all of the key battles depended upon the possession of essential areas of land. Also, the nature of dispersal of forces throughout the landscape heavily influenced improvisation of British tactical doctrine. British methods of fighting evolved through a series of stages which will be discussed in relation to the natural landscape.

At a recent symposium in Birmingham, a formal discussion by leading military historians noted that terrain had yet to be fully analysed as a separate topic in relation to army operations during the Second World War.¹ The relevant primary documents, reports and war diaries clearly show that terrain heavily influenced planning, command decisions and tactics during the key battles. Units made operational moves to capture and hold high ground or other features in order to gain an advantage over the enemy. Commanders made their tactical decisions based on the success or failure of gaining these features in battle, as well as the destruction of enemy units. They planned subsequent moves based on their ability to hold key ground, alongside the standard military factors of remaining unit strength, morale, cohesion and supply of their formations.

¹ Conference: 'Revisiting Churchill's Army: New Directions in the Study of the British Army in the Second World War', University of Birmingham, Friday 14 September 2012. Roundtable Discussion: *New Directions* Dr Jonathan Fennell (KCL); Dr Stephen Hart (RMA Sandhurst); Dr John Peaty (DSTL); Prof. Gary Sheffield (University of Birmingham).

The main battle chapters seek to answer a range of questions which assess how well the Army approached each major action and what problems they faced. A key section within each chapter considers how far the terrain features impacted on doctrine and what the outcomes were and whether the formations involved learnt from the combat experience.

In North Africa, the British Army faced a range of desert environments; In Egypt the ground across the Western Desert was a mixture of soft sand depressions and stony ridges, whilst in Libya the main plateau was mostly hard stony ground with occasional ridges from which to create a defensive position. Finally when British forces pushed into Tunisia, the relief features became much more substantial and required a series of alternative assault doctrines in order to be captured. Throughout much of the campaign, British forces had limited manpower and equipment until the autumn of 1942 and this affected the offensives being limited in terms of Formations committed and the tactics used during operations. The numerous terrain features which Axis forces developed into defensive positions meant that the fewer British units were spread even more thinly trying to capture them. The final offensives were constantly limited by a lack of available Infantry particularly after the heavy losses at Second Alamein.

In 1940 British units won a series of key battles using a successful doctrine of combined arms in both attack and defence, where it inflicted a major defeat of the Italian 10th Army. During the next phase of the campaign British doctrine changed sharply with units fighting separated actions without support and with new formations such as Jock Columns. These were an improvised tactic to hold large areas of ground and to engage the enemy and their use continued through the middle phases of the campaign during 1941 and into the late summer of 1942. British doctrine was transformed again following the arrival of General Montgomery in the autumn 1942, and this contributed heavily to success at Second Alamein. The final phases of the British advances through Libya and Tunisia saw doctrine evolve in both attack and defence. The steady improvement

enabled British forces to combine both ground and air units again to become a formidable fighting force.

This study aims to contribute to knowledge the effect on British operations by considering the impact of terrain as a topic equally alongside other military factors. Therefore it should complement other existing studies which have concentrated on specific issues of the Army and its performance in North Africa. These leading works have focussed on the British Army at specific moments of the campaign and include David Rolf, Niall Barr and Jonathan Fennell.² This work is noticeably different to previous efforts in that it considers the impact of terrain on British operations throughout the whole campaign.

Overview of the campaign

From 1882 Britain had retained an administrative hold over Egypt, and later used it as a military base for numerous campaigns before and during the First World War. After this, Egypt became the 'veiled protectorate' for the next twenty four years, with the Army protecting the vital Suez Canal route to India and the Far East.³ The Italian capture of neighbouring Libya from 1932 increased the Fascist threat to British-held Egypt and the Middle East which raised the importance of the Mediterranean theatre in British defence planning as war approached. Throughout the late 1930s Mussolini had dominated recent Mediterranean politics, successfully dividing the British and French as they tried to appease him. He viewed the Royal Naval bases at Malta and Gibraltar as 'bars' blocking the Italian fleet from pushing into the Atlantic and the Red Sea. Mussolini impatiently awaited the chance to take control of the North African coastline to create his new

²David Rolf, *The Bloody Road To Tunis* (London: Greenhill Books, 2001), Niall Barr, *Pendulum of War. The Three Battles of Alamein* (Woodstock: The Overlook Press, 2004), and Jonathan Fennell, *Combat and Morale in the North African Campaign. The Eighth Army and the Path to El Alamein* (Cambridge: Cambridge University Press, 2011).

³Artemis Cooper, *Cairo In The War 1939-1945* (London: Penguin, 1995), pp.11-13.

'Roman Empire.'⁴ He began his 'parallel war' in June 1940, following the French defeat and surrender in Europe. It was his chance to defeat Britain and takeover the North African territories he had always coveted.⁵ Unfortunately his armies were defeated in Libya and Egypt which forced Hitler to send German forces to hold Libya. Suddenly Britain was faced with a renewed Axis effort to regain Libya and Egypt. The pendulum of war would push British forces to expand the campaign and bring in Allied troops to finally defeat the Axis Forces by the 13 May 1943.

For Britain, the North African campaign had initially been one of defending Egypt, with the aim of protecting the Suez Canal and the land route to the Middle Eastern oil centres. As Prime Minister, Churchill also saw it as a means of defeating Italy first and later diverting Axis forces from other fronts. The campaign also provided the British Army with the opportunity to defeat the more professional German forces. Therefore victory in North Africa became the focus of British strategy which drew in her new ally, the United States, who initially just supplied equipment to British forces there but later committed ground and Air forces directly to the campaign. The new allies believed this would weaken the Axis alliance and provide lines of attack on Germany itself through southern Europe.

Research focus and methodology

This thesis raises a number of questions on how far terrain impacted on British operations and seeks to answer these through consulting primary military documents, unit diaries and anecdotal evidence from private and published memoirs. Each of the major engagements is considered chronologically using terrain as the main focus. The second chapter starts with an overview of the landscape of North Africa, focussing on the coastal sector across Egypt, Libya and Tunisia. Chapters 3 to 10 provide a detailed analysis of the battles in chronological order with a focus on the impact

⁴Reynolds M. Salerno, *Vital Crossroads. Mediterranean Origins of the Second World War, 1935-1940* (New York: Cornell University Press, 2002), pp.11-13.

⁵Douglas Porch, *Hitler's Mediterranean Gamble. The North African and the Mediterranean Campaigns in World War II* (London: Weidenfeld & Nicolson, 2004), p.40.

of the tactical terrain. The battles have been summarised to avoid revisiting the detailed narratives of previous works. A discussion centred on the effects of terrain and doctrine is included to argue that the landscape was as important to British success as other standard military factors. For the most part the campaign chronology is maintained, with the exception of the retreats from Cyrenaica which are considered together as they were so similar and are discussed in terms of the defence of the province. The final chapter briefly considers the other military factors which influenced the campaign.

The methodology consulted primary documents from the major archives around the UK and compared these with published memoirs and the general historiography to make a fresh analysis of the major battles and turning points in the campaign. The primary and secondary materials are discussed more fully below, but each archive provided some key documents which contributed to the thesis; the National Archives at Kew provided the bulk of the series WO 201 and 169 documents which covered the campaign. Other Individual papers of personnel or units which served in the campaign were found at Churchill College Cambridge, the National Army Museum, the Imperial War Museum (IWM) in London and the John Rylands Library in Manchester. The IWM Archive at Duxford included some useful translations of operational documents from the Afrika Korps, while the Bovington Archives provided key regimental war diaries and battle reports of the various British Armoured Regiments involved.

The primary sources

The main series of documents consulted were the WO 201 series held at the National Archives. Although these cover the North African campaign from a variety of topics, the main focus was to extract information specifically relating to commentary on the impact of terrain features either at the operational and the tactical level. The most telling folder was WO 201/578 on the Topography of Tunisia and showed how far the Eighth Army HQ had developed in calling for a full appraisal of

the upcoming terrain by the final stages of the campaign. Earlier reports on either Libya or Egypt tended to be much less detailed and part of Intelligence summaries within command files or post action reports (e.g. WO 201/2691 Lessons of Cyrenaica).

Many of the higher level reports on the need to capture supply bases or key airfields were found amongst the command and planning folders, (WO 201/156, and WO 201/421), whereas reports relating to the impact of terrain at the tactical level came mainly from 'after-action' reports submitted by Regimental Officers who wanted to pass on their knowledge. These post battle summaries were found either in the files referring to individual battle reports, (WO 201/539A) on the 150th Brigade Box at Gazala in 1942, or from within Regimental files such as the 1st Worcester's Regiment, (WO 169/5074) from the WO 169 series.

Most of the unit War Diaries are in the WO 169/series, which give a range of data from weekly unit strengths to movement and position information and occasional reports on actions. One minor difficulty with this series was to pinpoint when a Regiment was actually involved in the campaign because each year has a different file for each Regiment or Brigade. Equally useful are the Battle reports, (e.g. WO 201/2692 Gazala report) and the larger unit folders, (e.g. WO 201/530B Guards Brigade at Agedabia). These provided a lot of tactical detail relating to the key features, although there was not one for every action or unit involved. Some reports were just listed as Eighth Army Tunisia (WO 201/598) and offered a basic overview of events.

Other important WO 201 documents include the higher level telegrams between the current CinC and London, (WO 201/401) which gave useful detail on their thoughts and plans based on the information they held at the time. The third group of this series were those dealing with the arms of service topics such as Signals (WO 201/369), which are highly detailed and offer lots of analysis on their operations and show how they were influenced by terrain. A final group of folders which provided useful supporting evidence were the AIR and Admiralty series, (e.g. ADM 199/414) which

note support for Army operations by the fleet. Other RAF support folders are found within the WO 201 series, (e.g. WO 201/363, RAF during Crusader).

Other Archives around the UK provided important evidence about the impact of terrain on the campaign. The Royal Tank Regiment documents at the Bovington Tank Museum Archives contributed numerous after action reports and letters by soldiers who wished to explain what had occurred in the actions by their Regiments. The unit War Diaries added in details of movements and timings to these reports. Key Regiments here included 3rd RTR, 6th RTR and 44th RTR. It was interesting to note that certain months were missing especially those of May-June 1942 when so many Regiments were shattered at Gazala. Similar reports were found amongst the papers of various commanders and other Officers and men, deposited at the remaining Archives. For example, the papers of Tom Corbett at Churchill College Cambridge provided many details on the training and planning by 4th Indian Division, which were not found at Kew. Both the Liddle Hart Centre and the Imperial War Museum in London had many battle details amongst the papers of participants and commanders including Brigadier Ray Briggs from the 1st Armoured Division, while the National Army Museum gave Eric Dorman-Smith's report and maps from June 1942. The Duxford Archive (IWM) includes a valuable collection of German documents and some translations made by the New Zealand Intelligence HQ of individual Divisions such as the 90th Light Division. The John Rylands Archive contains Auchinleck's papers which were important to his part of the campaign, but the process of gaining the data was limited by their internal methods of only releasing a few pages at a time. The primary documents therefore provided the bulk of the evidence to supports the arguments in this thesis that key landscape features across the North African coastal sector impacted upon British operations throughout the campaign. This evidence is supported by details from within a range of memoirs, studies and narrative histories which are discussed in the Literature review.

Literary review

The importance of terrain in the writing of military history was clearly noted by writers as early as Sun Tzu. Although he was referring to early Chinese warfare, he argued that terrain was one of the five structural 'estimations' for any commander.⁶ Most of the more recent military studies tend to place the importance of the impact of terrain on military operations in a description of the ground, or as part of the narrative rather than affecting the outcome. They continue to emphasize other military factors such as the quality of command, training, doctrine and weaponry of the campaign. Perhaps one recent exception is that of Christopher Duffy's work on the campaigns of Frederick the Great, which contributes a chapter on the key terrain features and how they affected Prussian operations both in Prussian manoeuvres and at the tactical level.⁷ Most works on modern conflicts consider the impact of more usual military factors such as command, intelligence, weapons and equipment, leaving the terrain as a background description linked to environment issues.

Published sources most useful for details about terrain and doctrine

The published memoirs provide details about the campaign, along with some useful references about the impact of tactical ground on combat operations. Other texts give more detail about the narrative of battle, tactics, movement, equipment, training and life in general in the desert. Works published during the war, such as those by reporters Alan Moorehead and Alexander Clifford, have nearness to events untainted by later histories and present an outsiders' view of the campaign.⁸ There are some useful memoirs by soldiers from British Armoured Regiments; two of the most important are Cyril Joly's account of his part in the campaign, whilst equally detailed is Robert

⁶ Ralph D. Sawyer, *Sun Tzu. Art of War* (Oxford: Westview Press, 1994), p.167, describing ground as being, 'difficult or easy, expansive or confined, fatal or tenable,'

⁷ Christopher Duffy, *Frederick the Great, A Military Life* (London:

⁸ Alan Moorehead, *African Trilogy* (London: Hamish Hamilton, 1946), and Alexander Clifford, *Crusader* (London: George Harrap, 1942).

Crisp's account of 3rd RTR during Operation Crusader. Both are important for noting the use of terrain and for details on tactics and operations.⁹

Some wartime accounts offer useful examples of tactical doctrine including works such as *With Pennants Flying*, which contains first-hand accounts of Beda Fomm and Tobruk,¹⁰ and John Verney's poignant account of a Yeomanry Regiment at Gazala and Alamein.¹¹ They have been rarely consulted since publication and can be compared with Keith Douglas's often quoted memoir, which also notes the starched officer characters within Yeomanry Regiments, but also covers the tactical battle during Second Alamein and the pursuit to Tunisia.¹² Roy Farran served with the 3rd Hussars during the pre-war and early campaign and his is an important memoir full of tactical detail.¹³ Rea Leakey discusses his pre-war desert training and some of the early operations up to the siege of Tobruk.¹⁴ Jake Wardrop's diary covers 5th Royal Tank's campaign from the soldiers' perspective.¹⁵

Other arms of service provide some useful details of the tactical battle, desert life within a Jock Column in 1941 are covered by both R.L. Crimp and H.J. Griffin along with an unpublished account by Gerald Jackson which gives useful detail on tactics and Jock Column operations.¹⁶ Dan Billany's *The Trap* is an excellent wartime account of the 150th Infantry Brigade at Gazala.¹⁷ Many Divisional histories were written in the immediate post-war era, and used first-hand accounts which

⁹ Cyril Joly, *Take These Men* (London: Constable, 1955), and Robert Crisp, R, *Brazen Chariots. An Account of tank warfare in the Western Desert, November-December 1941* (London: Frederick Muller, 1959).

¹⁰ David Masters, *With Pennants Flying. The Immortal Deeds of the Royal Armoured Corps* (London: Eyre & Spottiswoode, 1943).

¹¹ John Verney, *Going to the Wars* (London: The Reprint Society, 1955).

¹² Keith Douglas, *Alamein To Zem Zem* (London: Bantam Books, 1985).

¹³ Roy Farran, *Winged Dagger. Adventures on Special Service* (London: Cassell, 1999).

¹⁴ Rea Leakey, *Leakey's Luck, A Tank Commander with Nine Lives* (Stroud: Sutton, 1999).

¹⁵ George Forty (ed.), *Tanks Across the Desert. The War Diary of Jake Wardrop* (London: William Kimber, 1981).

¹⁶ R.L. Crimp, *The Diary of a Desert Rat* (London: Pan, 1974), and H.J. Griffin, *An Eighth Army Odyssey* (Pentland Press, 1997), and Gerald Jackson, *A Long Parting* (undated, unpublished).

¹⁷ Dan Billany, *The Trap* (London: Panther, 1964).

provided important details on landscape features and doctrine. The Fiftieth Division history provides excellent detail from the battle of Gazala to the end of the campaign.¹⁸

The Tunisian campaign includes wartime memoirs by John D'Arcy Dawson, who argued that the First Army units 'materially' contributed to the final victory,¹⁹ and A.D. Devine.²⁰ John Frost's account of the First Parachute battalion,²¹ and one of his Engineer officers, Peter Stainforth, both relate the tenacious battles for the important high ground.²² The Infantryman's battle for key terrain at Longstop hill is well recorded by John Kenneally.²³ Memoirs from HQ personnel include Freddie de Guingand, who served under Auchinleck and Montgomery, and contrasted their different style of command.²⁴ David Hunt, an Intelligence officer at 13th Corps HQ, is useful for both command and Intelligence matters,²⁵ while Bernard Fergusson served as Wavell's ADC so gives useful detail on GHQ in 1941.²⁶ Denis Falvey served with the 64th Medium Artillery Regiment and covers the later campaign.²⁷

Memoirs by Commonwealth soldiers complement those of British soldiers; Howard Kippenburger gives an important and detailed account of the campaign fought by the 2nd New Zealand Division from Crusader to Tunis, as a battalion commander and later Brigadier.²⁸ The biography of Captain Charles Upham VC adds detail on the tactical battles as he served in Kippenburger's 20th Battalion

¹⁸ W. Clay, *The Path of the 50th. The Story of the 50th Northumbrian Division in the Second World War, 1939-1945* (Aldershot, Gale & Polden, 1950).

¹⁹ John D'Arcy Dawson, *Tunisian Battle* (London: Macdonald & Co, 1944).

²⁰ A.D. Devine, *Road to Tunis* (London: Collins, 1944), 78th Division, the Guards Brigade and 6th Armoured Division.

²¹ John Frost, *A Drop Too Many* (London: Sphere Books, 1983).

²² Peter Stainforth, *Wings Of The Wind. Active Service with the 1st Parachute Brigade* (London: Grafton Books, 1988).

²³ John Kenneally, *The Honour And The Shame* (London: Headline Review, 2007).

²⁴ Francis de Guingand, *Operation Victory* (London: Hodder & Stoughton, 1947).

²⁵ David Hunt, *A Don At War* (London: Frank Cass, 1990).

²⁶ Bernard Fergusson, *The Trumpet in the Hall* (London: Collins, 1970).

²⁷ Denis Falvey, *A Well Known Excellence. British Artillery and an Artilleryman in World War Two* (London: Brassey's, 2002).

²⁸ Howard Kippenburger, *Infantry Brigadier* (Oxford: Oxford University Press, 1961).

at First Alamein.²⁹ Brigadier Clifton also provides details of First Alamein and Alam Halfa in which he was captured.³⁰ Geoffrey Cox produced an important memoir of his time as Intelligence Officer, perhaps the only published account which notes the importance of the terrain features near Tobruk before Crusader.³¹ An Australian Infantryman's view is provided by Herb Ashby who offered a compelling account of his battles at Tobruk and Second Alamein with the Australian 2/48th battalion.³² The letters of Lieutenant-General George Brink are an important defence of his record as commander of the ill-fated 5th South African Brigade during Crusader.³³ Kaushik Roy offers some key insights into Indian Army commanders brought over by Auchinleck.³⁴ The wartime published account entitled *The Tiger Kills*, offers some useful detail on the impact of terrain and complements the official histories of both 4th and 5th Indian Divisions which are full of tactical details.³⁵ Many veterans have also written useful histories about specific battles. Michael Carver served throughout the campaign as a staff Officer, and has provided detailed histories of three key battles. His work on Second Alamein made some discussion of terrain impact but emphasized issues about British equipment and command failures.³⁶ The *Dilemmas of the Desert War* defended Ritchie's leadership at Gazala in May-June 1942.³⁷

Narrative histories provide structure and often make use of less well known first-hand accounts; Barrie Pitt, an Infantry veteran, wrote three detailed volumes highlighting the Infantry role in a

²⁹ Kenneth Sandford, *Mark of the Lion* (London: Hutchinson, 1962). Upham won a bar to his VC at Ruweisat Ridge and was captured there.

³⁰ George Clifton, *The Happy Hunted* (London: Panther, 1952).

³¹ Geoffrey Cox, *A Tale of Two Battles* (London: William Kimber, 1987).

³² Peter Dornan, *Last Man Standing, Herb Ashby and the Battle of El Alamein* (Crows Nest NSW, Allan & Unwin, 2006).

³³ Carel Birkby, *Uncle George. The Boer Boyhood, Letters and battles of Lieutenant-General George Edwin Brink* (Johannesburg: Jonathan Ball, 1987).

³⁴ Kaushik Roy, *War and Society in Colonial India* (Oxford: Oxford University Press, 2006).

³⁵ HMSO, *The Tiger Kills* (London: HMSO, 1944) and G.R. Stevens, *Fourth Indian Division* (Uckfield: Naval & Military Press, 2011) and Antony Brett-James, *Ball of Fire. The Fifth Indian Division in the Second World War* (Aldershot: Gale & Polden, 1951) now accessed at: <http://www.ourstory.info/library/4-ww2/Ball/fireTC.html>

³⁶ Michael Carver, *El Alamein* (London: B.T. Batsford, 1964), and *Tobruk* (London: B.T. Batsford, 1963).

³⁷ Michael Carver, *Dilemmas Of The Desert War. The Libyan Campaign 1940-1942* (Staplehurst: Spellmount, 2002).

campaign supposedly dominated by armoured warfare.³⁸ John Strawson served there as a young officer and produced an early one volume history.³⁹ The siege of Tobruk has become a popular subject for analysis recently with studies by William Buckingham and Robert Lyman, who both argue it was the decisive battle which saved the British desert campaign.⁴⁰ Frank Harrison showed the contribution of the British 70th Division in breaking the siege during Crusader.⁴¹ The fight for Bir Hacheim was covered by Richard Holmes and is a useful analysis of Free French forces showing the diversity of the Eighth Army.⁴² Peter Bates, a New Zealand veteran captured at First Alamein, argues its importance over the more famous victory later that October.⁴³

The Second battle of Alamein is the most studied battle of the whole campaign. It made Montgomery's reputation and began a new phase in the development of British doctrine for future operations. Jon Latimer and Niall Barr have written two of the more detailed recent assessments, with Barr defining changes in Eighth Army doctrines in this period.⁴⁴ Other narratives, such as those by John Strawson and Fred Majdalany are useful for some analysis of the terrain and for details by veterans who served there.⁴⁵ Michael Carver's history includes an analysis of alternative plans.⁴⁶ Richard Doherty's study adds some valuable analysis of the battle's place in military history,⁴⁷ while Richard Holmes argued that the victory was important for the army⁴⁸ while Paddy Griffiths considered the important 'Snipe Action' which defined Second

³⁸ Barrie Pitt, *The Crucible Of War*. 3 Volumes (London: Cassell, 2001).

³⁹ John Strawson, *The Battle for North Africa* (New York: Charles Scribner's, 1969), and Roger Parkinson, *The War In The Desert* (London: BCA, 1976).

⁴⁰ William F. Buckingham, *Tobruk. The Great Siege 1941-2* (Stroud: Tempus, 2008), and Robert Lyman, *The Longest Siege. Tobruk the battle that saved North Africa* (London: Macmillan, 2009).

⁴¹ Frank Harrison, *Tobruk the Birth Of A Legend* (London: Cassell, 2003).

⁴² Richard Holmes, *Bir Hacheim. Desert Citadel* (London: Pan Ballantine, 1971).

⁴³ Peter Bates, *Dance Of War. The Story of the Battle of Egypt* (London: Leo Cooper, 1992).

⁴⁴ Jon Latimer, *Alamein* (London: John Murray, 2002), and Barr, *Pendulum of War* (Woodstock: Overlook, 2005).

⁴⁵ John Strawson, *El Alamein. Desert Victory* (London: Sphere Books. 1982), and Fred Majdalany, *The Battle of El Alamein. Fortress in the Sand* (University of Pennsylvania Press. 2003).

⁴⁶ Michael Carver, *El Alamein* (London: B.T.Batsford, 1963).

⁴⁷ Richard Doherty, *The Sound Of History. El Alamein 1942* (Staplehurst: Spellmount, 2002).

⁴⁸ Richard Holmes, *Battlefields of the Second World War* (London: BBC, 2003).

Alamein as an example of the changing nature of doctrine and how improved weaponry created an 'empty battlefield'.⁴⁹

The immediate aftermath to Second Alamein is less well studied with *Exit Rommel* detailing the tactical battles of the Axis retreat and Tunisian battles.⁵⁰ The works by Gregory Blaxland, David Rolf and Rick Atkinson have confirmed the importance of the Tunisian campaign as a separate stage of the campaign and not just a footnote to the Eighth Army's march towards Tunis. Gregory Blaxland defends the First Army's experiences despite the difficulties faced but David Rolf's work is a more recent reassessment and a detailed operational study and draws similar conclusions.⁵¹ American authors have taken more interest in their own formations and the impact of the Torch landings on the campaign, Orr Kelly's work gives an overview of Torch and the US battles in Tunisia.⁵² Dominic Graham combined his own experiences with a history of the campaign.⁵³

Historians such as Robin Neillands used numerous interviews with veterans and letters for his works on the Eighth Army and 7th Armoured Division.⁵⁴ Richard Doherty's works on the Eighth Army and the 51st Highland Division are patriotic, but offer useful primary sources.⁵⁵ His later work on the Royal Artillery is based much more on primary sources and compliments the official Artillery history.⁵⁶ The Regimental history of the South Notts Hussars used many first-hand

⁴⁹ Paddy Griffiths, *Forward into Battle. Fighting Tactics from Waterloo to Vietnam* (Chichester: Anthony Bird, 1981).

⁵⁰ Bruce A. Watson, *Exit Rommel. The Tunisian Campaign, 1942-43* (Mechanicsburg: Stackpole, 2007).

⁵¹ G. Blaxland, *The Plain Cook and the Showman. The First and Eighth Armies in North Africa* (Abingdon: BCA, 1977), and David Rolf, *The Bloody Road To Tunis* (London: Greenhill Books, 2001).

⁵² Orr Kelly, *Meeting the Fox. The Allied Invasion of Africa, from Operation Torch to Victory in Tunisia* (New York: John Wiley, 2002).

⁵³ Dominic Graham, *Against Odds: reflections on the experiences of the British Army, 1914-45* (London: Macmillan, 1999).

⁵⁴ Robin Neillands, *Eighth Army* (Woodstock: The Overlook Press, 2004), and *The Desert Rats, 7th Armoured Division 1940-1945* (London: Weidenfeld & Nicholson, 1991).

⁵⁵ Richard Doherty, *None Bolder. The History Of The 51st Highland Division In The Second World War* (Staplehurst: Spellmount, 2006), and Richard Doherty, *A Noble Crusade. The History Of Eighth Army 1941-1945* (Staplehurst: Spellmount, 1999).

⁵⁶ Richard Doherty, *Ubique. The Royal Artillery in the Second World War* (Stoud: History Press, 2008), and Martin Farndale, *History of the Royal Regiment of Artillery. The Years of Defeat, 1939-1941* (London: Brassey's, 1996).

accounts for Tobruk and Gazala.⁵⁷ The final battles of the Eighth Army have been less well covered. Barry Barnes used many veteran accounts on the battle for the Wadi Akirit (6 April 1943), but his account is rather disjointed. Ken Ford has recently written a series of brief battle histories which include Crusader, Gazala, Second Alamein and Mareth (March 1943).⁵⁸ David Fraser wrote a Divisional level history of the British Army which offered a general officer's view on British Divisional effectiveness during the campaign.⁵⁹

Journal articles about the impact of the terrain appeared either during the war or in the post-war period. They include an early analysis of Libya which was published by the Royal Geographical Society in 1940 and should have been of great interest to British forces in North Africa.⁶⁰ There were some later discussions by members of the LRDG on their role in the desert in 1945, which related more to the deeper Sand Seas than the coastal sector.⁶¹ Articles relating to doctrine include a brief study about Wavell's first Offensive in Libya from 1956 while John Buckley's more recent study noted that British Armoured doctrine tried to adapt to changes to combat better Axis equipment and doctrine⁶² while other factors included the Air Battle for Malta and the importance of US aid to Britain in 1940.⁶³ Brad W. Gladman's recent study on how far Intelligence aided the improvement of RAF doctrine in the Western Desert is useful and a precursor to his later book.⁶⁴

⁵⁷ Peter Hart, *The South Notts Hussars: The Western Desert 1940-1942* (Barnsley: Pen & Sword, 2010).

⁵⁸ Barry S. Barnes, *Operation Scipio. The Eighth Army at the Battle of the Wadi Akirit, 6th April 1943* (Market Weighton: Sentinel, 2007), and Ken Ford, *The Mareth Line 1943* (Botley: Osprey, 2012).

⁵⁹ David Fraser, *And We Shall Shock Them. The British Army in the Second World War* (London: Cassell, 2002).

⁶⁰ K.S. Sandford, 'Libyan Frontiers', *The Geographical Journal*, Vol.96, No.6, pp.377-388.

⁶¹ R.A. Bagnold, 'Early Days of the Long Range Desert Group', *The Geographical Journal*, Vol.5, No.1/2, pp.30-42.

⁶² Buckley, J, 'Tackling the Tiger: The Development of British Armoured Doctrine for Normandy 1944'. *Journal of Military History*. Vol 74 (4). pp1161-1184. p1165, and Hafiz, 'The Offensive in Libya: December 1940-February 1941,' *Journal of the Royal United Services Institute for Defence Studies*, Vol.101 (602), pp.206-216.

⁶³ Michael J. Budden, 'Defending the Indefensible? The Air Defence of Malta, 1936-1940.' *War in History*. 1999. Vol 6 (4), pp.447-467, p.448, and Haglung, D.G., 'George C. Marshall and the Question of Military Aid to England, May-June 1940', *Journal of Contemporary History*, Vol.15(4), pp.745-760.

⁶⁴ Brad W. Gladman, 'Air power and intelligence in the western desert campaign, 1940-43', *Journal of Intelligence and National Security*, Vol. 13, (4) 1998, pages 144-162.

These few articles represent the majority of past journal studies on the campaign, however there is a great deal of forthcoming new research on the British and Indian Army which should redress the balance.⁶⁵

Studies on other factors

There are works which cover the various other military factors which also contributed to the performance of British forces in the campaign. These are discussed here to coincide with the final chapter which offers some key examples where these factors directly influenced the campaign. The reasons for the British presence in Egypt and her Mediterranean strategy are assessed by Steven Morewood.⁶⁶ Studies on the British Army provide useful insights into doctrine and training and include David French's work which notes the development of command and control.⁶⁷ Harris and Toase make a useful assessment of problems in the development of armoured doctrine.⁶⁸ whilst Azar Gat's revisionist work argues that military thinkers like Liddell Hart was actually a strong influence on German thinking and contributed to the development of Axis doctrine while British doctrine was struggling for clarity.⁶⁹ David Fletcher argued that poor pre-war British tank manufacture contributed to the poor performance of British Armoured Divisions in combat and led to poor quality of armoured vehicles being sent to the desert.⁷⁰

⁶⁵ Conference: 'Revisiting Churchill's Army: New Directions in the Study of the British Army in the Second World War', University of Birmingham, Friday 14 September 2012. Various papers given on the Campaign.

⁶⁶ Steven Morewood, *The British Defence of Egypt 1935-1940: Conflict and Crisis in the Eastern Mediterranean* (London: Frank Cass, 2005).

⁶⁷ David French, *Raising Churchill's Army. The British Army and the War against Germany 1919-1945* (Oxford: Oxford University Press, 2001).

⁶⁸ J.P. Harris, & F.H. Toase, (eds.), *Armoured Warfare* (London: Batsford Ltd, 1990).

⁶⁹ Azar Gat, *British Armour Theory and the Rise of the Panzer Arm. Revising the Revisionists* (London: Macmillan, 2000). Liddell-Hart had been discredited by earlier revisionists for overstating his influence.

⁷⁰ David Fletcher, *The Great British Tank Scandal. British Armour in the Second World War. Part 1* (London: HMSO, 1999).

Bidwell & Graham offer an Artillery perspective on operations and offer some controversial arguments about the effectiveness of certain British Commanders.⁷¹ The fictionalized accounts written by veterans often doctrinal details and talk of other factors include George Greenfield's *Desert Episode* which recounted a typical Infantry attack at Second Alamein, based on his own experiences. His later memoir is a useful comparison of this earlier novel,⁷² and *Men of Alamein* described the signallers work in the same battle.⁷³ Joan Beaumont details the operations of the Australian Divisions which were used at the beginning of the campaign and later at Alamein.⁷⁴ The Prime Minister directly influenced the campaign at key times and his wartime career has been closely scrutinized by numerous studies, the latest of which is by Carlo d'Este.⁷⁵ The strategic move to support Greece vitally altered the North African campaign in 1941 and Churchill's role in this decision has been analysed in Sheila Lawlor's work.⁷⁶ His influence on successive commanders is best covered by their individual biographies, including John Connell's hagiography of Auchinleck and Victoria Schofield's more balanced account of Wavell.⁷⁷

The most detailed study on the impact of airpower during the campaign is by B.W. Gladman, although he overstates his argument that the Allied Air-forces were the, 'single greatest factor' for victory, an argument which this study will refute.⁷⁸ Tedder's own biography gives his biased view on Army operations while a typical air battle account is given by Humphrey Wynn who used the

⁷¹ Shelford Bidwell, & Dominic Graham, *Firepower. The British Army Weapons & Theories of War 1904-1945* (London: Pen & Sword, 2004).

⁷² George Greenfield, *Desert Episode* (London: Panther, 1955), written in 1944, and *Chasing the Beast* (London, Richard Cohen, 1998).

⁷³ C.P.S. Young, *Men of Alamein* (Stevenage: Spa Books, 1987).

⁷⁴ Joan Beaumont, *Australia's War 1939-1945* (Sydney: Allen & Unwin, 1996).

⁷⁵ Carlo D'Este, *Warlord. A Life of Churchill at War, 1874-1945* (London: Allen Lane, 2009).

⁷⁶ Sheila Lawlor, *Churchill and the Politics of War, 1940-1941* (Cambridge: Cambridge University Press, 1994).

⁷⁷ John Connell, *Auchinleck* (London: Cassell, 1959) and Victoria Schofield, *Wavell, Soldier & Statesmen*, (London: John Murray, 2006).

⁷⁸ Brad William Gladman, *Intelligence and Anglo-American Air Support in World War Two. The Western Desert and Tunisia, 1940-1943* (Basingstoke: Palgrave Macmillan, 2009).

diaries of two pilots to recount the air battles at First Alamein.⁷⁹ A.J. Levine has made an important study of the development and effectiveness of the Allied Air Forces which deployed in Tunisia and enabled air superiority to complete the final defeat of Axis forces.⁸⁰ Perhaps the most important primary study of the Axis forces during the campaign is that by Martin Kitchen which shows the other side of each battle.⁸¹ Other useful works include James Lucas's study of Afrika Korps veterans along with the memoirs by F.W. von Mellenthin and Heinz W. Schmidt, which give valuable details of Axis planning and doctrine.⁸² The impact of Malta and the Royal Navy on the campaign has been extensively covered in major studies and narrative histories. These include both naval and air aspects such as Tony Spooner's *Supreme Gallantry* about the impact of Malta on the Mediterranean campaign and James Holland's detailed study about the defence of the island.⁸³

Conclusion

This thesis will argue that during the North African campaign from 1940-1943, British operations were influenced by the impact of the key terrain features both at the operational and at the tactical level. Secondly, it contends that these impacts should be considered alongside other standard military factors, as they had such a major influence of the outcome of each battle, especially in relation to the Army's use of improvised doctrine, which developed slowly throughout the campaign. The research uses a range of primary documents including command papers, intelligence summaries, battle reports and unit War Diaries, along with numerous personal

⁷⁹ Lord Tedder, *With Prejudice* (London: Cassell, 1966) and Humphrey Wynn, *Desert Eagles* (Shrewsbury: AirLife, 2001).

⁸⁰ A.J. Levine, *The War Against Rommel's Supply Lines, 1942-1943* (Westport:Praeger, 1999).

⁸¹ Martin Kitchen, *Rommel's Desert War. Waging World War Two in North Africa,1941-1943* (Cambridge: Cambridge University Press, 2009).

⁸² James Lucas, *Panzer Army Afrika* (London: Macdonald and Jane's, 1977), F.W. von Mellenthin, *Panzer Battles*, (Stroud: Tempus, 2001) and H.W. Schmidt, *With Rommel in the Desert* (New York: Bantam, 1979).

⁸³ Tony Spooner, *Supreme Gallantry. Malta's Role in the Allied Victory 1939-1945* (London: John Murray, 1996), James Holland, *Fortress Malta. An Island Under Siege 1940-1943* (London: Phoenix, 2004).

accounts to prove how far the key landscape features was important. The thesis has also consulted a large range of the published historiography. These works provide details of individual units and their battles which contributed to the debate on tactics or on other factors, but which rarely mentioned the impact of terrain beyond a descriptive passage. They remain firmly focussed on the impact of other military factors contributing more to the outcome of the campaign.

Chapter 2 Terrain

The campaign was mainly fought along the North African coastline, from El Alamein in Egypt, through Libya and ending at the Tunis-Bizerte bay. This chapter is an assessment of both the geography of the coastal sector from a strategic perspective and an analysis of each of the major areas of ground from a tactical level. British operations along the coastal sector were influenced by the strategic impact which affected vital supply issues and included possession of several airfields in Cyrenaica. These will be discussed, along with an evaluation of how far the areas of tactical terrain influenced each of the key battles.

The geography of the various coastal ports played a significant role in the development of British strategy. The need to supply the Army across North Africa was affected by the position and distances of the key ports and was a priority for GHQ. It believed that the coastal terrain was considered to be, 'well suited to mechanized movement and...strategically there was great scope for offensive manoeuvre.'¹ There was also an additional requirement to protect the sea convoy routes to Malta. These issues focussed British planners' attention on the importance of capturing the few ports along the coast. They also realised the need to capture and hold the coastal airfields which were positioned near the main ports and stretched north around the Cyrenaican peninsula.

This study is the first to make a full assessment of the ground conditions throughout the entire campaign. In comparison, other studies only offer a brief description of the terrain. They define its parameters and combine it with the well documented problems faced by troops living in desert conditions; climate, disease and survival in such a difficult arena. The desert environment demanded coastal supply bases which made the few available ports into important operational and strategic targets. Certain histories describe battlefields such as El Alamein, but the narrative

¹ TNA WO 201/2692. Operational Reports: first Cyrenaican Campaign. METP No 10, Lessons of Cyrenaica Campaign, Dec 1940-Feb 1941, p.39.

always returns to the impact of other military factors. The theory of the pendulum effect of war on armies is discussed more fully by Niall Barr. Briefly this argues that the effectiveness of an Army declines the further it moves away from its main supply base and into enemy territory. However it could be argued that for British operations each objective area they hoped to advance into created a 'mini-pendulum' effect for the Army. In 1940, British forces were only expected to get beyond the Libyan frontier or at least only to Tobruk. In 1941 for Crusader, the main objectives included Tobruk and the western airfields, whilst in 1942 the planned advance from the Gazala line was only planned to reach to Benghazi. Finally in 1943, the advance into Tunisia was only made when Libya was secure.

Egypt: strategic perspective

Egypt was an obvious communications hub from which to mobilize Divisions from the Empire. In the rear British supply routes were directed towards Port Said at the northern end of the Suez Canal, whilst Port Suez on the Red Sea was the safest supply base. The outbreak of war with Italy forced most British convoys to use the safer but longer route travelling 12,000 miles around the Cape of Good Hope to Port Suez. Alexandria was the main British naval base and became a target for Axis air attacks. From Alexandria there were numerous road and rail networks linked to military bases near Cairo and to the oil terminal at Haifa in Palestine. The coastal sector of Egypt was divided into a more fertile river delta in the east, surrounding the Suez Canal and River Nile, and the Western Desert stretching to the Libyan border. There were numerous British military and supply bases, along with rail and road links between Cairo and Alexandria and east to Palestine. In the west, the Egyptian Western Desert stretched for up to fifty miles inland to the Great Sand Seas, although only reconnaissance units operated in the deeper desert areas.

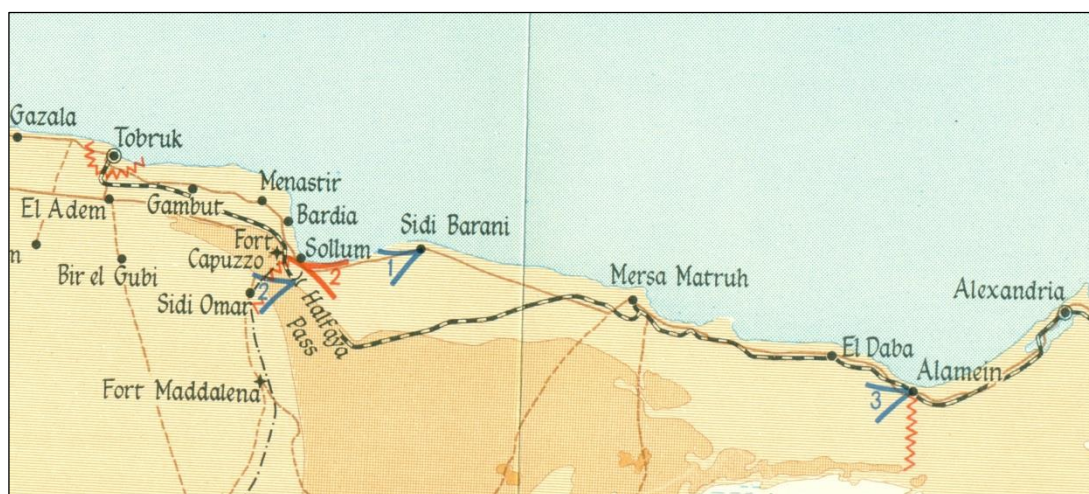


Figure 2:1 Egypt and the Libyan frontier.²

One of the main transport issues facing British forces was the single metalled road which ran for 400 miles from Alexandria to Sollum on the Libyan frontier. Military doctrine recommended that a major supply base was needed at least every 200 miles so the forward British base was sited at Mersa-Matruh, where the road and single railway ended in 1940. The distance from the Nile Delta limited the size and number of units which could be maintained along the frontier, which was 140 miles beyond Mersa Matruh. British forces ideally needed another forward base nearer the border. This, of course, would be vulnerable to enemy action as the Italian base at Bardia was just across the Libyan border. The single coast road and rail-track carried all supplies and units forward to Mersa Matruh.

The railway had been hurriedly completed and even by late 1940 it was rapidly becoming an overworked supply route leading to an over-crowded railhead which was hemmed in too near the coast by the closeness of the escarpment. This natural feature meant there was no land available to increase the supplies capacity. A new railhead had to be built at Quesaba, fifteen miles in the

² Playfair, *Mediterranean and Middle East, Vol I.*

rear, which increased overall journey time to the front.³ Further railheads were developed in 1941 and the railway was extended forward to Mischiefia near the frontier for Operation Crusader.⁴ British operations were hampered throughout 1941 because of the strategic distances from its main bases in the delta to the frontlines. The railway was extended to Belhamed near Tobruk in early 1942 and became a joint supply base for Eighth Army. It was captured and used with limited success by the Axis, running supplies back into Egypt, though the track and trains were vulnerable to constant RAF attacks.

Libya: strategic perspective

The border with Libya was an important sector for both sides and became a tactical battlefield during the campaign. Strategically, the eastern province of Cyrenaica was the central arena of the campaign during much of 1941 and 1942 and consequently became the focus of British planners. The problems with defending the province are discussed in Chapter 4 and the impact of the scale of the province remained the biggest issue for British operations. The major port in Libya was Tripoli, which was the main Axis supply base until 1943. Benghazi and Tobruk were major port bases in Cyrenaica, and both repeatedly changed hands throughout the campaign. Bardia was a small port, a few miles inside the Libyan border, which was used as an intermediary base to prevent overstretching supply lines to Tobruk 80 miles in the rear.

Tobruk was a deep water port delivering an average of 20,000 tons of supplies per month.⁵ It became an operational target for both sides because of its position and the location of airfields nearby. The Italians had built major air bases outside the perimeter defences at El Adem, Gambut and Sidi-Rezegh. This group of airfield facilities became important to cover the airspace over Egypt

³ Peter W. Rainier, *Pipeline to Battle. An Engineer's adventures with the British Eighth Army* (New York: Random House, 1943).

⁴ TNA WO 201/418. Cyrenaica campaign: planning, 1941 Nov.-1942, p.3.

⁵ Bungay, *Alamein*, p.44. It had capacity for 40,000 tons but in 1942, RAF air attacks limited this level of unloading supplies.

and the sea routes to Malta. West of Tobruk the Djebel Akhdar hills formed the strategic high ground of the Cyrenaican Peninsula. Amongst the hills was the small port of Derna. The town had a deep wadi on its eastern side which offered, 'a naturally strong position if...not encircled via MECHILI,' and was one of the best sites for defence in the hills.⁶ These hills provided numerous strong defensive positions which could block the coast road but the entire Djebel region was outflanked by difficult but still passable desert routes to the south. The north-western coast of Cyrenaica was strategically important due to the air bases sited there. These included Martuba near Derna and Benini at Benghazi, from which aircraft could target the sea routes to Malta and Tripoli.



Figure 2:2 Egypt and Cyrenaica.⁷

Benghazi was over 400 miles from Tripoli and 170 beyond Tobruk. It became a forward Axis port, delivering an average of 30,000 tons of supplies per month. British forces captured it twice, first after Beda Fomm in January 1941 and later after Operation Crusader in December 1941.⁸ However, they only held it for two short periods, (February-March 1941 and December-January 1942), and on both occasions the supply base was limited because Axis air attacks from Tripoli and

⁶ WO 201/2692. Operational Reports: first Cyrenaican Campaign. METP No 10, p.26.

⁷ J.R.M. Butler, *Grand Strategy, Vol II. Sept 1939- June 1941* (London: HMSO, 1957).

⁸ Bungay, *Alamein*, p.44. The full capacity was 60,000 tons per month, but RAF bombing reduced this.

Sicily denied its full use. Later, when under Axis control, the RAF made it a priority target and effectively reduced its supply capacity for the German forces.

Despite having the two main ports in the centre of the campaign arena, Cyrenaica remained logistically weak for British supplies because the ports and coast road were vulnerable to air attack. A more direct inland route to Tobruk ran south of the Djebel hills, then east-west across desert Trighs (trackways), via the colonial forts of Mechili and Msus. The Trighs re-joined the coast road west to Benghazi or south-west to Mersa-Brega. Here the coastline turns north-west at the Gulf of Sirte and continues another 435 miles to Tripoli. This sector of coastal area had few defensive sites for the Axis and those that were useful could be outflanked by British units moving inland. The Axis retreat did not halt for a variety of reasons, until it reached the Mareth line in southern Tunisia. This was the first major defensive site and was based on an old French defensive line built to keep Italian forces from invading Tunisia, it was developed by Axis engineers to hold Eighth Army in early 1943.



Figure 2:3 Tripolitania.⁹

The western province of Tripolitania was important to British forces in the later stages of the campaign, as they advanced towards Tunisia. It contained Tripoli which was the major port in this sector and any advance into Tunisia, needed the port to be captured. The Eighth Army Commander General Montgomery remained cautious as he pursued the Panzerarmee, because he was short of troops and the Axis forces could always riposte as they had done in previous years.

⁹ Playfair, *Mediterranean and Middle East, Vol II*.

Tunisia: strategic perspective

Tunisia became the battleground for the final six months of the campaign in 1943. Eighth Army HQ was now fully aware of the need to obtain the best analysis of the local terrain through which it would have to advance to reach Tunis. One major intelligence report focussed on an in-depth analysis of the approachable routes north and of all features of the ground which would affect operations. It was complete with tables of good and poor 'going' for vehicles, route reports, distances and key hill features.¹⁰ This developed from regular updates issued in weekly Intelligence summaries, and was recognition by Army HQ of the need for accurate information about the landscape on which to make operational plans.

The final advance by the Eighth Army required the capture of ports along the eastern Tunisian coastline for supply, including Sousse and Sfax. In the west the Torch landings in Algeria and Morocco brought fresh Allied ground forces heading for Tunis. Their routes led through northern Tunisia and they were held up for six months by the failure to capture two prominent hill features.

¹⁰ TNA WO 201/578. Topography of Tunisia. Report by Eighth Army. March 1943.

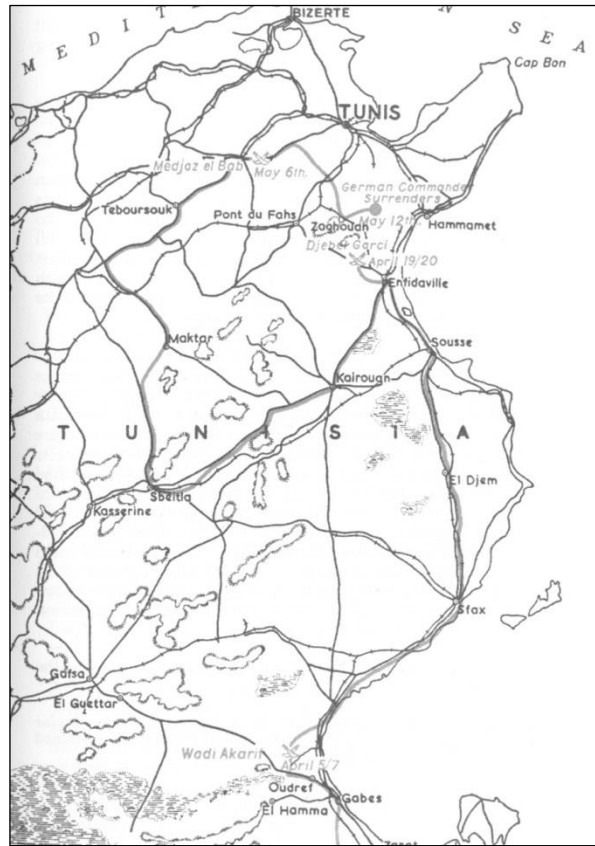


Figure 2:4 Tunisia.¹¹

The eastern edges of the Atlas Mountains cut across the country from south west to north east, which meant the roads from Algiers passed through many gorges and tunnels which were easily blocked.¹² Further south, the Medjez valley provided a more direct route for the First Army down onto the plains near Tunis. However these hills were also dominated by some key heights on either side of the valley and Axis forces delayed the Allies here too for six months.¹³ South of the Medjerda valley is the high Dorsale region, a mixture of steep hills and narrow passes. This rugged terrain influenced the winter battles and prevented both sides from gaining a major advantage in their February offensives. This blocking of the First Army's advance meant that the operational initiative was back with the Eighth Army which was coming up from southern Tunisia.

¹¹ Butler, *Grand Strategy*, Vol II.

¹² Alan J. Levine, *The War against Rommel's Supply Lines, 1942-1943* (Westport: Praeger, 1999) p.62.

¹³ 'Longstop Hill' became one of the major Axis defensive positions in the Medjez valley.

Egypt: tactical features at the El Alamein position.

The following tactical level analysis of each battlefield is described following a geographical order rather than chronological one from El Alamein to Tunis. To the west of the Nile delta, the Western Desert stretched for forty miles inland from the coast before reaching the Qattara Depression which is an area of impassable salt marsh. South of this is the Great Sand Sea, another impassable region with huge sand dunes reaching all the way into Libya. Consequently, mechanized operations were confined to the coastal sector due to the nature of the ground surface.

The first defensive position to have a major impact on the key battles was sited sixty miles west of Alexandria near the railway halt at El Alamein. This sector of the tactical ground has been described in numerous accounts of Second Alamein, with analysis ranging from a brief commentary to the more analytical comments by Niall Barr. The features which influenced the three battles of Alamein were a series of low limestone ridges and deirs (depressions). Each was a few miles long and became more prominent in height further south near the Qattara Depression. The ridges ran broadly in parallel with the coastline, from south-east to north-east, and the low valleys on either side of them became traversable passing routes for motorised units. Directly on the coast was the Tel el Eissa feature traversed by the coast road which overlooked the Alamein railway halt. Its capture became a vital pre-requisite of the successful armoured break-out during both Alamein battles because it dominated the surrounding ground.¹⁴ Immediately south of here the ground gradually climbed to the higher Miteiriya ridge which had a long south-westerly slope. The capture of this ridge became the main objective during Operation Lightfoot in October 1942 as it dominated the ground to the west and overlooked Axis positions.

¹⁴ TNA WO 201/424, The October Battle of Alamein and the advance to Tripolitania. Nov-Dec 42. Report Brief Notes on "El Alamein" battle, 23 Oct – 4 Nov 42, map of phases.

Other areas of tactical importance at El Alamein include the low, hummocky ground near Kidney Ridge which was covered by scrub bushes and soft sand and lay to the west of the Miteiriya ridge. Paddy Griffiths noted that this low ground provided good cover for low profile well dug-in anti-tank weapons, and was therefore as defensively important as the higher ridges.¹⁵ South of Miteiriya ridge was a further area of low ground flanked by two deirs. These had high-rimmed perimeters which gave useful observation points similar to a ridgeline. Infantry Lieutenant George Greenfield noted that observation from these was, 'everything' in the desert'.¹⁶ The Deir-el-Shein depression protected Ruweisat ridge from the north-west and the larger El-Mrier depression extended west and across its southern edge. Both of these areas needed to be captured in order to advance onto the central Ruweisat ridge.

The central sector of the battlefield was dominated by the narrow Ruweisat ridge which ran east-west for 15 miles. It became a forward position for both sides at times, and as with any prominent position, defending troops were exposed to enemy fire from three sides. The limestone rock made digging-in nearly impossible and required pneumatic drilling equipment or explosives to make an effective defensive site. This was a re-occurring problem for the units which captured the ridge. A feature named Stuka Wadi overlooked the low ground south of Ruweisat before rising to the smaller Alam Nayil ridge. East of Alam Nayil was Bare ridge which ran north-easterly and developed into the much higher Alam Halfa ridge. This line of southerly ridges dominated the traversable desert and provided the Axis a route of advance to their objective at Alam Halfa in August 1942. Overall the forty mile stretch of inter-connected low ridges and deirs was the best available defensive position from which British forces protected their delta bases, and dominated the fighting from July to October 1942.

¹⁵ Griffiths, *Forward Into Battle*, p.111, and Paddy Griffiths, *World War II Desert Tactics* (Oxford: Osprey, 2008) p.19.

¹⁶ Greenfield, *Desert Episode*, p.51.

Egypt: tactical features in the Western Desert

Beyond Alamein the traversable desert for vehicles widened as the Qattara Depression dropped away to the south, leaving an inland high plateau. This was divided by an escarpment which averaged 500 feet in height and had only a small number of routes traversing down to the next level. The passable ground below it ran along an east-west axis and alternated between slower going soft sand and faster hard gravel areas. The central plateau below the escarpment reached to within ten miles of the coast where another escarpment dropped the land level to the coastal plain. In 1940, the Italian 10th Army used numerous higher features in the coastal area to create a series of defensive camps from which they attempted to delay a British advance. Their weakness however, was that the areas of good going enabled motorised units to by-pass the camps altogether.

The forward base at Mersa Matruh was situated 182 miles from Alexandria and was the advance post for British forces. It was only protected by weak minefields but British commanders considered it to be a fortress similar to Tobruk. The main weakness of the base as a defensive position was that it was easily by-passed along the higher plateau, as shown by Axis forces in late June 1942.¹⁷ However, it was a useful supply base and was used as the headquarters by the Western Desert Force. Eighty miles beyond Matruh along the coast was Sidi Barrani. Here the old colonial fort and adjacent inland escarpments provided tactical features which needed to be captured before forces could move further west.

¹⁷ Axis forces used this route going east in late June 1942.

The Libyan border: tactical features

This sector was dominated by a landscape which could be used defensively by the Axis and easily halt British mobile operations. The main feature was the high coastal escarpment, a shelf of land which curved inland and divided the desert into two sectors. At the border near Sollum Bay, this ridge became a cliff with unrivalled views toward the east and over the coastal strip of land below. East of Sollum the coast road climbed sharply up the cliff face at the Halfaya Pass with a series of hair-pin bends. Axis troops showed that this route could be effectively defended if attacked from below. The top of the Halfaya pass was an equally good defensive site due to the lack of cover for approaching forces from across the plateau.



Figure 2:5 The Egyptian frontier sector.¹⁸

The desert plateau above the cliff was dominated by a series of low hills and small ridges which extended inland for twenty miles. These were noted as important features by British planners in 1940, and were developed by the Axis into a series of interlocking defensive positions in May 1941.¹⁹ The Italian base at Fort Capuzzo was positioned on one of these high features and

¹⁸ Butler, *Grand Strategy, Vol II*.

¹⁹ TNA WO 201/2691. Operational reports: first Cyrenaican campaign, Sept 1940- Feb 1941, p.16.

dominated the border and coast road. Other key heights included Pt 206 and 208, and further inland was the Hafid ridge feature which consisted of three separate ridges. This group of Axis held positions became the British objectives for both Operations Brevity and Battleaxe in the summer of 1941. In the autumn of 1941 the Eighth Army avoided them by a 50 mile detour inland into Libya for Operation Crusader. The border south from Capuzzo was marked by a thick barbed wire fence erected by the Italians to prevent the local Senussi tribes moving into Egypt. It was a deep array of up to five layers of wire, which stretched passed the Omar position to Fort Maddalena fifty miles inland. This was the southern-most point where large mechanized forces crossed the border. The Omars were developed into one of the strongest defensive Axis positions along the frontier in 1941.

Cyrenaica: tactical features

The importance of tactical terrain in Cyrenaica increased as the campaign progressed. In 1942 the Eighth Army HQ began requesting more details from Intelligence reports for data on relief and the vehicle going across different types of ground.²⁰ The small port of Bardia was the first key objective for British forces advancing into Cyrenaica. The base perimeter defences were situated on the plateau above the cliffs, but they were overlooked by ridges outside the perimeter and divided by a ridge of high ground inside the base. Beyond the frontier, much of the traversable landscape consisted of a hard gravel plateau, with three escarpments running west to the Djebel Akhdar hills.

The next main port along the coast was Tobruk which was situated eighty miles west of Bardia. The perimeter defences here included two lines of concrete pill-boxes, barbed wire and trenches each protected by minefields and a deep anti-tank ditch. The higher ridges inside the perimeter created additional defence lines for observation and artillery batteries, making it a formidable

²⁰ TNA WO 201/539, Eighth Army: Intelligence matters: Topographical Reports, Eighth Army HQ, 9 Feb 42.

fortress.²¹ The weakest point of the perimeter was in the low ground to the south-east, which was overlooked by a high ridge.²² The three escarpments south of the port combined to make a complex series of defensive positions which overlooked the Axis by-pass road and Sidi Rezegh Airfield. It was this area which became the focus of British operations during Operation Crusader. The quadrangle of high ground to its north and west dominated the whole area in that sector.

The western coast of Cyrenaica contained stretches of very poor going with soft sand, which slowed travel and hindered navigation. The inland area south-east of the Djebel hills was a mixture of hard gravelled plateau, deep wadis and larger rocks which slowed movement. The plateau offered a broader stretch of passable going and was crossed by numerous tracks running east-west or north, which provided routes for vehicles and aided navigation. However these were soon ruined by the passage of hundreds of vehicles which ground the surface to a fine dust which clogged air filters and engines. Vehicles parts rapidly wore out which made movement here difficult, but both sides used this shorter route to gain an operational advantage over each other.²³ The Via Balbia continued down from the Djebel hills to Cyrenaica's second major port of Benghazi. This was surrounded by a low plain to south, and was bordered in the east by a ridge which was thought to be a good defensive line. However, it proved inadequate after the first Axis advance in March-April 1941, with GHQ noting that it was, 'indefensible from a military point of view.'²⁴

Beda Fomm to Tripoli

The coastal plain south of Benghazi provided navigation points and landing grounds to hold this large expanse of desert and included the small settlement of Mersa Brega, with its important coast road and track junction. The coast road crossed over low hills and was often bordered by soft sand

²¹ William F. Buckingham, *Tobruk. The Great Siege 1941-2* (Stroud: Tempus, 2008).

²² The British broke through this sector in 1940, as did Panzerarmee in 1942. Rommel's attacks of April 1941 were hasty and poorly reconnoitred in comparison.

²³ WO 201/2692. Operational Reports: first Cyrenaican Campaign. METP No 10, p.62.

²⁴ Moorehead, *African Trilogy*, p.136. Cairo Communiqué, 3rd April 1941.

dunes which were impassable, especially in wet weather. These features restricted the Italian retreat in February 1941 and contributed to their defeat at Beda Fomm. South of Mersa Brega, the good vehicle going was narrowed to a few miles by the deep wadi Feragh and some appallingly bad hummocky ground. British forces twice attempted to make into a viable defensive position in this area and failed because of a combination of the bad terrain and poor doctrine. Further west the El Agheila colonial fort was a much more effective position. The passable terrain was blocked inland by wide salt marshes and was overlooked by high features to the west. This marked the high point of British advances until the pursuit of December 1942, when the defeated Panzerarmee only used it as a delaying place en-route to Tunisia.

The province of Tripolitania had a more broken physical terrain along the coast road sector. It was good defensive ground with numerous deep wadis, and high land mixed in with barrier dunes, ridges and marshy lagoons. It provided some of the strongest defensive positions during the Axis retreat of January 1943. Near Tripoli, a line of hills gave the Axis a chance for a more lengthy defence but they retreated again by the 23 January, although they had succeeded in dramatically slowing the Eighth Army's advance to the Tunisian border which added to its supply problems. Axis commanders decided to make a proper defensive site using the old French Mareth Line in Southern Tunisia, rather than trying to hold the British in Libya.

Tunisia: tactical impact

The need to overcome the terrain became part of the planning process to defeat the Axis bridgehead which now surrounded the ports of Tunis-Bizerte and defended approaches to these from the hills inland. Their air forces operated from all-weather airfields on the plains south of Tunis countering Allied air superiority for a while. Eighth Army's approach crossed the undulating desert which was divided by the Djebel Dahar hills running parallel to the coast. To the west was

the Great Erg region which had difficult going near to the hills and deep sand dunes further west.²⁵ Therefore it was forced to remain on the eastern side of the Djebel to manoeuvre and maintain supplies more easily.

South of the Dorsale were large salt lakes called the Chotts which narrowed movement northwards to a fifteen mile wide gap from the marshes to the sea. Here the Wadi Akirit and the high ground behind it provided one of the strongest defensive positions on the coast for the Axis to defend.²⁶ Eighth Army quickly appreciated the problems here, 'the easiest way to take the MARETH line is in the rear and that if ROMMEL'S forces are to [retreat]...the GABES gap must be closed.'²⁷ This was one of the few positions which could not be outflanked, except by strategic movement of forces into the Dorsale uplands, such as an advance by the U.S. 2nd Corps. Southeast of the Chotts undulating dunes were interspersed by extensive wadis which became heavily waterlogged in winter/spring dominated.

At Mareth French engineers had built a defensive line of concrete positions from the hills and behind two coastal wadis. By 1943, Axis engineers had created new battalion sized defences and numerous heavy anti-tank positions specifically to delay Eighth Army's advance. Its only weakness was a gap in the hills at the Djebel Tebaga, which led behind the Mareth line. It was reconnaissance by the Long Range Desert Group (LRDG) who discovered a route which led to the New Zealand Corps level move which outflanked the Axis. The Mareth line artificially strengthened a wide coastal wadi and its defence was aided by the wet spring weather which waterlogged the low area.

North of this the Gabes gap was divided by the Wadi Akirit and this was overlooked by a series of high hill features which combined to make the sector one of the strongest defensive positions in

²⁵ WO 201/578. Topography of Tunisia. p.2.

²⁶ The Gabes gap included the immensely strong wadi Akirit position, considered almost a mini Alamein in terms of a defensive position.

²⁷ WO 201/2156. Intelligence Summaries. Jan-March 1943. Summary No. 420, 29 Jan '43.

the region but Axis did not have time to make it impregnable. Enfidaville provided an even higher range of hills which effectively blocked further direct advance by Eighth Army. The upland nature of Tunisia led to a change in the style of operations, giving the Allies a taste of what they might face in southern Europe; and it required strategic co-ordination by First and Eighth Armies to overcome this difficult ground.

The geography of North Africa influenced British operations for much of the campaign. The four hundred miles from the Delta bases to the frontier affected operations in 1940 and 1941, while the scale of Cyrenaica became the overriding problem for British forces over two years. This was partly driven by the need to secure the western airfields needed for the protection of Naval convoys to Malta, but also to deny Benghazi and Tobruk from the Axis. The final advance into Tunisia was affected by the location of the more dramatic relief features which delayed or blocked the final advance to Tunis-Bizerte. The vital ports of Benghazi and Tobruk remained vulnerable to Axis air attack from Sicily, Tripolitania and Crete, which undermined their operational capacity.

At the tactical level features of high ground dominated the landscape and often made the best defensive positions. Operations show the need to take and hold this high ground for observation. Other features such as the higher edges of deirs or low hummocky ground provided effective deployment positions for anti-tank and Infantry formations and took on an increased tactical importance as they dominated surrounding areas. Tripolitania had more undulating features along the coast which were useful delaying positions but the open desert flank undermined these. Tunisia provided more European relief features which presented British forces with fresh problems of assault doctrine.

Chapter 3 Operation Compass to Beda Fomm, December 1940-February 1941.

This chapter details the first British campaign against the Italian 10th Army and the subsequent capture of Cyrenaica, and highlights the way in which tactical terrain contributed to British successes in each of the main battles. It shows that British assault doctrines at this time were successful and describes how two final defensive actions were aided by the terrain. Other factors which also contributed to British success have been noted by historians including Jon Latimer, George Forty and Barrie Pitt and include military factors such as good planning, better equipment, training, and higher morale.¹ However, most commentators only offer vague references to the importance of the terrain and ignore the tactical impact shown here. The more obvious operational level impact of the shorter desert route via Msus cutting the coast road south of Benghazi is noted, but again the weight of discussion mostly relates to supply issues. Whilst this contributed to the rapid British advance across Cyrenaica, it was clearly the decisive impact of the tactical terrain which contributed to British successes in each of the main battles which should be considered alongside these other military issues.

The Campaign: Opening phases

Following the outbreak of war in June, British forces defended the Egyptian frontier by carrying out small scale patrols and harassing actions. The commander of Western Desert Force, Lieutenant-General Sir Richard O'Connor, initially used the 7th Armoured Division to hold the front by maintaining offensive patrols and with attacks on isolated enemy positions. By mid-September, Mussolini pressured Marshal Graziani to order an advance by the 10th Army, which duly entered

¹ Jon Latimer, *Operation Compass 1940. Wavell's Whirlwind Offensive* (Oxford: Osprey, 2000), George Forty, *The First Victory*, and Barrie Pitt, *Crucible of War, Vol I*.

Egypt and reached Sidi Barrani, sixty miles beyond the frontier. Here it halted and built a series of defensive camps awaiting improvements to the coast road and fresh supplies. British forces began operations with improvised tactics including aggressive patrolling and made best use of the terrain to delaying the Italian advance.²

By late October Italy had invaded Greece, and the Chiefs of Staff (COS) wanted Wavell to send air and ground reinforcements to support the Greek campaign.³ Wavell ordered O'Connor to plan a short counter-offensive against the Italians with further exploitation to capture the Libyan frontier sector and attacking the forward Italian base at Tobruk. Units were also needed for other active Middle East campaigns.⁴ Supply was an issue because maintaining two divisions in the desert would quickly use up all the available reserves.⁵ British Intelligence estimated there were elements of six Italian Divisions occupying camps around Sidi Barrani with patrols by, 'columns of infantry and guns...reinforced by tanks,' in between.⁶ It was this ground which became vital to British success in the operation which followed.

Compass: Terrain

The land between the two armies was an eighty mile stretch of open desert with areas of good-going for vehicles mixed with poor-going sections of soft sand. The coastal plain was divided by a ridge-escarpment running parallel to the coast with few accessible tracks down it. The Italian camps were situated mostly east and south of Sidi Barrani, some were sited to defend the few

² Joly, *Take These Men*, pp.21-37.

³ Butler, *Grand Strategy. Volume II*, p.367.

⁴ TNA WO 201/2691. Operational Reports: First Cyrenaican Campaign, Sept1940-Feb 1941. Appendix A. These were in East Africa and now Greece.

⁵ WO 201/2691. Operational Reports: First Cyrenaican Campaign, Sept1940-Feb 1941, p.1.

⁶ Joly, *Take These Men*, p.48.

escarpment tracks, and each was held by elements of a Division. They were mostly sited on a convenient rise adjacent to the tracks, to defend the obvious routes of advance.⁷

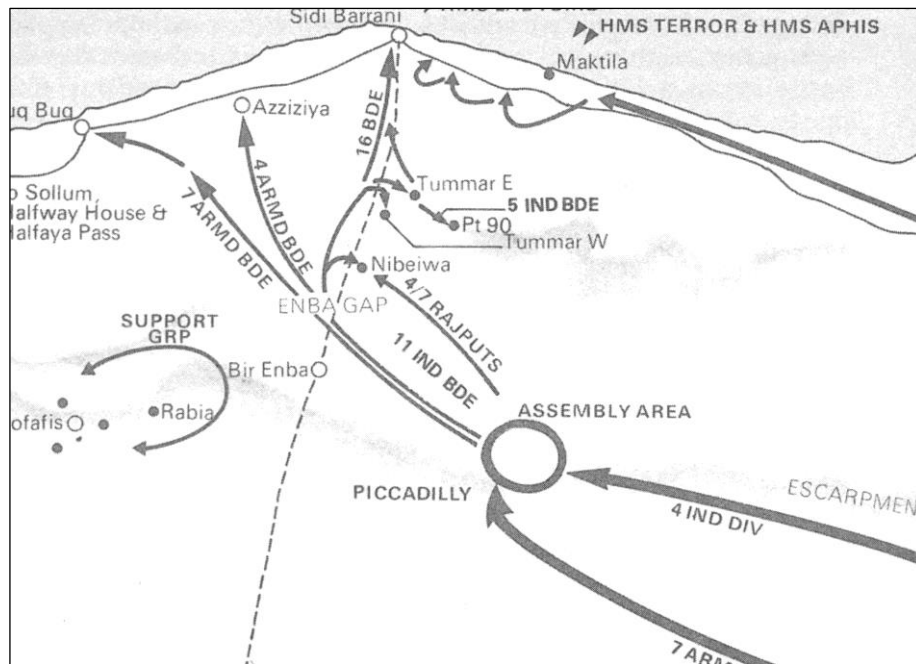


Figure 3:1 Operation Compass; the assault on the Italian camps.⁸

Each camp was protected by an anti-tank ditch outside a low bank of earth or stones, and was strengthened by mines and wire on the eastern faces.⁹ Near the coast were the Tummars group and Pt 90 which covered the track to Maktila, the farthest point advance for the Italians. The first British objective was Nibeiiwa camp situated five miles from the Tummars and sited to defend the escarpment track at Bir-Enba. The vital gap in the Italian line of camps was twenty-five miles across and lay between Nibeiiwa and Rabia, before the next group at Rabia and Sofafi, which were sited on top of the escarpment to prevent any British moves along the higher plateau. This group

⁷ Moorehead, *African Trilogy*, p.57.

⁸ Pitt, *Crucible of War*, Vol I.

⁹ WO 201/2691. Operational Reports: First Cyrenaican Campaign, Sept1940-Feb 1941.pp.3-4.

was considered too strong for a frontal attack by the limited British units available, so they were screened off by the 7th Support Group Jock Columns.¹⁰

The ground between Nibeiwa and Rabia was described as, 'flat and featureless, with no vital or commanding ground.'¹¹ British aggressive patrolling tactics prevented the Italians from establishing another camp on this low ground which provided an opportunity for O'Connor.¹² The localized doctrine of using Jock columns had successfully kept the gap open, and now the two attacking divisions could make their approach march. The going immediately south of Mersa-Matruh was particularly broken terrain, which could have delayed the British advance, so units moved along the upper plateau and then dropped down to the Enba Gap which was still a significant night march of 85 miles. Lieutenant Rea Leakey of 1st RTR noted, 'The upper plateau...was good going for vehicles...The land dropped fifty feet, but there were few tracks down it...the plain was soft sand, wadis and generally bad going.'¹³ The British advance to contact was successful because it utilized the better going of the upper plateau, before returning to the softer ground of the plain.

The tactical terrain affected the outcome of Compass and subsequent battles, which led to the defeat and capture of most of the 10th Army deployed in Cyrenaica. Strategically, the capture of Cyrenaica for the first time eased British naval convoys to supply Malta and protected the Suez Canal sector from aerial bombing. The landscape had an operational impact on planning, because it determined the preparatory moves by British forces and the first tactical assaults. O'Connor was able to take advantage of the gap between the Italian camps on the escarpment and at Nibeiwa.

¹⁰ WO 201/2691. Operational Reports: First Cyrenaican Campaign, Sept 1940-Feb 1941, p.4.

¹¹ Joly, *Take These Men*, p.48.

¹² G.L. Verney, *The Desert Rats, The History of the 7th Armoured Division 1938 to 1945* (London: Greenhill. 1990) p.28.

¹³ Liddell-Hart Centre for Military Archives (LHCMA) Rea Leakey papers 1/2, pp.20-23.

Then, the fast pursuit phase across the desert route via Msus-Mechili helped to trap the retreating Italian columns at Beda Fomm and Sidi Saleh.

Compass was a success for current British tactical doctrine at that time, with the combined arms assaults by 4th Indian Division Infantry and the Matildas from 7th Royal Tank Regiment (RTR). The heavy armour had led the break-in through the Italian perimeters and the Infantry followed, clearing successive positions. Later on, the 6th Australian Division proved equally successful using an 'Infantry-first' variation of the assaults made during Compass. Equally aggressive British patrolling and the use of Jock columns around the camps had kept Italian units hemmed in and reluctant to engage British units beyond the camp perimeters.

Compass: Preparations

Operation Compass was the first offensive by British forces (Western Desert Force) and was to be a five day raid. Fast convoys had provided new vehicles which needed time in the workshops to be prepared for the desert environment while their crews undertook training.¹⁴ The 7th Armoured Division was strengthened with both Brigades brought up to three regiments, totalling 276 tanks. The 4th Indian Division had two Indian and one British Brigade (nine battalions) with three artillery regiments and divisional support units, the attack force totalled some 25,000 troops. The spearhead of each assault would be led by the Matilda tanks of 7th RTR, supported by four Regiments of Artillery.¹⁵ The Australian 6th Division which arrived in January provided the Infantry force for the later campaign. The Italians, in contrast, had 75,000 troops in six Divisions, from an estimated 250,000 troops deployed across Libya. The armoured force was General Maletti's

¹⁴ David Masters, *With Pennants Flying. The Immortal Deeds of the Royal Armoured Corps* (London: Eyre & Spottiswoode, 1943) p.37.

¹⁵ Jon Latimer, *Operation Compass*, p.25.

Raggruppamento and was considered the most well trained unit, equipped with 120 poor quality tanks and 2,500 Libyan Infantry.¹⁶

Wavell issued an order to O'Connor on 2 November which showed the importance of terrain in British planning, 'we are more highly trained...we know the ground and are better accustomed to desert conditions.'¹⁷ Each Division needed a supply dump to cover the sixty mile distance so two Forward Supply Depots (FSDs) were created thirty miles forward of Matruh. The assaults were practised on a full scale replica of Nibeiwa camp built for an exercise in late November. After this some of the tactical plans were altered and this increased the confidence of the participating troops. The RAF committed three fighter squadrons for air cover and ground attacks while six squadrons of bombers targeted aerodromes and communications with the camps being bombed to mask the overnight approaching march.¹⁸

Compass: battle summary

The advance was made during the night of 8/9 December, as RAF sorties masked the noise of hundreds of vehicles passing close to Nibeiwa. The first assault began with a brief bombardment, and then two squadrons of Matildas attacked the rear entrance and overran the tank battalion leaguered there. The Matildas were quickly followed by two battalions of Infantry who fanned out to eliminate strong points, whilst a diversionary attack was made against the eastern perimeter. It was noted how the Italian Infantry quickly gave up once they had lost their leaders whereas the Italian gunners 'fought like hell,' for over two hours despite being surprised, but by 10.40am the camp was secured.¹⁹ They continued to fight against the imposing Matildas even at close range but

¹⁶ Buckingham, *Tobruk*, p.80, 1 battalion each of M11/39 and Light L3/35 tanks.

¹⁷ WO 201/2691.METP No.10.Operational Reports: Sept 1940-Feb 1941. Appendix D. 15/12/40.

¹⁸ WO 201/2691. Operational Reports: First Cyrenaican Campaign, Sept1940-Feb 1941, pp.1-2.

¹⁹ Peter Cochrane, *Charlie Company. In Service with C Company 2nd Queen's Own Cameron Highlanders 1940-1944* (Stroud: Spellmount, 2007), p.31.

could only cause heavy damage to them, which contributed to the collapse of Italian morale and most troops surrendered.²⁰

The subsequent assault on Tummar-West was made after a brief replenishment. The lack of surprise and a growing sandstorm made this a much tougher objective to overcome, so only nine Matildas were to lead the later assault on Tummar-East.²¹ Both Italian camps were fully aware of the British attacks by now and proved to be more difficult to overcome for British Infantry. The broad pattern of each battle remained the same with aggressive British infantry charging Italian positions, supported by Matildas. The 'Italian gunners fought to the last,' and once they were overrun the remaining Infantry quickly surrendered.²²

Continuing the advance, the larger base at Sidi-Barrani was assaulted the next day by the 16th Brigade. Again using a sandstorm as cover, the eleven remaining Matildas and other armour led a successful break-in. It was another tough battle and produced the highest casualties for British troops as the Brigade suffered 250 of the 600 casualties received. The coastal group of camps were captured or abandoned, 1st Libyan Division withdrew from Maktila and was attacked in the open by Selby Force and surrendered the following day. Operationally, the capture of the coastal group of camps had broken the Italian defensive line and made it untenable. The Rabia and Sofafi group were quickly abandoned and the garrisons retreated towards Bardia. Near the coast at Buq-Buq a mass of Italians were caught with their guns and they fought back for a while.

Despite this resistance, the action ended when 1st RTR outflanked and knocked the battery out and took 6,000 prisoners. While the Italian Gunners showed some resolve, the Italian Air Force offered only weakened resistance, with high level bombing or occasional low level attacks to delay

²⁰ Patrick Delaforce, *Monty's Marauders. Black Rat & Red Fox: 4th and 8th Independent Armoured Brigades in WW2* (Brighton: Tom Donovan, 1997) pp.12-15.

²¹ Pitt, *Crucible of War*, Vol I, pp.106-107.

²² TNA WO 201/349, "Situation reports on current operations: Operation 'Compass'. 1940 Dec.-1941 Jan. I/1014. 12/12.

the British advance.²³ The 10th Army had fought back, yet an aggressive doctrine and good use of the terrain had enabled the smaller British forces to overcome their defensive line of camps. Minor armoured actions were also affected by terrain as British forces advanced into Libya, with the 1st RTR making good tactical use of a ridge to deploy unseen before advancing onto the flank of a column of twenty Italian M13s.²⁴ Such aggressive tactics by armour and Infantry strengthened British morale. The Western Desert Force made a successful pursuit into Libya, but was operating at the extremity of its supply lines and suffering constant shortages of fuel, water and ammunition. The supply situation remained ad-hoc with only essentials being delivered by sea to various small ports along the coast.²⁵

After the camps were lost, Marshal Graziani wanted to pull back and concentrate his remaining forces near Tobruk to await fresh reinforcements, but Mussolini insisted Bardia was also defended. After Compass, Wavell countered this logical defence plan by blockading each port and then captured them by direct assault, which left Benghazi and the more distance western airfields as distant objectives after Tobruk.

Bardia: Terrain

The next target to be assaulted was Bardia which was situated on a cliff top headland overlooking an enclosed port and divided from the plateau by the Wadi Gefani. The base had a 17 mile perimeter, with the outer line including minefields, wire defences and an anti-tank ditch with concreted emplacements every 800 yards for anti-tank guns and heavy machine guns.²⁶ The interior defences included a secondary line of emplacements, called the 'switch-line'. They were widely spaced, however, which undermined their ability to interlock their fire.²⁷ The coastal

²³ Farran, *Winged Dagger*, pp.24-25.

²⁴ Rea Leakey, *Leakey's Luck. A Tank Commander with nine lives* (Stroud: Sutton, 1999), pp.36-37.

²⁵ TNA WO 201/349. Operation Compass: Cipher Messages. 1231/14. 12.14.40

²⁶ Latimer, *Operation Compass*, p.41.

²⁷ Moorehead, *African Trilogy*, p.82.

escarpment divided the base on an east-west axis, leaving the northern sector under observation from higher ground and vulnerable to isolation. This main geographical feature had a direct impact on the defence of the base.

Bardia: preparations and battle

Bardia needed to be captured by 13th Corps because its garrison could threaten British supply routes if by-passed.²⁸ There was a three week delay while the 6th Australian Division was brought in: although they lacked battle experience they were motivated to assault and capture a major Italian base. The delay in bringing forward the bulk of 6th Australian Division enabled its HQ to make a more detailed analysis of the defences and identify the key weakness of the 'fortress' and how it might be attacked.²⁹ They were facing a garrison which included elements of four Divisions, totalling some 30,000 troops, along with one hundred tanks and over 400 guns.

The key terrain was identified and became a primary objective from which further advances could be made. Sixth Division directed its 16th Brigade towards the high ground, where units were to, 'exploit to an average distance of 1500 yards to the top of the escarpment, thus forming a bridgehead.'³⁰ The initial break-in would be made by Engineers and Infantry through a narrow front of just four outposts, supported by artillery fire from five regiments to cover the Infantry crossing the open plateau. Only then would 7th RTR's remaining half Regiment of Matildas follow up and help roll up the emplacements either side of the gap. They would also help secure the escarpment to expose the flank and rear of the numerous Italian batteries deployed in the north-east sector.

²⁸ Western Desert Force had been re-named on 1 January 1941.

²⁹ WO 201/2691.METP No.10. Operational Reports: Operations of 13th Corps in Cyrenaica. 12 Dec 1940-7th Feb 1941, p.17.

³⁰ <https://www.awm.gov.au/collection/records/awm52/subclass.asp?levelID=297>. AWM 52 8/2/16/6. 16th Infantry Brigade, War Diary. January February 1941, pp.1-2. Accessed 7 February 2012.

The assault began early on 3 January with a 25 minute bombardment, following which Engineers cleared wire and mine defences whilst 16th Brigade stormed the frontline positions followed by the 'I' tanks and truck mounted anti-tank guns. The Brigade Diary noted that from the beginning, 'hordes of Italians threw down their arms and surrendered...[so] by early afternoon the count had reached 10,000...However other BTYS [batteries] refused to quieten and all day long pounded back at us.'³¹ The intensity of the Italian barrage from 400 guns provided the strongest response to the vigorous Australian attacks.

The initial attack successfully divided the Italian defences, which continued to fight on separately at first. The 16th Brigade Infantry secured its objectives and planned for the next day's assault, the battalions used the ridgeline as an enfilade position on the exposed the Italian artillery and gave some protection for the next advance. Heavy naval gunfire support from three battleships helped to break the morale of the remaining defenders and the Italians fought on until the assaulting troops reached them and then most of them surrendered.³²

The Australian 17th Brigade Infantry assaulted the south-east sector the next day with the last units surrendering in the afternoon of the 5 January. British commanders were surprised by the large numbers of garrison captured and their low morale which the prisoners blamed on a lack of support from Tobruk and their Air Force, who had failed to stop heavy RAF and naval bombardments.³³ This was a second major defeat for the 10th Army, with over 400 artillery pieces, 127 tanks and 700 trucks being captured along with 38,300 troops. British forces had lost suffered

³¹ <https://www.awm.gov.au/collection/records/awm52/subclass.asp?levelID=297>. AWM 52 8/2/16/6. 16th Infantry Brigade, War Diary. January February 1941. p6. Accessed 13 February 2012.

³² Latimer, *Operation Compass*, pp.-53-54.

³³ <https://www.awm.gov.au/collection/records/awm52/subclass.asp?levelID=297>. AWM 52 8/2/16/6. 16th Infantry Brigade, War Diary. January February 1941, p.30. Accessed 14 February 2012.

500 casualties, with some of the few remaining Matildas receiving further heavy damage from the close range fighting.³⁴

The fall of Bardia was a major strategic turning point in the campaign and caused Hitler to intervene with German forces deployed to the theatre to prop up the Italian war effort. The first units of the Afrika Korps (DAK) were dispatched to Tripoli as a blocking force and a Luftwaffe Air Corps of 200 aircraft was sent to Sicily. This unit was to act offensively against the Royal Navy in the central Mediterranean and to attack ports and bases in western Cyrenaica.³⁵ The first air attacks on the Navy heavily damaged the carrier *Illustrious* on 10 January, which considerably weakened the Royal Navy's capacity to provide air cover in future operations, while Army units in Cyrenaica were constantly attacked.

In Cyrenaica these air attacks were noted by the 11th Hussars diary on the 23 January, just after Tobruk had been captured from the Italians.³⁶ The Western Desert Force had to face three more months of determined air attacks before any contact with the Afrika Korps. These also influenced the dispersal of British formations and vehicle movement by supply columns, the 6th Australian Division HQ insisted that dispersal discipline was re-established after Bardia, as they feared a loss of trucks would affect their already limited ability to bring forward supplies.³⁷ At the tactical level, both Bardia and Tobruk capitulated once Commonwealth units had occupied the dominating ridges within their defences. The terrain on the frontier offered a line of defensive positions which forced O'Connor to drive his pursuing units rapidly forward to prevent any Italian consolidation along the frontier.

³⁴ Latimer, *Operation Compass*, pp.41 and 54.

³⁵ Hugh Trevor-Roper, *Hitler's War Directives 1939-1945* (Edinburgh: Berlin, 2004) p.99.

³⁶ WO169/1690. 11th Hussars War Diary, 21 Jan 1941, p.7.

³⁷ <https://www.awm.gov.au/collection/records/awm52/subclass.asp?levelID=297>. AWM 52 8/2/16/6. 16th Infantry Brigade, War Diary. January February 1941, p.34. Accessed 14 February 2012.

Tobruk: terrain and battle summary

The main Italian base at Tobruk had a well-constructed defensive perimeter, but despite this the garrison Commanders had little answer to the British advance and simply awaited encirclement. The perimeter defences at Tobruk ran in a thirty mile arc which stretched eight miles inland from the port. The outer anti-tank ditch was twenty feet wide and had been linked with natural wadis where possible. It was overlooked by more than seventy concrete emplacements which were protected by wire and mines with a second line of emplacements sited 500 yards behind. However, the Australian reconnaissance concluded there was weakness caused by a series of ridges inside the perimeter and also noted incomplete perimeter sections in the south-eastern sector.³⁸ These escarpments overlooked the perimeter, coast road and harbour and were the main objectives to controlling the base. The Pt 209, Ras-el-Madauer height overlooked the perimeter to the south-west, whilst the Hagiag Chargia ridge overlooked the airfield and included the Italian HQ at Fort Pilastrino. The 6th Division took 12 days to plan and train for the assault on the 21 January, which included making full scale replicas of the defences for the Infantry to practice assault techniques.

³⁸<https://www.awm.gov.au/collection/records/awm52/subclass.asp?levelID=297>. AWM 52 8/2/16/6. 16th Infantry Brigade, War Diary. January February 1941, p.31. Accessed 13 February 2012.

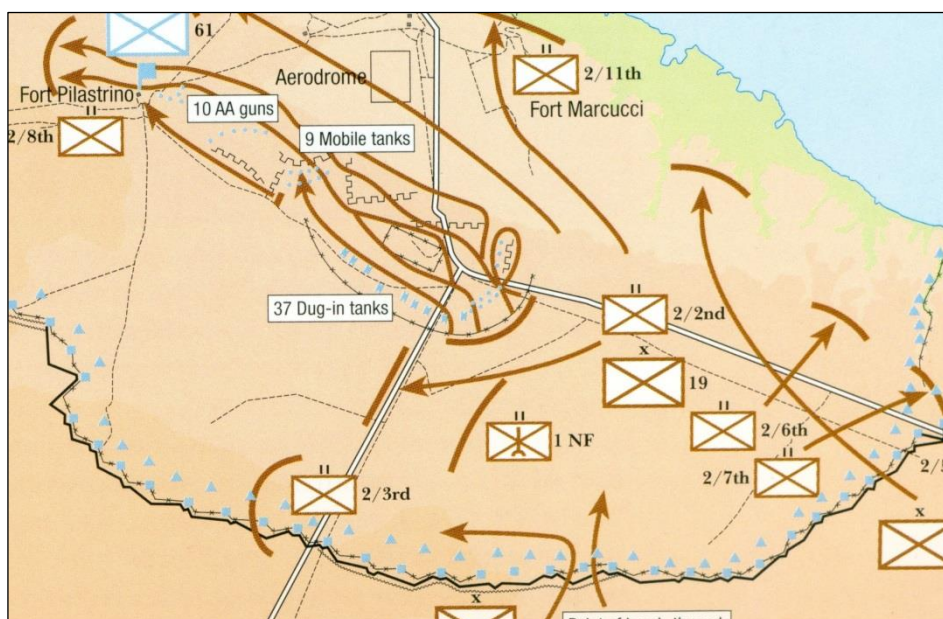


Figure 3:2 The Italian Defences at Tobruk, January 1941.³⁹

The British assault began on the 21 January with the 19th Brigade breaking through at the weakest south-eastern sector and advancing towards the Hagiag ridge which was behind the frontline and divided the defences. Two HQ sites were captured along with the garrison commander by the end of the first day and the Australian commanders ordered a general advance the following day when the remaining Italian opposition collapsed. The Italians had suffered a third major defeat which forced the remnants of the 10th Army to retreat across western Cyrenaica.

Tobruk: outcome and effect on British operations

British forces pursued the retreating Italians in two groups while the Australians followed along the coast road and soon captured Benghazi and the nearby vital western airfields. However, these were affected by bad weather which made them unusable during the winter. Inland, O'Connor ordered a mixed arms force to move rapidly across the shorter desert route to Mechili to cut the road south of Benghazi, and block the 10th Army's retreat. Trooper Palmer from 2nd RTR remembered the approach march of around 150 miles as a combined force of exhausted men and

³⁹ Playfair, *Mediterranean and Middle East, Vol I.*

tanks.⁴⁰ It was this force which deployed in their respective defensive sites with just a few hours to spare and engaged the retreating Italian columns along the coast road.

Sidi-Saleh: the terrain and battle

At Sidi Saleh the tactical terrain influenced the battle in favour of the British units; the soft ground rendered Italian attacks on British positions ineffectual, limiting them to narrow frontal assaults along the road. Between the road and the sea there were more soft-going dunes which were impassable for vehicles. The supporting British artillery deployed four miles to the east to give covering fire to the whole area.⁴¹ The Brigade faced an approaching column of 20,000 Italians with just 2,000 troops, a few armoured cars and eleven anti-tank guns. British defensive doctrine was effective due to the deployment of the Infantry in low ground and the ferocity of the defensive fire which stopped the Italian column. The battle continued in darkness with the 7th Hussars breaking up an attempted flank move on the seaward side. The following day three more attacks were repulsed; the last of which penetrated the Rifle Brigade positions, but was stopped at close range by anti-tank and supporting artillery fire.

The British had used the terrain to help their defence of the area. The hummocky ground suited the low profile of the 2pdr anti-tank guns and Infantry positions which them difficult to locate. There was close coordination between Lieutenant-Colonel Campbell from 4th Royal Horse Artillery (RHA) and Lieutenant-Colonel Renton from 2nd Rifle Brigade which contributed to the determined British defence. One officer observed that another determined push by the Italians would have

⁴⁰<http://www.bbc.co.uk/ww2peopleswar/stories/94/a2064494.shtml>, Memoir of James Palmer, 2nd RTR. Article ID: A2064494. Accessed 17 June 2011.

⁴¹ TNA WO169/1390. 11th Hussars Diary. Jan-Dec 1941. Appendix L. Report on battle at SidiSaleh, 5-7 February 1941, by Col. Combe.

broken through, as they did not realize how incredibly weak the Rifle Brigade position was, with no reserves and almost no supplies left.⁴²

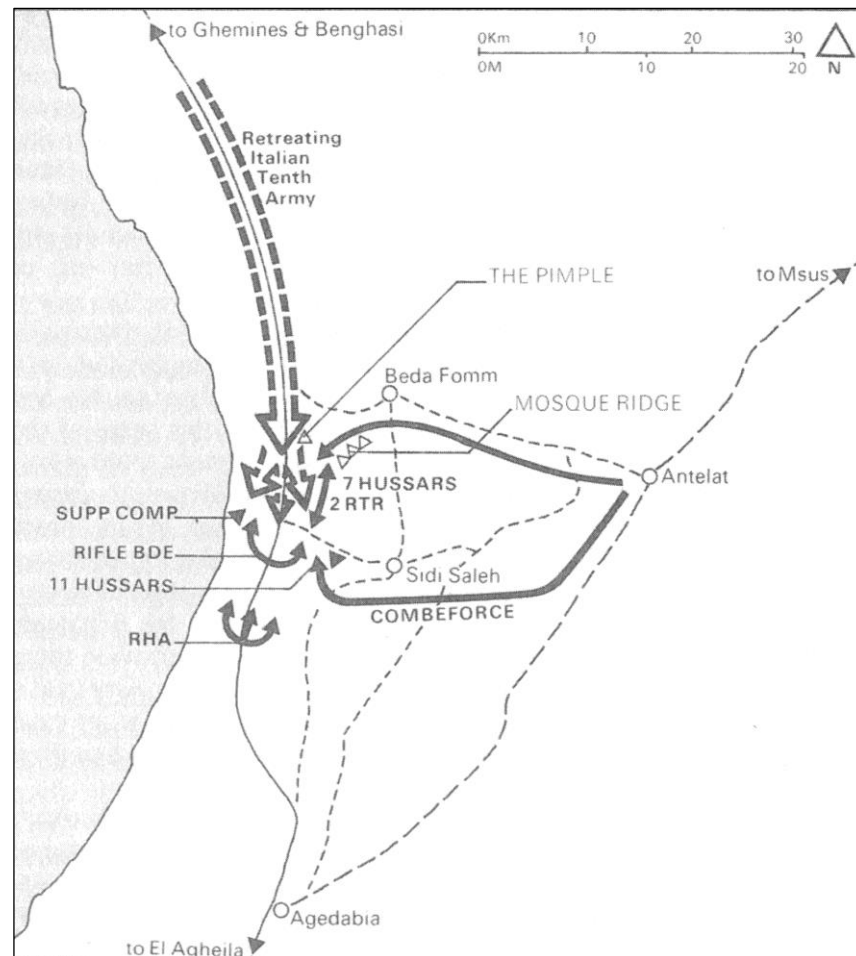


Figure 3:3 Sidi Saleh and Beda Fomm, February 1941.⁴³

Beda Fomm: terrain and battle

The tactical terrain contributed to the final action near Beda Fomm. East of the coast road there was mainly low, undulating ground, where Colonel Combe selected a position to allow the 4th Armoured Brigade to manoeuvre against the retreating Italian columns from cover. The tactical deployment was made by 2nd RTR's CO, who selected two features of high ground from which to

⁴² Joly, *Take These Men*, p.86.

⁴³ Pitt, *Crucible of War*, Vol I.

fight. The first feature was known as the 'pimple', over which the road passed and to the south-east of this was a further low ridge topped by a mosque, which was used as cover for reserves and supply trucks. The terrain and bad weather both contributed to the determined British defence in both actions.

The 'pimple' hill dominated the road west of Beda Fomm while the 2nd RTR used the white mosque hill as cover and hull down positions to repulse numerous frontal armoured attacks.⁴⁴ The soft, hummocky ground either side of the road stopped the slower Italian M13s from making any wide outflanking moves. Visibility was hindered by heavy rain squalls and smoke, allowing British Light armour to attack the Italian columns from the flank. The Italians had overestimated the strength of British armour and began to retreat, whilst 2nd RTR made an immediate assault on the main column. After quickly re-arming the fourteen remaining tanks, they moved to attack. The regiment made good use of hidden ground, using cover and rapid movement to gain maximum surprise.

The initial action lasted about two hours on the first day and developed into two separate defensive actions over the next two days, one by armoured regiments at Beda Fomm and the other by Infantry/artillery at Sidi-Saleh. Beda Fomm continued as 'battering rams' of Italian tanks made repeated but uncoordinated attacks against both the pimple and mosque hills.⁴⁵ The British countered the few attempts to outflank them, which were also blocked by the low dunes which were had been made worse by heavy rain. The supporting artillery also knocked out more than twenty M13s and numerous guns, which enabled the pimple to be retaken and held from late afternoon on the second day.

The actions at Beda Fomm and Sidi-Saleh were tenacious defence actions which gave O'Connor a close run final victory. The British forces available were minimal but well led by experienced

⁴⁴ WO 201/2691. Operational Reports: First Cyrenaican Campaign, Sept1940-Feb 1941.Appendices, maps.

⁴⁵ WO 169/1390.11th Hussars Diary. Jan-Dec 1941. Appendix L. Report on the battle of Sidi-Saleh, 5-7 February 1941, by Col. Combes.

regimental commanders, who made the best use of the available terrain and firepower to defeat the uninspired Italian assaults. Following this defeat the Italians surrendered, giving up a lot of equipment and a further 8,000 troops went into captivity.⁴⁶ The Western Desert Force under O'Connor had defeated a larger, better equipped Italian army. The 10th Army had suffered losses of nearly 130,000 troops, many as POWs, 400 tanks and over 800 guns along with ammunition and supplies. British forces had suffered only 2,000 casualties in comparison.

The battles of this first campaign presented the weaker British forces with a series of operational and tactical problems; all of which had been directly influenced by the operational and tactical terrain. During Operation Compass O'Connor used the gap between Nibeiwa and Rabia camps to position his assault force behind the Italians and then carry out a series of well-executed assaults. Similar tactics were used in combined arms attacks on the remaining camps which unlocked the Italian defence line and outflanked the remaining Rabia-Sofafi camps in the advance to Bardia.

The British advance into Libya forced the Italians to abandon the frontier positions at Sollum-Capuzzo and allowed British forces to isolate the ports. The attacks on Bardia and Tobruk were well executed by trained forces and contributed to the surrender of each port. The attacks were successful in breaking through well defended Axis positions and showed that the doctrine was flexible and could be adapted to changing circumstances. The final battles at Beda Fomm and Sidi-Saleh were well led improvised defensive engagements and units made a tenacious defence against difficult odds.

In the next phase of the campaign, the problem of retaining Cyrenaica revolved around the issues of distance and the lack of any suitable defensive terrain across the plain surrounding Benghazi and in southern Cyrenaica. British Commanders compounded these problems by under-estimating

⁴⁶ WO 169/1390.11th Hussars Diary. Jan-Dec 1941. 2nd RB, Report on Operations 5th-7th February 1941.

the effectiveness of German tactical doctrine, especially when commanded by an aggressive and dynamic commander like Lieutenant-General Erwin Rommel.

Chapter 4 The defence of Cyrenaica and the two British Retreats, April 1941 and January-February 1942

This chapter considers the defence of Cyrenaica and the two successive British retreats from the Libyan province in April 1941 and January-February 1942. These actions highlight the problems of defending such a huge province from an operational level and also show the impact of a lack of suitable, tactical defensive positions. These issues were compounded by an improvised tactical doctrine and changing British command decisions and resulted in defeat and a forced retreat. British forces also suffered from a lack of troops, equipment and tanks, and an overlong supply line during two successive inhospitable winters.

In February 1941 London took the strategic decision to fight in Greece, which dramatically reduced the British strength in Libya leaving few formations to successfully defend Cyrenaica. Churchill mistakenly regarded Benghazi as the, 'strong flank for the...Nile valley and the invaluable aerodromes situated in Cyrenaica.'¹ At GHQ, Wavell viewed the port as having some propaganda value but of to him it was of little military importance because the Luftwaffe had made the port almost unusable.²

Unfortunately for British forces, there were simply too few places in western Cyrenaica where a secure defence could be made. In the south, Wavell recognized that Benghazi had less importance for supply because of heavy Axis air attacks, yet he ordered British units much further forward to El Agheila which over-stretched the supply capacity. East of Agheila, the passable terrain narrowed at Mersa Brega which created a single defensible site. The coast road continued up across the Benghazi plain which opened out to a passable escarpment leading onto the Libyan plateau. The

¹ TNA PREM 3/283.WP (41).159. 11 July 1941. Report on the action of the 2nd Armoured Division.

² PREM 3/283.WP (41).167. 17 July 1941. Minute on the Report on the Action of the 2nd Armoured Division.

road north from Benghazi was a fast route through the Djebel hills but was vulnerable to Axis air attacks. The numerous routes eastwards across the desert were almost impossible to block easily. The landscape south and east of Benghazi was too wide open for defence while the Djebel Akhdar hills north of the port contained some good defensive sites along the coast road to Derna, but this upland area was flanked by the passable desert route via Msus and Mechili.

This inland route was used by both sides to make a faster crossing of the centre of Cyrenaica. It had a series of tracks running northwards through the Djebel hills which outflanked any position the British might take along the coast road. Axis forces used these tracks northwards in both retreats to outflank British units out of successive positions. The eastern edge of the Djebel hills created a sector of defensible ground from which the 4th Indian Division's commander, Major-General Francis Tuker believed could have given British forces a base from which to hold and to counter-attack.³ Instead, the Eighth Army withdrew further east to the Gazala line, which developed inland from the coast at Ain-el Gazala.

At the operational level, the need to defend wide areas of Cyrenaica led to Infantry and Armoured Brigades being spread over a wide area. In both 1941 and 1942 the front lines were too long and held by too few units. Transport and supply issues left other Brigades in the rear and occupying different positions along the coast road with their own supporting arms. This dispersal of Brigades moved the focus away from a Divisional battle so that they engaged more powerful Axis forces without support and had little choice but to retreat. In both years the effect was an unseemly rapid retreat by numerous units in a state of disorder.

The British defence in both 1941 and 1942 consisted of a frontline held by Jock columns supported by a single Armoured Brigade. The need to hold such a wide frontline led to the dispersal of

³ Tuker, *Approach to Battle*, pp.77-78.

formations to dominate the neutral ground.⁴ The harsh nature of the gravel surface of the plateau led to constant wear and tear on the vehicles and contributed to high wastage in tank numbers. By May 1942, after the Second Retreat, Cyrenaica was still a difficult area to hold. The forty-five mile long defence line at Gazala spread the British Infantry Brigades across a wide front covering the coast road and more passable sectors of desert to the south. Dispersion was still needed to cover the likely routes of approach from the Djebel hills and tracks south of them.

The importance of Tobruk

The siege of Tobruk was vital to the British defence of Egypt in 1941. It aimed to deny the Axis use of the port which would stretch their supply lines back to Benghazi and Tripoli and deny their full supply needs.⁵ Axis forces besieged the base from April, and soon the defence turned from a military need into a political issue. The recent withdrawal from Greece meant that British forces could not be seen to be making further retreats as this might adversely affect morale at home and influence the views of future allies such as the USA. They had to be seen to be fighting, though Wavell doubted the military importance of the base.⁶ If the port was abandoned or lost the Axis would regain a forward base from which to threaten into Egypt.

The siege has attracted a number of studies which have highlighted its importance to the campaign.⁷ Harrison notes the importance of the British 70th Division in the defence and subsequent break-out from Tobruk in December as a turning point for Crusader,⁸ whilst Lyman considers it, 'the battle which saved North Africa from the Nazis.'⁹

⁴ TNA WO 201/372, 4th Indian Division. Report on Operations.1 -22 January 1942, p38.

⁵ Strawson, *The Battle for North Africa*, p.75.

⁶ Carlo d'Este, *Warlord, A Life of Churchill at War, 1874-1945* (London: Alan Lane, 2008) p.592.

⁷ Buckingham, *Tobruk*, pp.230-233, the siege last from 10 April to 9 December 1941, a total of 244 days.

⁸ Harrison, *Tobruk. The Birth of a Legend*,

⁹ Lyman, *The Longest Siege*, p.xxv.

The ad-hoc garrison, made up of British and Empire units, repulsed a series of hasty assaults. They were opposed by determined counter-attacks by the 9th Australian Division which were closely coordinated by General Leslie Morshead and led to the first decisive victory against the DAK. In these early attacks, the Axis troops committed too few tanks and infantry and failed to coordinate other diversionary assaults and air attacks. The siege became a major strategic diversion for the Axis over the next eight months while they planned a full scale assault on the port, with the autumn shipping crisis delaying these plans long enough for Operation Crusader to begin. The British defence of Tobruk certainly prevented any further advance beyond the frontier by Axis forces and remained a potential threat to the Axis supply routes.

The First Retreat, April 1941

Operationally, Lieutenant-General Philip Neame, CinC of Cyrenaica Command, had spread his available brigades to cover all the possible approaches available to the Axis. Unfortunately this meant they were too widely dispersed to offer any mutual support. The supply dumps were sited at Msus and Mechili along the desert route and were too far in the rear for the few supply units to be effective. At the tactical level the British did not deploy enough Jock Columns to hold a lengthy frontline at El Agheila. Also, the frontline consisted of terrain which was nearly impassable for the truck based units.

Commentators have noted the problems of British dispositions across Cyrenaica.¹⁰ Fraser believed it was a combination of better quality armour and Rommel's aggressive leadership which levered the British out of position and kept up the momentum of the Axis advance but he fails to mention the impact of either Cyrenaica or the tactical ground.¹¹ Gladman argued that Axis HQs were more efficient while British HQs struggled to control events.¹² The British forces suffered from a number

¹⁰ Buckingham, *Tobruk*, pp.163-164.

¹¹ Fraser, *And We Shall Shock Them*, p.150.

¹² Gladman, *Intelligence and Anglo-American Air Support*, p.59.

of issues which influenced the outcome of the retreat, including too few and poor quality tanks and the loss of commanders. In addition they were forced to deploy too widely across the region and frontline units were seriously hampered by the difficult ground.

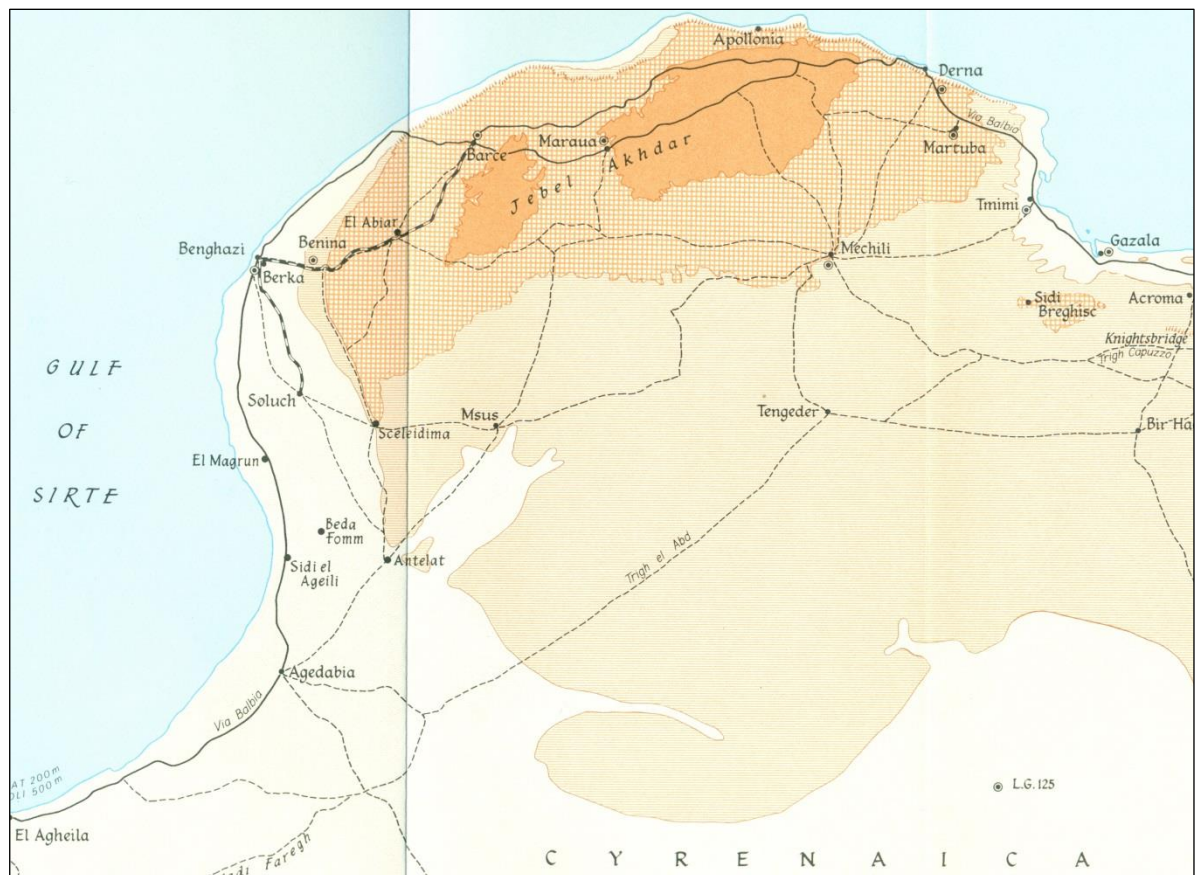


Figure 4:1 The First Retreat, April 1941.¹³

First Retreat: terrain

British forces were trying to protect Benghazi from the south which left them deployed in an over-extended position. Tactically, the frontline was moved further forward so that British reconnaissance squadrons could move forward to hold the landing ground at El Agheila. Wavell identified a line of salt marshes after his visit in March which he considered to be a strong

¹³ Butler, *Grand Strategy, Vol II*.

defensive position. This feature was located twenty miles west of El Agheila and ran south into the desert but was not used tactically as it was too far from the supply lines. Further east was a vital road junction at Mersa Brega, where the passable terrain was reduced by a sector of hummocky dunes and the wadi Feragh on its eastern desert flank. Another important road junction north of Brega, was Agedabia.¹⁴

North of Agedabia the terrain opened out into an undulating plain with the higher Libyan plateau rising east of an escarpment. There were defiles running up onto the plateau which were defensible places, but the whole escarpment was actually fairly passable by vehicles which could easily outflank the defiles. Above the plateau, the desert route to the Msus/Mechili depots had long stretches of difficult going, but later German Engineers began clearing the track through the rocky ground. This route was seen as, 'empty, neutral desert, offering no help or haven...[the choice] was only death by thirst or starvation, or capture by the enemy.'¹⁵ The coast road had few decent defensive positions south of Benghazi once the Mersa Brega gap had been breached, which left the whole of Cyrenaica open. Both routes had to be covered but the coast road remained the quickest and the most vulnerable from air attack.

Preparations

Cyrenaica Command was set up in early February 1941 as a holding force to defend the province. Wavell calculated that German forces were being held back by logistical delays and would not be ready to advance into the province until mid-May or the end of the summer to avoid the intense heat. Churchill had ordered him to make Greece his priority following the victory at Beda Fomm. This had diverted many of his best units from Cyrenaica over the previous few weeks, leaving only light forces along the frontline.¹⁶ In Cyrenaica the commander, Lieutenant-General Philip Neame,

¹⁴ Kitchen, *Rommel's Desert War*, p.49. Agedabia was the largest town in this part of Cyrenaica.

¹⁵ Joly, *Take These Men*, p.93-105.

¹⁶ Schofield, *Wavell, Soldier & Statesmen*, p.171.

was criticized for his poor command and deployment of units. Neame also had an in-experienced Corps HQ staff equipped with few vehicles or decent radios. The Command had three levels of Corps, Divisional and Brigade HQs in charge of just two frontline Brigades.

The 3rd Armoured Brigade was 40 miles behind near Mersa Brega, and contained two units of desert veterans. However, the equipment of the Brigade is worth noting as it was under strength and of inferior quality. The 3rd Hussars had just 33 Light tanks; the newly arrived 5th RTR had 23 worn out Cruisers while the 6th RTR had twenty six old Italian M13s, all of which were inferior to the German MkIII Panzers. Wavell later admitted he had not appreciated the poor state of the armour until his belated visit to the front. Both Neame and the Brigade commander had already informed GHQ about the problems but the information did not arrive until after the Axis advance had begun.¹⁷ British plans were for the 3rd Armoured Brigade to strike the flank of the Axis columns whilst the infantry and artillery delayed them frontally.

The frontline Infantry was also weak, and was provided by the 2nd Support Brigade which only had one motor battalion, one Regiment of Artillery and six anti-tank guns. The reconnaissance was taken over by the King's Dragoon Guards in mid-February and faced better armed German reconnaissance vehicles in a new environment. They were in constant daily contact with Axis units from late February, until they withdrew and became part of Tobruk garrison.¹⁸ Behind the front, other Infantry Brigades were dispersed around Cyrenaica at key points. Neame was to maintain a frontline of highly mobile 'covering forces' (Jock columns) to avoid losses, and be prepared to give up ground including Benghazi which Wavell viewed as having propaganda value but was of little military importance by this stage.¹⁹ The 9th Australian Division had one Brigade east of Benghazi and the other at Tobra in the Djebel Akhdar hills, but had few trucks to aid their movement. These

¹⁷ TNA PREM 3/283.WP(41).159. 11 July 1941. Report on the action of the 2nd Armoured Division.

¹⁸ <http://www.qdg.org.uk/pages/WW2-Part-2-73.php>, Detailed History of the Kings Dragoon Guards, World War Two - Part 2, El Agheila, Msus, Tobruk, Bir Gubi 1941-1942, accessed 27 July 2012.

¹⁹ PREM 3/283.WP(41).167. 17 July 1941. Minute on the Report on the Action of the 2nd Armoured Division.

units were 150 miles, or two to three days in the rear of the front. The 3rd Indian Motor Brigade arrived in late March without any artillery or support weapons and was deployed in the rear near Martuba to cover routes through the Djebel. The deployment to Greece had seriously reduced RAF support leaving four squadrons in direct support.

German units had recently arrived near Agheila and had been designated the Deutsches Afrika Korps (or DAK). The force was based on the experienced 5th Light Division and was led by the aggressive General Erwin Rommel. The Division's main assault unit was the 5th Panzer Regiment, which initially had just 78 tanks supported by Artillery, Panzer-Jäger (anti-tank), machinegun and Reconnaissance units. The force was deployed into battlegroups of all arms, which were supported by the Luftwaffe formation, Fliegerführer Afrika, under Major-General Stephan Frölich. This had two groups of Stukas, a fighter squadron and reconnaissance squadron. Rommel had the freedom to operate an independent command, something which few other commanders have.

First Retreat: battle summary

The flow of this battle was influenced by Rommel's aggressive leadership. His reconnaissance and Intelligence showed the weakness of the British deployment, so the leading elements of the 5th Light Division were rushed forward to clash with British patrols and soon captured the important water wells at Agheila on the 24 March. Rommel then ordered the Division to capture Mersa Brega. A further week was spent probing British positions while the Luftwaffe made heavy bombing attacks on British units. This air superiority enabled them to counter any British moves.

The British 2nd Support Group was deployed along an eight mile front from the coast to Mersa Brega with the 3rd Armoured Brigade on the flank to the south east. Under orders the Armour retired five miles to the north-east; however the Axis battlegroups were able to break through the gap. From the 2 April the retreat north and east of Agedabia was a slow fight with the 3rd Armoured Brigade contesting, 'each ridge and hillock against the superior weight of enemy

armour; at other times in a wild flurry of speed and disorder as...we were again being outflanked.’²⁰ The remnants of the 3rd Armoured Brigade were forced to make a slow fighting withdrawal to Msus and Mechili over a distance of 160 miles which caused the unit to be annihilated by attrition. The Australian Brigades escaped into the Tobruk perimeter to form the garrison with other British units. Other troops retreated beyond the frontier and allowed Axis forces to capture the frontier positions.

First Retreat: Influence of terrain and doctrine

The initial actions were influenced by British deployment in the difficult landscape and by poor doctrine. On the 31 March Axis forces advanced in three powerful battlegroups which assaulted and by-passed the isolated British Motor battalion which was forced to retreat as their position was under constant observation. Further back the 3rd Armoured Brigade was deployed in depth, with the armoured cars in front and behind them the 3rd Hussar Light tanks with the remaining two Regiments south-east of Mersa Brega. The 6th RTR Troop leader Cyril Joly noted the ‘draining’ effect on his Regiment which fought daily battles and suffered a steady attrition in tanks and crews, all of which affected their morale and ability to fight on. The Axis Infantry battlegroup made similar flanking moves through the coastal dunes near Mersa Brega and past the British armour near Agedabia. This narrow deployment enabled the larger Axis columns to outflank the Brigade and force it to retreat.

The British key commanders were captured by fast moving Axis columns, with Generals Neame, O’Connor and Brigadier Combe all being taken prisoner on 6 April. The capture of Gambier-Parry and his 2nd Division HQ at Mechili a day later completed the dislocation of the British command. The armoured battle highlighted the successful Axis doctrine which defeated the improvised

²⁰Joly, *Take These Men*, p.97.

doctrine of the British. Other problems for the British included the early destruction of the supply depot at Msus, which contributed to the demise of the 3rd Armoured Brigade.²¹

First Retreat: conclusion

The retreat lasted for just over two and a half weeks with actions fought across much of the province. The constant outflanking moves by the Axis undermined successive British attempts to hold and caused confusion amongst its numerous commanders. Buckingham believes Neame has been unfairly maligned and that Wavell should have accepted more responsibility for the command decisions surrounding the initial British deployment. Rommel had surprised Cyrenaica Command and his own superiors by exceeding his instructions and reached the frontier effectively cutting off Tobruk. The loss of Benghazi left a single Australian Brigade defending the coastal route through the Djebel Akhdar hills and a rapidly failing Armoured Brigade were destroyed along the desert route. British Intelligence Officers, from the 2nd Armoured Division HQ, made poor analysis about the Axis advance which destroyed the Msus supply base too soon and completed the destruction of the Armoured Brigade.

The Second Retreat 21 Jan – 8 Feb 1942

This study argues that the Second Retreat was a further attempt by the Eighth Army to defend a large province and prevent an Axis breakthrough towards Egypt. The scale of the distances involved heavily influenced British operational deployment of Brigade groups by causing them to be dispersed across the region. At the tactical level the Eighth Army struggled to successfully defend sectors which contained too few defensible positions. These problems compounded issues of doctrine which had remained largely unchanged in terms of deployment and defensive tactics. Most commentators attribute the failures to poor command, logistics and weaponry but little

²¹ PREM 3/283. Report on certain aspects of the GHQ M.E. Report on the Action of the 2nd Armoured Division.

mention is made about the impact of terrain or tactics used. Jonathan Fennell argues that the increasing confusion caused by the retreat contributed to a growing morale crisis.²²

At the tactical level the frontline Jock Columns struggled to carry out their operations in the difficult ground south of Mersa Brega. They had specific orders to harass any Axis advance and then to withdraw.²³ The participants commented on the scenes of confusion to which the appalling terrain had contributed. The distances from Benghazi contributed to an acute shortage in supplies, Benghazi was slowly returning to use as a port from the 7 January, after months of RAF attacks. The frontline terrain slowed down rate at which the B echelon supply units reached the Jock Columns.

The Second Retreat: terrain

In Western Cyrenaica near Agedabia-Antelat the Eighth Army deployed a forward line of Jock Columns. However, this was difficult ground and the vehicles could not operate effectively across this landscape. In comparison the Axis Battlegroups contained more tracked vehicles which could overcome the hummocky ground and took swift advantage of British difficulties and the lack of armour nearby. Major-General Messervy thought it was the only large area of ground where tracked vehicles were better suited than wheeled vehicles.²⁴ The frontline was situated between Antelat and a narrow strip of passable desert south of Agedabia, where a number of tracks joined the coast road. The frontline was 30 miles long and included rough going to the deeper Wadi Feragh, a natural wadi which blocked movement inland. The area north of Antelat was relatively good going over which vehicles travelled between 50-65 miles per day. South of this, the terrain

²² Jonathan Fennell, *Combat and Morale in the North African Campaign* (Cambridge: Cambridge University Press, 2011) p.21.

²³ WO 169/4065. 1st Armd Support Group, Jan-Mar 1942. Reconstructed Diary, following capture of original, p.4.

²⁴ WO 169/4065. 1st Armd Support Group, Jan-Mar 1942.

worsened to particularly bad dunes and hummocks over which travelling distances were reduced to just 25 miles per day.

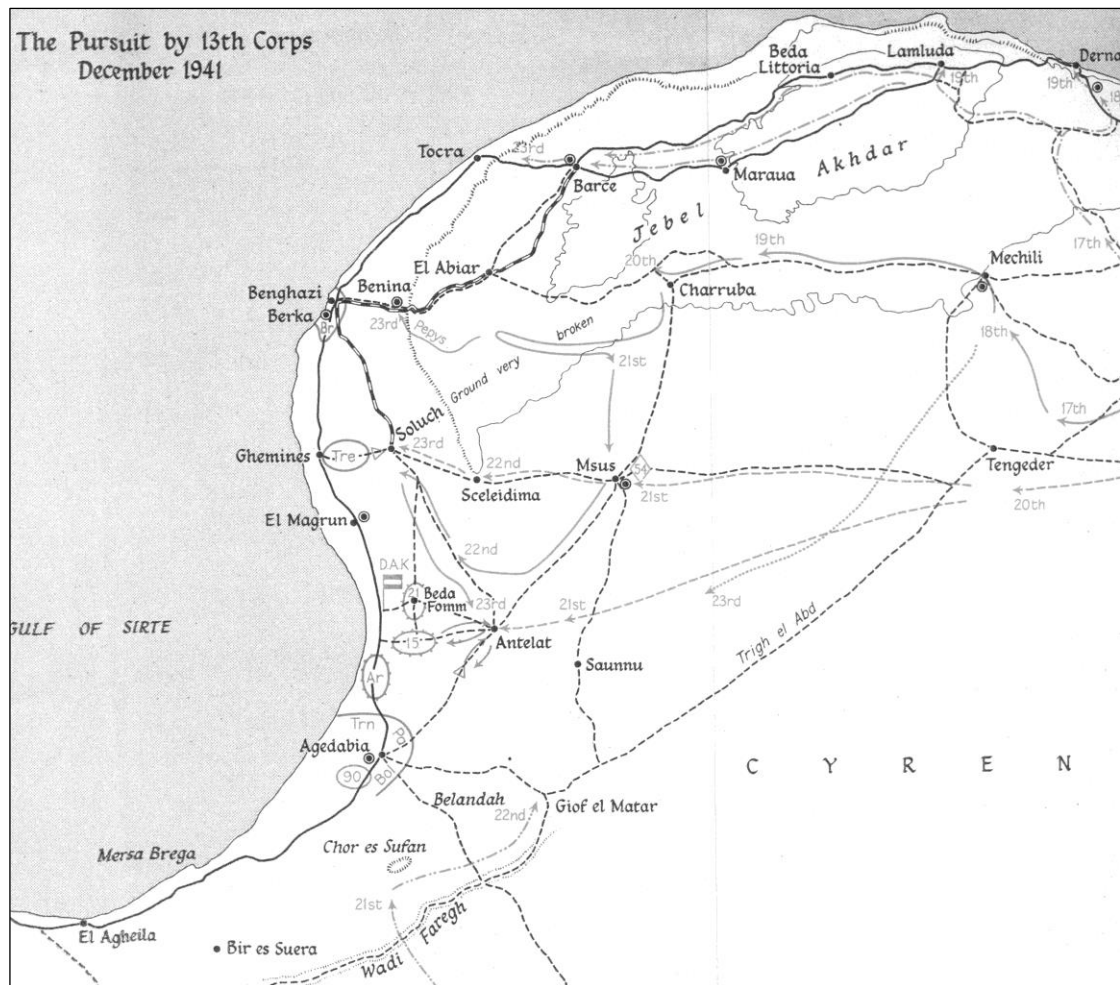


Figure 4:2 The Second Retreat, January 1942.²⁵

Further north the Benghazi plain was more undulating and offered few defensive positions. The plain was bordered by the Scleidiema escarpment to the east which curved from Antelat north to Benghazi and was crossed by a few tracks which climbed through sharp defiles. Further north the coast road divided through the Djebel Akhdar hills and offered some defensive sectors. The area was outflanked by the desert route to the south. The inland desert route offered British supply a safer, more direct route to Tobruk from the frontline and was a mixture of difficult and easier

²⁵ Playfair, *Mediterranean and Middle East, Vol III*.

going. Along it were two supply dumps at Msus and Mechili. Tobruk had become the Eighth Army's main supply port with a rail-head depot nearby providing 1,500 tons of supplies per day. Supply columns took seven days to make a return journey to the front via Msus, in comparison the coast road was quicker but had severe bottlenecks which were under constant Axis air attack.²⁶

Second Retreat: preparations

Ritchie intended to resume the advance into Tripolitania, once the Eighth Army had enough supplies and fresh drafts of armour. In comparison to 1941, the front sector was more strongly held by two Support Brigades deployed in Jock Columns and one Brigade from the 1st Armoured Division. The frontline was held by two British Brigades operating in Jock columns, 200th Guards Brigade had two battalions and five batteries covering the coast road and the 1st Support Group was inland with another two battalions and four batteries. They had orders to withdraw and not to become entangled with enemy columns.

The armour was to remain free to engage the enemy near Antelat, while the Jock columns were designed to harass and delay any advance. However the 1st Support Group had only taken over on the 19 January just two days before the Axis advance began.²⁷ Godwen-Austen planned for a controlled retreat in case the situation changed rapidly.²⁸ He also believed that the most defensible position was at Gazala, east of the Djebel hills and not forward at Antelat-Agedabia, but this did not allow for holding western Cyrenaica and its vital airfields. In the rear, near Antelat, was the newly arrived 2nd Armoured Brigade of three regiments, one motor battalion and five batteries. The RAF support only had 280 aircraft and suffered from numerous equipment

²⁶ WO 201/370. Major operations Q(P) aspect, 1941 Dec.-Mar. 1942. Eighth Army Requirements by Sea and Rail, 11 Jan 1942.

²⁷ WO 169/4065. 1st Armoured Support Group, Jan-Mar 1942. P.4 and Reconstructed Diary.

²⁸ WO 201/500. General Auchinleck's despatch on Operation 'Crusader'. Brief Survey of Operations between 21 Jan and 5 Feb 1942. By Lt Gen AR Godwen-Austen. He resigned shortly after the retreat.

shortages. Across Cyrenaica the 4th Indian Division had one Brigade at Benghazi with transport, and two others without at Barce in the Djebel hills and Tobruk.

For a short period, the Panzerarmee was stronger, and could disrupt Eighth Army preparations to advance by capturing Agedabia and inflicting casualties. Rommel confused British intelligence by disobeying his orders from OKW and he took the opportunity to advance again whilst the Eighth Army was overstretched along the frontline.²⁹ The British thought that the Axis formations were too reduced to renew operations quickly, the three German divisions totalled just 12,500 men and the seven Italian Divisions just 25,000 men. The 13th Corps HQ intelligence thought that numbers must have increased to between 50-70 tanks in the forward areas whilst Ariete Division had another eighty tanks.³⁰ The Panzer battlegroups now had more powerful MkIII 'specials' supported by a battalion of 30 anti-tank guns. Major-General Messervy at the 1st Armoured HQ noted the build-up of Axis armour but believed they were for reconnaissance only. Axis Air Forces had recovered their strength to nearly 300 serviceable aircraft so had a good advantage over the RAF along the front.

Second Retreat: battle summary

The battle was hampered by bad weather which covered the Axis approach march and caused poor atmospherics which blocked British communications at crucial moments. The severe dust storms along the frontline prevented observation and the issue was compounded by the withdrawal of British Reconnaissance units which left the task to the newly arrived Jock columns. The Axis advanced on the 21 January to Antelat with two columns thrusting eastwards after a short bombardment of the front line. The supporting 2nd Armoured Brigade was ordered north to engage the enemy Armour on the 23 January. It was divided to cover two small villages and was

²⁹ Rommel now had full operational control of Axis forces with the Panzergruppe being renamed Panzerarmee Afrika on the 22 January 1942.

³⁰ WO 169/4005. XIII Corps G Branch, Jan-Jun 1942. 13 Corps Intelligence Summary No.85. 30 Jan 42.pp.4.

attacked and defeated by more powerful battlegroups. For four days to 30 January, Axis formations remained around Msus whilst the Ariete Division advanced towards Benghazi. German columns were seen on the escarpment at Scelediema advancing north and west to support the Italians on the 30 January.³¹

Ritchie attempted to protect the desert flank of 4th Indian Division to halt the Axis advance, but his plans were flawed as there were only 33 tanks to cover a front of 35 miles. He wanted both 4th Indian and 2nd Armoured to counterattack against Msus and Major-General Tucker complied as best he could to make it work. The 7th Indian Brigade moved west and attacked the enemy flank. However, Msus was captured after a further action which split the 1st Armoured Division and gave the Axis options for further advances. On the 28 January Axis columns feinted along the desert route towards Mechili, but the real thrust headed towards Benghazi which trapped the 7th Indian Brigade south of the port. British formations began to retreat through the Djebel Akhdar hills and shepherded large numbers of supply trucks and units which had disengaged from Benghazi. The Army had been forced back from Antelat and was only able to halt near Gazala after the Axis advance ground to a halt.

Second Retreat: the impact of terrain and doctrine

The ground near Agedabia included a narrow strip of fairly good going north of the Wadi Feragh. This developed into terrain which was poor to impossible for wheeled vehicle and impeded Jock column movement so much that the few passable tracks became vital. The bad going in this eastern sector of the front was unexpected and forced the columns to leave vehicles and guns behind. One report indicated that it weakened the unit's ability to defend in that area.³² There was

³¹ WO 169/4005. XIII Corps G Branch, Jan-Jun 1942. 13 Corps Intelligence Summary No.85. 30 Jan 42.pp.1-2.

³² WO 169/4005. XIII Corps G Branch, Jan-Jun 1942. 13 Corps Intelligence Summary No.83. 23 Jan 42.p.8.

more soft sand between Agedabia and Antelat which caused vehicles to become bogged down again. Jock Columns were proving to be not as effective as they had been during Crusader.³³

The poor going affected the ability of Jock columns to hold the line and they were forced to retreat. They were trying to hold a long frontline on difficult ground, against bad weather and fast moving Axis columns. By late morning on the first day the Axis had infiltrated the frontline. The difficult ground impeded the Gun tractors which become easily bogged down in the soft sand and created traffic jams along the few passable tracks as British units tried to pull out. By mid-afternoon the Jock columns started to lose radio contact with one another causing further retreat. The following day they were dive-bombed by the Luftwaffe but did not see enemy ground troops. The retreat remained orderly as 1st Support Group columns manoeuvred in pairs to cover each other. However they could not stop the Axis from making a rapid advance of nearly 70 miles, leaving some columns behind the front and exposing the supply route to Axis. The 200th Guards Brigade had four Jock columns deployed some 50 miles south of Agedabia, in very difficult terrain.³⁴ Later reports agreed that these columns had little choice but to retreat once by-passed.

British doctrine was still committing the armour to fight its own battles, when the 2nd Armoured Brigade was dispersed to cover both Antelat and Saunnu 20 miles away.³⁵ The two Regiments at Antelat attempted to disengage the enemy and re-join its fellow Regiment but were attacked by elements of both Panzer Divisions and suffered heavily. Their supporting artillery fought tenaciously but the Brigade and eight artillery batteries were defeated by stronger and more effective Axis tactics. The Axis consolidated and engaged 2nd Armoured Division again with eighty-

³³ WO 169/4065. 1st Armoured Support Group, Jan-Mar 1942. Reconstructed Diary, following capture of original.

³⁴ WO 201/530B, 201 Guards Motor Brigade: reports on operations near Agedabia, Jan-April 42.

³⁵ WO169/4065. 1st Armoured Support Group, Jan-Mar 1942. Reconstructed Diary, 22 Jan, p.4.

five tanks. Hans Schmidt noted how well his anti-tank company worked with Panzers to out-flank British armour from defended locations in this action.³⁶

Ritchie clashed with his subordinate commanders, which caused a succession of command issues during the retreat. At 13th Corps HQ, Godwen-Austen wanted to evacuate Benghazi, but was over-ruled by Auchinleck who was visiting Ritchie at his Army HQ at Tmimi, so the 7th Indian Brigade was ordered to 'strike vigorously southwards.'³⁷ Tucker opposed his only forward Brigade being dispersed into more Jock columns, so Ritchie took personal control of the 4th Indian Division to ensure the Brigade advanced towards Antelat.³⁸ British units suffered two days of command indecision and this was picked up by Axis signals and enabled Rommel to strike for Benghazi rather than continue to Mechili.³⁹ The Axis had better intelligence, which noted confusion amongst British commanders and enabled Rommel to out manoeuvre the separated Brigades. The Eighth Army had been decisively defeated; the Armoured Brigade and Jock Columns suffering heavy losses in guns and vehicles, including 70-100 tanks, 40 guns and 1,400 casualties. The Panzerarmee benefitted from the mass of stores captured in depots and at Benghazi.

Second Retreat: conclusion

The main problem for British forces remained the size of Cyrenaica and the poor tactical terrain along the British frontline. This was too far south from the nearest supply bases and was too wide for eight Jock Columns to cover. The appalling terrain slowed down the British Columns which were by-passed by faster moving enemy units. Other British formations were too far in the rear to be an effective support as they were sited to cover the numerous routes across the province. These ran through the Djebel Akhdar hills and across the desert route to the south. Once Axis

³⁶ Schmidt, *With Rommel in the Desert*, p.129.

³⁷ WO 201/500. General Auchinleck's despatch on Operation 'Crusader'. Brief Survey of Operations between 21 Jan and 5 Feb 1942. By Lt Gen AR Godwen-Austen, and Stewart, *Early Battles of Eighth Army*, p.48.

³⁸ Stevens, *Fourth Indian Division*, p.128.

³⁹ Stuart Hamilton, *Armoured Odyssey. 8th Royal Tank Regiment in the Western Desert 1941-1942* (London: Tom Donovan, 1995) pp.30-31.

forces had reached the plateau, the supply bases here were vulnerable and further divided British forces trying to cover the coast and the inland supply lines. British units were dispersed in their deployment but also in their defensive doctrine, when the 2nd Armoured Brigade had to fight a separated battle.

Other factors also contributed to the two Retreats with failures in British Intelligence and Command which were affected by the terrible weather conditions, while in 1942 Ritchie spent much days disagreeing with his subordinate commanders over how to slow down the Axis advance. The Eighth Army also withdrew three reconnaissance regiments from the front and the RAF were prevented from providing air reconnaissance and disguised the initial Axis advance, while British Intelligence was also misled that the Panzerarmee was too weak to do more than make a 'reconnaissance in force,' to destroy forward British supply dumps. These were all important issues which hampered British operations but it was the size of Cyrenaica which made any operational defence difficult and this was compounded by the lack of defensible sites.

Chapter 5 Brevity and Battleaxe May-June 1941.

This chapter compares the two British offensives of May and June 1941, codenamed Brevity and Battleaxe, and will highlight how aspects of terrain impacted on British operations to influence the outcome of each action. These operations were designed to recapture the frontier sector, defeat German armoured formations and advance towards Tobruk. Operation Brevity was a chance to take advantage of stationary Axis forces at Tobruk whilst Operation Battleaxe was a more optimistic plan designed to relieve Tobruk, retake the Cyrenaican airfields and also destroy Axis armour.

These offensives have both been well documented in various histories, but there has been no assessment of the impact of the tactical terrain, beyond noting the coastal escarpment and the Hafid ridge, which so undermined British attacks during Battleaxe. Robin Neillands provides details of the armoured assault on the Hafid ridge, but is less clear on the 11th Indian Brigade assault on Halfaya, whilst Barrie Pitt offers more detail on the latter, though neither discusses the impact of terrain.¹ Paddy Griffiths argues that the operation was a failure of, 'reconnaissance, navigation and terrain analysis' by British forces.² Memoirs tended to be critical about both operations, Tedder commented in the midst of Battleaxe, 'Afraid I've got no more faith in the army than they have in themselves.'³ But G.L. Verney, a later commander of 7th Armoured Division believed the offensives were vindicated because Axis forces made no further advance for the next five months.⁴ Their discussion focusses on the problems of command, the lack of units and good equipment for British Forces who faced well informed and much stronger Axis forces. Colonel Rainer Kreibel gives a detailed study of the Axis defences and doctrine and shows how their main positions were centred

¹ Neillands, *The Desert Rats*, pp.72-79, and Pitt, *The Crucible of War, Vol II*, pp.294-309.

² Griffiths, *Desert Tactics*, p.30.

³ Lord Tedder, *With Prejudice* (London: Cassell & Co, 1966) p.125.

⁴ G.L. Verney, *The Desert Rats*, p.59.

on the key heights, but again misses the point that it was the number and complexity of defences which undermined the British attacks.⁵ The Axis defence was more dynamic in their mobility and vigorous counter-attacks which out-flanked the already weakened British forces, forcing them to retreat. Lewin places this success on better Axis tactics, better intelligence derived from poor British radio security and the markedly better anti-tank weapons.⁶ Whilst noting British problems of too many tank variants he does not appear to appreciate the tactical terrain. At the operational level, especially during Battleaxe, the lengthy approach march from the railhead impacted on British tank numbers which reached the front, and kept the British HQ 100 miles in the rear.

Operation Brevity, 15-17 May 1941.

Wavell was under enormous pressure during May 1941, sustaining a difficult workload to control five campaigns simultaneously across the Mediterranean and Middle East.⁷ Iraq was still in revolt, German intervention into Syria was imminent, the East African campaign had reached a successful conclusion but diverted resources, whilst Ultra intelligence clearly indicated an airborne assault on Crete was expected in late May and all of these required his valuable time, and limited troops and resources. Churchill badgered Wavell for a quick offensive because Ultra decrypts also showed the mechanized German 5th Light Division had been defeated at Tobruk and Rommel had been ordered to hold along the frontier, so it was an opportunity to strike before the arrival of the new 15th Panzer Division.⁸ Wavell, under severe pressure from London to achieve a victory, ordered an offensive on the 1 May to recapture the Libyan frontier positions, 'to secure a good jumping off place for an attack on a larger scale.'⁹

⁵ Bruce Gudmundsson, *Inside the Afrika Korps, The Crusader Battles, 1941-1942* (London: Greenhill, 1999) pp.295-308.

⁶ Ronald Lewin, *The Life and Death of the Afrika Korps* (Barnsley: Pen & sword, 2003) pp.55-56.

⁷ TNA WO 201/493. Despatch by General Sir A.P. Wavell, July 1941. Summary of Operations, p.41.

⁸ Connell, *Wavell, Scholar & Soldier*, p.427.

⁹ TNA CAB 106/379. Wavell's Despatch: Operations in the Western Desert, p.33.

Brevity: Terrain

What has not been emphasized in the existing literature is that the British objectives were too numerous in total and even if achieved they could be outflanked by an approach from the desert because the terrain was good going for armoured vehicles. The main feature of the terrain along the frontier sector was the high escarpment which ran near to the coast at Sollum, and forced any major advance by British forces to be divided, (see Fig.1). The coast road ascended the cliff at Sollum and at Halfaya Pass five miles to the east, to the plateau above, before continuing onto Fort Capuzzo. At Halfaya the upper and lower sections of the track were developed into major defensive positions by the Axis, covering the surrounding open ground with heavy anti-tank guns, protected by Infantry, wire and minefields. Any forces attacking the pass needed to capture both positions which meant a more complicated, simultaneous assault.

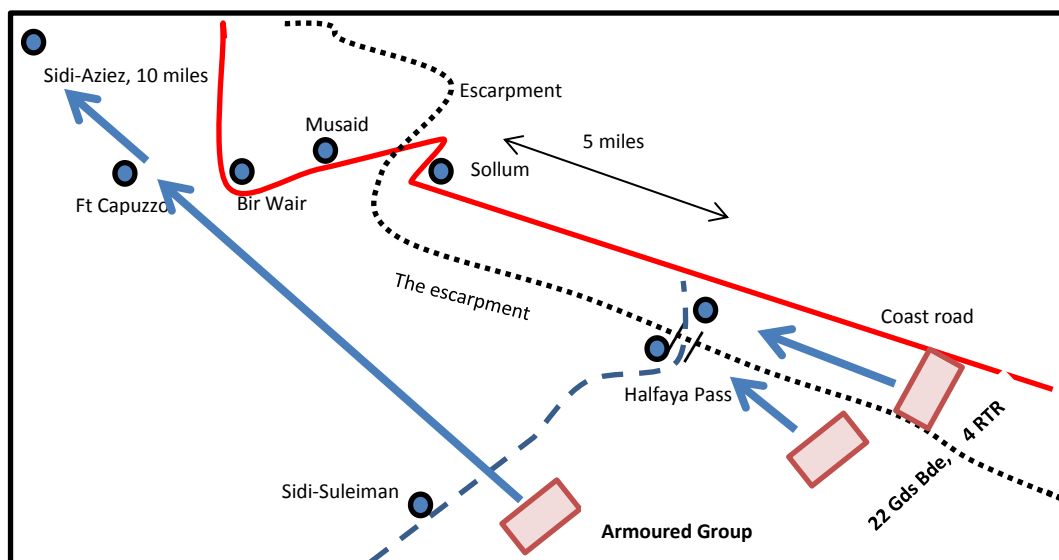


Figure 5:1. Operation Brevity, 15 May 1941

Beyond Sollum, there was a further 'line' of defensive positions which protected the coast road for eight miles, through Musaid, Bir Wair and Capuzzo. When added to the two at Halfaya and those at Sidi-Aziez, these presented a much more formidable area defence of interlocking fire to British

forces. These were just widely enough dispersed to prevent British forces from advancing to Tobruk. Much of the surrounding desert was largely flat with little cover, offering 'good going' which allowed motorized units to bypass positions inland. Despite this, the modest British force available to Brevity was simply unable to cope with the impact of these dispersed objectives.

Brevity: preparations

One issue facing Lieutenant-General Beresford-Pierce was limited numbers of troops and too many objectives. He designated 22nd Guards Brigade to divide its three battalions into four Jock columns.¹⁰ They were to be supported by 4th Royal Tanks with just 16 Matilda tanks to lead the Infantry assault on Halfaya before moving towards Bir Wair and Capuzzo. The lower Halfaya and Sollum positions were to be assaulted by a Coastal Group of one battalion (2nd Rifle Brigade) supported by artillery. The 'Desert Group' of 2 Cruiser squadrons and three more Jock columns from 7th Support Group was to cover the Halfaya attacks and strike towards Capuzzo and beyond.¹¹

Air Marshal Collishaw believed the most effective way to neutralize enemy armour was to deny it petrol and ordered for RAF support to concentrate on ground-strafting sorties against Axis supply columns behind the front.¹² Therefore British forces were too weak and their doctrine of using separated assaults along with Jock Columns had only proven useful in harassing, rather than in major operational assaults. In comparison, Axis forces had a line of static units holding the front-line positions, under the command of Colonel von Herff who had between 30-50 tanks in the forward area in direct support. Their vulnerable supply artery was actually the shorter desert route to Tobruk along the Trigh Capuzzo and not the more exposed coast road targeted by the RAF.

¹⁰ TNA WO 201/511. Guards Brigade Operations. March – Sept 1941. Operational Order No.11. 14 May 1941, p.3.

¹¹ Pitt, *Crucible of War*, Vol I, p.276, consisting only of 29 reconditioned A9 and A10 tanks, less than a full regiment.

¹² TNA AIR 27/1588. 274 Squadron Operations: Diary of events, May 1941.

Brevity: battle summary

Early on the 15 May, the two positions at Halfaya Pass were assaulted and captured by British Infantry. The momentum continued so that Bir Wair, Musaid and Fort Capuzzo were also overrun. However, 2nd Rifle Brigade struggled to capture lower Halfaya, despite RAF bomber support. The Desert Group advanced beyond Capuzzo onto Sidi-Azeiz, but could not halt the subsequent counter-attack by the 5th Panzer Regiment which retook both, and then inflicted heavy losses on the isolated Jock columns. Brigadier Gott realized that a strong counter-attack was likely and ordered a withdrawal back to Halfaya and the weakened Desert Group wisely delayed a subsequent counter-attack and also retired.

The Axis counter-attack was made on the following day and used what became a well-tryed doctrine of attacking with the low sun behind their vehicles, but avoided closing completely on British positions which enabled the latter to withdraw.¹³ Fort Capuzzo was later recaptured because the Jock Columns were overwhelmed by fresh armour and heavier firepower, with one report noting, 'there were 40 Mk IVs in a fold in the ground near Capuzzo...[they] fired a solid shot which penetrated our tanks...there were also numerous A/T guns of the same type.'¹⁴ By 26 May 15th Panzer Division had its full complement of tanks on the frontier and its supporting 1/104th Rifle Regiment who quickly recaptured both the upper and lower Halfaya positions. The Western Desert Force had been pushed back to its original position and needed fresh armour and troops to make any further progress against the series of strengthening Axis positions.

¹³ TNA WO 201/493.Despatch by General Sir A.P. Wavell, July 1941.Summary of Operations, p.41.

¹⁴ TNA WO 169/1185.7 Armoured Division: Support Group, Jan – Dec 1941; Feb 1942, Intelligence Summary No.26, 18 May 1941.

Brevity: conclusion

This operation failed because of the impact of terrain which highlighted the weaknesses in British assault doctrine. There were too many Axis defensive positions and these were too widely separated for weaker British forces to hold once captured. The numerous positions also forced Wavell to use much stronger forces in the subsequent Battleaxe operation to make an effective advance beyond them. The multiple and widespread nature of the positions compounded British weaknesses in numbers, poor equipment and doctrine. Only four armoured squadrons had been used and this was clearly not enough, especially once casualties had been sustained. In doctrinal terms, Cruiser and Infantry units still operated separately and were too dispersed, meaning British forces had not learnt from the errors of the First Retreat in April. The Infantry Matilda tanks had been impervious to Italian guns but now proved vulnerable to the highly effective German anti-tank guns, with 4th RTR noting that better quality shells penetrated their 78mm frontal armour.¹⁵

Future British combined arms assaults would remain compromised because they revolved around the ability of this tank to survive these more effective German guns and carry the Infantry onto Axis positions. The Western Desert Force was still using faulty Infantry doctrine by employing Jock columns which dispersed artillery and Infantry in penny-packets. The Guards Brigade held Halfaya using Jock columns to harass Axis positions, but made a phased withdrawal when a battlegroup attacked and recaptured the same position two weeks later.¹⁶ These units were unable to cope with subsequent Axis counter-attacks made by more powerful battlegroups. British casualties were not excessive but the battle still left two infantry battalions weakened and numerous tanks were lost.¹⁷

¹⁵ John Parker, *Desert Rats. From El Alamein to Basra* (London: Bounty Books, 2004) p101. Peter Vaux 4th RTR.

¹⁶ TNA WO 201/511. 22nd Guards Brigade: operation instructions, Mar.-Sept. 1941.

¹⁷ Playfair, *Mediterranean & Middle East, Vol II*, p.163.

More importantly, Brevity signalled likely British intentions for future advances on the frontier to reach Tobruk. Axis forces gained another month to strengthen their positions and increase their firepower, which would make future assaults on them even more difficult. The arrival of the 15th Panzer Division concentrated German armour at the front and put British forces further on the defensive which contributed to delays in the preparations for Battleaxe.¹⁸

Battleaxe: 15-17 June 1941

By early June Wavell was under even greater pressure from Churchill who demanded, 'Everything must now be centred upon destroying the German forces in the Western Desert, only by this deed will you gain the security on your western flank...'¹⁹ This second offensive to capture the frontier positions and Tobruk was simply a larger scale version of the Brevity plan with similar objectives but which still ended in failure. At Churchill's insistence, a total of 238 new tanks had been rushed directly through the Mediterranean for the operation.²⁰ Various studies including Griffiths have concentrated on detailed narratives of the fighting, but none emphasize the impact of the terrain on the key battles despite discussing the Halfaya pass and Hafid ridge battles.²¹ This study argues that the importance of the terrain has been underestimated while British forces were attempting to capture too many widely-dispersed objectives, using poor assault doctrines.

Battleaxe: Terrain

The British wanted an 'armoured battle' in the open desert, to defeat the Axis armour and move quickly towards Tobruk.²² However, their objectives had increased to include capturing both upper and lower Halfaya, followed by Sollum, Capuzzo and its flanking defences at Musaid and Bir Wair. They were expected to complete a follow up advance to Tobruk. However, this was a demanding

¹⁸ TNA WO169/1185.7 Armoured Division: Support Group, Jan – Dec 1941; Feb 1942, Intelligence Summary No.27, 18 May 1941.

¹⁹ Connell, *Wavell, Scholar & Soldier*, p.481.

²⁰ Parker, *Desert Rats*, p.101, and Robin Neillands, *The Desert Rats*, p.55.

²¹ Paddy Griffiths, *World War II Desert Tactics* (Oxford: Osprey, 2008) p.29.

²² Stevens, *Fourth Indian Division*, p.60.

series of objectives for two weak Divisions when considering the distances to be covered between the Axis positions.

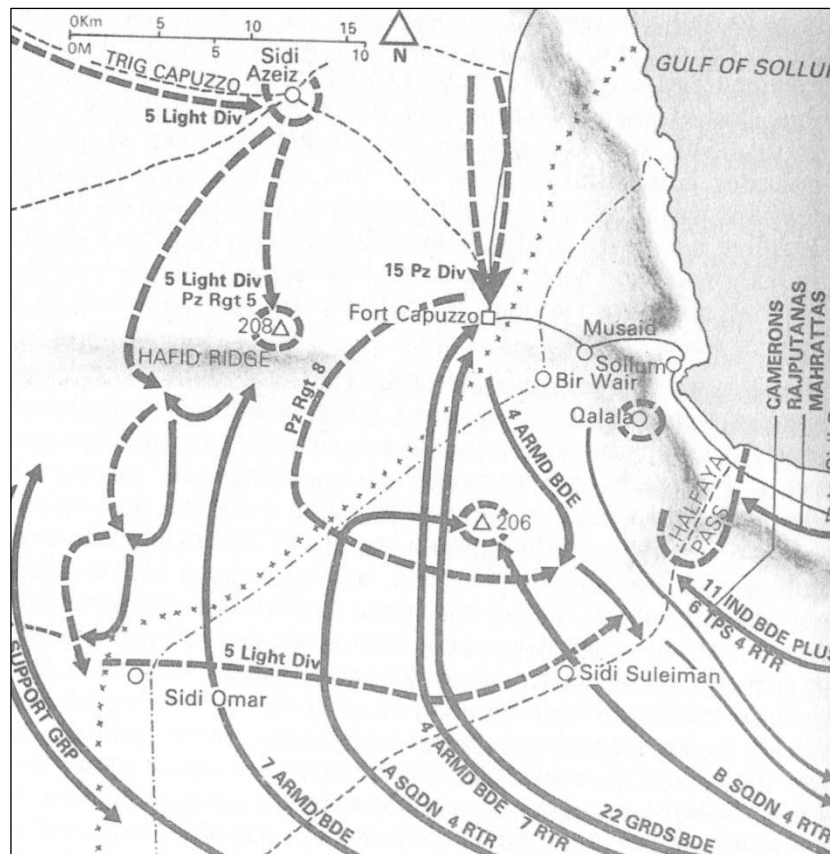


Figure 5:2 Operation Battleaxe 15-17 June 1941.²³

The approach to lower Halfaya meant crossing two miles of open ground, which was heavily mined. The approach to upper Halfaya, along the top of the escarpment, was broken by numerous ravines which were the only cover along the crest-line. Inland on the plateau, Axis forces under Rommel's direction had developed key areas of high ground and turned them into heavily defended positions. These positions included Pt 206 which dominated the ground on both sides and along with Pt 207 behind it, slowed any approach towards Capuzzo, (see Fig. 2). Further inland, the Hafid Ridge was a prominent feature about five miles west of Capuzzo, behind which

²³ Pitt, *Crucible of War*, Vol I.

more Axis armour was concentrated.²⁴ The ridge had three successive crest-lines each with anti-tank guns, armour and artillery in reserve.²⁵ Near the coast, Fort Capuzzo blocked the road to Bardia but was only lightly held as Axis units held the more valuable higher ground in the rear and to the south-west, which overlooked the whole area.²⁶

Battleaxe preparations

British forces were rebuilt quickly for the operation although weaknesses remained in armour, equipment, training and doctrine especially when compared with Axis preparations and deployment across numerous defensive sites. The Western Desert Force had managed to strengthen two Divisions; the 7th Armoured Division was built up to two armoured brigades using both new and reconditioned tanks, whilst the 4th Indian Division also rebuilt two Infantry Brigades each of three battalions with supporting artillery. This was clearly still not enough to capture and occupy the numerous enemy positions.

Churchill had expected great success from the newly arrived 'Tiger cubs,' which despite being re-equipped by mid-June were still experiencing technical problems. Wavell reported that of the new tanks, only sixty-seven were in good order with the rest needing hours of maintenance in workshops.²⁷ The Regiments only received their new tanks by the 9 June and the 7th Armoured Division's commander urgently requested five more days for crew training which delayed the start of the operation to the 15 June.²⁸ The RAF provided air support including 36 Hurricanes, two Blenheim squadrons, one Tomahawk squadron and one reconnaissance squadron, and despite the inexperience of the crews, they provided effective support on the first day.²⁹

²⁴ Joly, *Take these Men*, p.137, though Joly thought it was three miles west.

²⁵ LHCMA GPB Roberts Papers.

²⁶ TNA WO 201/357. Operation 'Battleaxe': Lessons of the campaign. An Account of the Frontier Battle.

²⁷ Ronald Lewin, *The Life and Death of the Afrika Korps* (Barnsley: Pen & Sword, 2003) pp.55-56.

²⁸ Pitt, *Crucible of War*, Vol I, p.295.

²⁹ Tedder, *With Prejudice*, p.124.

There were three planned phases to the operation, starting with the defeat of Axis forces at the front and an advance to Bardia-Capuzzo area. This would be followed by an advance to Tobruk-El Adem and the defeat of further enemy forces there, and finally a possible exploitation towards Derna-Mechili and beyond. It was a huge task and Wavell did warn the Prime Minister that despite British strength in tanks and supporting aircraft there still might not be sufficient troops to gain a decisive victory.³⁰ On the right the 11th Indian Brigade would divide to assault upper and lower Halfaya, with the Cameron Highlanders attacking along the top of the escarpment supported by 20 Matildas. In the centre column, 22nd Guards Brigade was to assault multiple objectives including Pt 206, Pt 207 and Capuzzo.³¹ Further inland again, 7th Armoured Brigade was to capture the Hafid ridge and expected to engage an Axis counter-attack for a decisive armoured battle, but Gerald Jackson with 6th RTR, believed it was, 'an ill-fated operation with quite inadequate forces.'³²

Axis units had been distributed into self-sufficient battlegroups across the strongpoints, from the coast to fifteen miles inland at Sidi Omar. The forward zone was occupied by German and Italian units; the positions at Fort Capuzzo, Musaid and Sollum were strongly held by elements of the Italian Trento Division, along with three batteries of artillery.³³ Rommel had deployed numerous heavy anti-tank guns throughout the front line. All of these positions were supported by lighter weapons and protected by Infantry, wire and minefields. The 15th Panzer Division was deployed as a mobile reserve, whilst the more experienced 5th Light Division remained in reserve near Tobruk. German defensive doctrine emphasised firepower around a key point or *Stützpunkt*, to wear down their attackers before local reserves of armour delivered a powerful counter-attack.³⁴

³⁰ Connell, *Wavell*, p.483.

³¹ TNA WO 201/511. Guards Brigade Operations: March – Sept 1941. Operational Order No.19, p2.

³² Gerald Jackson, *A Long Parting*, Unpublished memoir, undated, p.25.

³³ Playfair, *Mediterranean & Middle East, Vol II*, p.164.

³⁴ T.L. Jentz, *Tank Combat in North Africa. The Opening Rounds. Operations Sonnenblume, Brevity, Skorpion and Battleaxe. February 1941-June 1941* (Atglen: Schiffer Publishing, 1998), p.155.

British intelligence was providing less accurate information than the tactical intelligence provided by forward Axis units. On 13 June, it was estimated that the Axis only had 102 tanks and 72 anti-tank guns along the frontier positions whilst the weakened 5th Panzer Regiment was thought to be further back near Tobruk re-fitting and largely unready for combat.³⁵ Ultra reported Axis shortages of petrol and trucks which mislead analysts into thinking this would limit their ability to advance or counter-attack easily. However, RAF attacks on supply shipping in Benghazi during May had limited success as 90% of supplies were still being unloaded.³⁶ In comparison, Axis intelligence collated by 621 Signals Company accurately showed British preparations and definite signals activity which indicated an offensive to relieve Tobruk. Consequently, Rommel increased numbers of anti-tank guns across the positions which Brevity had previously targeted.³⁷

The British were experiencing command problems when Churchill questioned the appointment of Lieutenant-General Beresford-Pierce to command the Western Desert Force. Beresford-Pierce also struggled to site his HQ near the front and was forced to place it sixty miles to the rear at Sidi-Barrani. Any further forward and he would have lost radio contact with the RAF Group HQ at Mataan Baggush 100 miles further to the rear.³⁸ This left the control of the tactical battle to the Divisional commanders Messervy and O'Moore-Creagh. Messervy noted he was issued plans, photos and maps only twelve days before, and realised he had, 'no knowledge of the country, except from...the maps and from one short visit to the area.'³⁹ The long journey to the front caused British armoured strength to be reduced before the operation began, leaving 4th RTR with only 45 Matildas and 6th RTR with just 35 Crusaders.⁴⁰ It took two days to move the vehicles up by

³⁵ TNA WO 201/511. Guards Brigade Operations: March – Sept 1941. Special Intelligence Summary, 13 June.

³⁶ Bennett, *Ultra and Mediterranean Strategy*, pp.45-46

³⁷ Neillands, *Eighth Army*, p.60.

³⁸ Playfair, *Mediterranean & Middle East, Vol II*, pp.165-166.

³⁹ Stevens, *Fourth Indian Division*, p.60.

⁴⁰ Griffiths, *Desert Tactics*, p.30.

rail, and a further two days to move the armour 100 miles across the desert while carrying out constant repairs.⁴¹

Battleaxe: battle summary 15-17 June

The first assaults along the top of the escarpment highlighted how the open ground enabled the Axis guns to knock out the supporting Matildas at 2,000 yards.⁴² The supporting Infantry (11th Indian Brigade) continued on before being pushed back by an Axis counter-attack.⁴³ The assault at Lower Halfaya was similarly halted by Axis fire. The supporting infantry were unable to cross the open ground and this effectively ended the assaults on the coastal positions.⁴⁴ British assault doctrine was failing to take account of ground conditions in daylight assaults, which resulted in the loss of valuable armour.

The centre column was more successful and it made combined armoured/ infantry assaults which captured Pt 206, Sollum and Fort Capuzzo, with the Matildas of 7th RTR advancing to occupy the nearby airfield on the following day.⁴⁵ However, heavy and accurate Axis gunfire knocked out many tanks here and forced the regiment to retire with only 14 vehicles on the 17 May. The regiment subsequently engaged an 'overwhelming Axis column' which enabled the remnants of 22nd Armoured Brigade to withdraw.⁴⁶ The 7th RTR became overextended trying to capture too many enemy objectives and fought a separated battle from the infantry support.

On the left flank, the British Armoured Brigade advanced towards the Hafid Ridge. However, visibility was very poor because of the heat and dust which made observation beyond 1,000 yards impossible, and the Brigade was soon under heavy enemy fire. Second RTR made a frontal assault

⁴¹ Jackson, *A Long Parting*, p.25, including tracks lost and engine problems.

⁴² Parker, *Desert Rats*, p.106, all suffered high casualties, although Peter Vaux believed they were using Italian 6" naval guns at upper Halfaya.

⁴³ Joly, *Take these Men*, p.135.

⁴⁴ Pitt, *Crucible of War*, pp.297-298.

⁴⁵ TNA WO 201/511. Guards Brigade Operations: March – Sept 1941. Operations Order 19, p.3.

⁴⁶ Bovington Archives: 7th RTR War Diary: Diary of events, June 1940-June 1941. It was left with 5 tanks.

on the second crest-line, with B squadron driving in from the flank and became heavily engaged amongst the Axis guns.⁴⁷ As Joly observed, the armoured assault faltered when support from other squadrons failed to materialize.⁴⁸ The remaining British tanks were quickly lost due to the attritional fighting and communication errors which resulted in some tanks driving away in error. This was another example of the armour fighting alone without infantry and artillery support.

The attack on Hafid ridge failed with heavy losses and after a stationery fire-fight 2nd RTR began a long slow retreat pushed back by Axis tanks. The armour lost communication with its artillery fire support which left 6th RTR isolated and weak. Troop commander Cyril Joly noted, 'the gun OPs were miles behind and hadn't a chance of getting up to us. We've got to get that better organized...have 'em riding in tanks...the present set-up's bloody well useless.'⁴⁹ The British attack had been surprised and undermined by the two further crest-lines of the ridge which had enabled the Axis anti-tank guns and armour to deploy in-depth. Major Pip Roberts also believed this was the reason for the failure of the attack.⁵⁰

Another feature of this mobile warfare was that regiments became scattered across different objectives very quickly. Despite this, a weakened 7th Armoured Brigade worked alongside the artillery to halt an attack by 5th Light Division, and was forced to withdraw 15 miles.⁵¹ The British artillery was still an effective force, as noted by Gerald Jackson who watched an Axis column coming under heavy shell fire which compelled them to withdraw.⁵² Even though British units were being dispersed according to the battle plan, they were still able to engage the enemy effectively. The doctrine was weak, however, as they were each fighting an independent battle instead of as a combined force.

⁴⁷ Patrick Delaforce, *Battles With Panzers, 1RTR & 2RTR at War* (Stroud: Sutton, 2003) p.191.

⁴⁸ Joly, *Take these Men*, p.140.

⁴⁹ Joly, *Take these Men*, p.150.

⁵⁰ LHCMA Roberts, GPB, Papers. Report on Battleaxe.

⁵¹ TNA WO 201/357. Operation 'Battleaxe': Lessons of the Campaign, and Delaforce, *Battles With Panzers*, pp.191-192. with 25 tanks remaining.

⁵² Jackson, *A Long Parting*, p.26.

The key terrain heights remained the focus of the fighting, the remnants of 7th RTR retreated and,

The sqn arrived at Pt 205 which dominates the entire country. Maj Holden therefore decided to hold it...the enemy had overwhelming superiority and attacked from all directions... By 1900hrs the remaining five tanks had run out of ammunition and were short of fuel so Maj[or] Holden decided to withdraw them.⁵³

The concluding phase of the battle, on the 17 May showed how better Axis signals intelligence helped Rommel win the final phase of the battle. It confirmed that British commanders had lost faith in the battle and the remaining concentration of British tanks were forward near Sollum, so he ordered his fresh battlegroups to swing towards the coast behind them and thrust north-east towards Halfaya. The remnants of 7th Armoured Brigade made a fighting retreat from this thrust and Messervy and Beresford-Pierce decided to cancel their planned moves and order a general retreat to save the remaining armour. Wavell had come forward to Beresford-Pierce's HQ on the previous afternoon to gain a better picture of events, but the British Commander had already gone forward to meet his two Divisional commanders, who had controlled the tactical battle with little input from him so far.⁵⁴ British commanders were now on the spot, like their Axis counter-parts, yet they no longer had the armoured strength or the will to alter the course of the operation.

The battle was influenced by other factors which included poor command and communication issues. The 4th Indian Division blamed poor radio links between air and ground units for the failure of the operation.⁵⁵ However, the two Divisional Generals had actually kept good radio security by conversing in Hindustani, but other messages back to 13th Corps HQ were more insecure.⁵⁶ The supposedly vital radio message from Creagh back to Beresford-Pierce at 0930hrs on the 17 June, was picked up by the German 621 Signals Company and confirmed that British commanders were

⁵³ Bovington Archives, 7th RTR History, Events of June 1941.

⁵⁴ Pitt, *Crucible of War*, Vol I, p.308.

⁵⁵ TNA WO 201/357. Operation 'Battleaxe': Lessons of the campaign. An Account of the Frontier Battle.

⁵⁶ Pitt, *Crucible of War*, p.308.

in doubt about their next move. This intercepted message enabled Rommel to change the direction of his counter-attack to outflank 7th Armoured Division.⁵⁷ Yet Rommel failed to acknowledge this in his own account, and stated that ordered his own advance quickly towards Halfaya.⁵⁸

The tactical battle was influenced by terrain due to the quantity and distribution of the Axis defensive positions. These locations gave Axis armour the time to concentrate for an effective counter-attack from a flank position, which in turn undermined the British advance. As in Brevity, the objectives were too widespread for the limited forces and some positions such as the Halfaya Pass needed more tactical finesse to capture. The three crest lines of the Hafid ridge had undermined the British armoured assault as the ill-planned attack was made by armour alone against the deep Axis defence position.

British doctrine had become weakened by the improvised over-use of Jock Columns. The armoured assault on the Hafid Ridge had no infantry support because 7th Support Group operated in Jock columns in a protective screen on the left flank. There had been a lack of combined arms training with Cruiser tanks, and most commanders traditionally used Infantry with 'I' tanks. The Jock columns kept the artillery too widely dispersed and Royal Artillery commanders were critical of the lack of concentration of guns. There was a growing perception the tanks needed mobility more than artillery support fire, and that the, 'over-use of scattered guns in jock columns,' led to armour becoming more self-reliant.⁵⁹ The British might have used more concentrated supporting artillery fire which would have been more effective in covering the assault troops onto the

⁵⁷ Hinsley, *British Intelligence, Vol I*, p.399 and Strawson, *Battle for North Africa*, p.83.

⁵⁸ Liddell-Hart, *The Rommel Papers*, pp141-142, and James Lucas, *Panzer Army Afrika* (London: Macdonald & Jane's, 1977), p.60, and Playfair, *Mediterranean & Middle East, Vol II*, pp.169-170.

⁵⁹ Martin Farndale, *The Years of Defeat. 1939-1941. History of the Royal Regiment of Artillery* (London: Brassey's, 1996), pp.190-191.

positions. Air support from the RAF had concentrated on units behind the frontline and was attritional but did not decisively change the battle.⁶⁰

Battleaxe had been hastily planned and carried out with insufficient forces, when more detailed planning and better intelligence might have led to some tactical gains. British forces had again failed to hold onto any of the numerous objectives and suffered losses which included 1,000 casualties, 91 tanks and 40 aircraft for no gain. British estimates initially thought Axis losses had also been heavy with large numbers of trucks and 700 casualties along with losses of nearly 100 tanks, but after recovery the Axis had lost just 13 tanks with another 50 damaged and recovered.

The command and communication structure was also weakened by the scale of the distances involved, as seen in the site chosen by Beresford-Pierce for his HQ. This was a poor compromise to cope with the fast changing situation in the battle, and was made worse by insecure radio procedures. In comparison, Rommel led from the front and placed his tactical HQ alongside his leading armoured units, meaning he was able to respond more quickly to British attacks.

British forces needed fresh reinforcements before any further advance could be considered and Churchill finally sacked Wavell who was exchanged with Auchinleck, as CinC India.⁶¹ The new CinC also insisted on a proper reorganisation of British forces before any further offensive would take place. This created the Eighth Army with new equipment and a training period of five months before the next offensive, Operation Crusader took place. British planners also had to contend with how to overcome the operational terrain problem; of moving a large, well equipped force across eighty miles of desert to defeat the enemy.

⁶⁰ TNA AIR 27/1588. 274 Squadron Operations: summary of events 1 June-31 July 1941.

⁶¹ Connell, *Wavell*, p.484.

Chapter 6 Operation 'Crusader' Oct-Dec 1941.

This chapter considers the major British offensive of late 1941 which was designated Operation Crusader. It looks at the impact of terrain upon the operational level planning and command decisions, as well as how the tactical terrain affected various key battles during the operation. The effect on the operational level planning was influenced by the scale of the distances traversed by the Eighth Army before Tobruk could be relieved, as well as fighting across two different sectors of Libya. The impact of the tactical terrain will be examined as the key battles unfolded in three different sectors. This became the focus of the fighting and influenced the outcome as much as the issues of command, training, and equipment, which have been the focus of much of the previous historiography about the battle. British doctrine will also be considered to show how it evolved from previous operations.

Other studies about Crusader have concentrated on the narrative of this complex twenty day battle and argue that the outcome was influenced by other, standard military factors which affected British performance, before briefly considering the lessons learnt. De Guingand's memoirs note that it received little attention and was one of the hardest fought battles for the Eighth Army which defeated a more experienced Axis force. Geoffrey Cox considered the relief of Tobruk was important but the battle had become eclipsed by Second Alamein.¹ Tim Moreman notes the need to improve British doctrine, and the dispersion of formations,² while Michael Carver discusses the failures of poor equipment and doctrine which again misses the importance of the impact of terrain on the tactical battle.³ John Strawson argues that the British command was weaker, and the Axis had better gun-armour equipment which affected doctrine but again

¹ De Guingand, *Operation Victory*, p.99, and Cox, *A Tale of Two Battles*, p.196.

² Tim Moreman, *Desert Rats. British 8th Army in North Africa 1941-43* (Oxford: Osprey, 2007) pp.32-35.

³ Michael Carver, *Dilemmas of the Desert War. The Libyan Campaign 1940-1942* (Staplehurst: Spellmount, 2002) pp.29 and 51.

terrain is not mentioned as a factor.⁴ Barrie Pitt offers a detailed narrative highlighting the separated armoured and infantry actions but again made little of the terrain impact.⁵ Adrian Stewart and Richard Humble both provide detailed narratives and focus on command problems but neither comment on the impact of terrain.⁶ Therefore this study argues that terrain played an important part in how British units fought, where they fought and the outcome of key battles. This operation was an important step for British forces gaining more combat experience in learning how to defeat Axis forces, but there were crucial lessons still not being learnt which were to influence future doctrine.

Crusader terrain: the Frontier sector

At the operational level, the scale of Cyrenaica and its terrain influenced British planning, due to the distances between the Axis frontier defences and the primary objective, Tobruk. The defences forced the Eighth Army to divert around them, increasing the distance of the approach march towards the Tobruk sector. This created two areas of British operations and drew away large numbers of British units just to contain the frontier sector. The frontier defences also diverted Rommel's attention away from the more vital Sidi Rezegh battle, which gave Eighth Army forces there a chance to regroup for the final phase of operations to relieve Tobruk.

Tactically the Axis frontier positions had been strengthened over the previous four months, from Sollum to the Omars and were sited on the dominating heights for twenty miles along the frontier wire. New Zealand Intelligence Officer Geoffrey Cox thought that they provided, 'the Germans there with a very defensible line.'⁷ The problem for British forces was that each position had to be

⁴ John Strawson, *The Battle for North Africa* (New York: Charles Scribner's Sons, 1969) pp.103-107

⁵ Pitt, *Crucible of War, Vol II*, pp.43-153.

⁶ Adrian Stewart, *The Early Battles of the Eighth Army. 'Crusader' to the Alamein Line 1941-1942* (Barnsley: Leo Cooper, 2002) p.39 and Richard Humble, *Crusader Eighth Army's forgotten victory. November 1941-January 1942* (Barnsley: Leo Cooper, 1987) p.200. A Pyrrhic victory was a battle won, but at great cost to the winning side.

⁷ Cox, *A Tale of Two Battles*, p.163.

contained, assaulted and captured, during which time the Axis garrisons were extending local minefields throughout the blockade.⁸ At the southern end of the line, the Omars were considered the most formidable positions as they consisted of three strong points which were all sited to cover each other. These targets were blockaded for several weeks and were assaulted at the end of Operation Crusader.

Crusader terrain: the Sidi Rezegh sector

The ridges south-east of Tobruk became the main focus of the fighting during Crusader and largely defined the outcome of the main battle. The terrain here was dominated by three parallel escarpments and the high ground along each provided good artillery observation over lower ground on either side, which enabled units to target concentrations of vehicles and men. The control of this area and of the Sidi Rezegh airfield played a major role in defining success and failure for both sides. The airfield became a focus for British commanders because it was an important Axis supply route and its capture would force the Luftwaffe further away from the frontier.⁹

The three escarpments ran broadly east-west and were the most prominent terrain features in this sector. The first or northerly one was the Ed-Duda ridge, which overlooked the Axis bypass road and Panzergruppe HQ and was the objective for the break-out by 70th Division from Tobruk. The second or middle escarpment was situated south of the Trigh Capuzzo, and was the highest feature reaching 192 metres in places. Other key heights along this ridge were Pt 163, overlooking the airfield on its southern side and five miles east at Pt 175, another prominent circular hill was made naturally defensive by defiles on either side.¹⁰

⁸ Stevens, *Fourth Indian Division*, p.99.

⁹ TNA WO 201/361. 7th Armoured Division: Account of Operations in Libya, 1941, Nov-Dec, pp.31.

¹⁰ Cox, *A Tale of Two Battles*, p.160.

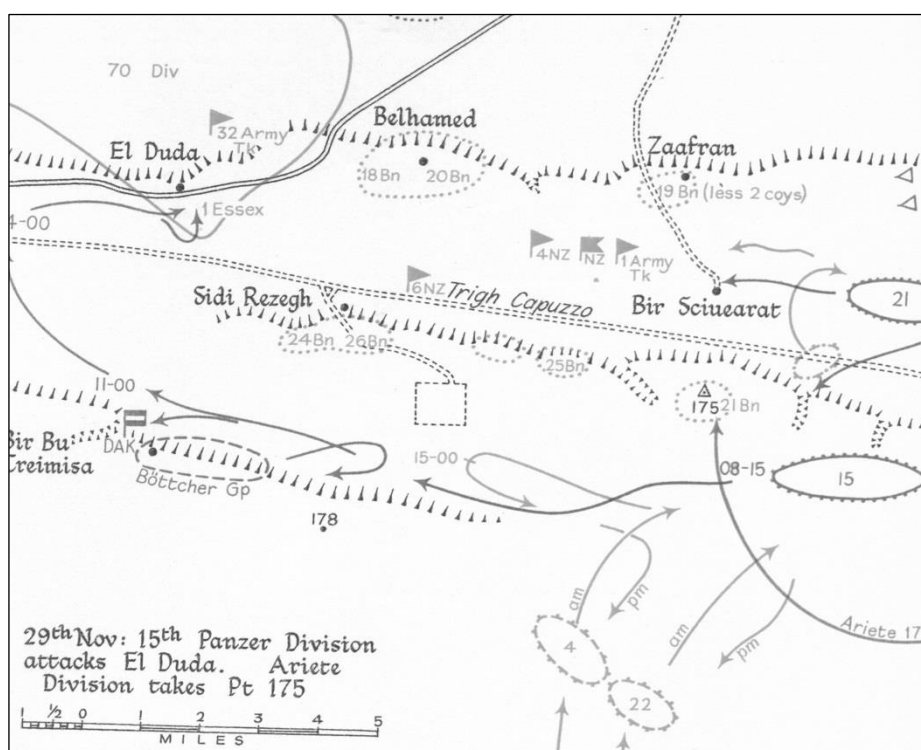


Figure 6:1 Crusader, Sidi Rezegh, November-December 1941.¹¹

The ridge was passable for vehicles onto the southern slopes but was too steep on the northern slopes to descend except in a few places.¹² The third escarpment was three miles south of Sidi-Rezegh airfield and became more prominent further westwards to overlook the El-Adem airfield. The south side of this ridge provided a staging area for both sides as they made approaches north towards the airfield. The final area of ground which saw major fighting was south-east from the Tobruk perimeter where numerous Axis defensive positions were sited across low ground and lead towards the northern escarpment at the Ed Duda ridge. These operational sectors of eastern Cyrenaica influenced Eighth Army commanders' decisions during planning and contributed to the outcome of the fighting at the tactical level as much as other military factors.

¹¹ Playfair, *Mediterranean and Middle East, Vol III*.

¹² Jackson, *A Long Parting*, p.31.

Crusader: preparations

Auchinleck delayed another summer offensive, despite pressure from Churchill, because he argued that the Eighth Army needed time to reorganize, train and re-equip, 'as an essential part of the preparations for driving the enemy out of Libya.'¹³ Even though fresh reinforcements, including American Stuart tanks and British Cruisers arrived in August and September, he realized the armoured regiments would not be trained or prepared enough until mid-November.¹⁴ The subsequent preparations for Crusader took place on a vast scale and ensured that the Eighth Army was well equipped, though training levels varied between units. Reinforcements came in from Britain and the Empire, including 27,300 in new formations and 17,000 for existing units along with 2,100 new tanks, which gave Auchinleck the three to two ratio of armour he wanted to begin the offensive. Other new equipment arrived up to October including over 34,000 trucks, 600 field guns and 200 anti-tank guns along with thousands of tons of weapons and ammunition.¹⁵

The Eighth Army used the four months build up to reorganize and improve training. The Infantry were grouped mainly in 13th Corps, under Lieutenant-General Godwen-Austen, with 2nd New Zealand Division and 4th Indian Division both increased to three Brigades each, supported by the 1st Army Tank Brigade. The main armoured formation was 30th Corps, under Lieutenant-General Norrie, the 7th Armoured Division had three full Armoured Brigades plus its Support Group, while the 1st South African Division had two Infantry Brigades and the experienced 22nd Guards Brigade attached. Some units still needed further training so the mid-November start date was delayed

¹³ PREM 3/285. Gen. Auchinleck's Despatch 1941 Jul.-Oct. etc. p.2.

¹⁴ WO 201/2357. Libya, Cyrenaica and Tripolitania planning. 1941 July - 1942 Feb.Cipher 84786. Mid-East to Troopers (CIGS). 23 July 1941.

¹⁵ PREM 3/285. Gen. Auchinleck's Despatch 1941 Jul.-Oct. etc. p.23.

further.¹⁶ Despite the lengthy build-up, not all units had the time for doctrinal training and consequently there was little real change in battle tactics.

The RAF made thorough preparations to achieve air superiority and support for the Army and had built up 500 aircraft in nine bomber and nineteen fighter squadrons. Liaison with the Army improved as Air Vice-Marshal Coningham sited his HQ alongside Eighth Army HQ for closer cooperation.¹⁷ The bombers began a month long, phased campaign which targeted the major Axis airbases at Derna, Tmimi and Gazala, increasing the intensity of raids in the final week before the ground offensive.¹⁸ The RAF provided a combination of regular fighter sweeps over the battlefield and medium-bombing raids on enemy concentrations of MET,¹⁹ along with deeper raids on enemy airfields and supply routes.²⁰ A new fighter-bomber squadron was created to specifically target Axis supply trucks and air cover improved as the fighter squadrons were made ready to take over landing grounds just behind the front.²¹ Problems still remained over operational control and there were delays in signalling targets back to squadrons for them to react in time but overall the RAF provided solid support for the Army, which was an improvement on previous operations.

Auchinleck was criticized about his choice of commander for the Eighth Army prior to this vital offensive. He appointed General Sir Alan Cunningham, who had defeated the Italians in East Africa, but who had not yet faced German forces and had no experience in armoured warfare. The CinC defended his decision to London despite their wishes for the more experienced Maitland-Wilson to have been appointed. British forces were to suffer from command problems during the operation when Cunningham suffered a breakdown at a critical moment and Auchinleck had to take direct command for a period. Cunningham's style of command was seen by contemporaries

¹⁶ Carel Birkby, *Uncle George. The Boer Boyhood, Letters and Battles of Lieutenant-General George Edwin Brink*, (Johannesburg: Jonathan Ball, 1987) p.170 and pp.191-192.

¹⁷ PREM 3/285. Gen. Auchinleck's Despatch 1941 Jul.-Oct. etc. p28.

¹⁸ WO 201/363. Operation Crusader. Air Operations.

¹⁹ Playfair, *Mediterranean & Middle East, Vol III*, p.41.

²⁰ WO 201/363. Operation 'Crusader': air situation: diary of events. 1941 Nov-Dec.

²¹ WO 201/355. Action at Sidi-Rezegh: 1st Kings Royal Rifle Corps.

as weak. Brigadier John Harding, then BGS at 13th Corps HQ noted that, 'Orders formed a basis for discussion rather than something that had to be done.'²² There were also errors in the selection of plans made by GHQ and approved by Auchinleck, which were forced on Cunningham. The final choice was a compromise of options designed to protect the vulnerable Infantry formations against armoured assault and bring the Panzer Divisions to battle.

The main task of 30th Armoured Corps was to advance south of Tobruk and await the Axis response to bring about an armoured battle, whilst the Infantry of 13th Corps would screen the frontier defences and then advance west once the Axis armour had been defeated.²³ The plan was altered and weakened after objections from the New Zealand General Freyberg and Godwin-Austen at 13th Corps, who both wanted to protect the Infantry if attacked by armour, consequently the 4th Armoured Brigade was re-assigned to cover the Infantry flank. General Freyberg was seriously worried because his battalions only had four anti-tank guns each, and he feared they would be easily overrun by Panzers, as had happened in Greece.²⁴ The New Zealand Division would be divided to screen the frontier defences and advance west towards Tobruk, while the 4th Indian Division was to assault the Libyan Omars to clear the forward supply routes.

In Tobruk, the breakout by 70th Division was well planned in every detail by Brigadier Willison of the 32nd Army Tank Brigade, who trained his troops in combined arms assaults. They had the difficult task of advancing ten miles to the Ed-Duda ridge through some extensive Axis defences. This part of Crusader was more successful because Willison ensured all ranks understood their tasks and became used to working together.²⁵ Other diversionary attacks included Commando and SAS raids as well as 'Oasis Force', a unit designed to create havoc in the Axis rear supply routes and cut the road near Benghazi. Although some of these diversionary attacks failed, Oasis Force did

²² Stewart, *Early Battles*, p.16 and Humble, *Crusader*, pp.74-75.

²³ WO 201/2357. Libya, Cyrenaica and Tripolitania planning. 1941 July - 1942 Feb, p.4

²⁴ <http://www.nzetc.org/tm/scholarly/tei-WH2-21Ba-c5.html>. 21 Battalion History, p.119, accessed 29.3.12.

²⁵ Bovington Archives. Breakout From Tobruk November 21 1941, by Willison.

cause some anxiety to the Panzergruppe HQ who brought in additional air units from Sicily in reply.²⁶ Overall, the task of planning for Crusader involved bringing all these elements together to defeat the Axis forces. They were a complex set of objectives which was asking a lot from a newly formed army.

Axis forces had been building up to assault Tobruk in November since Rommel's victory in mid-June. However, both German and Italian Divisions were struggling to increase men and resources due to the stranglehold on Axis supplies by the Royal Navy and RAF on Malta. Their Air Forces were now weaker than the RAF, as there were only 300 Axis aircraft operational in Libya although they could call on reserves of planes from elsewhere. The Axis supply shortage led to petrol shortages by November and this had principally delayed Rommel's planned assault on Tobruk which was just nearing completion.

Sidi-Rezegh: battle summary

One of the major successes for the Eighth Army was the discipline and precision by which it advanced into Cyrenaica with numerous large Brigade Groups. The left flank was protected by the Reconnaissance Regiments from 1st South African Division because of their strength and expertise.²⁷ The advance placed the bulk of 30th Corps south-east of Tobruk awaiting a reaction from the Panzer Divisions. The reaction was slow because Rommel disbelieved early reports about the British advance and there was no air reconnaissance due to the stormy weather which flooded all Axis airfields. The battle for Sidi Rezegh Airfield developed through a series of armoured engagements and Infantry defence against attacking Axis battlegroups, with 13th Corps Brigades advancing either side of the second escarpment to reach Sidi Rezegh.

²⁶ HW 1/237, North Africa: GAF measures to counter possible British break through Nov 20-21; Italy and Africa Air Operations, 21.11.41.

²⁷ John Rylands Archive Auchinleck Papers, AUC/427, 8.11.41.

The impact of terrain and doctrine on the battle

In early armoured engagements, units dispersed in order to capture objectives and engage the enemy armour. The later Infantry assaults also dispersed as they attempted to overcome key landscape features on the escarpments in order to gain the higher ground. British doctrine still operated with separate actions by Armour and Infantry rather than by combined assault. In one action the 4th Armoured Brigade engaged a battlegroup from 21st Panzer Division at Gabr-Saleh, at only two-thirds strength. The terrain also influenced the fighting at Sidi-Rezegh when the 6th RTR captured the airfield but was drawn into attacking Axis positions on the ridge above.²⁸

British commanders continued to direct separate Armoured Brigades to engage enemy formations, the 4th Armoured spent most of the first five days chasing Axis formations but with little success. Armour was directed across the Sidi-Rezegh ridge and north-west towards the Ed-Duda ridge, Lieutenant-General Norrie directed the 7th Armoured Brigade to make this link-up with the 70th Division, because Axis forces were thought to be weaker there. The attack also failed because there were command errors and poor doctrine. The attack initially combined two Armoured Regiments with the 2nd Rifle Brigade to assault the Ed-Duda ridge but the 7th Hussars were diverted back to defend the airfield. The attack was initially successful with Pt 167 secured, after which two squadrons from 6th RTR advanced towards Ed-Duda but were halted by strong enemy gun positions leaving the unit decimated.²⁹ A combined assault had been reduced to a weak armoured thrust which had been easily halted by well sited guns.

Another issue for British tactics was that newly arrived units showed their inexperience in combat and doctrine, despite training in the UK. The 22nd Armoured Brigade engaged the Ariete Division at Bir el Gubi because it was considered an easier objective. They began with a frontal assault by one

²⁸ Jackson, *A Long Parting*, p.31.

²⁹ Bovington Archives 6th RTR War Diary. November 1941, including the CO, Lieut-Colonel Lister and two Squadron commanders.

regiment supported by a single artillery battery, 'the position was overrun in a dashing cavalry charge...(we lost 35 of our 53 [Crusaders])...[and] we were not able to hold the ground and were ordered to retreat.'³⁰ The two remaining Regiments attacked later and halted by minefields and anti-tank fire, so that the Brigade was outflanked and forced to withdraw by a later Axis counter-attack. British Armoured Brigades were not combining with Infantry and were delivering poorly coordinated frontal assaults on strong Axis positions for no gain.

Another feature of the separated armoured battle was the high attrition rates suffered by Regiments against these defended positions. Having been weakened in the early actions, the 7th Armoured Brigade and its Support Group defended the Sidi-Rezegh ridge and airfield over two days which left both formations very weak by the 23 November.³¹ Units were reformed and re-equipped around surviving personnel, but were largely incapable of further offensive action. The weak defence forced the 4th Armoured Brigade to return the airfield but its two remaining Regiments, the 3rd and 5th RTR, also suffered further heavy losses and were reduced to just 12 tanks. British armour suffering attrition faster than tanks and crews could be replaced. The weakened units also had to attack Axis defensive positions on the Sidi Rezegh ridge which held low profile anti-tank guns in rough ground and caused further losses.

Other factors which influenced the outcome were failures of doctrine and Command. British doctrine proved weak when Armoured Regiments disengaged because of their practice for replenishing of fuel and ammunition, the 3rd RTR initially assisted 1st South African Division's defence on low ground but was ordered away to replenish leaving the isolated Infantry Brigade which was later overrun.³²

³⁰ IWM Box No. 6911. 97/36/1, Papers of Sgt W.R. Hill. 2nd Gloucester Hussars Yeomanry and LRDG, p.14.

³¹ Bovington Archives 6th RTR War Diary. November 1941.

³² Joly, *Take these men*, p.206.

Another failure was for British HQs to direct Regiments towards different objectives. Informed by Ultra intelligence, General Cunningham changed his plans on the 21 November to meet an expected Panzer thrust. The 4th and 22nd Armoured Brigades were combined to receive it, but Cunningham also then separated the 1st South African Division to screen both Bir el Gubi and Sidi-Rezegh airfield. HQs were put out of action by the mobile nature of operations when they were overrun by enemy columns, the 4th Armoured HQ was overrun and was temporarily out of action, whilst the 8th Hussars lost 35 tanks captured in night-close leaguer which meant it was unable to support the vulnerable 5th South African Brigade which was overrun on open ground the following day.³³ British Commander directed forces to hold the both Sidi Rezegh airfield and the Third Escarpment to the south. A weakened 22nd Armoured Brigade reached the escarpment and assisted the weak 2nd RTR against strong Panzer attacks. They were held up by anti-tank fire and dust which created total confusion because of the lack of visibility. They moved to outflank these guns but the Brigade remained caught on the ridge for the rest of the day.³⁴

The Infantry Brigades also fought separate battles as they approached Sidi-Rezegh, the 2nd NZ Division and the 5th SA Brigades both fought separate actions as they made their approach marches to the airfield. The South Africans were too slow approaching from the south and were caught in the open and overrun by a powerful attack by DAK.³⁵ In comparison on the frontier sector the 4th Indian Division and 1st Army Tank Brigade, made set-piece Infantry attacks supported by 'I' Tanks, similar in type to the Compass assaults in 1940.

The 2nd NZ Division was assigned multiple objectives and the approach march towards Sidi-Rezegh which was 100 miles away and took four nights to reach. Each Brigade had a different objective, the 4th Brigade moved north-west to cut the Tobruk road, while the 6th Brigade directly west to

³³ Birkby, *Uncle George*, p.218.

³⁴ Bovington Archives 2nd RTR War Diary. Account of Operations of Composite Squadron, 22 November 1941. Two Regiments only; the 4th CLY and 2nd RTR.

³⁵ Birkby, *Uncle George*, pp.183-240, is based on Brink's unpublished report of Jan 1942.

support Sidi-Rezegh each supported by a Regiment of 'I' tanks. The Brigades took four days to reach Pt 175, because they had to clear Axis battlegroups from their rear to maintain their supply routes. The 6th NZ Brigade moved along the escarpment and 4th Brigade was north of it, directed towards Belhamed ridge and both were in continuous contact with the enemy which caused heavy casualties and forced two battalions to be amalgamated. The key Pt 175 was taken after hard fighting along the ridge by 6th NZ Brigade.³⁶

The Infantry assaults were weakened because they were made without any powerful armoured support, the attack by the 4th Brigade on Belhamed was made by two battalions with no artillery support after an approach march of 6,000 yards. Belhamed was captured but was then subjected to heavy shelling, which caused further high casualties amongst the units which were surrounded by Axis positions on lower ground between them and Sidi-Rezegh ridge.³⁷

The heavy attrition forced the New Zealanders to make a weak daylight assault on the low ground with just two companies of 20th Infantry Battalion and three tanks to clear the machine gun positions which was a complete failure. The supporting artillery quickly ran out of ammunition and smoke whilst.³⁸ Casualties continued until the battalion was overrun by a large Axis Battlegroup. In comparison the 19th Battalion had by-passed Belhamed to the north and made contact with the Tobruk garrison on the Ed-Duda ridge, though this link was briefly closed again by Axis attacks.³⁹ The need to capture Belhamed and Pt 175 had exhausted the 4th NZ Brigade in a succession of assaults which highlighted the influence of terrain and the weakness of the assault doctrine.

The combination of factors of terrain, numerous objectives and weak formations highlighted the weaknesses in doctrine. British forces further east targeted the Axis positions dug-in near Bir el

³⁶ Kippenburger, *Infantry Brigadier*, p.93.

³⁷ Kippenburger, *Infantry Brigadier*, p.94, (or 3.4 miles).

³⁸ <http://www.nzetc.org/tm/scholarly/tei-WH2-20Ba-c7.html> Chapter 7, 20th Battalion and the Armour, p188. Accessed 31 March 2012.

³⁹ Humble, *Crusader*, p.145.

Gubi and along the Trigh Capuzzo. Those on the Trigh were considered too well dug in, so 7th Armoured Division moved against the Italian units near El-Gubi. Unfortunately the 11th Indian Brigade with just one squadron of Tanks and the 4th Armoured Brigade with 98 tanks and its Support Group, all fought separate actions rather than making a combined assault. The key heights were again the main objectives of for each assault, the 11th Indian's attack was only partially successful in securing Pt 182 which overlooked the position and they failed to secure Pt 174 nearby.⁴⁰

The improvised doctrine defined that the Support Group and Reconnaissance Regiment would hold off an enemy force using Jock Columns and harassment when the Armoured Division had suffered major losses, until it had recovered sufficiently enough to return to the offensive again.⁴¹ This is what happened during Crusader and successes for the Jock columns ensured their continued use well into 1942. The 7th Armoured Division had followed this defensive doctrine and appeared to be fighting with all units, but in reality the Brigades still fought separate actions.

Operation Crusader was an important British offensive which lasted for 20 days and resulted in a costly victory. They had succeeded in relieving Tobruk and pushed back Axis forces out of most of Cyrenaica. They retreated to a defensible position near Mersa Brega so that Eighth Army was able to re-occupy Benghazi and the western airfields. Historians have failed to properly emphasize the importance of the terrain which influenced the fighting throughout. The key terrain features at Sidi-Rezegh had dominated the key battles in the central sector of the battlefield and they had become the main objectives of British operations, such as the Ed Duda feature which divided the forces breaking out of Tobruk with Eighth Army outside. The tactical terrain included a 'quadrilateral' of heights near the Sidi-Rezegh airfield which all became objectives and this dispersed British forces trying to capture them. The operational distances in this part of Cyrenaica

⁴⁰ WO 201/361. 7th Armoured Division: Account of Operations in Libya, 1941, Nov-Dec, p35.

⁴¹ WO 201/361. 7th Armoured Division: Account of Operations in Libya, 1941, Nov-Dec, pp.35-36.

had influenced British planning and on-going decisions by Eighth Army HQ, who divided its Brigades to either blockade the frontier with Infantry or sent its Armoured Brigades to Tobruk to engage the Axis.

The victory drew British forces too far forward again into Cyrenaica, which left them over-extended, and short of supplies but with another long front line held by the improvised Jock Columns. British forces would again be vulnerable to future Axis counter-attacks. They had not developed their doctrine to be fully concentrated or using combined arms again. Units were still directed towards too many objectives which were too widespread. British doctrine continued using dispersal tactics as there was an increased use of Jock columns within major operations. This improvised tactical doctrine undermined the subsequent defence of western Cyrenaica in January.

Chapter 7 Gazala and Tobruk, May-June 1942

The battles for the Gazala line during May and June 1942 were the Eighth Army's second attempt at a defensive battle that year and ended in a major defeat. Strategically it was the last defensive position in eastern Cyrenaica, but operationally it was a battle for the defence of Tobruk and its adjacent supply bases. However, it failed to develop into the armoured counter-stroke envisaged by Ritchie and Auchinleck. At the tactical level, the Eighth Army was outmanoeuvred from a series of ridgeline positions. This chapter argues that the key terrain features had a repeated impact throughout the battle and also on British doctrine. Gazala was a defensive battle over an artificial line in the desert. Once each of these positions had been lost British units had little choice but to retreat beyond the frontier. The Army had also failed to improve its doctrine of combined arms in either attack or defence, due to weaknesses in command and the on-going problems of poor quality armour and training, which until now, have always been cited as the main reasons for British failure.

Until recently the battle has remained much less obvious in the historiography, often being part of the story of the general retreat from El Agheila to Alamein and of course overshadowed by the later victory at Second Alamein. Alan Moorehead believed that it was the loss of Bir Hacheim which undermined the British frontline, combined with the loss of armour around the 12 June, whilst Niall Barr concentrates on the problems of command and lack of an effective tactical doctrine in the Eighth Army, which led to the British defeat.¹ The official history blames the defeat of British armour on the 12-13 June which enabled Axis forces to capture Tobruk. Michael Carver offers the most detailed study of the battle but essentially defends Lieutenant-General Ritchie as Army CinC and blames poor command by Auchinleck down to Divisional level commanders and

¹ Moorehead, *African Trilogy*, pp.333-336, and Barr, *Pendulum of War*, pp.15-17.

poor doctrine.² Adrian Stewart also blames poor command practice as does Barrie Pitt's detailed narrative which highlights the loss of armour and the command confusion in a fast moving mobile battle.³ John Strawson thought the major loss of armour from the 12-13 June was the turning point along with an over-rigid plan and the lack of combined arms doctrine.⁴ Lieutenant-General Francis Tuker blamed the lack of direction from both Eighth Army HQ and Auchinleck at GHQ, following the defeat in the Cauldron on the 5-6 June.⁵ Ken Ford's recent account offers a fresh narrative but argues there were no discernible terrain features and that Rommel largely dictated the battle.⁶ However the tactical terrain of the battlefield also influenced these factors and materially contributed to the results of the fighting.

Gazala: terrain

The British sited their defences at Gazala on the best available terrain features in that sector of eastern Cyrenaica, where Tobruk could be protected, forward of its 1941 defensive line. The line was created to be a strong defensive position to protect Tobruk and the new Belhamed railhead. It was based on a forty-five mile long minefield running south/south-east from Gazala on the coast road and covered the main Trigh routes going east.⁷ Ritchie planned to hold it using defensive 'Boxes' which overlooked the extensive mine-belt. Interlocking boxes covered the coast road in the north whilst the desert flank was protected by the Bir Hacheim box.

In the centre of the line the main feature was the Sidi-Muftah depression, with the Trigh Capuzzo passing east-west through it. Its northern edge was the Sidra ridge which also dominated the open plain to the north behind the minefield. The eastern edge of Sidi-Muftah was the Aslagh ridge

² Playfair, *Mediterranean and Middle East. Vol III*, p.252, and Carver, *Dilemmas of the Desert War*.

³ Pitt, *Crucible of War, Vol II*, p.261. Using the official South African history.

⁴ Strawson, *Battle for North Africa*, pp.127-128.

⁵ Stewart, *Early Battles*, p.67 and Pitt, *Crucible of War, Vol II*, pp.222-231, and Tuker, *Approach to Battle*, pp.126-129.

⁶ Ken Ford, *Gazala 1942. Rommel's Greatest Victory* (Oxford: Osprey, 2008) p.14 and p.93.

⁷ The minefield was made up of mines taken mostly from the old Tobruk perimeter line.

which also overlooked the Bir-Hacheim track running north to Tobruk. The plain north of the Sidra ridge had some key heights which were used as defended localities later on but their weakness was that they were easily outflanked and isolated. The plain continued north to the next key heights which included a steep escarpment overlooking the coast road into Tobruk. This ridge included a series of boxes or 'keeps' along the ridgeline at Mrassas, Acroma and El-Adem, designed to protect Tobruk. The concept of dispersion of forces continued in British command thinking as further keeps and lines of minefields were under construction during the battle.⁸

The centre position of the British line was an open plateau east of the Sidra ridge, quickly named the 'Knightsbridge box'. It was constructed by the 201st Guards Brigade and was sited to dominate the junction and ridgeline at Pt 167 near the crossroads of the Trigh Capuzzo and Bir Hacheim tracks. The tracks ran east to the El-Adem airfields and this box became crucial to holding the centre of the line. Knightsbridge was at the centre of a series of ridges which included the Maabus and Rigel ridges to the north, the Hagiég-Batruna ridge north-east and Bir Bir-Belleiffa ridge running east, which all formed terrain which held an Axis approach from the south. At the southern end of the line, the Bir Hacheim box was based on a low ridge which overlooked ground to the south and west; the defensive area itself was dominated by a pivotal observation point at Pt 186, which if captured made the site untenable.⁹ The southern end of the line had a second belt of minefields running back north-east to the Aslagh ridge near the centre.

The weakness of the Gazala line due the open flank has been well documented and is not disputed. However, the line could be outflanked if Axis forces broke through past the Knightsbridge Box into the plain north of the Rigel ridge or east along the Trigh Capuzzo.¹⁰ The line had been designed to hold an enemy from the west but it was also equally important for the

⁸ TNA WO 201/2692. Operational Reports: Western Desert. May-July 1942, p.5.

⁹ Richard Holmes, *Bir Hacheim. Desert Citadel* (London: Pan Ballantine, 1971) p.92.

¹⁰ NAM 2009-12-19-4-1, Report by Maj Gen E.Dorman Smith. 'Operations in the Western Desert 27 May 1942 – 2 July 1942'. August 1942.

Eighth Army to hold against an advance from the south and the Knightsbridge sector was the only place to do this. The terrain was at the forefront of Richie's defensive planning. He was, 'concerned to keep control of the pivotal positions...to keep his armour within close distance ready.'¹¹ This example shows how Richie's thinking was influenced by the prominent ridges in the centre of the line and the doctrine of defensive boxes.

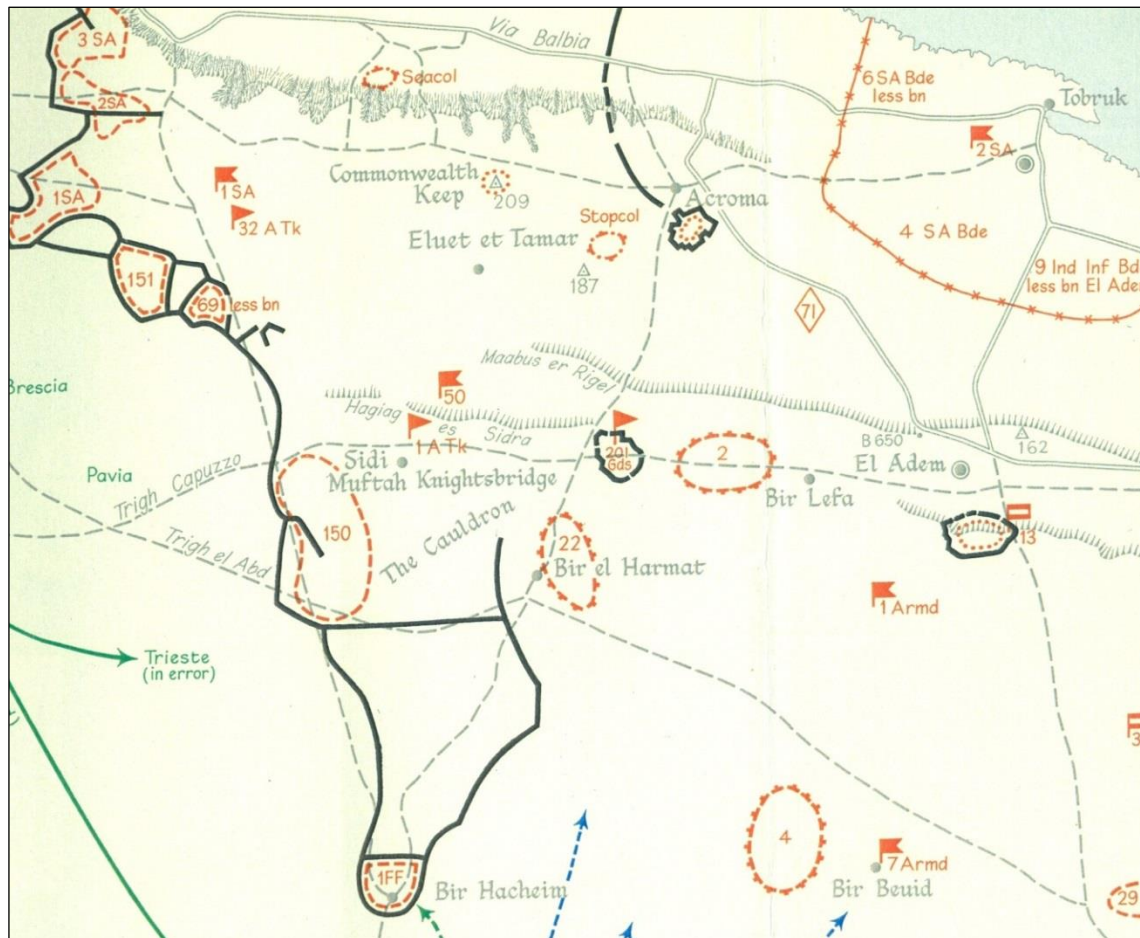


Figure 7:1 The Gazala line, May-June 1942.¹²

Gazala: Plans and preparations

The Infantry Brigades were deployed in boxes behind the minefield line. These were defensive positions for Infantry and artillery batteries, each designed to hold independently for three weeks

¹¹ TNA WO 201/2692. Operational Reports: Western Desert. May-July 1942, p.8.

¹² Playfair, *Mediterranean and Middle East, Vol III*.

and were surrounded by wire and minefields. Ritchie wanted the nearby armoured brigades to manoeuvre and counter-attack the enemy after they had been weakened by attacking the box defences. As late as the 26 May, GHQ confirmed the importance of a defensive line backed by armour Brigades. It called for 'defended localities' (smaller box defences) to be reduced in number and for units to counter-attack from within the battle area.¹³ The Eighth Army was allowing Panzerarmee to make the first strike which was a sensible option, given the lack of training for an effective combined arms doctrine but was a dangerous one if the Axis succeeded in breaking through the line to the supply base at Tobruk.

Ritchie's plan was for an armoured counter-attack which would decisively defeat Panzerarmee.¹⁴ Despite increases in the Eighth Army's strength there were too few Brigade Groups to hold the whole line because there was still not enough manpower. Therefore an Axis approach around the open desert flank could not be prevented. In mid-February, Joint Planners at GHQ reported that the Eighth Army would have the forces necessary for an offensive to begin by early May, despite an equivalent Axis build up and dealing with the problems of operations in summer heat. It wanted a limited advance to capture the Derna-Martuba area and ideally to capture Benghazi.¹⁵ Yet by mid-March, 'Q' Branch planners noted there was still a lack of direction and offered only cautious plans to supply a limited number of brigades at either 130 miles or 200 miles distant from Tobruk. To achieve even this modest advance across Cyrenaica, the two supply bases would operate at the maximum rate.¹⁶ These administrative problems contributed to a more cautious approach by Ritchie, despite heavy pressure from the Prime Minister and COS for a renewed offensive to relieve the air assault on Malta.

¹³ TNA WO 201/538. Eighth Army: lessons from Operations, Sept 1941-Aug 1942. 'Fixed Defences and the Defences Battle. 26 May 42, p.2.

¹⁴ TNA WO 201/2692. Operational Reports: Western Desert. May-July 1942, p.4.

¹⁵ TNA WO 201/371. Major operations 'G' Planning: campaign. Feb-Apr 1942. JPS Paper No.86. Western Desert Policy II.

¹⁶ TNA WO 201/419. Cyrenaica campaign: planning. March 1942. BM/Q (P)/42/3. 12 March 42.

The coastal sector was more strongly held by three South African Brigade boxes and two Brigades from 50th Division. Its third Brigade, was belatedly moved south to cover a gap in the centre at the Sidi-Muftah depression. This new defensive box was isolated being six miles from its neighbouring Brigade in the north and ten miles from the Free French Brigade at Bir Hacheim. It had a twenty mile perimeter and no protective minefield across the rear.¹⁷ At Bir Hacheim, the southern edge of the Eighth Army's defence was held by the 1st Free French Brigade who had deployed large numbers of additional anti-tank and artillery guns which were well dug in.

The Armoured brigades were positioned behind the line to counter-attack enemy thrusts. Ritchie was concerned to, 'retain his armour, for a concentrated effort' and he held lengthy discussions on where these would be best deployed to counter the Axis armour.¹⁸ Auchinleck believed the Axis would attack in the centre and north whilst Ritchie thought they would swing around the southern flank at Bir Hacheim. At 30th Corps, Lieutenant-General Norrie predicted that the main offensive would be in the north, and directed the armoured brigades to fight a separate battle.¹⁹ The 4th Armoured Brigade was deployed in the south to fight using ridges three miles east of Bir Hacheim. Lieutenant-Colonel Roberts, of 3rd RTR noted how they spent weeks selecting a near perfect hull down 'battle position' from which to defend against the Axis advance, but were unable to reach it in time for the actual battle.²⁰

By now the Eighth Army had become a sizable force with numerous Brigade Groups in Cyrenaica. The armour was mostly in 30th Corps and consisted of 1st and 7th Armoured Divisions and three Motor Infantry Brigade Groups. The 13th Corps had three Infantry Divisions, supported by one Army Tank Brigade and an additional Infantry Brigade. The lack of training remained an issue

¹⁷ E.W. Clay, *The Path of the 50th. The Story of the 50th (Northumbrian) Division in the Second World War 1939-1945* (Aldershot: Gale & Polden, 1950) p.54.

¹⁸ NAM 2009-12-19-4-1, Report by Maj Gen E. Dorman Smith. 'Operations in the Western Desert 27 May 1942 – 2 July 1942'. August 1942.

¹⁹ Carver, *Dilemmas of the Desert War*, pp.67-73.

²⁰ Bovington Archives 3RTR Diary and papers. 'Some experiences of an Armoured Commander in the Middle East'. 'Pip' Roberts.

within many of these formations; some troops had only recently arrived at the front and were inexperienced in desert conditions. The Brigade groups were equipped new weapons to fight the German armour, including American Grant tanks and a limited number of better 6pdr anti-tank guns, both of which gave improved firepower. Artillery and anti-tank regiments were reorganized but there were only enough Grants to partially equip each regiment and only a few batteries had received the new guns.²¹ Brigadier Briggs, commanding 2nd Armoured Brigade, noted that one regiment had received their Grant tanks just a few days before the offensive began.²² This limited the vital training time that tank crews had with the new equipment.

The Axis forces had spent months being re-equipped and were well prepared for this offensive. The Panzerarmee also reorganized its structure with the emphasis more firepower and fewer men. Rommel also created his own mixed Kampstaffel battalion and had the best mobile Italian divisions, Ariete and Trieste, which gave him five well-balanced Divisions for the offensive. Other Italian Infantry Divisions held the line opposite the mine-belt and provided diversionary attacks to pin down the British frontline boxes. The Axis plan included a night-time approach march south around the British line, then swinging north-east, to overrun Bir Hacheim and defeat the British armour, followed by a rapid advance north to capture Tobruk.

Despite the reverses in February, the Eighth Army believed it was ready to fight the Panzerarmee again. Morale remained high and the men still had, 'absolute confidence' in the Allied cause but there was impatience at getting on with winning the war. By mid-May one report noted, 'current morale is exceedingly high. Men are convinced an offensive will soon begin and a considerable number express the opinion that this time they will finish the enemy once and for all.'²³ However, other censorship summaries noted praise for Rommel and a lack of confidence in their own

²¹ TNA WO 201/532.Eighth Army: Commanders conferences.1941 Dec.-1942 May. State of 2pdr, 25pdr and 5.5" Equipments, 11 May 1942, p.2.

²² IWM 8109. 99/1/2.Papers of Maj. Gen. R. Briggs.2ndArmdBde. 2/5. Western Desert Dec 41-Oct 42.

²³ TNA WO 201/532.Eighth Army: Commanders conferences.1941 Dec.-1942 May. Morale in the M.E.F. May 1942.

commanders who were blamed for recent failures. Overall British forces were becoming more experienced and were well supplied if somewhat disparate in quality of experience, training and equipment and faced a well-organized and experienced enemy with a dynamic commander and better tactical doctrine. These factors certainly influenced the coming battle but British tactical thinking and planning also hinged on holding key terrain features and so terrain was became an additional vital factor in determining the outcome of battle.

Gazala: battle summary

Gazala developed into a lengthy and complex battle for the Eighth Army. The first tactical engagements took place across a series of ridges in the southern sector when two Motorised Brigades were contacted and overrun within hours. Following this the British armoured Brigades were also engaged and quickly reduced to weak regiments in strength. These were followed by two major Axis assaults on the Bir Hacheim and Sidi-Muftah boxes, the former held out until the 12 June but the latter succumbed more quickly when the key heights around it were captured by the Axis.

British armour continued to engage at the flanks of these assaults and took part in the ill-fated Operation Aberdeen with 5th Indian Division, when the Panzerarmee went over to the defensive for a brief period on the 5-6 June. A second phase of armoured engagements took place in defence of the Knightsbridge box and the Maabus-Rigel ridge, followed by a larger battle over the 12-13 June. The armoured losses on these two days have been considered by many to be the turning point of the battle, yet the 6th RTR regimental diary noted it was the losses prior to this which weakened the Brigade irreparably and left it unable to cope with the heavy fighting which followed. The final stage of Gazala occurred as both Bir Hacheim and Knightsbridge boxes and the central ridgeline were abandoned, with Eighth Army units retreating rapidly north to the Acroma/El-Adem ridge-line around Tobruk. This also forced the static 1st South African Division and

50th Divisions to retreat from their boxes and escape to the frontier. The final phase included the capture of the Acroma/El Adem ridge and the rapid assault which led to the fall of Tobruk.

Gazala: the impact of terrain and doctrine on the battle

The impact of terrain and the effectiveness of British doctrine will be discussed through the main phases of the battle. The Armoured Brigades engaged the approaching Axis columns separately from the Infantry and during these early engagements their battle quickly became attritional with two regiments of the 4th Armoured Brigade losing most of their tanks on the first day.²⁴ The 8th Hussars concluded that, 'Owing to the rapidity of [the Axis] advance...no adequate warning was received by the regiment... [so] the enemy was able to affect a surprise attack.'²⁵ The losses compounded the problem of there being too few heavy tanks; the 3rd RTR had just 24 Grants and lost 19 of these on the first day.²⁶ The 4th Brigade had 100 Grants, however the other Brigades had only 50 Grants.²⁷ The adjacent 2nd Armoured Brigade was 'sadly depleted' and by the 31st May only one regiment, the Queen's Bays, remained as a viable unit.²⁸ The 1st Army Tank Brigade also fought separately from the Infantry, the 44th RTR engaged Axis armour from the Aslagh ridge, using it as cover for hull down positions, but lost heavily in a close quarter tank melee. The terrain impacted on the battle because the Regiment's advance was halted by the steepness of the Hagiaget-Rigel ridge, so that only one squadron actually closed with the larger enemy formation and the regiment lost another third of the unit.²⁹ The constant daily battles were rapidly wearing out British Armoured Regiments through losses to crews and vehicles which left them too weak in subsequent actions.

²⁴ TNA WO 169/4486. 8 King's Royal Irish Hussars, Diary.1941 Nov.- 1942 Dec. 27 May 42.

²⁵ TNA WO 169/4486. 8 King's Royal Irish Hussars, Diary.1941 Nov.- 1942 Dec. Temporary Diary 27 May.

²⁶ Bovington Archives 3rd RTR Files. Some notes on the Knightsbridge battles after conversations with General Roberts (who commanded 3rd RTR there).

²⁷ LHCMA Roberts GPB, Papers. Comparison of British and German Tanks, May 1942, report by Major Carver.

²⁸ IWM.8109. 99/1/2.Papers of Maj. Gen. R. Briggs. 2nd Armd Bde. 2/5. Western Desert Dec 41-Oct 42.

²⁹ TNA WO 201/539.Eighth Army: intelligence matters. Nov 41-Aug 42.Report By Brigade Major, 1st Army Tank Brigade, on the action Fought By 50 Div. Mobile Reserve, p.1, (18 out of 51 tanks).

The deployment of Infantry inside defensive boxes continued the doctrine of fighting separate battles for armour and Infantry with occasional support by artillery. The first major defence of a box was made by the recently arrived 150th Brigade, a territorial unit with little experience of the desert. Some units were inexperienced, yet the Brigade Major believed it was the loss of higher ground which decided Brigadier Haydon to retreat to new positions nearby.³⁰ The 5th Green Howards noted, 'the enemy continues massing in the east, overlooking the box and shelling heavily all the time.'³¹ The capture of the height B.175 late on the 30 May gave the Axis a good view of the defences which were then heavily and accurately shelled the following day.³²

The 150th Brigade had been rushed to occupy this area just prior to the battle, and had little time to construct decent defensive positions in low ground. This hurried deployment was a serious error and Axis forces took full advantage of gaining the high ground and preventing British support from reaching the Brigade. After spending three days assaulting the position, the Panzerarmee reached a turning point when 232 Field Engineer Company was overrun and this gave the Axis, 'a vantage point from which a greater part of the Brigade position could be overlooked.'³³ The defences were steadily eliminated and overrun on the 1 June. Attempts were made to relieve the Infantry by the weakened 4th Armoured Brigade who attacked the eastern side of the cauldron, but were repulsed with heavy losses. The Eighth Army had lost a key central position which threatened the adjacent boxes and another Infantry Brigade. Its defensive doctrine had been undermined and the armoured counter-attacks were constantly suffering attrition which was unsustainable.

³⁰ TNA WO 201/539. Eighth Army Intelligence Matters: Nov 1941-Aug 1942. Report by Major E.D. Rash, Bde Major 1st Army Tank Bde, on the action fought by 50 Div. Mobile Reserve. Dated 6 June 1942, after Major Rash had escaped from Axis capture.

³¹ TNA WO 169/5021, 5th Green Howards Diary. January-Nov 1942. Battle of 150 Brigade, 26 May-1 June 1942, p.2.

³² Bovington Archives 44th RTR, Diary. Action fought by the 44thBn RTR 27 May - 1 June 1942 as witnessed by 2/Lt K Dodwell, 44thBn RTR.

³³ Clay, *The Path of the 50th*, p.59.

Operation Aberdeen and the Cauldron

Following the armoured battles, the Panzerarmee had overstretched itself and regrouped in the Sidi-Muftah depression (or cauldron as it became known). This was to re-group and open up new supply routes through the mine-belt. Operation Aberdeen developed from a plan to relieve the 150th Brigade, into an assault on the supposedly weakened Panzerarmee. On the northern side of the depression was the Sidra ridge, with multiple peaks along its eastern sector. It was a vital area of operational ground which needed to be re-gained from Axis control, due to the proximity to both the Bir Hacheim and Knightsbridge boxes. The operation highlighted the failings of poor planning and continuing disjointed doctrine.

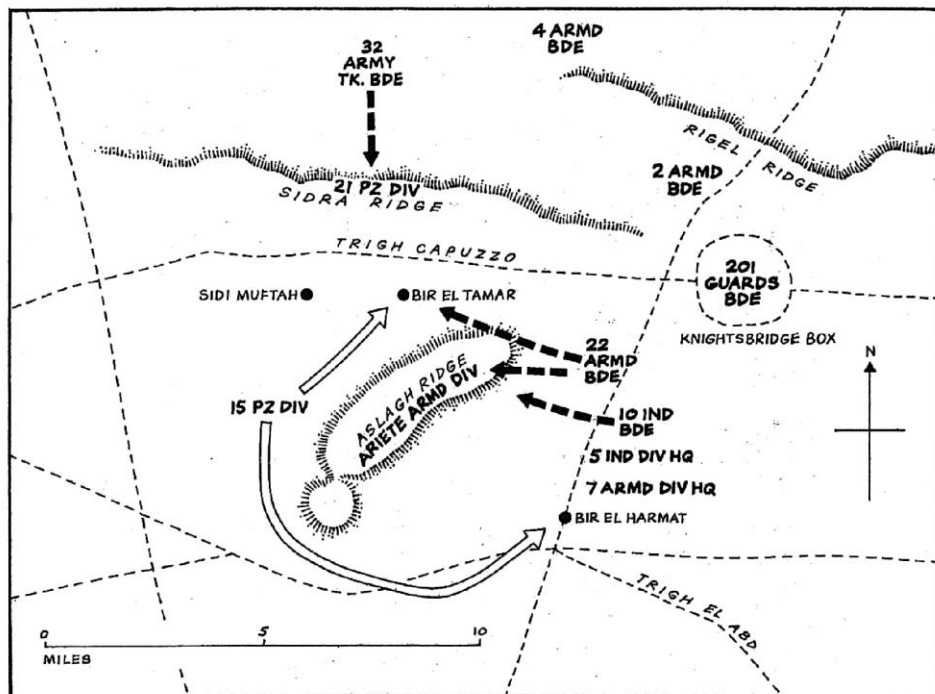


Figure 7:2 Operation Aberdeen, 5-6- June 1942.³⁴

³⁴ <http://www.desertrats.org.uk/battles1941.htm>. Map for Gazala, Accessed 3 January 2014.

The Eighth Army had reacted too slowly to save the 150th Brigade and now planned to assault three Axis Divisions with just two Infantry Brigades, an Armoured Brigade and four artillery regiments. All the units which advanced into the depression faced tremendously heavy fire from Axis artillery and anti-tank guns which forced them to dig-in. The 10th Indian Brigade was pinned down and they were, 'eliminated...with ease, as they had no mines or anti-tank guns.'³⁵ However the Infantry had been given multiple objectives and battalions were quickly separated from each other and became trapped in the low ground or dispersed along the Sidra Ridge. This was a rare attempt at a British combined arms assault which failed under the weight of enemy fire and poor doctrine.

The Axis counter-attacked to outflank the British artillery on the Aslagh ridge before moving through a gap in the rear minefield to overrun the Headquarters of both 5th Indian Division and 7th Armoured Division, which had been controlling the operation. This left the stranded Infantry without any command.³⁶ Major Daniel described the attack which overran his unit on the ridge. He also notes that his Regiment, the 107th RHA, could not dig-in effectively,

Topping a rise we were met with a hail of shells. We dropped into action...on a horrible stony ridge, which proved our undoing...in front [there] was a nice large bowl [the cauldron]. More and more German tanks appeared until they had totally surrounded us, standing off at a safe distance, whilst their guns proceeded to pound every vehicle to pieces. Our casualties became very heavy...my orders were precise, "to stand and fight where we were to the last man and the last round."³⁷

The stony ridge prevented the Gunners' ability to dig-in to the ground and defend themselves, whilst their separation from the Infantry enabled German armour to pick off each gun from a distance before closing in to eliminate the remaining crews.

The second assault during Aberdeen was the attack on the Sidra ridge against the 21st Panzer Division. Here, the slow moving 'I' tanks of the 32nd Army Tank Brigade were committed, supported

³⁵ LHCMA. Daniels papers.

³⁶ Holland, *Together We Stand*, p.116.

³⁷ LHCMA. Daniels papers.

by a single Infantry battalion in trucks and a single battery.³⁸ Smoke briefly obscured their advance and this attack received a storm of artillery and anti-tank fire which forced 7th RTR tanks to swerve right in front of the neighbouring 42nd RTR.³⁹ More than fifty tanks were lost and the surviving vehicles fought off a local counter-attack and retreated. Terrain played an important part here too because, 'the slope to the ridge was hardly discernible and tanks reached the high ground without actually being aware of it', which left the armour easily silhouetted to anti-tank guns deployed on the rear slopes of the ridge.⁴⁰ The failure of the two armoured assaults left the artillery and Infantry isolated and overrun. The British lost 96 guns and most of six battalions, along with more than eighty tanks. Operation Aberdeen was a failed attempt to make a fully coordinated and combined arms assault against the enemy. The Divisional Commanders were given little opportunity for thorough planning and the coordination and doctrine of the assault units was poor. This was compounded by the fact that Axis doctrine had proved much more effective in defence and also in counterattack against British positions.

The final phases of Gazala

Following Operation Aberdeen, British efforts concentrated on maintaining a hold on the ridges near the Knightsbridge box and Bir Hacheim. The armoured brigades made further piecemeal attacks on Axis columns and adjacent ridge-top positions, but with limited success. On the 8 June, the 6th RTR had been ordered to, 'smart up the Germans but on no account to lose any tanks.'⁴¹ They advanced to attack a ridge south of Knightsbridge with just two squadrons of Grants and with no artillery support and suffered the inevitable casualties. At Army HQ, Ritchie maintained an

³⁸ Bovington Archives. Major Tatum puts 42nd RTR at 32 tanks, 7th RTR at near full strength i.e. 50 tanks and 8th RTR as 1 squadron.

³⁹ This assault has often been noted as running onto a minefield, however the accounts show it was the weight of German firepower which repulsed the slow moving British tanks, combined with the effect of the sloping ridgeline.

⁴⁰ Bovington Archives Report by Major J.W.G. Tatum, 42nd RTR. On the attack on the Sidra Ridge, 5 June 42.

⁴¹ Jackson, A Long Parting, p.41.

optimistic view of events which blinded him to the reality of a declining situation. Even after Aberdeen had failed, he considered the defensive line to be quite strong.

Operationally the Panzerarmee was now well positioned in the cauldron to cut off Bir Hacheim, envelop Knightsbridge and threaten eastwards towards El-Adem along the ridge. Equally, the Eighth Army became overstretched along the Knightsbridge ridges as they sought to prevent Axis columns from breaking through them. In the south the Hacheim box had been stoutly defended by the Free French Brigade for fifteen days and had been sustained by nightly supply columns. Their defence was aided by low profile anti-tank guns dug into near invisible positions around the slope at Pt 186, and was supported by extensive RAF operations. The Luftwaffe made over 1,300 sorties on the tough Foreign Legion Brigade, leaving them isolated from supply and fatigued by ten days of battle. General Ritchie finally withdrew this exhausted garrison when he felt that it could no longer be re-supplied. British tactics were becoming improvised again with the operation of Jock Columns against the flanks and rear of the Axis forces but these had little effect. The Panzerarmee now controlled the cauldron sector and Bir Hacheim was isolated from effective British support.

After the Axis forces had gained control of specific sectors of the battlefield, they were able to 'unlock' other, nearby British positions. The withdrawal of the Free French Brigade from Bir Hacheim allowed the Axis to concentrate their efforts against the Knightsbridge box and the adjacent ridgelines. The subsequent armoured battles either side of Knightsbridge proved costly because British commanders remained offensively minded despite their armour being weak. The 6th RTR was ordered forward to capture Pt 171 on the 12 June, despite being low on petrol and ammunition. Axis forces then countered with a powerful and sustained bombardment on the height before making an attack with Panzers and 88mm guns. The battle climaxed on the 13 June as 6th RTR planned to make a final stand back on the main ridge, but was ordered north to Tobruk along with the remaining armour. The adjacent 22nd Armoured Brigade noted, 'If the enemy had

got onto the escarpment over-looking the Bir-Bellafun valley that night, the withdrawal of the [Knightsbridge] box...would have been impossible.'⁴² British units were being worn down trying to hold the ridgeline positions and the continuous combat resulted in the armoured regiments being mauled, leaving their crews exhausted.

The continuous battles for the ridges were linked to the British use of armour in separated assaults in the southern battlefield sector. The armoured brigades suffered further heavy losses from the 7-13 June as they fought to hold the ridges around Knightsbridge. Ritchie reported, 'Yesterday we were unable to prevent enemy from establishing himself on [the]escarpment running westwards to HAGIAG[and]...occupying RIGEL RIDGE, driving our armour North towards ACROMA, thus so much endangering the KNIGHTSBRIDGE BOX, that its evacuation was ordered.'⁴³ Brigadier Briggs, commanding 2nd Armoured Brigade, was surprised when the Knightsbridge box, 'a feature, well dug in, well wired in and mined and occupied by 201st Guards Brigade and 2nd RHA,' was given up without a fight similar to that made by the Free French at Bir Hacheim.⁴⁴ It was a telling moment for British defensive doctrine.

There was further command confusion as the battle became more fluid. By the 14 June Auchinleck signalled Ritchie, that even if the Gazala line needed to be evacuated, Acroma and El Adem should be held, while he built up reinforcements. Two days later Auchinleck signalled that El Adem was now the 'decisive point' of the battle, despite the problem that the 29th Indian Brigade defending it, had already been split up.⁴⁵ He believed Axis forces could still be held as they advanced from Knightsbridge, even though there were 15 miles between the two locations. Ritchie was dispersing

⁴² Bovington Archive 4CLY Diary.

⁴³ TNA WO 201/404. Operations: telegrams and reports, June 1942. Telegram: To Mideast from Main Army, U1388, 14/6.

⁴⁴ IWM 8109. 99/1/2. Papers of Maj. Gen. R. Briggs. 2nd Armd Bde. 2/5. Western Desert Dec 41-Oct 42. His address to the Queens Bays, 14 June 1943.

⁴⁵ TNA WO 201/405. Telegrams 12-16 June 1942. No. CS/1266. 16 June. The 1st Worcesters battalion and attached artillery were sent to hold Pt 187 in the west, and the 3/12th Frontier Regiment to Pt. B. 650, nearby.

Infantry battalions to adjacent 'defended localities' whilst Auchinleck wanted the Infantry to concentrate on a specific position. Confusion continued when El-Adem was later evacuated as part of the overall retreat from the Gazala line. The remaining elements of the 29th Brigade formed five Jock columns and were given a harassing role against the 90th Light Division. After the loss of so much armour during this battle, British defensive tactics had resorted to forming Jock columns again. These proved much less effective against the Axis Battle groups, as seen during Crusader.

Terrain had again played a crucial part influencing the final stage of the battle. Eighth Army had been defeated trying to hold a series of defensive positions along the ridges near Acroma-El Adem and was then forced to retreat to the frontier which left Tobruk exposed and unready for a renewed siege. The port was lost because of further command confusion about the situation and a rapid, well directed Axis assault at the weakest point of the defences. The losses in supply tonnage were enormous, as was the capture of approximately 33,000 men which had to be added to the losses in armour, crews, infantry and artillery suffered since the 27 May.

Gazala: Conclusion

The Eighth Army had been decisively defeated at Gazala, and the influence of the terrain played a key role in each of the engagements. Operationally the Brigades Boxes in the southern part of the line at Sidi-Muftah, Knightsbridge and Bir Hacheim had been sited too far apart and were unable to support each other. Tactically, the British obsession with trying to hold the Sidi-Muftah depression cost the Eighth Army dearly in terms of men and equipment. Later, the higher ground around the Knightsbridge Box became the defining point on the battlefield. Other factors such as poor battle tactics, poor command and equipment failures all contributed to the British defeat. The Panzerarmee and its dynamic commander General Rommel had also dominated operations at crucial moments. He used an effective doctrine to carry out a series of assaults, which, along with

a determined defence of the cauldron position, unlocked the southern and central sectors of the battlefield.

There had been other problems including poor command decisions which had contributed to the in-effective use of Armoured Brigades throughout the battle. British troops had been let down by bad decision making by Corps and Divisional commanders who were sluggish and un-cooperative. Messervy was a highly experienced Infantry leader but was thought to have little experience of commanding armour, while the Corps commanders Norrie and Gott queried the plans for Operation Aberdeen and left the operational control to the two harassed Divisional commanders. When Brigadiers managed to combine their weakened units, their tactics appeared to be direct frontal assaults with limited artillery support. The artillery fire support had been affected by a lack of suitable vehicles for the Forward Observation Officers and communications had been easily lost when the rear link tanks were quickly knocked out. Therefore the armoured assaults had lacked the proper fire support needed. Overall British doctrine had failed to develop and this had left the Eighth Army defeated and with poor morale. Yet it had been the impact of the operational and tactical terrain in the southern sector of the line which had contributed to the defeat so far and had left British forces with no option but to retreat to the next available defensive position at Mersa Matruh in Egypt.

Chapter 8 Mersa Matruh and First Alamein, June-July 1942

This chapter considers the British retreat into Egypt and looks specifically at the defeat at Mersa Matruh on the 25-26 June 1942 and the longer battle of First Alamein from the 30 June to late July 1942. At Mersa Matruh, The Eighth Army was still trying to hold a wide area of ground which stretched for at least 20 miles inland. In contrast, at El Alamein there were more numerous terrain features which gave British forces a 'hook' on which to anchor their defences. At Mersa Matruh British doctrine was still chaotic with changes in command, organisation and defensive tactics. By El Alamein, however, there was an improvement in defensive doctrine but the problems of poor cooperation between armour and Infantry during attacks continued. The two battles have been linked because they represent the last two actions in which General Auchinleck commanded both the Eighth Army directly and Middle East Command. They also represent the nadir of British defensive doctrine, which was followed by improvements, but was still experiencing problems in assault tactics.

Mersa Matruh background

The battle for Mersa Matruh was a minor action when compared to Gazala or First Alamein and shows another example of how the terrain was exploited by Axis forces to outflank the Eighth Army and force it to retreat. Increased RAF support became a new weapon which British commanders were able to use for the remainder of the campaign. After the loss of Tobruk, Ritchie believed an Axis advance into Egypt was inevitable and so despite the Eighth Army withdrawing in some confusion from Cyrenaica, a holding action at Mersa Matruh was planned.¹ The Eighth Army attempted to hold an area of ground consisting of two plateaus running parallel with the coast

¹ TNA WO 201/379. Operations in North Africa: General Ritchie's report, May-June 1942.

road, which failed to provide any defensive features. This strategy contributed to the subsequent defeat and retreat.

As with the Second Retreat, most narratives such as Clayton and Craig, have glossed over the action at Mersa Matruh to concentrate on First Alamein or later battles.² Whilst the terrain may have been noted in terms of the narrative, the impact of it has been largely ignored. Other commentators, including Adrian Stewart and Barrie Pitt, both provide detailed narratives which focus on the poor British command and confusion, particularly that from an over-tired Lieutenant-General Gott, as being the main issue leading to British defeat.³

Mersa Matruh: terrain

The fighting near Matruh took place along the ridges and high ground south of the base. The port was classified as a fortress, but without the strength of those which surrounded Bardia or Tobruk and consisted of old or incomplete minefields along the southern and western sides. Near the coast there was a low, cliff-like escarpment which was the continuation from the higher ridge near the frontier, except at Mersa it was lower and traversed by a few tracks and the railway. The plateau above it was protected by a much thinner minefield stretching ten miles across to next escarpment inland. South and west of the plateau was a second ridge leading up to further higher ground consisting of hard limestone rock which prevented any defensive positions being made. There were very few routes which traversed this higher ridge onto the central plateau and units were deployed to block these descents with defended localities. The going for vehicles along the higher escarpment was good east-west and this route outflanked the defended localities along it and the central plateau. East of Matruh the terrain was described as, 'undulating coastal desert of

² Clayton & Craig, *End of the Beginning*, pp.161-176.

³ Stewart, *Early Battles*, pp.96-101, and Pitt, *Crucible*, Vol II, pp.272-282.

mixed going,' for the next one hundred miles to Alamein but there were also rough areas of ground which damaged vehicles and used up valuable supplies of petrol.⁴

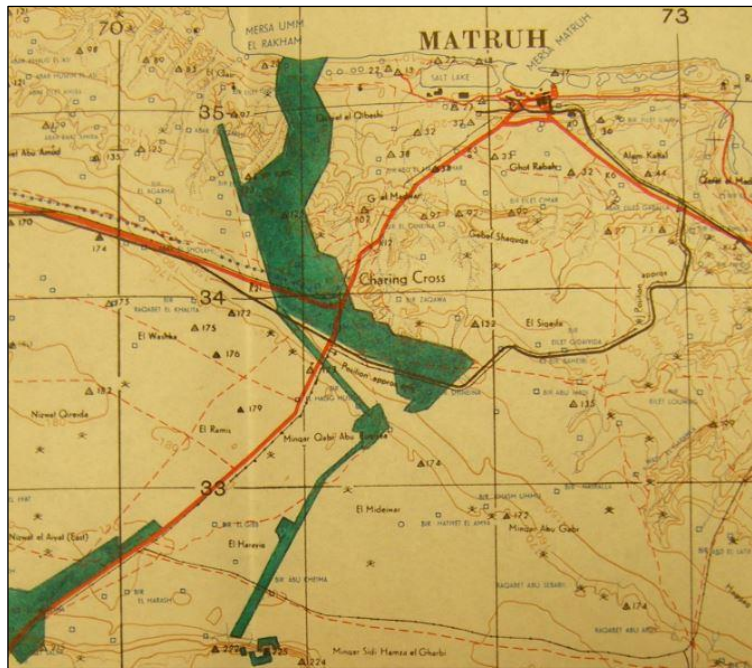


Figure 8:1 Map of Matruh defences and minefields, 26 June 1942.⁵

Mersa Matruh: Preparations

The Eighth Army had retreated eastwards past the frontier positions while the Panzerarmee diverted around them via Maddalena to the south and then headed east towards Mersa Matruh. Auchinleck and his advisor Major-General Eric Dorman-Smith took over direct command of the Eighth Army from Ritchie on the 25 June and developed plans to halt the Axis advance, leaving staff officers to reorganize formations as they crossed the frontier.⁶ The Eighth Army was much stronger than the advancing three German Divisions at this point. The coast road route was defended by a newly formed 10th Corps with three brigades from the 10th Indian Division in

⁴ Charles D. Belgrave, *Siwa. The Oasis of Jupiter Ammon*, (London: John Lane.1923.) p.5. And Mellenthin, *Panzer Battles*, p.124.

⁵ TNA WO 201/2692. Operations May-July 42. Map of minefields.

⁶ WO 201/2692. Operations May-July 42. Withdrawal to Alamein, p.22.

Matruh itself and two brigades from the 50th Division at Gerawala further east along the coast. Both Divisions essentially defended the coastal sector for ten miles inland to the first escarpment.

Inland the 5th Indian Division had only one brigade remaining and two artillery regiments from which two Jock columns were deployed to hold the central plateau and the remaining units were scattered over three sites along the higher escarpment. Further east the 2nd New Zealand Division protected the Minqar Qaim track again on the higher escarpment but they lacked transport, whilst the remnants of 1st Armoured Division deployed two Armoured Brigades.⁷ Axis forces were even weaker because the Panzerarmee's strength had been greatly exhausted by the continuous fighting. The DAK now had just sixty tanks, while the Ariete Division had just seventy M13s.⁸ The 21st Panzer Division had been reduced to just 600 men and 23 tanks by the 27 June, whilst 90th Light Division was using British trucks for half of its transport.⁹ Rommel drove his tired units eastwards, and was correct to gamble that speed would undermine any defence British forces might put together. At Matruh he was fortunate to advance across the weakly held central plateau although this decision was based on chance rather than good intelligence.

Mersa Matruh: battle summary and the impact of terrain and doctrine on the battle

On the evening of the 26 June, Engineers from two Axis battlegroups broke through the narrow minefield and quickly advanced through the two Jock columns which were holding the central plateau.¹⁰ Eighth Army HQ was confused by reports about the loss of the 29th Indian Brigade and a possible breakthrough by 150 tanks, although this was clearly an over estimation of Axis strength.¹¹ The two battlegroups then made further advances on the 27 June. The 15th Panzer Division advanced along the higher ground above both escarpments which outflanked both 1st

⁷ Playfair, *Mediterranean and Middle East. Vol III*, pp.333 and 284-285.

⁸ TNA WO 201/390. The Battle for Egypt: Operational Reports. 1942 May-Sept 1942, p.5.

⁹ Mellenthin, *Panzer Battles*, pp.121-122.

¹⁰ IWM Papers of Maj. J.M. McSwiney. 2 LAA Bty, pp.15-16.

¹¹ WO 201/390. The Battle for Egypt: Operational Reports. 1942 May-Sept 1942, p.5.

Armoured Division and 2nd NZ Division and forced their retreat.¹² The Axis advance was briefly halted on the 27 June, as the battlegroups were weak, separated from each other and short of supplies.¹³ They advanced again next day and blocked the coast road. They then by-passed the more powerfully held flanks with a central thrust by 21st Panzer which turned south and outflanked the New Zealand Brigades on the escarpment at Minqar Qiam.¹⁴ On the coast, 10th Corps was also forced to retreat overnight on the 28-29 June, losing 6,000 men and left much ammunition and equipment behind.

The defensive deployment near Matruh had been determined by the landscape features of the area. There were few defensive features on which the British could develop a stronger defence line, and made questionable deployment decisions. The Eighth Army was left with a few intact formations following the retreat from Gazala, so it had logically strengthened the coastal route east with five Brigades. Auchinleck and Dorman-Smith had left the central plateau and higher ground too weakly defended, which was possibly due to inexperience in dealing with fast-moving Axis operations. Equally the battle had been won by a more mobile Panzerarmee which took advantage of the good going along these two upper routes and advanced 21st Panzer Division through the centre and 15th Panzer Division along the higher plateau to outflank the coastal route.

The outcome of this engagement was also affected by better RAF support for the Eighth Army. The Air Force was now fully committed to attacking Axis ground units and supply routes which gave some protection to the retreating units, with some commentators believing that this saved the retreat from becoming a worse rout.¹⁵ The Army continued to be protected largely by RAF sorties which targeted Axis vehicle concentrations as they advanced towards Matruh. These harassing

¹² WO 201/2692. Operations May-July 42. Withdrawal to Alamein, pp.23-24.

¹³ Mellenthin, *Panzer Battles*, p.121.

¹⁴ The New Zealanders broke through the enemy line in a dramatic night-time drive through the Axis leaguers to re-join the Eighth Army near Alamein.

¹⁵ Gladman, *Intelligence and Anglo-American Air Support*, p97.

attacks slowed down the speed of the Axis advance considerably by bombing and ground strafing.¹⁶ Both sides were affected by the daily heat-haze and sandstorms which confused troops as they moved towards Alamein.¹⁷

Mersa Matruh: Conclusion

The Eighth army had been defeated once again by trying to hold a line of passable terrain with too few units and a reliance on poor defensive doctrine. The central and higher plateaux proved to be good going for motorised units and enabled the Axis to overrun the British forces. The Jock columns were too weak to halt an Axis advance and there was too much reliance placed on them by commanders who failed to realise their ineffectiveness. The remaining Brigade units were too widely dispersed across the coastal sector and unable to provide mutual support. The defended localities on the higher plateau were also by-passed by Axis units who made good use of the improved ground conditions in this area. There had been no improvement in British tactical doctrine, with the exception of improved RAF support. During the battle there was a high level of confusion during fighting with little coherence between armour and infantry. The Eighth Army had no option but to retreat to the only remaining defensible line near Alamein which provided two secure flanks, had nearby supply bases and a more powerful RAF support.

First Alamein: Introduction

British operations at the First Battle of Alamein focussed on the capture of key heights including the Ruweisat ridge and the depressions which flanked it as well as the Tel el Eissa ridge near the coast. These numerous key landscape features had a greater impact on the British operations here than previously at Mersa Matruh. British Infantry assaults proved initially successful in gaining objectives, which showed a slight improvement in doctrine. However, they were unable to hold

¹⁶ WO 201/390. The Battle for Egypt: Operational Reports. 1942 May-Sept 1942, p.5.

¹⁷ TNA WO 169/4486.8 King's Royal Irish Hussars, Diary. 1941 Nov. - 1942 Dec. 27 June 1942.

the key positions from being recaptured by Axis counterattacks. Operationally the series of battles contributed to wearing down Axis forces who struggled to make a decisive breakthrough when British forces were in retreat.

The historiography is more prolific on this engagement as it forms part of the trilogy of Alamein battles fought between July and November 1942. Niall Barr's study argues that the Eighth Army failed to gain a decisive victory because of poor command, doctrine and equipment, though the tactical importance of the terrain features in this battle are noted.¹⁸ Kippenberger provides excellent detail on the 2nd NZ Divisional operations whilst Peter Bates gives another useful narrative about the July battles in which he fought.¹⁹ Barrie Pitt does not show the real importance of why the ridges were being assaulted whilst Alexander McKee only briefly notes the problems of fighting amongst the depressions.²⁰ Whilst the terrain may have been noted in terms of the overall narrative the impact of the landscape has been largely ignored by other commentators, as they focus on the issues of failures in command, planning and execution of the July battles.

First Alamein: terrain

The capture of key positions remained the priority for operations for both sides. They needed tactical control of the various ridges and depressions which made up the sector, with the most crucial being the Ruweisat ridge in the centre of the Eighth Army's defensive position. The Eighth Army stabilized a temporary line from the Tel-el-Eissa ridge near the coast, through a series of ridges and depressions southwards for 35 miles to the Himeimat feature on the edge of the Qattara Depression. The Ruweisat ridge in the centre of this line runs east-west for fifteen miles and dominates the central area. It is surrounded by some shallow depressions on either side which had to be captured before the ridge itself could be assaulted. There was more open ground south

¹⁸ Barr, *Pendulum of War*, pp.13-68 and p.83.

¹⁹ Kippenberger, *Infantry Brigadier* and Bates, *Dance of War*,

²⁰ Pitt, *Crucible of War, Vol II*, pp.306-323, and Alexander McKee, *El Alamein. Ultra and the Three Battles* (London: Souvenir, 1991), p.78.

First Alamein: preparations

The Alamein position had been selected as a possible defensive line as early as 1941 when Wavell ordered that some defensive preparations should be made.²² A Year later the Eighth Army halted on the position and gradually increased in strength as the troops were consolidated. The 1st South African Division which was weak in infantry was deployed in the Alamein box powerfully supported by four regiments of artillery. Further south were more boxes spaced at intervals up to 15 miles. In the centre, the weak 18th Indian Brigade held the Dier el Shein depression in front of the Ruweisat ridge. In the south, elements of the 50th Division were deployed in Jock Columns and the 2nd NZ Division was divided between the Bab-el-Qattara and Dier el Munassib features. The Eighth Army began this phase of operations with remnants of Armoured Brigades but it was fairly rapidly reinforced with fresh tanks throughout July.

First Alamein: battle summary

He was quickly forced onto the defensive for the remainder of the month, and Axis doctrine utilized rapid local counter-attacks to undermine British gains and to ensure the key heights were held or disputed. Auchinleck directed further attacks on the static Axis position throughout the month. By the 10 July, operations included joint attacks by the 9th Australian and 1st SA Divisions to capture the high ground at Tel el Eissa near the coast. These continued for three days but gained little ground and added to the attrition of men and tanks lost.

In the centre the Ruweisat ridge became the focus for much of the Eighth Army's operations for the rest of July. On the 14 and 15 July two New Zealand Brigades and elements of 1st Armoured Division made an assault on the ridge, however it ended on 17 July, having failed to secure Pt 63 on the ridge. The 5th Brigade's two leading battalions had rapidly overrun enemy strong points and one unit had secured its objective with the other halted just below the ridge. However, a typically

²² TNA PREM 3/285. Auchinleck's Despatch, October 1941.

swift Axis counter-attack captured left the forward units too weak and exposed to hold the ridge. The 2nd NZ Division made two major assaults to capture the Ruweisat ridge in July, but both failed due to a lack of Infantry manpower and poor cooperation from supporting armour, during Operation Bacon, 2nd NZ Division delivered a two battalion assault with just 500 men.²³ These operations further weakened crucial Infantry strengths as the repeated assaults and battles to defend newly captured positions on the ridge highlighted the manpower shortages.

Auchinleck's plan for the subsequent 'Operation Splendour' included another attack west along the Ruweisat ridge by the 5th Indian Division. This was supported by a second attack from the south by 2nd NZ Division, supported by two Armoured Brigades onto the Ruweisat ridge. To reach the ridge it had to cross the El Meir depression held by the DAK. The newly arrived 23rd Armoured Brigade would make a supporting advance just south of the ridge which ended in bloody ruin for the regiments involved.

First Alamein: the impact of terrain and doctrine on the battle

Rommel initially planned a rapid advance between the British defensive boxes in order to cut them off from the rest of the Eighth Army. However, the terrain had slowed the DAK's approach due to the nature of the ground surface as they moved towards the Ruweisat ridge. Consequently General Nehring ordered an attack on the British units which he realized were deployed in the Deir-el-Shein depression instead of manoeuvring around them.²⁴ Further south the 2nd NZ Division had been pulled back from the two depressions which were forward of the line. The withdrawal from El Mreir straightened out the British line but the move had abandoned an important feature which protected the southern flank of the Ruweisat ridge. This made the later British attempts to recapture the ridge more problematic. British operations continued to be directed to capture

²³ WO 201/390. The Battle for Egypt: Operational Reports. 1942 May-Sept 1942. Operations of 5 NZ Inf Bde on Ruweisat Ridge Night 14/15 Jul and 15 Jul 42.

²⁴ Mellenthin, *Panzer Battles*, pp.124-125

specifics key ridges, an attack on the Miteiriya ridge attack, was a combined assault based on a hasty plan between armour and Australian Infantry which fell short of the objective and left units weakened and unable to progress.

The first action showed an improving defensive doctrine by the Eighth Army, when the 1st SA Division used concentrated regimental artillery fire to halt an advance by the 90th Light Division. The defensive boxes and localities were still vulnerable though; at the Deir-el-Shein depression, the 18th Indian Brigade managed to slow down a powerful attack by the DAK before being overrun. This stubborn defence prevented a breakthrough in the centre of the line and contributed to the Panzerarmee being forced onto the defensive.²⁵ The Brigade only had two days to dig-in and prepare this site, and had little support despite a brief counter-attack by 1st Armoured Division which remained weakened from earlier battles. The Eighth Army benefitted from the many landscape features in this area, as they provided good defensible positions. They also divided the attacks from a weakened Panzerarmee which was to the British advantage. The later attacks on Tel-El-Eissa highlighted how the coastal high ground was important to both sides but the ground limited vehicle movement and defensive operations.

There were continuing problems with poor doctrine and command including a lack of communication with the commander of 1st Armoured Division which resulted in the failure of supporting tanks to get through a minefield. The New Zealand Infantry was forced to withdraw from the Ruweisat ridge despite holding their positions for much of the day.²⁶ The attacks showed that the ridge objectives were attainable, but the limestone nature of the ridge made digging-in difficult. Operation Splendour highlighted the on-going problems of British doctrine and how the tactical focus was on the need to capture key terrain positions.

²⁵ Carver, *Dilemmas of the Desert War*, p.133.

²⁶ WO 201/390. The Battle for Egypt: Operational Reports. 1942 May-Sept 1942. Operations of 5 NZ Inf Bde on Ruweisat Ridge Night 14/15 Jul and 15 Jul 42.

In other attacks, inexperienced units were committed to battle before they had an opportunity to become used to desert conditions and doctrine. The newly arrived 23rd Armoured Brigade was committed to battle to support a renewed assault. In the hastily organized attack, two slow moving Regiments of the Brigade were committed towards El Mrier. They ran across minefields and were stopped by accurate and heavy anti-tank fire from which only 6 tanks returned to the start-line.²⁷ The newly arrived Infantry were also inexperienced in combined assaults. At the Miteiriya ridge the Australian Infantry were criticized for not working correctly with the supporting armour which caused unnecessary casualties.²⁸ Commanders had not learnt from previous errors in planning, coordination and doctrine and new formations were showing their lack of specific training.

British doctrine began to show a limited amount of improvement which included the use of concentrated Regimental Artillery fire which halted the 90th Light Division outside the Alamein box on 1 July. Another increase in British firepower was made by the direct RAF support which averaged 570 per day throughout most of July. This helped to delay the Panzerarmee by inflicting vehicle losses, unit disruption and shortages in fuel and equipment. The Axis defences and tactics were also strengthening so that even when units made progress, it was nearly impossible to hold onto the gains. The attacks by the 69th Brigade took ground within Axis defences and penetrated their minefields only to falter with heavy casualties after the initial break-in.

The effect of these continuous operations to capture key high ground was that they caused the Eighth Army to become exhausted in men and equipment. The 8th Hussars had lost all their tanks many times over since the 27 May and were left with just one third of their original personnel by August.²⁹ The heavy attrition also occurred amongst British Infantry with the 69th Brigade and 24th

²⁷ Bovington Archives 50th RTR Diary, From the History of the 23 Armd Bde.

²⁸ Bovington Archives 44th RTR Diary. C Squadron unofficial Diary, 17 July 1942.

²⁹ TNA WO 169/4486.8 King's Royal Irish Hussars, Diary.1941 Nov- 1942 Dec. 1 July 1942.

Australian Brigades suffering over 1,000 casualties between them. British Intelligence analysis also improved dramatically as Corps HQs intelligence provided the majority of details of Axis formations to assist tactical operations more readily. In addition to Ultra, the 'Y' service provided information on targets and expected Luftwaffe attacks.³⁰ As the line became more static, some of the best intelligence came from the Forward Observers of the Royal Artillery who provided the most accurate information of enemy movements.³¹ These regular reports contributed to an improving overall doctrine for Eighth Army operations which culminated in success at Second Alamein.

The operations during First Alamein had focussed on the capture and retention of the significant terrain of the battlefield which included the Ruweisat ridge and its adjacent depressions, as well the Miteiriya ridge. Despite some successes in a series of operations, all of these attacks had been driven off by swift counter-attacks or became bogged down in attritional battles. The Ruweisat ridge was too large for the battalions assigned to capture them. Brigades became too dispersed trying to cover these features, which weakened their fighting power and left individual battalions to be captured or overrun. There were also continuing failures in command, planning and problems with doctrine especially cooperation between armour and infantry.

Although the Infantry proved they could capture an enemy position, the difficulty was retaining it after the inevitable Axis counterattack. There were some improvements in the better use of concentrated artillery fire and intelligence analysis, but these were not yet fully developed. The inconclusive nature of the fighting at Alamein led to Churchill to order changes in Middle East command in early August and both sides regrouped for the further operations in later in the month.

³⁰ TNA WO 201/540. Weekly Desert Reviews: Intelligence Reports. June-Aug 1942. Review 9.7.42, p.3.

³¹ TNA WO 201/538. Lessons on Operations. 14 Sept 41-25 Aug 42. 50th Division Lessons, 20 July 42. Intelligence.

Chapter 9 Alam Halfa and Second Alamein, 30 August- 4 November 1942.

The battles of Alam Halfa and Second Alamein represent the first period of new command at the Eighth Army and Middle East Command.¹ The battles have been linked here to highlight the progression of tactics firstly in defence and secondly in assault doctrine. The continuing impact of terrain on planning and objective setting by commanders can also be seen alongside the steady development of Eighth Army doctrines in defence at Alam Halfa and in an improved level of assault at Second Alamein.

Alam Halfa Introduction

This battle was a successful defence by the Eighth Army which made full use of a key ridge in the British defensive line and fresh tactics to halt another powerful offensive by the Panzerarmee. It also showed the development of air and ground units working in closer cooperation to create a victory.

The historiography has concentrated on the controversy over the plans for the defence of the Alam Halfa sector.² John Connell and Corelli Barnett argued that Montgomery used former plans drawn up by Eric Dorman-Smith for the defence. They continue to emphasize the importance of command, fresh troops and the discussion of terrain remains part of the narrative rather than part of any real assessment. Michael Carver notes the armoured deployment along Bare ridge and the battle for Pt 102, and discusses the reasons why the Panzerarmee halted on the 31 August.³ Barrie

¹ Churchill had appointed Lieutenant-General Montgomery to Eighth Army and General Harold Alexander as his new CinC at Middle East Command, as well as numerous other changes in GHQ in early August.

² Barnett, *Desert Generals*, p.263.

³ Carver, *Alamein*, p.60.

Pitt emphasizes the problems caused by soft sand in the southern depressions which seriously delayed the Panzerarmee whereas John Strawson fails to mention the impact of the terrain at all.⁴

Alam Halfa: terrain 30 August- 5 Sept 1942

Earlier British assessments of the terrain selected the Alam Halfa ridge to defend against an Axis thrust from the southern sector of the Alamein line. It was the highest feature in the rear of the line and south of the ridge there was soft-going through a series of depressions which would delay any eastward movement for armour. In the centre, one possible avenue for vehicles was across the open ground south of Ruweisat ridge and the El-Mrier depression before it reached the smaller Alam Nyal. East of Alam Nyal ridge was Alam Halfa, which reached 132 metres and dominated the southern sector of the Eighth Army defences. It provided a strong defensible position along its length, which enabled the British to prepare for attacks from the southern side.

Alam Halfa: preparations

This battle was Montgomery's first operation as Commander of the Eighth Army. The force was still weakened from the month long battles of First Alamein, with August being a quiet period which allowed both sides to re-group and replenish for the next round of operations. Intelligence reports noted a, 'quiet week with enemy attention devoted to reorganisation of forces and consolidation of defences. Whole Axis front now believed covered by minefields.' It was a period, 'of positional warfare with heavy shelling by both sides.'⁵ The Panzerarmee was expected to begin a new offensive towards the end of the month aimed at breaking through the southern minefields and outflanking south of the Alam Halfa ridge.

⁴ Pitt, *Crucible*, Vol.III, pp.25-26, and Strawson, *Battle for North Africa*, pp.149-150.

⁵ TNA WO 201/540.Weekly Desert reviews: Intelligence Reports. June-Aug 1942. 4 Aug 42.

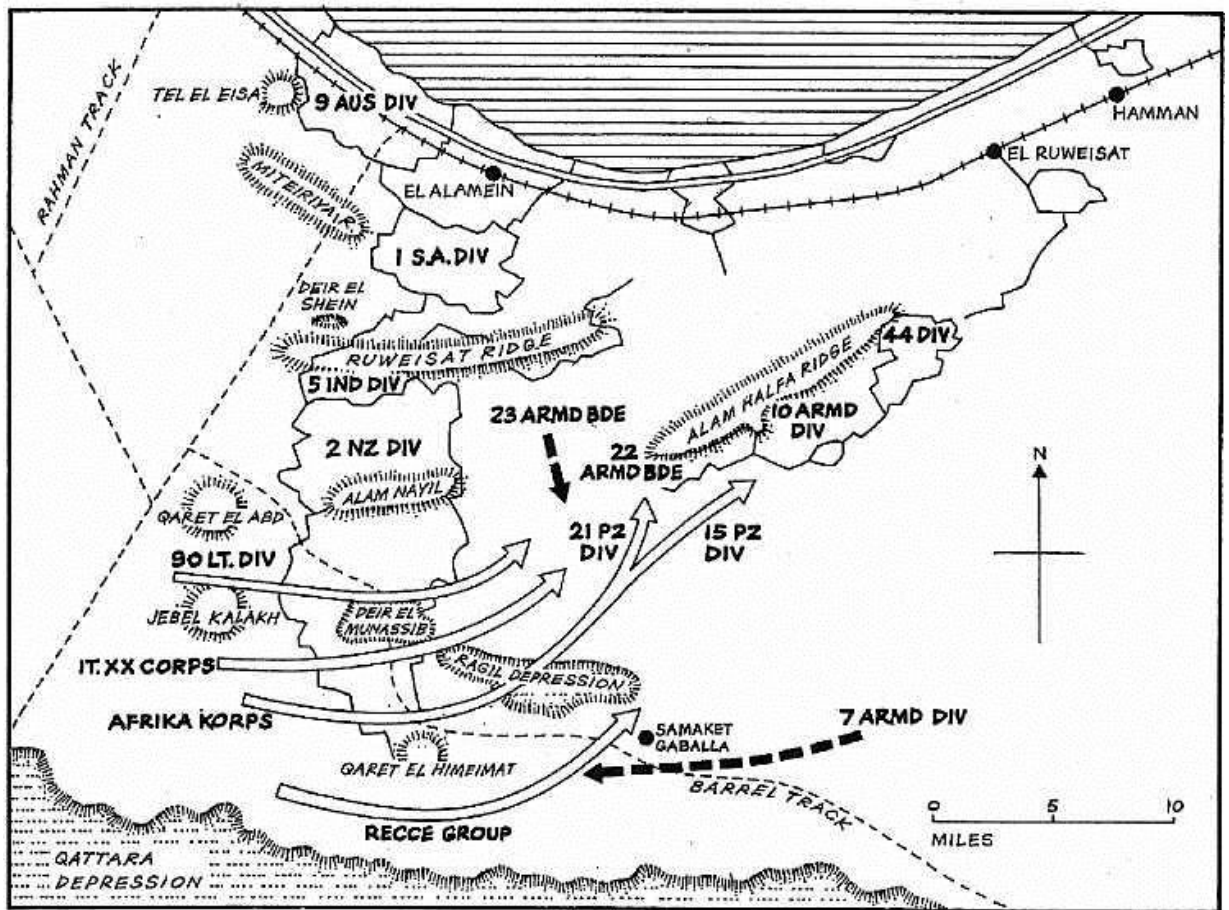


Figure 9:1 Alam Halfa, 30 August-3 September 1942.⁶

British preparations for defence were rapid and thorough thanks to the Ultra intelligence on Axis plans which enabled Montgomery to move up formations and allow them to prepare defensive positions. The 13th Corps was given the task of preparing a defensive position on the ridge but not to incur excessive casualties.⁷ He requested and was given the newly arrived 44th Division which consisted of two Infantry Brigades to hold the ridge and was supported by the 22nd Armoured Brigade which was dug-in around the western end, near Pt 102. The 23rd Armoured Brigade moved south to support them and to cover the gap along Bare ridge where a breakthroughs might be possible. The two Armoured Brigades totalled nearly 150 tanks with 90 of these being Grants.

⁶ <http://www.desertrats.org.uk/battles1942.htm>. Map for Alam Halfa. Accessed 3 January 2014.

⁷ TNA WO 201/424. The October Battle of Alamein and the advance to Tripolitania. Nov-Dec 42. Report Brief Notes on "El Alamein" battle, 23 Oct – 4 Nov 42, p.1.

Despite the problems of an over-extended supply line the Axis forces made an impressive effort to build up for this offensive logistically throughout August and they provided the frontline units with 234 German and 281 Italian tanks and plenty of ammunition. However they were still desperately short of petrol, thanks to RAF and naval targeting of fuel tankers using Ultra decrypts. The Panzer Divisions totalled some 200 tanks with a higher number of the Panzer 'specials', whose more powerful guns outranged the Grant tanks facing them.

Alam Halfa: Summary and impact of terrain

This attack began on the 30 August, with a night time approach march through the British minefields. The Panzerarmee was monitored continuously and its transport columns pounded by RAF bombers. The Axis force worked its way across the depressions south of the ridge, they were under constant bombardment and were observed by the British defenders on Alam Halfa. Panzerarmee commanders turned towards the ridge sooner when they realized the Eighth Army was prepared for them and made a series of assaults on the ridge. Axis forces had problems moving over the soft ground south of the Bare ridge and were unable to make the rapid moves of previous battles. They were also slowed down by natural dust storms and the effects of continual bombing by the RAF. The Panzerarmee remained in front of the ridge making various assaults until the 3 September, when it was forced to retreat.

British defence tactics were better coordinated during this action and contributed to the victory. The 7th Motor Brigade slowed down the initial Axis advance through the minefields, and the heavy and continuous attacks by the RAF destroyed many Axis vehicles, disrupted their movement and exhausted enemy personnel. The attacks on the ridge by the 21st Panzer Division were halted by anti-tank guns from 1st Rifle Brigade. They were supported by the two armoured Brigades who fought a defensive battle near Pt 102. The British armour had maintained its hull down positions and was supported by large concentrations of artillery deployed behind the ridge.

British forces still had some issues with poor planning and problems in their assault doctrine. One Brigade from the newly arrived 44th Division made an obvious approach march which gave Axis forces time to prepare and repel the subsequent assault that night.⁸ It became clear that errors were still being made even in set-piece attacks, when in the north a diversionary raid crippled the 2/15th Australian Infantry battalion near Tel-el-Eissa. The 132nd Brigade attacked in the south to block the Axis retreat by the 90th Light Division, only to suffer heavy casualties. Despite the improving picture and better intelligence analysis which allowed Montgomery to prepare for the assault, not all units received the correct warning of Axis intentions. The CO of the 8th Hussars was not informed an attack had begun and found his Light squadron in observation and under severe air attack on the first day of the offensive.⁹

Alam Halfa: Conclusion

Alam Halfa was the first successful tactical defensive battle for the Eighth Army. The Army had become more effective in understanding the terrain and using it to the best advantage to maintain a defensive position, and had combined this with an improved tactical defensive doctrine. It received good intelligence which enabled it to make a strong deployment across the suitable defensive terrain. The Alam Halfa ridge provided the Eighth Army with an ideal defensive site from which to try new defensive tactics. Lieutenant-General Montgomery had insisted on fresh tactics at the ridge, with the armour remaining mostly hull-down, supported by strong anti-tank and artillery numbers to increase firepower against the expected Panzer attacks. Alam Halfa clearly demonstrated the Eighth Army's progress in defensive doctrine, which combined hull-down tank positions and well deployed anti-tank guns, supported by heavy concentrations of artillery.

This combination of anti-tank and artillery fire was a highly effective tactic which would be repeated in future battles. The RAF made a significant contribution to the British defence by the

⁸ Barr, *Pendulum*, pp.243-245.

⁹ TNA WO 169/4486. 8 King's Royal Irish Hussars, Diary.1941 Nov. - 1942 Dec. 31 August 1942.

constant round the clock bombing and strafing missions. These destroyed huge numbers of the Panzerarmee's vehicles, men and equipment and prevented it re-supplying frontline troops.¹⁰ A heavy Khamsin storm caused problems for both sides and slowed movement by the Panzerarmee, which was already struggling through the soft sand in the depressions south of the ridge. Therefore, despite the success of improving doctrine, tactical success for the Eighth Army resulted from using the terrain to the best advantage.

Second Alamein Introduction

This battle was important to the British war effort at a political, strategic and operational level. Montgomery was determined to push for an October offensive which would coincide with the Allied Torch landings due in November in Algeria and Morocco. The Eighth Army was committed to an intense period of training, new doctrines, rebuilding and receiving new equipment designed to break the Axis line and defeat the Panzerarmee. British planning was focussed on capturing two key ridges in the northern sector of the battlefield, with the result that terrain was to contribute to the outcome of this battle.

In the historiography this encounter remains the foremost battle of the campaign, De Guingand's post-war memoir noted Montgomery's close control of the battle and planning, which he believed was the key to the victory.¹¹ Michael Carver agrees with Corelli Barnett's revisionist polemic which argued that could have been avoided if Montgomery had been more aggressive at Alam Halfa.¹² Niall Barr's more recent study shows the Army was still developing into a confident and battle hardened force, despite losing some of its experienced Divisions to other theatres. Artillery and Engineer doctrines were resolved for future battles, whilst the armour and Infantry still had

¹⁰ Gladman, *Intelligence and Anglo-American Air Support*, pp.109-111.

¹¹ De Guingand, *Operation Victory*, p.193.

¹² Barnett, *Desert Generals*, p.265.

problems which depended on training.¹³ Jon Latimer meanwhile, notes the tactical importance of the artillery and the doggedness of the Infantry in maintaining the battle over the thirteen days.¹⁴ Jonathan Fennell contends that the recovery of morale in the autumn, following a crisis within the Eighth Army in the late summer, made a decisive contribution to the victory.¹⁵ The latest study by Bryn Hammond argues that it was a 'special case' in terms of assault doctrine which required weeks of planning, training and new specialised equipment, all of which was designed to breakthrough exceptionally deep Axis defences and minefields.¹⁶ The domination of Second Alamein in the historiography undermines the importance of other battles in the campaign.

Second Alamein: terrain

The British objectives for Second Alamein included capturing the Miteiriya ridge and Aqqaqir hill beyond it. The key feature of the battle was the Miteiriya ridge which runs on a north-west alignment. The area around the ridge was noted as, 'featureless, but with slight undulations and ridges which when captured gave fair observation.'¹⁷ Beyond it was the low hillock, Aqqaqir hill, in the centre-rear of the Axis line and this became the main objective for the revised plan, codenamed 'Supercharge'. It dominated the ground in the rear area and its capture would lead to the break out by British armour. In the north, the ridge at Tel el Eissa was also an objective for the second stage of the battle for the 9th Australian Division and was designed to draw Axis forces away from Tel el Aqqaqir.

The key terrain features directly influenced the British assault plan which was designed around them. These primarily included the 'good-going' ground which ran parallel with the coast road but six miles to the south of it. Army HQ wanted to thrust the Armoured Corps through the Axis

¹³ Barr, *Pendulum*, pp.409-412.

¹⁴ Latimer, *Alamein*, pp.317-318.

¹⁵ Fennell, *Combat and Morale*, p.283.

¹⁶ Bryn Hammond, *El Alamein: The Battle that Turned the Tide of the Second World War* (Oxford: Osprey, 2012) pp.159-161.

¹⁷ TNA WO 201/424. The October Battle. RA Notes on the offensive by Eighth Army.

defences and along this faster ground to strike for the air bases at Daba and Fuka. This would push back the Luftwaffe and also cut off the static Axis Infantry lying to the south of the Mitieriya ridge. The ridge was also regarded as an objective despite British forces already controlling good observation near Alamein and the restricted deployment area for the six Divisions to be used in the attack, (see Fig.9.2).¹⁸

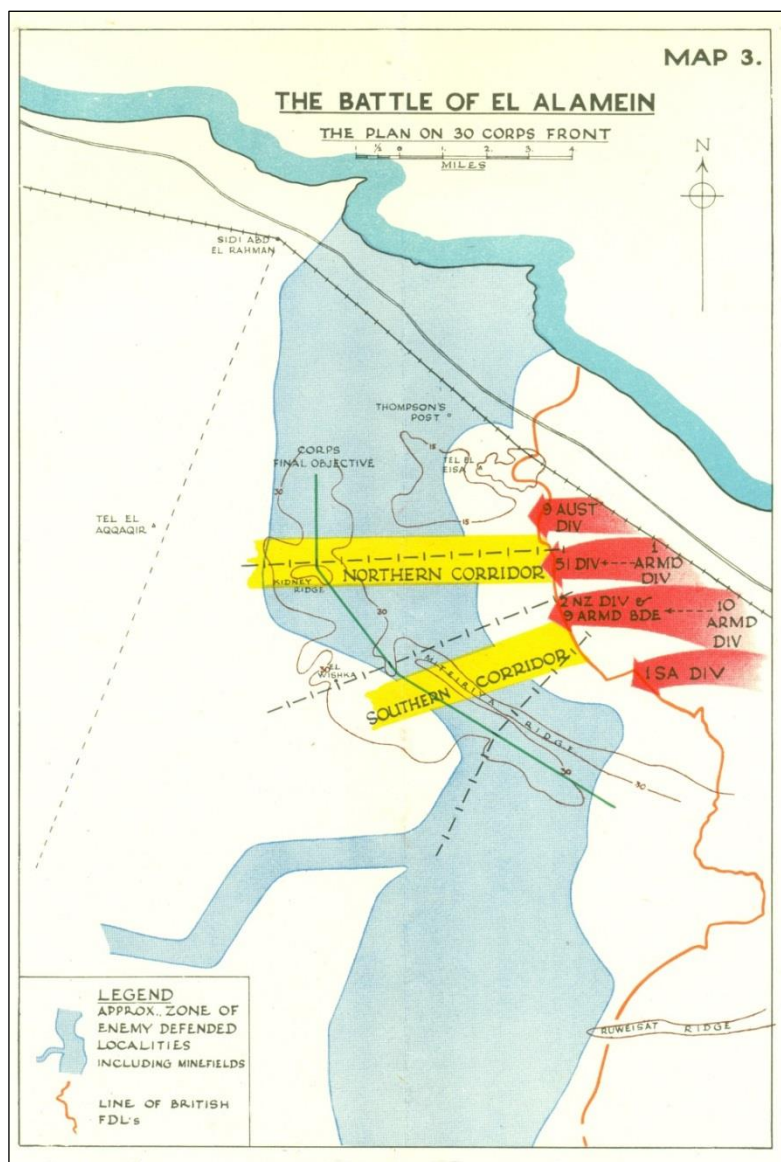


Figure 9:2 Second Alamein, 23 October-4 November 1942.¹⁹

¹⁸ WO 201/424. The October Battle. Appreciation and Plan of Lightfoot; Ground.

¹⁹ B.L. Montgomery, *El Alamein To The River Sangro* (London: Hutchinson & Co.1948).

Second Alamein: preparations

The initial planning for Operation Lightfoot began in August with the main objective to destroy the enemy's forces in their current defences. To achieve this, the assault plan targeted the capture of the Miteiriya ridge, which would then provide the Eighth Army with suitable ground from which to defend against the expected Axis counter-attack. It was hoped that the armour would make a break-out to cut off the Axis from their landing grounds near Daba and Fuka and their supply lines. There was a major administrative issue when two Corps were deployed in the same area of ground, creating a cramped area for deployment of so many Divisions.²⁰ The Eighth Army had 30th Corps providing the Infantry for the main assault supported by a new 10th Armoured Corps and other Independent Armoured Brigades. Further south the 13th Corps would make diversionary assaults using elements of two Divisions. The administrative and logistical preparations for such a major assault were huge, and the air support was equally impressive, ensuring that the RAF dominated the battlefield in the first few days.

The new assault doctrine focussed on firepower from concentrated batteries of artillery to enable the Infantry and engineers to break-through the deep minefields and capture enemy positions across the ridge. This was a defining feature of the initial assault and was a significant new tactic for the Eighth Army. The break-in to Axis defences was to be made in the north by four Divisions supported by over 800 guns over a frontage of 7,000 yards. They were to advance to a depth of 4,000 yards in the first phase. The use of photo reconnaissance enabled the mapping of defence positions and the Artillery fire-plan concentrated on these. The barrage included a 20 minute concentration on each location and a steady lifting of the barrage of 100 yards every three minutes. The 51st Highland Division had a more locational barrage and used 'flash-spotting' and air reconnaissance targeted the estimated 454 Axis guns in the frontline sector. These were noted in

²⁰ TNA WO 201/432. Operation 'Lightfoot': planning. August 1942.

readiness for a counter-battery programme, which aimed to neutralize them within the bombardment phase.²¹

The British Signals organisation and planning was made more complicated due to the close proximity of a large number of Headquarters for different formations, but close control of signals kept communications running smoothly. The Engineers developed new tactics to make gaps in the minefields and widen them to allow the armour to advance onto the ridge.²² Operation Bertram, which was the deception plan, enabled the Eighth Army to deploy in the forward areas without giving away any information to the Axis intelligence.²³ The six weeks of preparations had allowed the Eighth Army to train for the assault but it had also allowed the Panzerarmee to establish minefields. These were five to nine thousand yards deep across the area, covered by numerous linked areas of anti-tank and artillery positions.²⁴ Axis forces held the line with six Divisions and kept the Armoured DAK in reserve. German forces were spread amongst the weaker Italian formations and had reached 75% of their full strength.

Second Alamein: battle summary and the impact of terrain and doctrine

The attack commenced on 23 October, with a large artillery bombardment followed by an Infantry assault. Over the next two days, the Infantry continued the 'crumbling phase' which gradually reduced the Axis defences. There followed a series of Axis counter-attacks in the centre area which were halted in hard-fought actions. The Australian 9th Division attacked northwards towards Tel-el-Eissa prior to the renewed Operation Supercharge attack and breakout. These phases have all been well-documented and extensively discussed.

²¹ WO 201/424. The October Battle. RA Notes on the offensive by Eighth Army, p.9. The Axis artillery was estimated at 200 field, 40 medium and 14 heavy guns.

²² METM No.7.Lessons from Operations Oct and Nov.1942, (Buxton: MLRS, undated), p.4.

²³ Latimer, *Alamein*, pp.160-162.

²⁴ WO 201/424. The October Battle. Nov-Dec 42. RA Notes on the offensive by Eighth Army.

The Axis defences took advantage of the landscape by using the undulating ridges to conceal the density and depth of the minefields. Their numerous defensive positions made best use of each fold across the ridge and created major problems for the Eighth Army's assault. The Infantry Divisions experienced mixed success in reaching their objectives due to the combination of the ground conditions and complexity of the Axis defences. The supporting Armoured Regiments came forward to drive through the gaps in the minefields but came under heavy fire when attempting to cross the ridgeline. The tanks were silhouetted against the crest-line and became easy targets for Axis Self-Propelled and anti-tank guns on the reverse slopes. The 3rd Hussars had this experience on the Miteiriya ridge where they lost a high number of tanks and officers which crippled the leadership of the regiment.²⁵ The terrain conditions served to slow down the British advance, and forced Montgomery to rethink his plans.

Despite the recent intense planning and training, this battle demonstrated the old issues for British doctrine had not been resolved. Regiments became dispersed again during operations while trying to capture too many objectives. The Regiments of 23rd Armoured Brigade was assigned to different attacks, which dispersed their firepower and reduced its effectiveness. The complexity of the defences also caused confusion and heavy losses to both armour and Infantry. The 40th and 46th RTR lost many tanks to mines and anti-tank fire when they supported the 9th Australian Division during its assault near Tel-el-Eissa. The Infantry was forced to dig-in short of the objectives whilst the Brigade artillery was hampered by continuous re-deployments within the mined areas and failed to give adequate fire support.²⁶ Even the improved and more mobile artillery support had problems coping with the complexity of the Axis positions. The Infantry assaults in the north continued the British offensive whilst the armour re-grouped for Operation Supercharge. However they were important in drawing Axis reserves away from Tel el Aqqaqir

²⁵ WO 201/424. The October Battle. 3rd KOH, Action at Tel el Aqqaqir 2 Nov 1942, p.1.

²⁶ TNA WO 201/471. 23rd Armoured Brigade: operations 'Lightfoot' and 'Supercharge'.

sector. The multiple objectives made it more difficult to provide rapid and effective artillery support to the front line and this made each attack more attritional and inconclusive.

One successful British defensive tactic made good use of low hummocky ground and contributed to one of the turning points of the battle. This occurred during the Snipe Action on the 26 October and took place in the central sector of the battlefield. A Motor Brigade was pushed forward to extend the bridgehead and draw out the Axis armour onto the Brigade position. This included two features consisting of low, hummocky dunes, which were code-named Snipe and Kidney ridge. The position was occupied by 2nd Rifle Brigade and a Battery equipped with twenty-seven 6pdr anti-tank guns. Unfortunately only nineteen guns reached Snipe as the remainder became stuck in the soft sand in the advance. The Artillery support was confused again when there were problems in locating the correct position from maps. Despite this the British guns fought off numerous attacks by the Axis armour and received some support from the nearby 24th Armoured Brigade.²⁷ Axis forces were thought to have lost between thirty and fifty tanks over two days, which dramatically weakened their Panzer Divisions for the final phases.

Second Alamein: conclusion

The battle was an important stage in the development of new doctrines for the Eighth Army. Fighting during stage of the operation had been affected by the key features of the landscape. These had increased the complexity of the Axis defences, which had taken full advantage of the ground. The Eighth Army used the build-up phase to practice specific tactics using combined arms of Infantry, Engineers and armour to break-into and capture a succession of defensive lines. They were now fully supported by a programme of massive Artillery and RAF ground attacks, thorough Intelligence analysis and deception operations which was a noted improvement from earlier offensives. Montgomery had maintained a powerful grip over the planning, and command which

²⁷ WO 201/424. The October Battle. Account of the action by 2RB at Snipe, 26/27 Oct 42, p.3.

had enabled him to alter the original assault when it became stalled within the deep Axis defences. This led to a revised armoured assault which broke through the rear of the Axis line and forced the Panzerarmee to begin the long Axis retreat into Tunisia. Second Alamein was a turning point for the Eighth Army for improving its tactical doctrine and for showing that terrain was a key consideration of its operations now. Following the long Axis retreat, the British would fight their next major battles in Tunisia in early 1943 and prove themselves adept at both attack and defence. The British victory led to the Axis fighting more defensively for much of the remainder of the campaign in North Africa.

Chapter 10 Medenine, Mareth, Wadi Akirit and Tunis, March – 13 May 1943.

This series of four final battles for the Eighth Army shows the greater impact of terrain on British operations in the Tunisian landscape and the development of its offensive and defensive doctrines. The outcome of each battle also showed how well the Eighth Army had developed its offensive tactics to overcome increasingly complex Axis defences, but they still highlighted some ongoing problems of intelligence or with inexperienced units. The doctrine developed by the Eighth Army and Montgomery across all arms meant that preparation phase was now a major part of all operations and that the study of the terrain was an essential part of the process. At Mareth, attacks were targeted across low ground, away from heights, but despite the massed firepower directed units were halted by dominating features within the coastal wadis. It also highlighted the increasing tenacity of Axis units and their methods of making the best use of the terrain to improve the defences. By the end of the campaign the Eighth Army could adapt its operations and be flexible in manoeuvre to outflank and undermine defences which would have halted attacks in previous periods of the campaign.

Tunisia: the impact of terrain on British operational movement

The Tunisian landscape had more major relief than either Libya or Egypt, so that its influence on operations became even greater. It became a central part of the Axis defence of central Tunisia, Kesselring wanted a large Axis 'bridgehead' and reinforcements were continually rushed from Italy to build up a strong defensive line across the high ground. The Tunisian hills and relief features gave the Axis opportunities to develop strong defensive positions which used deployed multiple heavy machine-guns, to cover the steep slopes, against which only Infantry could assault.¹ The

¹ John Frost, *A Drop too Many* (London: Sphere, 1983) p.127, and John D'Arcy-Dawson, *Tunisian Battle* (London: Macdonald & Co, 1943) pp.59-60.

weakness of all static positions was that as each one was captured it generally unlocked or outflanked other heights and adjacent positions which gradually made them untenable. This was the basis of the British advance towards to Tunis defence line. The continuing plan for the Eighth Army was a step-by-step capture of the heights which dominated the terrain and the ports en route to Tunis. It would then break out into the Kairouan plain to exploit the rear of the northern Axis defences and overrun the all-weather airfields located there. Each stage of ground, which overlooked a valley or plain, had to be captured in order to continue.²

Introduction: Medenine 6 March 1943.

Following Alamein, the Eighth Army advanced 1,400 miles in three months as Panzerarmee conducted a model withdrawal despite being badly weakened. The retreat continued into southern Tunisia and halted on the French built Mareth line. Montgomery considered the Eighth Army to be 'unbalanced' as there were only a few formations near the front, including 7th Armoured Division, and for the Infantry, 2nd NZ and 51st Highland Divisions, so that he made only cautious advances because of the potential for swift Axis counter-attacks. There are few histories of this battle which has been largely overlooked until recently, Bruce Watson notes Rommel's plan to cross soft ground to confuse Allied watchers, but fails to emphasize the impact of the Eighth Army's deployment in the low Metameur hills.³ Equally David Rolf's detailed work only mentions the impact of Ultra which enabled the Eighth Army to deploy effectively.⁴

Medenine: Terrain

The principles of control of key high ground for artillery observation purposes remained the same. The Eighth Army's line of approach was now north-west towards the southern Tunisian frontier

² WO 201/598. 8th Army operations in Tunisia. Feb.-May 1943, p.16.

³ Bruce A. Watson, *Exit Rommel. The Tunisian Campaign 1942-43* (Mechanicsburg: Stackpole, 1999), pp.112-117.

⁴ David Rolf, *The Bloody Road*, pp.160-161.

which was semi-desert and contained fewer populated centres. Any possible outflanking routes were to the west of difficult or impassable ground and so the coast plain remained the main area of operations. Terrain was a significant factor at Medenine where the expected Axis spoiling attack was halted as the Eighth army made good use of low hills in front of a larger hill feature. The position was selected operationally as the optimum site to halt the axis advance using an effective anti-tank defence.

Medenine was a small town with a vital road junction for routes into southern Tunisia and a useful landing ground. The best defensive position was east of the town. Here, Lieutenant-Colonel M.E. Parker, noted that forward units, 'arrived in the plain looking towards the Matmata hills with a very splendid observation post behind us, the Tajera Shrir, renamed for convenience as, 'Edinburgh Castle.' At the top of this height all the gunner [Observation Posts] were installed and all had telephone lines laid to their guns [batteries] behind our positions.'⁵

Medenine Preparations

After earlier offensives against the First Army, Axis forces had re-grouped and Rommel was given the Panzer Divisions to make a spoiling attack to further delay the Eighth Army's approach to the Mareth line. Rommel used his veteran 15th and 21st Panzer Divisions, and elements of the 90th Light and 164th Infantry Divisions, to make the assault, and he also had the newly arrived 10th Panzer Division.

Eighth Army plans for Medenine used daily Intelligence from Ultra which gave Montgomery clear details of the Axis approach. He later admitted to some misgivings about receiving an assault by these three veteran Panzer Divisions,⁶ but his message to the troops reminded them to, 'hold firm

⁵ IWM, Cat no.479.Papers of Lieutenant Colonel M E Parker, CO of 257 AT Battery, p.166.

⁶ Bennett, *Ultra and Mediterranean Strategy*, p.210.

in their defended localities,' and that there would be no retreat.⁷ The Eighth Army had limited forces available near the front, although they were well supported by 5th AGRA and the RAF. Montgomery deployed elements of the 5th NZ Brigade with numerous anti-tank guns which were well sited and the whole position was well camouflaged by experienced troops. Here the ground fell away in front of his Brigade position and was confident that the Artillery had, 'mastered the technique of quickly putting down massive concentrations [of fire].'⁸

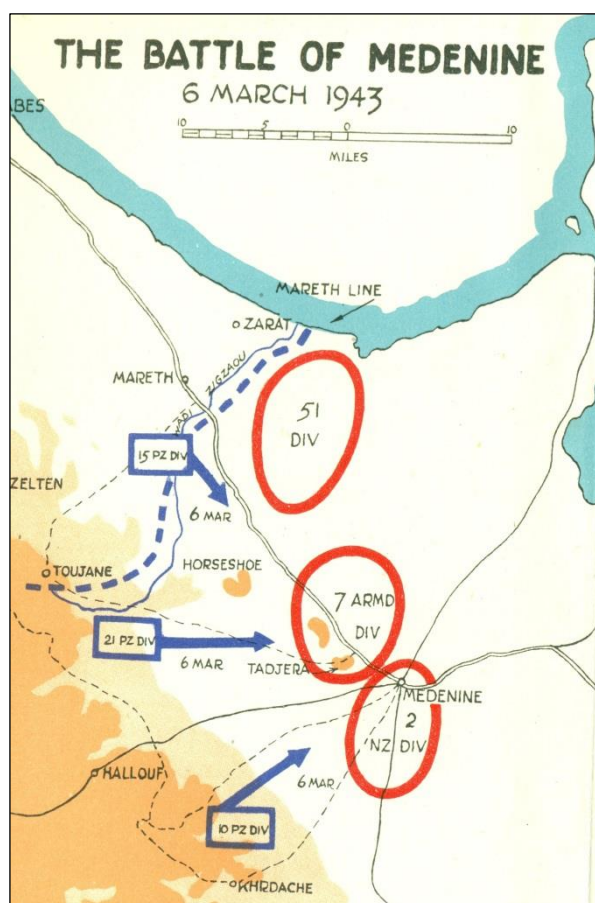


Figure 10:1 Medenine, 6 March 1943.⁹

⁷ IWM, Montgomery Papers, Manuscript Draft of Field Marshal Viscount Montgomery of Alamein's Personal Message on the Eve of the Battle of Medenine, March 1943, <http://www.iwm.org.uk/collections/item/object/1030002496>. Accessed 12 May 2012.

⁸ Kippenberger, *Infantry Brigadier*, pp.271-272 and p.276.

⁹ B.L. Montgomery, *El Alamein To The River Sangro* (London: Hutchinson & Co, 1948).

Other formations included the 201st Guards Brigade, and the 8th Armoured Brigade supporting the 131st Infantry Brigade. The frontline units also deployed some 600 anti-tank guns and 400 tanks which sited in a series of hull down positions overlooking the approaching plain. The commander of one Anti-tank Gun Regiment, Colonel Parker advised the Guards Brigade, 'to pull back a good mile into broken ground that lay at the foot of the Edinburgh Castle.'¹⁰ Behind the hill feature, the Eighth Army deployed a full Artillery Group was deployed and their Forward OPs used the Edinburgh Castle heights to observe from.

Medenine: Battle summary and impact of terrain and doctrine

The Axis used the terrain to disguise its approach made across difficult low ground to confuse the Eighth Army about their direction of approach. They began probing attacks from the 3 to the 5 March which confirmed the reports from Ultra that a large scale armoured assault was imminent. As the action began, Colonel Parker watched, 'the Germans drove blindly onto the anti-tank screen and lost 52 tanks without ours being engaged...he cryptanalysts had told us what was coming and when.'¹¹ Two Panzer Divisions drove up to the Guards Brigade anti-tank guns and appeared to wander vaguely in front of their position. Brigadier Kippenberger thought the Axis made a very badly coordinated attack as 10th Panzer Division approached his units and they appeared undecided about where to attack.

The poor quality of the German assault was compounded by the British use of the tactical terrain with 5th NZ Brigade using the low hills to create a concealed defensive position which was praised as a model deployment.¹² The Guards and Highland Brigades had a more severe battle than the New Zealanders however all the Axis attacks were repulsed and 5th AGRA was personally thanked

¹⁰ IWM, Papers of Lieutenant Colonel M.E. Parker, CO of 257 AT Battery, Cat no. 479 p.167.

¹¹ IWM, Papers of Lieutenant Colonel M.E. Parker.

¹² Kippenberger, *Infantry Brigadier*, pp.273-274.

by the 7th Armoured Division for their fire support.¹³ British tactics were improved as the Artillery support was well directed and planned, the 64th Medium Artillery Regiment had a large number of defensive fire plans arranged and as the attacks intensified many concentrations of fire were put down including one regimental bombardment. It was noted that, 'the enemy did not like the attention he was receiving from our guns,' and the attacks were directed at Pt 270 which, 'affords us some excellent observation.'¹⁴

Medenine: Conclusion

The terrain was significant in deciding how the Brigades deployed. They had utilized the low hills for anti-tank and Infantry; while the Tajera Shrir hill behind provided the ideal observation post where the artillery had set up OPs and registered defensive fire plans which were used extensively on the day and this study is the first to note the importance of this feature within the Eighth Army's defence line. The 5th AGRA was praised for its vital support in bringing down large concentrations of fire where needed. This success boosted Eighth Army morale and their confidence in Montgomery, that he would always deliver a victory.¹⁵ He had planned and dictated control of two defensive battles and an offensive one at Second Alamein, which increased his own confidence enormously.

The Eighth Army received timely intelligence to deploy in suitable defensive terrain. The battle clearly demonstrated the progress in defensive doctrine, combining hull-down tank positions with well deployed anti-tank guns, all supported by heavy concentrations of artillery. At Medenine the Panzer assault had been decisively defeated in just one day, and was a clear defeat for the veteran Axis Divisions. Rommel ordered an immediate retreat after Axis forces lost 52 tanks most of them

¹³ Denis Falvey, *A Well Known Excellence*, p.145.

¹⁴ WO 201/2156.8th Army Intelligence Summaries, Jan-Mar 1943. No.448, 6 Mar 1943.

¹⁵ Doherty, *A Noble Crusade*, p.125.

‘specials’ out of 135 and 600 casualties for no gain, in comparison Eighth Army losses were said to be trifling.¹⁶

Mareth: Introduction

The battle for the Mareth line in late March 1943 was the first major offensive battle for the Eighth Army since Second Alamein. Codename Operation ‘Pugilist’, the planning for it was heavily influenced by the terrain features which dominated the defences. The strength of the inland hill defences made the Eighth Army HQ opt for an assault across low ground near the coast. There are fewer studies about this latter part of the campaign, Rick Atkinson’s recent study covers the First Army’s campaign from the Torch landings and is the most detailed of these studies. He argues that the final victory at Tunis was a strategic one which opened up the Mediterranean to the Allies but also useful for the tactical experience gained by the First Army.¹⁷ Geoffrey Blaxland offers a dual assessment of the final campaign by both the First and the Eighth armies as does David Rolf’s more recent work.¹⁸ As with earlier battles, Kippenberger’s memoir provides useful detail on the New Zealand Corps operations, showing how they became more adept at combined arms assaults.¹⁹ Two wartime accounts give more detail on the battles; John D’Arcy Dawson’s account defends the First Army operations,²⁰ while A.D. Devine provides similar aspects of American experiences towards Tunis.²¹ Both are wartime published memoirs which note the terrain more readily than many post-war studies.

Montgomery highlighted that the army was ‘balanced’ and able to switch attacks quickly; it was growing in confidence in its doctrines. Following Second Alamein, the Eighth Army had advanced

¹⁶ WO 201/2156. 8th Army Intelligence Summaries, Jan-Mar 1943. No.450, 8 Mar 1943.

¹⁷ Rick Atkinson, *An Army at Dawn. The War in North Africa, 1942-1943* (London: Abacus, 2004), pp.537-540.

¹⁸ Gregory Blaxland, *The Plain Cook and the Showman. The First and Eighth Armies in North Africa* (Abingdon: Book Club Associates, 1977).

¹⁹ Kippenberger, *Infantry Brigadier*.

²⁰ John D’Arcy-Dawson, *Tunisian Battle* (London: Macdonald & Co, 1943).

²¹ A.D. Devine, *Road To Tunis* (London: Collins, 1944).

1,400 miles in three months. Axis forces although still badly weakened, conducted a near model withdrawal across Egypt and Libya. Rommel decided not to make a serious defence at any of the most feasible positions along the coastal route, such as El Agheila, Homs or Tripoli. Against the wishes of Comando Supremo he had continued the retreat into southern Tunisia and halted along the French built line. The Eighth Army arrived in front of the line on the 20 February. From the west, the First Army under General Anderson was pushing into Tunisia along the few viable routes from the coast down into the central mountains. Both armies now operated under General Alexander's command as 18th Army Group.²² Axis forces were reinforced so Rommel made a spoiling attack to delay the Eighth Army's preparations on the 6 March at Medenine. General Alexander took control of the US II Corps to work more closely with the British and to break through the Gabes gap onto the plains south of Tunis, in order to capture the airfields. These would provide bases to give air support for the capture of the Tunis-Bizerta bridgehead and threaten the Axis supply lines to the rear. First Army units had their own problems of inexperienced units and long supply lines. On the northern flank, V Corps was being blocked by strong defences along the few approach routes.

The Tunisian landscape was a very different type of terrain for operations. The principle of capturing and controlling the high ground for artillery observation purposes remained the same. The country in the southern sector was semi-desert and contained fewer populated centres. The Eighth Army approached along the coast, with any potential desert outflanking routes blocked by difficult or impassable terrain. The front was already nearly 200 miles from Tripoli, so the coast plain remained the main area for operations. The coastline sector had to be occupied to capture future supply ports such as Sousse, the third largest of all the ports in Tunisia.

²² TNA WO 201/598. 8th Army operations in Tunisia under 18th Army Group. Feb.-May 1943.

The plain in southern Tunisia provided good going across mostly undulating or featureless ground which was frequently cut by deep wadis. The inland route was blocked by the Djebel Dahar hills through which there were few tracks. West of this line of hills was the Great Erg desert region, 20 miles of shifting sand dunes.²³ Southern Tunisia was divided from the central plains by a series of salt marshes or Chotts which left only one passable gap of twenty miles from the sea at the wadi Akirit, Gabes gap. These salt marshes dried up quickly after May, but Alexander wanted operations to pass north of Gabes more quickly than this.

The Mareth line was sited between the coast and the dominating Matmata hills which were noted as, 'impassable for any large force [and which] ran back at right angles to the Mareth line, and more or less parallel to the coast for more than a hundred miles to the narrow Tebega gap.'²⁴ Axis Engineers had developed the old French defence line behind two wide coastal wadis, they had scarped the sides into steep-sided anti-tank ditches. The defences consisted of a series of strongly fortified posts running for twelve miles inland, from the northern end of the Matmata hills, then across the plain to Mareth and Zarat near the coast.²⁵ Axis engineers had developed newly entrenched defences consisting of concrete blockhouses, and gun positions. The two wadis provided natural anti-tank obstacles; the wadi Zeuss in front and the main wadi Zigzaou, with rocky sides which had been scarped up to 20 feet deep. They were up to sixty feet across, but heavy rains had waterlogged them and created streams eight feet deep, all of which created a formidable anti-tank obstacle. The defences were covered for 19 miles by minefields and wire entanglements around nests of strongpoints which each held up to half a battalion and were sited in defiladed areas to break up any advance across the wadis.²⁶ These fortifications were

²³ WO 201/578. Topography of Tunisia. Report by Eighth Army. March 1943.

²⁴ Kippenberger, *Infantry Brigadier*, p.276.

²⁵ WO 201/598. 8th Army operations. Feb.-May 1943, p.2.

²⁶ Playfair, *Mediterranean and Middle East. Vol IV*, p.332.

considered to be so strong by Alexander that only a full scale assault would break-through them.²⁷ Axis commanders were also fully aware of the inland route via the Tebega gap which flanked the line and led to El-Hamma in the rear. The change in terrain from desert to hill country, created a tactical change in reconnaissance. One of the LRDG's final tasks was to lead the New Zealand Corps around the flank of the line.²⁸

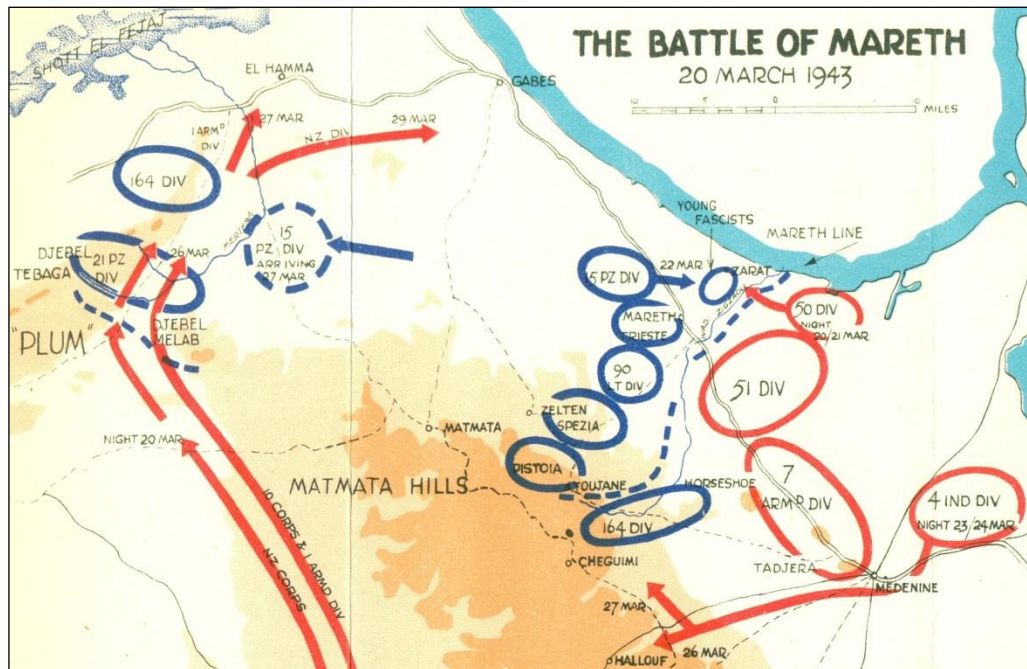


Figure 10:2 The Mareth Line, 20-26 March 1943.²⁹

Mareth: preparations

The Eighth Army was described as being in 'peak condition, with a sick rate of only one in a thousand.' It was ordered to break through the Mareth defences, and destroy as much of Panzerarmee before it retreated to the Gabes gap which was considered another strong defensive

²⁷ Barnes, *Operation Scipio*, p.6.

²⁸ David Lloyd Owen, *Providence Their Guide. The Long Range Desert Group 1940-1945* (Barnsley: Leo Cooper, 2003), p.121.

²⁹ B.L. Montgomery, *El Alamein To The River Sangro* (London: Hutchinson & Co, 1948).

position further back.³⁰ Preparations for the assault took a month because three Corps were involved and each required a large amount of supplies and ammunition to be brought forward the 180 miles from Tripoli which was just being re-established as a supply port. Half the troops planned for the assault were still 600 miles to the rear in Cyrenaica.³¹ However, the Infantry divisions were low on manpower, the 50th Division had received no reinforcements since Alamein whilst General Freyberg was cautious because the New Zealand reinforcements were limited and the 4th Indian Division only had two brigades. To limit casualties, the initial attacks targeted the defences in the low lying sections near the coast to avoid being overlooked.

The plan, codenamed operation 'Pugilist', included an attack by the 50th Division supported by armour. They were preceded by a series of night attacks. Operations 'Walk' and 'Canter' began on the 16 March, followed by the main assault in better weather on the 20 March. For this 151st Brigade would cross the wadi Zigzaou, supported by 50th RTR tanks. Further east the 69th Brigade would capture the 'bastion' a position and 4th Indian Division would follow through and exploit beyond the bridgehead.³² The whole attack was supported by sixteen regiments of Artillery and Engineers were brought up to clear the extensive minefields and deploy fascines for a causeway across the flooded wadi.³³

The build-up phase for the assault was now a vital part of Montgomery's methods of assault and he used elements of three Divisions for the frontal assault and increased the forces available to 27,000 troops to form a New Zealand Corps. This formation had strong Armoured and Artillery

³⁰ Barnes, *Operation Scipio*, p.5.

³¹ WO 201/598. 8th Army operations in Tunisia. Feb.-May 1943, p.2.

³² Richard Doherty, *A Noble Crusade. The History of Eighth Army 1941-45* (Staplehurst: Spellmount, 1999), p.126.

³³ Large bundles of branches designed to fill ditches and take the weight of a tank rolling over them.

support and was to move around the inland hill range, through a gap plotted by the LRDG, and breakthrough the Tebega Gap to the coast, ideally to block the retreat to the Gabes gap.³⁴

Mareth: Battle summary

The main assault included two Brigades assaulting different parts of the Axis defences. The 201st Guards Brigade assaulted the 'Horseshoe' feature with two battalions and suffered 40% casualties for no gain because of poor intelligence. The 69th Brigade made more headway and reached the wadi Zigzoau, but heavy rain prevented armour from crossing the waterlogged wadi. The fighting continued for two days and the Eighth Army was forced to withdraw after suffering heavy casualties for little gain.

Manpower shortage problems forced the old issue of an inexperienced unit being committed without any detailed intelligence on the strength of the Axis position. For the main assault the 50th Division crossed the broad Zigzaou, despite it being waterlogged and deep in mud, but supported by a heavy barrage. The fresh Infantry of the 8th Durham Lights thought the assault would be 'a picnic', and took their objectives but with heavy casualties which left their morale shattered.³⁵ There were further delays with the assault because the Engineers had to clear gaps under heavy enfilade fire, the tanks of 50th RTR and other support units were unable to get through through because the only causeway was blocked leaving the weakened Durhams isolated.³⁶ The terrain features delayed British attempts to reinforce the main battle, the wide wadi feature assisted the Axis forces who made a determined defence by 15th Panzer Division, who made an effective counter-attack which heavily defeated 50th RTR and pushed the Durhams back to the edge of the wadi.³⁷ The wadi feature also delayed a fresh attack by British units trying to relieve the pressure

³⁴ Playfair, *Mediterranean and Middle East. Vol IV*, p.320.

³⁵ Ronald Lewin, *The Life and Death of the Afrika Korps*, (Barnsley: Pen & Sword, 2003), p.191.

³⁶ Richard Doherty, *A Noble Crusade*, p.127.

³⁷ The Regiment lost 30 tanks which left the Infantry with little support.

on the beleaguered 151st Brigade. The Division spent the next two days in mopping up operations which were equally costly.

Montgomery was forced to revise his plans from the 23 March, and halted the main assault. The Army then turned the Axis line by an flanking move made by the 2nd NZ Corps Group, who fought a separate battle to break-through the Tebaga gap and El-Hamma to get behind the position.³⁸ The flank march was an operational move dictated by the terrain and by the failures of the frontal assault at Mareth. The main flank attack was timed for a daylight assault because of the expected heavy air support from the RAF.³⁹ Further key heights at Tebaga were captured by the 25 March, again using constant heavy fighter-bomber support.

The British assault doctrine had developed into a successful combination of Infantry and supporting Armour clearing the hills of enemy anti-tank guns, which allowed fresh Armoured Regiments to advance across the plain. Each hill position, once captured, enabled the Corps to 'unlock' the next position. A combined assault by the 3rd RTR and 6th NZ Brigade captured Pt 201 which enabled the New Zealanders to outflank and capture Hill 184, undermining the defences on Pt 209.⁴⁰ This final height held out in a tough battle and its subsequent capture broke through the Axis defences, 'We had seen the awe-inspiring sight of the hundreds of tanks of the 1st Armoured Division rolling in masses past the left of Pt 201 and on through the gap made by the attack.'⁴¹ As the 1st Armoured Division advanced through the Tebaga gap, Axis units retreated under cover of a dust storm and the RAF bombardment. Mareth had been successfully outflanked and this forced Panzerarmee to retreat to the next defensive position at the Gabes gap or wadi Akirit position.⁴²

³⁸ Lewin, *Life and Death*, p.193.

³⁹ Air Historical Branch, *Air Support*, (London: Air Ministry, 1955) p.78.

⁴⁰ Patrick Delaforce, *Taming the Panzers. Monty's Tank Battalions, 3rd RTR at War* (Stroud: Sutton, 2003) p.146.

⁴¹ Kippenberger, *Infantry Brigadier*, p.274.

⁴² Barnes, *Operation Scipio*, p.8.

Mareth: conclusion

The Mareth assaults proved the Eighth Army's doctrine were becoming well established in preparations, confidence and coordination. However, carefully sited Axis defences could still cause problems. At Mareth the attacks on the 'Horseshoe' position crippled two battalions of Guards.⁴³ Higher terrain features overlooked or enfiladed the wadis with well sited anti-tank and MG positions, which caused severe delays and heavy casualties to the assault units. The waterlogged wadi Zigzaou proved too much for either trucks or tanks to cross, leaving the forward infantry cut-off when counter-attacks occurred. Here then, localized Axis counter-attacks worked well in ending the assaults. Terrain problems affected the flank march, where deep sand made the going slow and difficult. The 27,000 strong column was also delayed by its own size and number of vehicles. Later on positions on the Djebel Melab and Pt209 positions delayed armour, but these were overcome when the experienced Maori Battalion captured them.⁴⁴ The New Zealand Division suffered fewer casualties at Tebega, but these were from already understrength rifle companies who could ill-afford to lose men. The 164th Division lost many killed in the heavy bombardments and a battalion which surrendered when cut off.⁴⁵

Intelligence was improving rapidly with Ultra being more quickly fed through to the 18th Army Group. There were still errors in interpretation by First Army commanders and their HQs.⁴⁶ Yet the Eighth Army still made errors in planning and poor intelligence, the frontal assault on the 'Horseshoe' was made in bright moonlight against a position protected by masses anti-personnel mines which crippled the attacking Guards Battalions, despite this they achieved their objectives but were too weak to hold them. The later, main assault also suffered from a lack of reconnaissance. The preparatory attacks were made during a period of heavy rain in which little

⁴³ The Brigade suffered over 300 casualties mostly from the newly arrived 6th Grenadier Guards.

⁴⁴ Doherty, *A Noble Crusade*, p.130.

⁴⁵ Kippenberger, *Infantry Brigadier*, p.289.

⁴⁶ Gladman, *Intelligence and Anglo-American Air Support*, p.159.

air or ground reconnaissance was made or analysis conducted of the key defences.⁴⁷ Other issues which severely hampered the British operation included the heavy rainstorms throughout the operation, which created major problems maintaining the causeway across the wadi and left units cut off in the bridgehead.

The Eighth Army was seen as being audacious in the offensive now and Montgomery was seen as making a bold move by switching to a left flank thrust. The Eighth Army commander was considered a flexible and daring commander, but there were also errors in command which influenced the battle. The Corps commander, Oliver Leese, left the detailed planning to the inexperienced Major-General Nichols who commanded 50th Division. Following the breakthrough there was a confusion of orders between Horrocks and Montgomery which delayed the advance by the 10th Corps. When the delays were sorted out, Axis rearguard unit prevented the leading units from exploiting the advance.

British assault doctrines were gradually improving, with the heavy weight of the artillery bombardment providing close and timely barrages which covered infantry assaults. The continuing heavy fire support contributed to the decline in morale of the defending Italian units who began to surrender in numbers after the 21 March. Similar mass surrenders later took place at the Wadi Akirit. The British Armour began fighting alongside new and more powerful 17pdr anti-tank guns which defeated a German counter-attack near El Hamma. This method of quick defence had been learnt from earlier German doctrine used since 1941. The 2nd NZ Corps now attacked on a narrow front towards El Hamma and was also heavily supported by an RAF bombardment of relays of medium bomber squadrons, who targeting the enemy defences and armour.⁴⁸ One onlooker noted, 'at 1600 hours...waves of Kittyhawks, Hurricanes and Spitfires came in from the west, so

⁴⁷ Neillands, *Eighth Army*, p.197.

⁴⁸ WO 201/598. 8th Army Operations in Tunisia. Feb.-May 1943, p.8.

that the Axis had the sun in their eyes'.⁴⁹ The RAF had become a more flexible fire-support option, to be called in as needed by a Liaison Officer located within 8th Armoured Brigade, who directed the waiting fighter-bombers onto the Axis positions.

The assaults at Mareth and Tebega represented a new phase in Eighth Army operations. Frontline units were depleted but had become highly experienced units who maintained good morale. They had improved equipment and doctrines for both attack and defence. The army had developed quite far since the retreats in 1941, using much improved techniques in assaults, and had learnt many lessons from Second Alamein. They focussed on the need to capture and hold key heights and this remained a significant issue on all operations. The breakthrough at Tebega ensured the Mareth line was untenable and Axis forces retreated to the Gabes gap.

The Wadi Akirit, 6 April 1943: Terrain

The terrain defined the parameters of the battle for the Wadi Akirit. This feature ran the length of the Gabes Gap which was eighteen miles wide and was dominated by high ground behind the wadi. Five miles along the wadi was the 500 feet high Djebel Roumana, which was considered a superb artillery position and the Germans considered the wadi to be the strongest in North Africa but it was still overrun within 24 hours.⁵⁰ Montgomery's noted, 'the enemy position was extremely strong, and he held all the observation areas.'⁵¹ The Djebel Roumana dominated the central sector became a British objective against which both Armour and Infantry was committed. One of the attacking units was the 7th Argyll & Sutherland Highlanders, its CO described the ridge and Pt 112 as '... a huge brier of a hill, which...rose into an enormous, steep sided rocky lump, which was

⁴⁹ Falvey, *A Well Known Excellence*, p.148. Again using Axis tactics of having the sun behind the attacking units.

⁵⁰ Falvey, *A Well Known Excellence*, p.149.

⁵¹ Brooks, (ed), *Montgomery and the Eighth Army*, p.197.

Roumana itself.⁵² Next there was more low ground before the desert left flank was dominated by a high, 'massif' feature which needed to be taken. This reached 900 feet and was a complicated mass of gullies, escarpments from Pt 275 on the forward edges to the Djebel Fatnassa behind it.⁵³

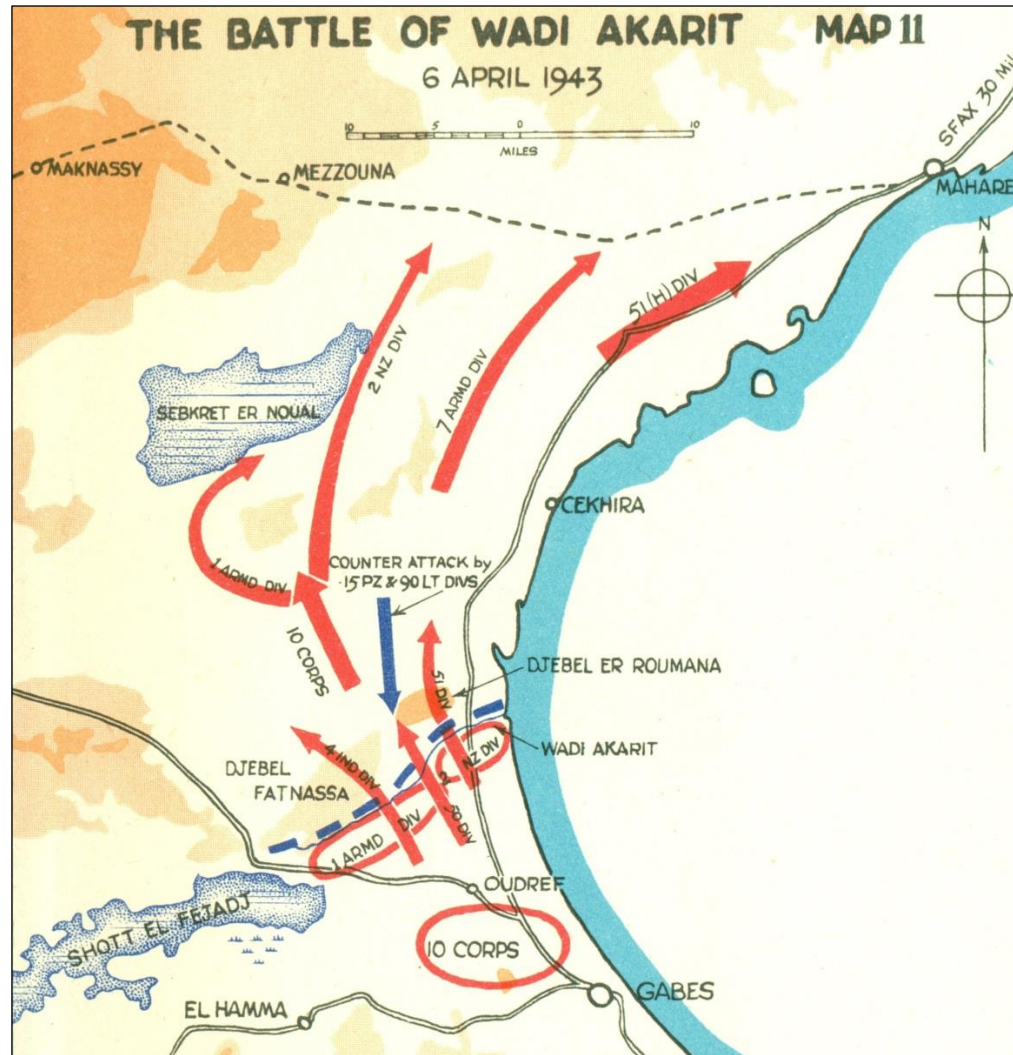


Figure 10:3 The Wadi Akarit, 6 April 1943.⁵⁴

General Tucker noted that his plans for the 4th Indian Division pre-empted the main assault by, 'seize[ing] this area by first light, El Meida, Pt 275, El Aligh, and the scarps south-west of Pt 275...to

⁵² Barnes, *Operation Scipio*, Appendix G, Account of the 7th Bn Argyll & Sutherland Highlanders' part in the Battle of the Wadi Akarit. p320.

⁵³ Rolf, *Bloody Road to Tunis*, p.200.

⁵⁴ B.L. Montgomery, *El Alamein To The River Sangro* (London: Hutchinson & Co, 1948).

enable us to reach out to the enemy's rear positions...and open up the whole position for exploitation by 10th Corps.⁵⁵ He feared the attacks across the central plain by 51st Division and 50th Division would be overlooked and halted by Axis artillery observing from these heights if they were not captured.

Akirit: Preparation

General Alexander wanted the Eighth Army to make the frontal assault at the wadi Akirit to clear the Gabes Gap whilst the First Army applied pressure in the rear of the Axis bridgehead. Some commanders thought a rapid assault might capture the position but Montgomery ordered 30th Corps to make a set-piece assault, and noted, 'I must attack quickly, before he[the enemy] has time to make the position too strong.'⁵⁶ Montgomery wanted two Divisions for the assault, the 51st and 4th Indian Divisions, with 2nd NZ Division and 8th Armoured Brigade exploiting afterwards, but Lieutenant-General Oliver Leese later inserted the 69th Brigade from 50th Division, to attack the centre low ground also.

The battle plan was heavily influenced by the terrain when a reconnaissance by the two Divisional commanders forced the original plan to be altered so that 4th Indian Division would make a silent assault on the left flank high ground, before the main assault by the 50th Division went in. Christopher Mann argued that this was an example of improved command decisions as the more experienced Divisional commanders were allowed to adapt the set-piece plan provided by Lieutenant-General Leese at 30th Corps HQ.⁵⁷ As standard doctrine now, the Divisions were supported by much greater heavy artillery and air cover.

⁵⁵ Tucker, *Approach to Battle*, p.320.

⁵⁶ Brooks, (ed.), *Montgomery and the Eighth Army*, p.197.

⁵⁷ Conference paper given by Dr. C. Mann (RMAS), 'Not what Pugilists call "good finishers": The Eighth Army's Command and conduct of operations in Tunisia March-May 1943.' Symposium at Birmingham University, 14 November 2012.

Montgomery thought that a different type of assault, using the no-moon period, would catch the Axis out, and had not done before by the Eighth Army.⁵⁸ A three Divisional assault appeared to be large scale, but the reality was that 4th Indian would assault the difficult hill positions on the left flank with elements of two Brigades while 50th Division used three Infantry battalions to attack the low ground. The 51st Division would attack both the Djebel Roumana and further east across the plain with just five battalions supported by two Armoured Regiments and the 22nd Armoured Brigade and the 5th AGRA. The combined Allied Air Forces continued to provide support against Axis ground targets.

The Axis defences were prepared quite quickly from the end of March and von Arnim who was dispirited by the growing lack of supplies getting through and thought the Italian units were, 'tired of war' with little remaining combat value.⁵⁹ The position was strengthened by 4,000 mines and wire entanglements and was held by three German battalions and elements of two Italian Divisions. Most of 15th Panzer Division was in reserve behind the position despite being weak in tanks and 88mm guns.⁶⁰

Wadi Akirit: Battle summary

The attack opened with the 4th Indian Division's 1/2nd Gurkhas making a night assault without any preliminary bombardment, which secured the high ground and enabled the 5th Indian Brigade to pass through and capture the vital El Meida height. In the centre, the Medium Artillery Regiments fired an exceptionally heavy programme against enemy batteries and infantry strongpoints. In return the Axis defensive fire was thought to be very weak considering the excellent observation they had from the high ground.⁶¹ The scale of the bombardment awed onlookers and supported the infantry attacks all day. The 51st Division Infantry made continued assaults on Roumana,

⁵⁸ Brooks, (ed.), *Montgomery and the Eighth Army*, diary entry for 5 April 1943, p.197.

⁵⁹ Rolf, *Bloody Road to Tunis*, p.200.

⁶⁰ Playfair, *Mediterranean & Middle East, Vol IV*, p.363.

⁶¹ Falvey, *A Well Known Excellence*, p.150.

despite extremely tough Axis fire captured Pt 112 by early morning which created two gaps for armour. The 69th Brigade assault suffered heavy casualties and was pinned down, but achieved some objectives with armoured support from 4th CLY.⁶²

The Axis counter-attacked and committed their Panzer reserves onto the Roumana heights with infantry and pushed the 152nd Brigade off Pt 112 and the battle dissolved here into one of attrition for the heights. As the day wore on a units from the 69th Brigade and 5th Indian Brigade made breakthroughs on the lower hills, capturing El Hachana hill and 1,000 prisoners, which broke the Italian defences on the centre left, but the German commanders were frustrated because their reserves had been committed against the Roumana hills in the centre.

British doctrine now showed its ability to counter Axis moves as large numbers of RAF bombers and fighters who disrupted any concentrations of enemy armour or troops.⁶³ The failure of this Axis counter-attack combined with 4th Indian Division capturing the high ground, forced the Axis commanders to consider whether to withdraw and by 7pm, 90th Light Division summarized that, 'The enemy has captured all the commanding features of the Akirit Line and thus brought about its collapse.'⁶⁴ General Messe ordered his forces to retreat back to Enfidaville, the next dominant set of heights beyond the Goubellat plain, the Axis had at least 5,300 POWs taken whilst the Eighth Army lost some 1,289 casualties.

Wadi Akirit: conclusion

The Army had shown flexibility in tactics and was able now to alter its accepted doctrine at a late stage. The moon-less night aided the 4th Indian Division's silent assault on the massif, rather than wait for the next full moon when Axis forces expected a night assault. The high ground facing 4th Indian Division was the key to the position. The ridge Djebel Roumana dominated the central

⁶² Playfair, *Mediterranean & Middle East, Vol IV*, p.370.

⁶³ Barnes, *Operation Scipio*, p.246.

⁶⁴ Playfair, *Mediterranean & Middle East, Vol IV*, p.374.

sector and was captured quickly, although local counter-attacks forced 51st Highland Division off the key features and the Infantry suffered heavily fighting for these hill-top positions. The German commanders committed all their reserves to this point and so were unable to block further British moves by fresh battalions in the left-centre across low ground.⁶⁵ The greater controversy remains a failure of command and why Horrocks did not take advantage of the breakthrough created by 4th Indian Division and order his 10th Corps armour forward to trap more Axis units.⁶⁶ These were allowed to retreat across the Goubellat plain to the Enfidaville heights.

Tunis: The final phase of the campaign

During the final phases of the campaign the Eighth Army had rapidly crossed the central Goubellat plain, to be halted by further Axis defences amongst mountainous features above Enfidaville. In the west it was dominated by the twin-peaked Kournine height, which was noted as being, 'too good an observation post to remain in enemy hands...Kournine was absolutely bare and after several attempts had been made to hold it we had to [retreat]. From adjacent hills artillery and mortar fire could be brought to bear on the crest...and under fire from guns further back.'⁶⁷ Many accounts have failed to note the significance of the ground and how it impacted on operations to such a degree. It was now an integral part of planning, objectives and doctrinal methods of overcoming difficult Axis defences.

Tunis: Preparation

The final Allied plans to break the Axis line were altered by terrain and also impacted on the doctrine of the final assault. The strength of the defences in the Kournine hills, made attacks by the New Zealand Division only partially successful, so Montgomery halted these having failed to secure the high eastern point of the Enfidaville ridge. This meant the Eighth Army could not thrust

⁶⁵ Barnes, *Operation Scipio*, pp.244-245.

⁶⁶ Playfair, *Mediterranean & Middle East, Vol IV*, p.363.

⁶⁷ D'Arcy-Dawson, *Tunisian Battle*, pp.218-219.

through the defile to Bou-Ficha, so Alexander switched fronts to make the final assault in the First Army sector, across more accessible ground.⁶⁸ However this showed how flexible British forces were now quite formidable, under General Alexander's firm leadership, The 18th Army Group transferred 7th Armoured and 4th Indian Divisions over 100 miles across difficult terrain. This was achieved by these veteran units through good navigation across difficult lateral routes using 'wireless silence' they only needed just four days to prepare for the assault.⁶⁹

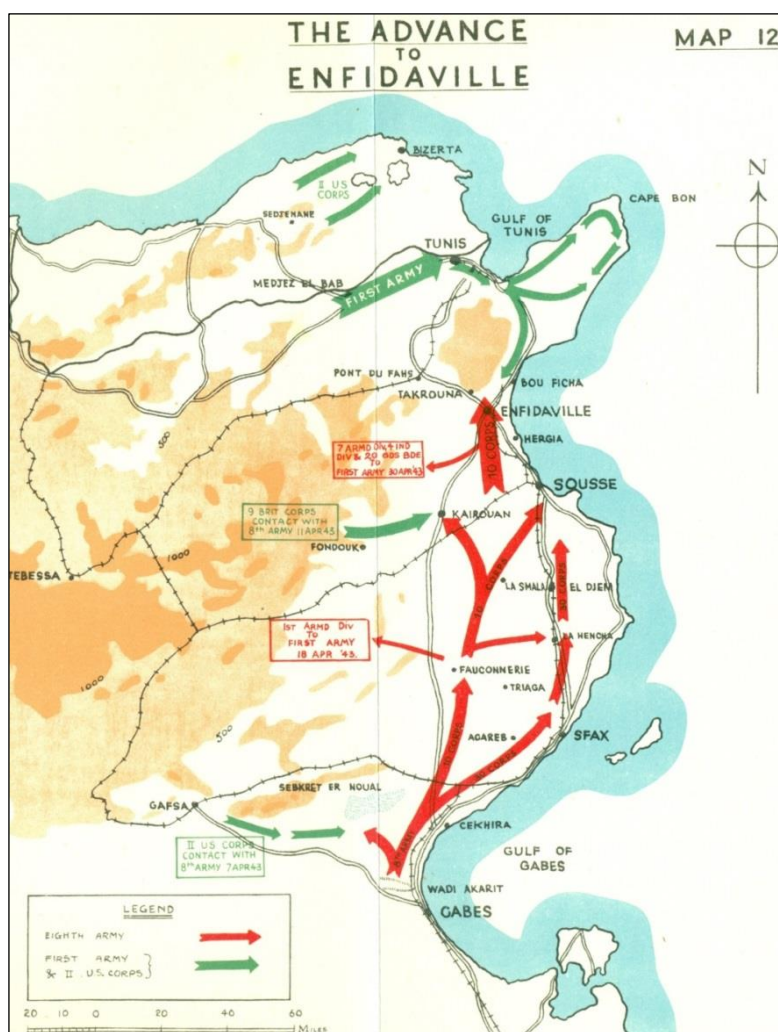


Figure 10:4 The final assault on Tunis, 6-13 May 1943.⁷⁰

⁶⁸ WO 201/598.EIGHTH ARMY.8th Army Operations in Tunisia. 01 February 1943 - 31 May 1943, pp.16-17.

⁶⁹ WO 201/467.Seventh Armoured Division: operations leading to the capture of Tunis, 1 May-13 May 1943.

⁷⁰ B.L. Montgomery, *El Alamein To The River Sangro* (London: Hutchinson & Co, 1948).

The final assault represented an Army which now had confidence in its doctrines. It had the full support from the Allied Air Forces who added a powerful force multiplier in firepower and were able to neutralize enemy positions allowing Armour and Infantry to reach and capture them quickly. The two Divisions combined with two experienced First Army Divisions for the final breakthrough assault into the Tunis-Bizerta bridgehead. 'Operation Strike' targeted Tunis itself rather than just capturing Axis hill positions on the outskirts.⁷¹

The plans were influenced by the terrain to be traversed, 'on May 2 all cmds [commands]...spent the day getting to know the country and gleaning as much information from it.' There was also a lack of time so the objectives were selected from maps, which highlighted that the, 'two dominating areas of high ground,' were the Djebel Achour and St Cyprien, which covered the main road into Tunis.⁷² Typical of how efficient and experienced the HQs and commanders had only one day to prepare as the orders were issued on the 4 May and the assault began on the 6 May. The commanders were also confident as the first objectives were to be captured by 5am and two further ones by 7am, Horrocks said if they had been gained by the end of the day and the armour was at least forward on either flank, 'we shall have done well.' Yet both he and General Alfrey from the First Army remained confident they had the support and numbers to breakthrough.⁷³

The doctrine was a repeat of the Tebaga gap assault adapted to develop an attack with a two Divisional front with new heavy armour supporting each Infantry Divisions on a 3,000 yard frontage. This needed heavy fire support from over 400 guns because both Infantry Divisions had only two Brigades and the whole of the RAF resources were made available for the assault.⁷⁴ The superiority of the supply situation also showed how the First Army's supply situation had coped

⁷¹ Blaxland, *The Plain Cook*, p.248.

⁷² WO 201/467. Seventh Armoured Division: operations, 1 May-13 May 1943, p.2-4. The 7th Armoured supported 4th Indian Division on the left and 6th Armoured supported British 4th Infantry Division on the right flank.

⁷³ D'Arcy-Dawson, *Tunisian Battle*, p.231.

⁷⁴ WO 201/467. Seventh Armoured Division: operations, 1 May-13 May 1943.

with additional units added to its operations. Other tactics used since Second Alamein also included a deception plan which used dummy tanks to confuse the Axis as to where the Armoured thrust would come from.

Tunis: Battle summary

The British forces now had a formidable and impressive assault doctrine and this was aided by the clearer weather from 5 May, which brought in waves of fighter-bombers who targeted any Axis defence positions. Allied bombers added weight to the Artillery bombardment and the Infantry had captured the high ground by mid-morning the following day. In a subsidiary assault, American forces finally opened up the northern coastal route to Bizerte when they captured the twin positions – Green and Bald hills – by outflanking them.⁷⁵

The British also had the flexibility to hold off weak Axis forces and not be deflected from the main assault. The Axis made insignificant counter-attacks which needlessly used up the latest powerful Tiger tanks (MkVIs) and other armour. The 81st Anti-Tank Regiment's new 17pdr anti-tank guns held them off and another assault by just twenty Panzers whilst 6th Armoured Division continued its main thrust towards Tunis. The main Axis counter-attack towards the 1st Armoured Division was also 'smashed' by waiting artillery near Kournine.⁷⁶ The 15th Panzer Division was crushed by the weight of firepower and overwhelmed by the assault on the Masicault ridge. Their command structure crumpled and units withdrew towards Tunis.

There were still some issues though as the 4th Indian Division complained the armour was too slow in exploiting their success, but the advance remained a measured one for a time.⁷⁷ In comparison the 6th Armoured Division moved quickly forward some 20 miles ahead of the supporting Infantry, towards St-Cyprien which was another naturally strong defensive height. The tactical assaults were

⁷⁵ Blaxland, *The Plain Cook*, p.250. These two hill positions had blocked First Army for five months.

⁷⁶ D'Arcy-Dawson, *Tunisian Battle*, p.233.

⁷⁷ Rolf, *Bloody Road to Tunis*, p.261.

directed at the ridgelines as 1st RTR assaulted a final hill defence and overcame a few Panzers and numerous 88mm guns, the German forces now became demoralized and heavily outnumbered by British armour.

The final phases of the assault highlighted the combination of tactics by British forces; Scout cars moved from ridge to ridge, followed by armour on each flank, checking all likely defensive sites. Infantry in armoured carriers moved up steadily and more infantry in trucks occupied the hill positions.⁷⁸ When armour was stopped, medium artillery batteries were brought up which soon eliminated them, which allowed the armour to begin its final dash into the city. The advance took two days with any sectors of stiff opposition being by-passed and left for units coming up behind.⁷⁹ The final operations continued with feint attacks which contained Axis units behind the frontline, directly contributed to the final surrender.⁸⁰ On the 7 May British Armour swept into Tunis just as US Forces entered a flattened Bizerte and Axis forces formally surrendered on the 13 May, with over 250,000 men going into captivity. It was a greater defeat than Stalingrad had been five months earlier.

Tunis: conclusion

British doctrines had evolved into a formidable combination of attack and defensive tactics. They were complemented as both the Eighth and the First Army Divisions became more experienced in battle and were able to work together. The 18th Army Group had evolved to become a powerful fighting force in attack or defence with RAF fighter-bombers and Heavy Corps Artillery fire being called down onto the slightest opposition, which enabled the heavily armoured Churchill tanks to support the Infantry right into the Axis defensive positions.

⁷⁸ Blaxland, *The Plain Cook*, p.253.

⁷⁹ D'Arcy-Dawson, *Tunisian Battle*, p.236.

⁸⁰ WO 201/598.Eighth Army Operations in Tunisia.01 February 1943 - 31 May 1943, p.17.

The four battles discussed clearly show the increasing impact of the tactical terrain had on each battle and how doctrines were altered to take account of it. They enabled Eighth Army Divisions to develop their battle doctrines in attack and defence. Medenine was a clear improvement on tactics which had been first used at Alam Halfa, where good use had been made of defensive ridges and low hills, to deploy powerful combinations of anti-tank guns and armour, backed by massed artillery. The Mareth Line proved to be a tough frontal battle for the Eighth Army in poor weather conditions which contributed to the difficulties created by the tactical terrain and more powerful defences. The flexibility of the Army was shown by the successful flanking Corps which made a telling daylight assault on tactical hilltop positions using massed waves of bombers and heavy Artillery and Armour. The Wadi Akirit highlighted the flexibility of experienced units such as 4th Indian to alter from Montgomery's usual form of heavy assault to making a silent assault to ensure the capture of key heights. The main Infantry assaults were also directed at the central hill ridgeline and drew in the expected Axis counter-attacks which enabled fresh British Armour to breakthrough and outflank the defensive positions. The final assaults into Tunis specifically targeted high ground with combinations of tanks and infantry, heavy artillery and waves of bombers, all of which crushed Axis defences.

Chapter 11 Other factors: British doctrine, training, equipment, command, and Intelligence

During the campaign in North Africa, British forces were also affected by factors including major changes to their doctrine; command and intelligence issues; supply problems and support from the RAF and Royal Navy. British units made improvisations in both attack and defence doctrine between 1940 and 1943 and these were significant in deciding the outcome of operations. Command and intelligence issues were a key factor in the campaign and they remain a dominant feature within many studies. Supply influenced RAF and Royal Naval operations as they targeted the destruction of Axis supply routes, as being a more effective use of aircraft while the Mediterranean Fleet targeted the Libyan bound convoys. This chapter will look briefly at these issues and discuss some examples of their influence on the campaign.

The major changes in doctrine occurred at the tactical level, where tactics were developed on the battlefield through a series of improvisations. The most striking example of this is the development and subsequent overuse of Jock Columns. The Motorised Battalions within the Armoured Brigade were meant to provide close support for the armour as a pivot group, but from March 1941 to October 1942, they fought separately in Jock Columns. This was an all-arms formation designed by the commander of 3rd RHA, Lieutenant-Colonel, (later Brigadier) J.C. 'Jock' Campbell. They were designed for reconnaissance and to harass enemy positions, and became the standard doctrine for the Infantry Brigades operations up to late 1942 to overcome the need to disperse units along a wide front line.

They commonly consisted of a company of Infantry, one battery or troop of artillery and platoons of three Bofors AA and 2pdr AT guns for defence. The dispersal of Artillery batteries deployed amongst Jock columns quickly resulted in a dispersal of their firepower, rather than retaining them

for regimental strikes. Even when batteries fired at high rates, they could not replicate the density of shelling a regiment of twenty-four guns could produce. This formation was assumed to be effective in engaging the enemy. However, the experience of some columns highlighted weaknesses in relentlessly using this formation. Lieut-Colonel Roscoe from 1st Rifle Brigade clearly warned about their lack of effectiveness when the column lost 40% of its vehicle strength due to the near impassable going and a lack of petrol.⁸¹ The dunes and soft going near the Wadi Feragh ruined truck engines and suspensions, leaving Jock Columns short of vehicles. Signalling problems caused them to lose their supply echelons and so they also lost fuel and ammunition.

In the summer of 1941 the 7th Support Group used Jock columns continuously and during the Battleaxe offensive they were assigned a flank role. In November during Crusader, the Group later deployed Jock columns against the flanks of the Panzergruppe, where they influenced Rommel's decision to retreat.⁸² Auchinleck believed they were the way forward for offensive tactics, although he was influenced by the mixed performance of the Armoured Brigades, which had suffered tremendous losses. The Artillery's 25pdr gun proved to be a weapon capable of knocking out Axis armour at a longer range so that Jock Columns were used throughout the Spring of 1942 as the Eighth Army sought to dominate 'no-man's land' in front of Gazala.

The limited success of some Jock Column activity masked their inherent weakness. In March, 50th Division targeted two airfields at Martuba and Tmimi which diverted Luftwaffe operations away from a vital Malta convoy. At Gazala after the British armoured defeat, the Free French Brigade Columns attacked Axis supply units and harassed the Panzerarmee as it approached Tobruk. Despite the defeat at Gazala, Major-General Eric Dorman-Smith, still emphasized his ideal 'battlegroup' which consisted of two companies of Infantry, one battery of artillery and supporting AA and anti-tank guns, in other words another Jock Column. He wanted an Infantry division of

⁸¹ IWM, Papers of General Briggs. RB2/5.Roscoe to 2nd Armd HQ, April 1941.

⁸² Clifford, *Crusader*, p.109.

three brigades, to deploy up to nine of these new 'battle groups'. He had effectively discounted armour as the primary strike force.⁸³

At Matruh the British centre was held by two Jock Columns, which were quickly overrun and enabled the Axis to drive onto Alamein. During First Alamein, one enterprising New Zealand commander deployed a more powerful column based around a full Regiment of Artillery with four troops of anti-tank guns for defence which trebled its offensive firepower.⁸⁴ Montgomery finally ended their use a month later, as he imposed his new Divisional doctrine and training programme upon the Eighth Army, in readiness for Operation Lightfoot.

At the tactical level, armoured units were influenced by key terrain features during their doctrinal planning, and in their training. The threat of air attack and a lack of cover also caused vehicles to be more dispersed whilst moving and operating in units and led to demands for improved equipment, such as more powerful main tanks. Consequently the Army received successive deliveries of equipment which brought its own problems of doctrinal coordination and altered the way armour, infantry and the artillery fought the enemy. A lack of armour forced commanders to use their artillery and infantry more offensively from the beginning of hostilities. These new Jock columns, combined with the practice of dispersion created a different mind-set amongst commanders.

From late 1942 onwards Montgomery made the first successful reorganisation of the Eighth Army, which contributed to its improved operational performance from Second Alamein to the end of the campaign. By February 1943, the Eighth Army assaults were fully backed by a huge Air Force and direct Artillery support which commanders recognized as a vital part of the assault and break-in phases. These combined arms forces were concentrated as a standard doctrine, and this finally

⁸³ National Army Museum. 2009-17-12-01. Report by E.Dorman-Smith, June 1942.

⁸⁴ <http://nzetc.victoria.ac.nz/tm/scholarly/tei-WH2Arti-c10-1.html>. NZ Official History online version, accessed 12 March 2011.

overcame issues of dispersal which had been prevalent for so long. These new tactics would be used by the British Army in future campaigns in Europe.

Attack and defence doctrine

During early engagements, individual Armoured Regiments developed their own improvised methods of operating to overcome the dispersed nature of desert warfare. Cyril Joly noted how, in five weeks on patrol, his troop, 'evolved certain simple drills which covered most of the troop's tactics...We all acquired a great deal of confidence in...and made ourselves into a really effective fighting unit.'⁸⁵ During Crusader, The armoured experience was a mixture of separate Brigade actions which highlighted their new doctrine. Typical of this was 3rd RTR, who in one action 'formed line for an attack which went in...the sqn was then encircled and it became a race to escape the circle.'⁸⁶ In the immediate aftermath of Crusader, armoured combat was accepted as, 'largely a matter of columns of all arms...over large distances...widely separated.'⁸⁷ Yet in reality the use of combined arms was rare, but battles had become more widely dispersed.

The ideal assault doctrine was practiced during Operation Compass. Here the Infantry made prepared assaults supported by 'I' tanks and artillery bombardments, which worked well. Yet by the summer of 1941, British assaults were directed at too many terrain features as military objectives, which were spread over too wide an area. The armour should have co-operated with attached artillery but was viewed as an 'area weapon' and assumed to be useless against well dug-in AT guns.⁸⁸ In the same period of build-up the Armoured Brigades received METP No.2, which confirmed that the key Armoured Regimental doctrine was to attack. Lieutenant-Colonel Roberts of 3rd RTR noted that great stress had been placed upon fighting as a Brigade, 'but when it came to

⁸⁵ Joly, *Take These Men*, p.25.

⁸⁶ Bovington. 3rd RTR Diary, 'Account of C Squadron's action received from Capt. C.B. Joly.' 17 Dec 41.

⁸⁷ TNA WO 201/450. Cyrenaica: Lessons from Operations. Nov.1941- Mar 1942, No.2, Armoured Tactical Notes, 10 Dec 41.

⁸⁸ Joly, *Take These Men*, p.45.

operations each Regiment was sent off to conduct its own battle.⁸⁹ Even the Armoured Brigades were being dispersed into individual Regimental battles. The 3rd RTR commander noted that, 'Days [were] spent selecting Brigade hull down positions from which they would fight.'⁹⁰ However, when the Axis advanced, 3rd RTR just failed to reach its allotted position in time and was forced to fight isolated from its fellow Regiments. The 5th RTR and 8th Hussars were caught moving out of their night-time leaguers and were heavily mauled. The result of the actions were that the Armoured Brigades were quickly reduced in strength and suffered serious losses of tanks and experienced crews.

During the middle phases of the campaign, combined arms assaults were attempted once again by British formations. At Gazala, Operation Aberdeen was a large scale attempt to assault a key ridge feature. The attempt by the 32nd Army Tank Brigade on the Sidra Ridge was a complete failure. Major Tatum of 42nd RTR, noted, 'we came first under enemy artillery fire which had no effect on the tanks but a considerable effect on the lorry-borne infantry.'⁹¹ The main assault took place south-east of the Sidra Ridge when the 22nd Armoured advanced with two Indian Brigades from 5th Division into the 'Cauldron'. The armour was quickly separated from the Infantry, and retired leaving two dispersed Brigades across the depression and ridge with supporting artillery on the Aslagh ridge. These Brigades were all overrun by rapid Axis counter-attacks.

By the autumn of 1942 Montgomery ordered a large scale training programme for Operation Lightfoot in September. Battle drills showed a more standardized and combined arms approach, ensuring close artillery support.⁹² During First Alamein the 2nd NZ Division had suffered from poor cooperation with supporting armour so that Freyberg ensured that an Armoured Brigade was now directly attached to the Division for Lightfoot. By 1943, the Eighth Army was much more confident

⁸⁹ Bovington Archives. 3rd RTR Diary. *'Some notes on Knightsbridge battles after conversation with General Roberts (who commanded 3rd RTR there), p.2.*

⁹⁰ Bovington. *'Some experiences of an Armoured Regimental Commander.'* Pip Roberts, p.2.

⁹¹ Bovington Archives. 42nd RTR Diary. Letter by Major J.W.G. Tatum.

⁹² Bovington Archives. 3rd RTR Diary. '3 R.Tanks. Directive No. 5. Battle Drill'.

of its battle doctrines against difficult Axis positions. One of the main developments was its flexibility and the capacity to try a different approach. This happened against the Mareth Line when the New Zealand Corps outflanked the position.⁹³ Equally at the Wadi Akirit, some variations to tactics were used, including attacking under a 'no-moon' period, but it took six days to stockpile artillery ammunition. Here training was considered unnecessary as, 'the plan of attack was simple and after the customary fashion.'⁹⁴ The Army had developed a well versed doctrine of assault. The full development of what became British and Allied assault doctrine was seen during the final assault on the Tunis bridgehead in May 1943. The plan of attack was designed by General Alexander and made full use of an Artillery Corps and nearly 1,200 aircraft in direct support to a four Division combined arms assault. British doctrine had developed a long way from the modest Regimental and Brigade.

Early commentary on defensive doctrine showed the importance of keeping dispersed formations cohesive as defensive positions became over extended while trying to block off the open desert flank. By May 1942 Infantry Brigades were deployed separately in Brigade box defences. The Eighth Army commander General Ritchie re-defined defensive doctrine using a combination of fortified positions and counter-attacks.⁹⁵ The 50th Division was new to the desert campaign and noted that the Brigade box frontages were very wide and had to be held irrespective of an Axis breakthrough.⁹⁶ In theory these boxes should hold for three weeks, however the experience of the Gazala battle proved that very few Brigades could hold out for more than three days.

The defensive boxes proved to be weak because they were often sited too far apart and became vulnerable when Axis units seized high ground which overlooked them. The 150th Brigade was

⁹³ TNA WO 201/598. Eighth Army Operations in Tunisia under 18th Army Group. Feb.-May 1943.

⁹⁴ WO 201/598. Eighth Army Operations in Tunisia under 18th Army Group. Feb.-May 1943.

⁹⁵ TNA WO 201/538. Eighth Army: Lessons from Operations, Sept 1941-Aug 1942.GHQ. Fixed Defences and the Defensive Battle, 26 May 42, p.1.

⁹⁶ Clay, *The Path of the 50th*, p.50.

quickly moved to occupy a new position near the Trigh Capuzzo, overlooked by higher ground, 'with a perimeter of twenty miles [and] was isolated from its fellow 69th Brigade by a gap of six miles. The position was too big for three battalions, uncompleted and very hard to defend in the rear. Yet it was obvious that the Germans would cut off this position and attack it in the rear.'⁹⁷

Training

Recent studies on British Army training during the Second World War have highlighted different aspects which affected the Army's performance. These include the conservative nature of the military hierarchy and the different backgrounds of the men who made up the 'citizen army' from 1941.⁹⁸ Tim Moreman notes the rapid expansion of forces which created a 'training deficit' in the Middle East. GHQ issued pamphlets from autumn 1941 which emphasized that mobile warfare needed specialized training.⁹⁹ Despite the expanded numbers of Training Schools by GHQ, for different arms, regiments noted there was a lack of actual training actually carried out.

It was quite common for fresh units with higher proportions of inexperienced troops to be committed to desert operations without sufficient training. The huge increase in citizen-soldiers created high numbers of in-adequately prepared units being sent out to the Middle East.¹⁰⁰ Individual Brigades and Regiments were committed with no time to practice local doctrines for combat. During Crusader, the 22nd Armoured Brigade was rushed into action, at Gazala the newly arrived 5th Indian Division commander had to plan Operation Aberdeen in one afternoon and the Division was committed to the assault the following day. And at First Alamein, the recently arrived 23rd Armoured Brigade first action ended in a hasty charge which failed with terrible losses.

⁹⁷ Clay, *The Path of the 50th*, p.51. It was also 10 miles south to the Free French Box at Bir Hacheim.

⁹⁸ Tim Harrison Place, *Military Training in the British Army 1940-1944. From Dunkirk to D-Day* (London: Frank Cass, 2000), French, *Raising Churchill's Army*.

⁹⁹ Moreman, *Desert Rats*, pp.36-37.

¹⁰⁰ Fennell, *Combat and Morale in the North African Campaign*, pp.220-221.

During Operation Compass, the 4th Indian Division trained hard for the impending assaults and practiced against full sized replicas of the camps at Tummar and Nibeiwa to maximize success.¹⁰¹ This achievement was not repeated until the six weeks training implemented by Montgomery before Second Alamein in the autumn of 1942. British forces tried to pass on the lessons of combat for newly arrived formations but these documents took time to come through. The Lessons about the first Cyrenaican campaign were written by O'Connor at some point before his capture in April 1941, but the pamphlet, *Notes from the Theatre of War*, on Libya, did not appear until early 1942, with NTW No.6 relating to armoured experiences during Crusader against German forces. During Gazala, the Eighth Army commander thought that newly arrived Armoured Regiments did not have the training to be effective in combat and so were forced to hand over their fresh tanks to exhausted crews from the depleted frontline units. General Ritchie had clearly lost confidence in the ability of untried Armoured Regiments to win against the more experienced Axis battlegroups.

Auchinleck made an assessment of the Army following his arrival in July 1941 and laid down some principles of training and doctrine before any further offensive was undertaken.¹⁰² By September GHQ issued Middle East Training Pamphlets or METPs, with titles including, '*Tactical Handling of Armoured Divisions*' which became the basis for future doctrine.¹⁰³ They provided officers with details on how to operate in the desert, but whether they were used is more difficult to ascertain. The *METP No.2*, for Army Tank Brigades stipulated the use of combined arms assaults with Infantry, but notes on defence doctrine was a much lower priority.

By May 1942 Auchinleck again reiterated that training was of the first importance and his report defined areas in need of training. However, the Axis offensive began two weeks later and only

¹⁰¹ TNA WO 201/2691. Operational reports: First Cyrenaican Campaign. Sept 1940-Feb 1941, p.3.

¹⁰² TNA PREM 3/285 Auchinleck's Despatch covering the period 5th July to 31st October 1941

¹⁰³ MLRS, *Middle East Training Pamphlets*, Vol I, (Buxton, Derbyshire, 2011).

relatively low numbers of troops had been processed through the new Training Schools.¹⁰⁴ Experienced formations returned to the Eighth Army in the autumn of 1942, including the 9th Australian Division which had undergone intense training in Lebanon and was considered 'battle-ready' by October.¹⁰⁵ The experienced 2nd NZ Division continued full scale rehearsals, training over similar ground and using live minefields and ammunition to make the practice as realistic as possible. The Engineers were a vital part of the break-in assault now and trained to clear gaps in the deep mine-belts, to enable the Armour and Infantry to pass through.

In the latter stages of the campaign, the advance to Tripoli left little time for training for the Eighth Army. As it drew close to the Axis defences along the Mareth line, Montgomery held a study week for new officers to learn from the more experienced frontline units. General Patton attended but many other Divisional Commanding Officers sent their Staff Officers instead.¹⁰⁶ This may have showed that they felt more confident of their new doctrines, even though further combat experience would develop these more in the final assaults in Tunisia.

Command and Intelligence

Command and intelligence were key factors which directly affected operations for both sides in the campaign and some of the main issues will be discussed briefly here. The influence of Churchill on operations in North Africa has been widely debated in numerous studies as he interfered in many aspects of British operations. He often used raw decrypts from Ultra to make his decisions, pushed his commanders for action and sent them barrages of telegrams.¹⁰⁷ He sacked Wavell after the failure at Battleaxe and Auchinleck for losing Tobruk, which was regarded as a political loss as

¹⁰⁴ TNA WO 201/532. Eighth Army: Commanders conferences. 1941 Dec.-1942 May. Notes on Training conference held at GHQ, 10 May 42.

¹⁰⁵ Dornan, *The Last Man Standing*, p.60 and p.135.

¹⁰⁶ Rolf, *The Bloody Road*, p.118.

¹⁰⁷ Bernard Fergusson, *The Trumpet in the Hall* (London: Collins, 1970), p.98.

well as a heavy military defeat for the Eighth Army.¹⁰⁸ Churchill's harassment and sacking of successive CinCs and other Generals has diverted a proper analysis of their command abilities in the field.¹⁰⁹

The numerous changes in commanders prevented good working relationships in HQs, and a cumbersome command structure also contributed to problems in frontline operations, where multiple layers of bureaucracy often created slower reaction times. British commanders often operated from rear areas which slowed down reactions to fast moving situations, In June 1941 Beresford-Pierce commanded from sixty miles behind the lines using poor radio equipment. Other commentators have argued that British failures were caused by weak British Command methods combined with signalling failures, whilst David French argues that the British command structure was too cumbersome and this exacerbated operational and tactical errors.¹¹⁰

The impact of Intelligence

In North Africa intelligence had a direct impact on operations and good quality intelligence was crucial to success for all levels of command and planning. Most notably it successfully directed the RAF onto Axis supply routes and this battle against the convoys was a major victory for the analysts.¹¹¹ During the ground operations it contributed to tactical successes including the approach marches made during Compass and Crusader, the defensive preparations at Alam Halfa and Medenine and the preparations for Second Alamein. As Intelligence improved analysis of terrain became a standard part of all weekly reports to Army HQ.

Ultra Intelligence provided partial information on Axis movements and unit strengths and was more useful for analysis as it was often out of date which meant some Army commanders were

¹⁰⁸ Victoria Schofield, *Wavell Soldier & Statesman* (London: John Murray, 2006) p.150.

¹⁰⁹ Correlli Barnett, *The Desert Generals* (London: Castle Books, 2000) pp.78-79.

¹¹⁰ John Robert Ferris, *Intelligence and Strategy, Selected Essays* (Oxford: Routledge, 2005) pp.200-238, and French, *Churchill's Army*, p.239.

¹¹¹ Gladman, *Intelligence and Anglo-American Air Support*, p.180.

reluctant to use it.¹¹² The reports confirmed what actions had recently taken place rather than what was about to happen along with analysis of aircraft numbers and types.¹¹³ It was most effective in targeting Luftwaffe enigma, and by late March 1941 it had a breakdown of strengths and deployment of the Fliegerkorps in Libya.¹¹⁴ Delays were common because of the time taken to make an appreciation or analysis of the data from London. The volume of messages decoded daily averaged around 50 and increased to 250 per day by April 1941, meant there was a delay in getting information out to the Middle East.¹¹⁵

Some operations were influenced by tactical intelligence failures and Commanders made errors because they lacked time to analyse the reports. Wavell admitted an error in his appreciation about Axis forces arriving in Cyrenaica, whilst in 1941 the 2nd Armoured Division HQ wrongly interpreted RAF reports which contributed to confusion during the First retreat. British commanders failed to note the arrival of 15th Panzer Division at the front during Battleaxe, and the Second Retreat from Cyrenaica in 1942 was famously blamed on Jock Whitely, the Eighth Army's Intelligence Chief. The arrival of the Germans in Libya created a sudden increase of material to decipher. Army codes relating to the Panzergruppe were broken occasionally from this time and not fully until later into May 1942. Analysts often needed time to develop the art of writing a coherent signal useful to commanders.¹¹⁶ Decrypts of Axis armour strengths on the Libyan border also contributed to Wavell ordering Operation 'Brevity' in mid-May. Army enigma was not broken until September 1941 and then only intermittently until April 1942 which gave an incomplete analysis of Axis plans.¹¹⁷

¹¹² Hinsley, *British Intelligence. Vol I*, p.398.

¹¹³ HW 13/1, G.A.F. Intelligence summaries. Summary of Naval Intelligence, CX/JQ, 10.4.41

¹¹⁴ HW 13/1, Intelligence summaries based on sigint: G.A.F. Activity in the Central Mediterranean, 31.3.41.

¹¹⁵ Hinsley, *British Intelligence. Vol I*, p.195.

¹¹⁶ Bennett, *Ultra and Mediterranean Strategy*, p.27.

¹¹⁷ Hinsley, *British Intelligence, Vol I*, pp.391.

Initially air reconnaissance concentrated on the Italian Air Force but later provided intelligence for Operation Compass.¹¹⁸ Signals listening or 'Y' services had problems of using different methods of interception, analysis and interpretation. In early 1941 the Army Y service was struggling to understand German signals which used enigma and Italian units who had improved their signals security.¹¹⁹ During Crusader daily flights by the Strategic Reconnaissance Unit (SRU) spotted aircraft at each of the main Libyan airfields, ships at Benghazi and columns of motor transport (MET) on the main Cyrenaican roads. All of this information was sent back to the HQ as targets for fighter-bombers and Wellington night bombers.¹²⁰ It had limitations though when in August 1942, despite good air superiority, the RAF could only offer reconnaissance flights for one Army Corps front because of limited fighter protection.¹²¹ By the following year the Wadi Akarit was monitored from mid-March by photo reconnaissance on a daily basis which provided the Eighth Army with effective intelligence on defensive positions.¹²²

Specialized units, principally the Long Range Desert Group or LRDG mapped large areas of the desert and possible routes for future operations. They carried out raids on Axis airfields and bases but their primary role was reconnaissance and from September 1941 they began the road-watch along the coast road west of El Agheila, which became one of the most useful long term intelligence sources for GHQ.¹²³ Intelligence gathering was developed to include improving knowledge of the terrain as well as enemy units, so that it became a part of the weekly summaries at HQs. The local, tactical knowledge was better provided by the Y service, Reconnaissance and Forward OPs who constantly observed the Axis positions and noted their intentions more readily. Intelligence was vital but could not always guarantee success in battle, too often there were gaps

¹¹⁸ Air Historical Branch, *The Middle East Campaigns. Vol I*, p.65.

¹¹⁹ Gladman, *Intelligence and Anglo-American Air Support*, p.43.

¹²⁰ WO 201/363. 'Air Operations. Operation Crusader.' 1942, p.5.

¹²¹ Air 23/1751. War Diary Monthly, July-August 1942, 285 Wing to 211 Group, 27/8/42.

¹²² WO 201/2156. Intelligence Summaries. Jan-March 1943; report No.456, 16 March 43, p.2.

¹²³ PRO, Special Forces, pp.76-77.

in the knowledge, or delays in communication, so that units had little information about enemy positions or strengths.

Axis Command and Intelligence was directly influenced by the dynamic leadership of General Erwin Rommel, and successive Italian commanders found that he soon dominated operational control of the fighting. Italy showed its commitment to the campaign by bringing in General E. Bastico, in July 1941, however Rommel largely continued to ignore Italian orders if they disagreed with his own plans and he remained in a constant battle with them.¹²⁴ Rommel was a maverick commander who constantly challenged the chain of command above him. In 1941 he convinced the Italian CinC General Gariboldi to give him full command of the frontline units and used his ambiguous orders to take advantage of the British halt at Agheila in 1941.¹²⁵ Ultra decrypts noted orders from two different higher HQs by the end of May 1941 but could not read Rommel's continual by-passing of them to Hitler.¹²⁶

At the operational level the doctrine of 'Command by directive' or Vollmacht, allowed commanders on the spot to use whatever forces were available to achieve their objectives. It was standard throughout the Army and explained Rommel's style of command.¹²⁷ In April 1941 Halder thought Rommel had 'gone mad' after his advance across Cyrenaica and the hasty attacks on Tobruk and British intelligence was often misled when they assumed that Rommel would obey orders. Rommel was physically and mentally tough and believed a commander should set an example to his men, often taking command of battle groups in action and making key decisions on the spot.¹²⁸ His appearance at key points of the fighting often converted difficult situations into localized successes or stabilized disordered units. Rommel was an expert operational commander

¹²⁴ PREM 3/285. Gen. Auchinleck's Despatch, Jul.-Oct 1941, p.14.

¹²⁵ Kitchen, *Rommel's Desert War*, p.55.

¹²⁶ HW 13/1, Intelligence summaries based on sigint: German Code names in Africa, 30.5.41, p.

¹²⁷ Megargee, *Inside Hitler's High Command*, pp.7-8.

¹²⁸ Lewin, *Rommel As Military Commander*, p.243.

who understood tactical situations and recognized defeat as well as success. He quickly called off the attacks at Alam Halfa and Medenine when he realized the strength of Allied forces opposing him. Barnett considers Rommel's major strategic success was to turn the campaign from minor defensive role into a major land campaign that absorbed much of the British war effort in the early years.¹²⁹

Supply

British strategy initially focussed on keeping Egypt as a base of operations to hold the Middle East.¹³⁰ Some argue that the huge resources committed by Britain and later the USA were a key factor in the final Allied victory compared to the limited resources committed by the Axis.¹³¹ However, even during Crusader and Gazala when the army was very well equipped, British forces failed to decisively defeat the Axis.

The ports of Tobruk and Benghazi, along with their adjacent airfields, became the focus of British objectives in 1941 and 1942. After the first British advance across the province, however, planners realised that units should not over-reach themselves logistically by advancing too far.¹³² Prior to Gazala, the Eighth Army assessed the coast road as the most viable route supply route forward saving over a day's journey on the desert route. However, air attacks meant that the Mechili/Msus route or a journey by sea became preferable. Although Benghazi had a capacity of 45,000 tons per month, Luftwaffe raids made it particularly untenable for British units in spring 1941 and January 1942. Tobruk had a capacity of about 40,000 tons per month, but realistically only unloaded 18-20,000 tons. It was noted by the British as being the best deep water anchorage between

¹²⁹ Barnett, *Hitler's Generals*, p.315.

¹³⁰ Butler, *Grand Strategy Volume II*, p.306.

¹³¹ Bungay, *Alamein*, p.42.

¹³² WO201/2691. Operational reports: 13th report, p.15.

Alexandria and Tunisia although the port was found to be less than ideal because of the time lost by units collecting supplies from the scattered depots around the base.¹³³

The railway line to Mersa Matruh was another vital British supply route. It was extended to Belhamed for the Crusader offensive where it significantly aided British operations and an improved water supply was extended adjacent to the railway to enable operations for up to two Corps,¹³⁴ which supplied water for both the locomotives and the troops.¹³⁵ From the base depots distribution was transported to Field Supply Depots which developed into larger supply centres by 1942.¹³⁶ Frontline units needed large numbers of vehicles to move supplies. Infantry Divisions needed 3,700 vehicles at full strength, which meant a large administrative 'tail' of men and equipment to keep them moving.

In the early phases of the campaign there was a lack of equipment, which reflected a delayed supply route from Britain and shortages at home. It took time to rebuild the depth of supplies required for British Forces to operate effectively.¹³⁷ In the autumn of 1940 the 7th Armoured Division received fresh deliveries of tanks when London made a bold move by supplying half the remaining British home tank strength for Operation Compass. In 1940, Operation Compass was planned as a five day raid due to a supply shortage, and Wavell's reluctance to start an offensive was partly because of a lack of equipment throughout the services.¹³⁸

By August 1942 the Eighth Army received 400 tanks, 500 guns, 7,000 vehicles and thousands of tons of supplies. Again a huge increase in tanks and equipment re-armed divisions, with armoured

¹³³ WO 201/418. Crusader supply report, Admin. Nov 41, p.13.

¹³⁴ WO 201/156. Command Reorganisation, Nov 1940-July 1941. p.2.

¹³⁵ R. Micklem, *Transportation*, (London: The War Office, 1950), p.60, and Rainier, *Pipeline to Battle*, p.60. The railway facilitated the unloading of pipes en route.

¹³⁶ WO 201/370. Major operations Q (P) aspect, Dec 1941-Mar1942. DAQMG Office, 10 May 42.

¹³⁷ WO 201/2691, Operational reports: first Cyrenaican campaign, Sept 1940- Feb 1941. Appendix C, 20 Oct 1940.

¹³⁸ Haglung, D.G., 'George C.Marshall and the Question of Military Aid to England, May-June 1940', *Journal of Contemporary History*, Vol.15,No.4, pp.745-760.

strength increasing to 1,351 by the beginning of Operation Lightfoot. The Tunisian campaign was affected by the long supply routes which remained a problem until forward depots were built which enabled the Allies to complete the campaign. The numbers of troops and weight of material directly influenced operations in Tunisia, together with the stranglehold over the single supply route into Tunis. The Allied landings provided a new flow of equipment and reinforcements into North Africa. American planners chose ports further west to ensure safe supply ports but this arrangement added delays which impacted on the campaign for some months.

RAF support

Airpower ultimately provided an important role within the campaign but it took nearly three years to become fully effective. More information can be found in the detailed study of the effectiveness of the RAF by B.W. Gladman. However, his final conclusion, that RAF was the 'single greatest factor in land power' of victory is quite polemic and whilst acknowledging the importance of Air Power the assertion must be challenged.¹³⁹ In the early phases of the campaign the RAF 202 Group, under Air Commodore Collishaw worked well with General O'Connor but Collishaw had a simplistic approach to operations by insisting on squadrons making costly and repetitive daytime attacks, which reduced RAF strengths. The RAF inflicted damaging losses on the Italian Air Force, who lost over 1,200 aircraft in the first campaign into Libya.¹⁴⁰ Once In Cyrenaica, the Group focussed upon attacking airbases, ports and on supply convoys on the coast road.

In May 1941, Air Marshal Tedder became Air CinC and he began a period of reorganising and rebuilding before the RAF could regain air superiority. Crusader was preceded by a massive air effort and during the offensive Coningham targeted communications first, then enemy airfields and lastly aimed to provide ground support for the Army, who still noted that the RAF was more visible

¹³⁹ Gladman, *Intelligence and Anglo-American Air Support*, p.191.

¹⁴⁰ Bickers, *The Desert Air War*, p.49. 58 shot down, 1,100 damaged and 91 captured intact.

over the battlefield.¹⁴¹ In early 1942, the RAF was overstretched again covering the vulnerable forward position near Agedabia. Later during Gazala, Coningham wanted to concentrate on gaining air superiority and on attacks against Axis supply columns.

By June 1942 the RAF was committed to round the clock support of the Army. However cooperation remained poor as Coningham's HQ remained separate from Auchinleck on Ruweisat Ridge. From late August sorties were better targeted and more effective because of improved intelligence, and the RAF gained air superiority again. The intensity of air operations was increased dramatically during Alam Halfa, the number of sorties doubled by the end of the battle. General Bayerlein noted how the, 'continuous and very heavy attacks of the RAF...pinned my troops to the ground and made impossible...any advance according to schedule'.¹⁴² These continuous air attacks forced Panzerarmee to retreat.

From August 1942, the RAF became a central part of Eighth Army operations. The massed squadrons of medium bombers were a powerful force multiplier for the Eighth Army's firepower while the fighter squadrons secured air superiority.¹⁴³ Targeting and cooperation improved when Montgomery relocated his HQ adjacent to Coningham's HQ at Burg-el-Arab and they found that larger strikes committed by an Army level HQ were more effective.¹⁴⁴ Montgomery and Air Marshal Tedder differed on how the RAF would support the assault, Montgomery wanted it added to the preceding bombardment whilst Tedder wanted to 'hammer' the Axis positions for days beforehand.¹⁴⁵ Air superiority enabled the RAF to repeat its successful tactics of round the clock sorties on vehicle concentrations and the retreating Panzerarmee after Second Alamein, carrying out over 1,600 sorties, mostly on retreating columns and shipping.¹⁴⁶ By 1943 the Allied

¹⁴¹ Bungay, *Alamein*, p.104.

¹⁴² Richards & St George Saunders, *Royal Air Force. Vol II*, p.230. General Bayerlein, commander of DAK.

¹⁴³ Chappell, *Wellington Wings*, p.103.

¹⁴⁴ Mortensen, *Airpower and Ground Armies*, p.21.

¹⁴⁵ Richards & Saunders, *Royal Air Force. Vol II*, p.234.

¹⁴⁶ CAB 66/31/11. War Cabinet Weekly Resumé No.168. 12 Nov-19 Nov 1942, p.9.

Mediterranean Air Forces were built up to achieve massive air superiority in Tunisia so that from then on Allied airpower became more effective in supporting ground forces and overwhelming the Luftwaffe. As more Allied Air Squadrons were deployed into Tunisia they impacted strongly on the final month of operations which was an important contribution to Allied victory.

The impact of Malta

Malta became one of the major, long term battles fought in the Mediterranean and was also a major part of naval operations. The island was a crucial forward base from which bombers, ships and submarines could damage the supply route to Libya, protected with powerful anti-aircraft defences around the port and airbases.¹⁴⁷ The Royal Navy's major role was to convoy supplies, personnel and aircraft to maintain it as a forward base for operations but its airspace was dominated by Axis bases in Sicily. The build-up of RAF strike forces in the autumn of 1941 caused Hitler to intervene again and he directed the Luftwaffe to reduce the island by air attack from January 1942. As the RAF Torpedo-bombers became more effective, Italian merchantmen called it the, 'route of death'.¹⁴⁸ The battle for Malta influenced the North African campaign in terms of planning by the Prime Minister, the COS and GHQ Cairo, who became pre-occupied with preventing the island being totally neutralized.

The attacks from Malta on Axis supply lines certainly influenced the land campaign through Axis responses on a number of occasions during Crusader, Alam Halfa and Second Alamein. Churchill pushed Auchinleck for an immediate offensive to ease the pressure on Malta. Auchinleck and the Middle East Committee responded by questioning the how much Malta actually influenced Libyan supply routes and argued that even a limited offensive would not overcome the large numbers of Axis armour near the front.¹⁴⁹ The Navy and RAF re-built the offensive strength in aircraft and

¹⁴⁷ Air Ministry, *The Air Battle Of Malta. The Official Account* (London: HMSO, 1944) p.60.

¹⁴⁸ Lee Heide, *Whispering Death. My Wartime Adventures* (Oxford: Trafford Publishing, 2000) p.122.

¹⁴⁹ CAB 66/24/26. Telegram from ME Defence Committee to War Cabinet, 9 May 1942, pp.1-2.

submarines so that Malta was resurgent from August, and took an increased toll of Axis shipping, which contributed to the defeat at Alamein. By 1943, the main target was the routes into Tunis-Bizerte, working with powerful Allied Air Forces they closed the supply routes which contributed to their final surrender in May.

Supply, RAF and Royal Naval factors: Conclusion

The Fleet was mainly concerned with maintaining a strategic threat to the Italians, and dominating the Eastern Mediterranean, which protected British bases.¹⁵⁰ The CinC Admiral, A.B. Cunningham, believed Malta was a vital part of the war against Italian convoys and had to defend itself. He wanted Malta to be fully operational with submarines, destroyers and aircraft by April 1941.¹⁵¹ The island became a key part of operations against the supply route to Tripoli. The island was still poorly equipped for air defence and vulnerable to blockade, despite its potential as a strike base.¹⁵² The Royal Navy also developed a vital role supplying the Army along the coast, especially to Tobruk during the siege and when the Army advanced across Cyrenaica.

Conclusion

The campaign in North Africa influenced British operations directly by other military factors. These include the development of doctrinal improvisation, the effect of command and intelligence issues, the impact of supply issues and the growth of support from the RAF and Royal Navy. This chapter has discussed some examples of their influence on the campaign. British units developed improvisations in their attack and defence doctrine and these were significant in affecting the outcome of operations. All of these factors have been the focus of numerous studies and make up the major part of the reasons for British success and failure within the historiography. The factors

¹⁵⁰ Cunningham, *A Sailor's Odyssey*, p.241.

¹⁵¹ Playfair, *Mediterranean, Vol I*, pp.159-161.

¹⁵² Michael J. Budden, 'Defending the Indefensible? The Air Defence of Malta, 1936-1940.' *War in History*. Volume 6 (4), pp.447-467, p.448.

of supply, airpower and naval support influenced the campaign, and in some instances were indirectly influenced by the terrain. The geography of the coastline dominated supply issues because the Army needed bases to advance or defend in Cyrenaica. RAF support for ground forces was overshadowed by the slower development of an effective airpower doctrine by the RAF. Air power also influenced strategy because of the need to control airfields to give air-cover to naval operations, which again meant that ground forces were required to capture the area and this became much more apparent in the final Tunisian battles. Royal Naval support was essential to maintain the Army along the Libyan coastline and at Tobruk throughout 1941. However it too had additional separate roles to interdict the Axis supply routes and the maintenance of Malta to contribute to the British campaign.

Chapter 12 Conclusion

This thesis set out to determine the impact of terrain and the related improvisation of tactical doctrine, on British Army operations in Egypt, Libya and Tunisia from 1940-1943. The methodology included consulting a range of primary source documents from numerous UK Archives and an examination of the historiography. The primary material from battle reports, unit war diaries and soldiers' personal papers provided evidence about the impact of terrain features and details of changes in improvised doctrine, and proved how much they affected British operations.

The analysis of the geography and tactical terrain of the coastal sector included an assessment of how they affected the Army at the operational level. This included analysis of the way major ports and airfields influenced supply and planning for any advance into Libya. The main body of the thesis is then an analysis of the key terrain features at the tactical level. It also highlights the development of British doctrine, much of which was improvised throughout the campaign. The final chapter shows the impact of other military factors which affected operations directly and which previous studies usually regard as the major influences on the British Army. This study has clearly shown that the impact of the key features should now be assessed alongside these other military factors and discussed at the same level.

Much of the historiography has ignored terrain or assumed that it was of little importance and focussed on other issues including changes to British doctrine, the impact of command and intelligence issues, supply problems and support from the RAF and Royal Navy. Whilst these were important factors, some commentators may have been diverted by published memoirs from soldiers including armoured crews, who problematized their combats against the Axis Battlegroups. Some studies have only applied to limited periods of the campaign, such as Jonathan Fennell's work which covers the crisis of mid-1942. The analysis of certain battles has been

undertaken by Niall Barr, Jon Latimer and Bryn Hammond who all consider the Alamein battles in detail while the impact of RAF operations and Command and Intelligence issues have been assessed by Gladman and Ferris.

The thesis should contribute to the growing discussion about the development of the 'British way of fighting' during the Second World War. This theme is currently a running in an ongoing debate amongst of British military researchers. It could be taken further with similar assessments of other British campaigns in other theatres of war, or more simply as a comparison of how effective different Divisions were in terms of tactical doctrine from mid-1943.

At the operational level the geography of the coastal sector had an impact on British forces as they made repeated attempts to capture and hold Cyrenaica in Libya during 1941-42. This approach aimed to safeguard the security of Egypt, the Suez Canal and Alexandria from air attacks and to keep Axis ground forces from threatening Middle East oil resources. British forces were unable to retain control of the province partially because the Cyrenaican peninsula was too large to hold against a determined ground assault and partially because it was too close to Axis air bases in Tripolitania and Sicily. Operationally the scale of Cyrenaica made it a difficult region to defend. At the tactical level there were so few suitable defensive sites that commanders chose to over-extend the frontlines. This exacerbated the problem of having too few units to position along them. Behind the front, Brigade-Groups were deployed across widely separated sites in 1941 and 1942 as part of the overall defence plan, but this left them isolated and vulnerable to better coordinated Axis offensives.

The defence along the Gazala line was flawed on two levels. Operationally it was in the wrong place and some commanders such as Tuck argued for it to be further forward. Tactically it was undermined by a series of low ridges, against which the bulk of British armour was committed in piecemeal assaults, which aided the Axis operations. Cyrenaica was lost for a second time by the

British after trying to defend it from the Gazala position, because of the peninsula's strategic airfields which protected convoys to Malta. Yet the position was lost tactically because too few ground units were trying to defend too many defensive positions and four key areas were lost at the southern end of the line.

The attempt to hold the Axis at Matruh was a mistaken British operation as the entire position was undermined by the better going along the higher plateau above the escarpment. Consequently, the Eighth Army was forced back to the Alamein sector. The confused series of battles which constituted First Alamein were fought over the Ruweisat and Miteiriya ridges and the surrounding terrain features. The Alamein position has been the most well documented of the campaign, yet few of these accounts emphasize the nature of the terrain apart from the secure flank provided by the Qattara Depression. At Second Alamein the terrain was still a focal point for objectives and the British forces used new assault doctrines to target the key heights. The British pursuit was affected by the impact of terrain features along with the winter weather in 1943 and a difficult supply situation. Montgomery was hesitant and wanted to avoid repeating previous failures across the open Cyrenaica plain. He was also cautious when Axis forces halted at the stronger defensive sites, near Mersa Brega, Agheila and various sectors of high ground along the coast to Tripoli.

During the final stages of the campaign the terrain had an even greater impact on British operations. The strength of the Mareth line forced fresh units to outflank the whole position. At the Wadi Akirit, considered by many to be the strongest defensive site in North Africa, British plans were altered to capture the key high ground. Finally the high Enfidaville sector was a series of mountainous hills which proved too difficult to retain and the British were forced to change their approach towards Tunis and switch Divisions to the First Army front for the final assault. Planning here made the terrain an integral part of the operation which targeted all the high ground positions along the route to Tunis.

The landscape impacted on tactical doctrinal changes within unit dispersion which resulted in them moving in more open formations. These were actually the logical formation for much of the campaign but inflicted a different mind-set on commanders. The need to defend an extended frontline forced commanders to find new formations such as Jock Columns which best used the Artillery and Infantry. The improvised Jock Column tactics were undoubtedly successful at times, and caused attritional losses on Axis positions. They were used extensively from the early stages of the campaign and by Crusader, went onto the offensive after the British Armour had been depleted. Their widespread use on patrols continued well into 1942 but they remained weak and operated hit and run tactics which contributed to a 'scarper' mentality which affected most British formations following Axis breakthroughs. With Infantry Brigades dispersed into numerous Jock columns, the firepower of the Artillery Regiments were also dispersed, whilst the Infantry companies were too weak to make a formed assault.

There were other problems with tactical doctrine, besides the problems of Jock Columns. The battles at Gazala and during the retreats from Cyrenaica of 1941 and 1942, all showed the continued separation of Armour, Artillery and Infantry at the tactical level. Support Groups fought separately from the Armoured Brigades they were meant to assist. Later at Gazala, the Infantry Tank Brigades were often diverted away from the Infantry units they were protecting in order to make isolated attacks. It took a lot more training time for armour to work well with Infantry battalions and there were still failures of coordination even by Second Alamein. British doctrine developed under Montgomery from late 1942. He developed a better-trained force for a specific operational assault to defeat the enemy.

The battle of Second Alamein highlighted the Army's new doctrine, which included night-time set-piece assaults supported by massive artillery bombardments and air power to break the Axis defences. This was combined with increased RAF and Naval targeting of Axis petrol supplies from

June 1942 and contributed to the collapse of Axis forces and their long retreat back to Tunisia. The Eighth Army began to use these new assault doctrines which included concentrated artillery fire to support combined arms assaults. These became more effective at breaking into even stronger defences at Mareth, the Wadi Akirit and the final attacks on Tunis. The defensive doctrine which had been used at Alam Halfa was successfully employed again at Medenine in March 1943. Here the Army took full advantage of a series of low hills to support their defensive Artillery defensive fire and had learnt to fight without massed RAF support. The breakthrough at the Tebaga gap was the first major use of a planned assault supported by masses of ground attack aircraft and massed artillery to enable the armour to punch through the defensive positions. The Army doctrine now included a rapid assessment of the key terrain features which targeted the high ground and ensured they were captured first before the armour made a strong thrust along the main highway towards Tunis.

Churchill influenced events with his continuous interference of planning decisions and new command appointments, while Intelligence gathering became a fundamental part of the Army's planning process. HQs demanded increased knowledge of key terrain as the Army advanced into Tunisia and assault plans became flexible to adapt to the difficulties created by the more extreme landscape. The Naval attacks on Libyan supply routes and a new RAF doctrine affected the final stages of the campaign as the Allied Forces became highly effective in blocking supplies to Tunisia, and still provided massive air power to support 18th Army Group.

The main argument of this thesis is that the key terrain features across the North African coastal sector, had an important effect on British Army operations. The secondary theme has been to consider the changes in tactical doctrine, many of which were improvised, and these changes were also linked to the impact of the tactical features of the landscape. The Army developed its doctrine until it had become a more effective fighting force by 1943. One participant made the simple

comment that, 'because the desert was so...open the least rise or promontory or ridge became of great importance.'¹ It was this overwhelming point that was a defining factor of British operations throughout the campaign.

¹ Cox, *Tale of Two Battles*, p.135.

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Appendix 1 British Army unit organisations.

Infantry Battalions

Four Infantry companies of 80-120 men, and one HQ company with supporting Mortar and machinegun platoons.

Motor Infantry Battalions – Three Infantry Companies and one anti-tank company (16 guns).

Armour Regiments

Three line squadrons of 14-16 tanks each, and one HQ unit with Close Support vehicles

Infantry or 'I' Tank Regiments – three squadrons of 17 tanks each and one HQ unit.

Artillery Regiments

Three batteries of 4-8 guns dependent on the calibre of the weapon

Infantry / Motorised Infantry Brigades:

Three battalions, plus support units

Support units included anti-tank, Engineer, Artillery, Signals and supply units.

Armoured Brigades

Three Armoured Regiments and one Motor battalion

Armoured Divisions

Three Armoured Brigades, One Motor Infantry Brigade, plus support units of Artillery, Reconnaissance and Engineers.